

Deliberative Monetary Valuation as a Political-Economic Methodology

Exploring the Prospect for Value Pluralism
with a Case Study on
Australian Climate Change Policy

by

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December 2011

A thesis submitted for the degree of
Doctor of Philosophy of the
Australian National University

Declaration

This thesis is the original work of the author, except where acknowledged in the text. It has never been submitted for degree or diploma in any university.

Yu Hong Lo (Alex Lo)
15 December 2011

Acknowledgements

This PhD essay is a key accomplishment and milestone of my academic journey. It was my great fortune to be provided generous intellectual and financial supports essential for getting through probably the most fruitful and challenging episode of my academic life. To this end I am indebted to the following teachers and colleagues.

Clive Spash appears first on the list. I started a random search for a PhD opportunity two months after the commencement of my MPhil study. I chanced upon his recruitment notice and after interviews I was appointed. Although I did not possess impressive academic records back then, I was fortunate to receive recognition and ample financial assistance for further study from this leading ecological economist. Clive was keen to introduce interesting research ideas to me while giving me considerable freedom to pursue my own academic aspirations. He continued to show great concern on my work after moving back Europe. My rapid professional growth owes a lot to his critical thoughts and various kinds of career support. My academic life would have been very different, if not more difficult, if I missed the opportunity to work with Clive who is the ‘best in the business’.

There is nothing luckier to have another supervisor who happens to be the best as well. John Dryzek is an internationally renowned scholar in environmental politics. I came across his name long before he was suggested to be my ANU supervisor – actually Clive and I read his name literally at the same time when we were searching for a second person on my panel. John is very thoughtful; also he could always pinpoint and articulate important messages in a professional while accessible manner. He has substantial intellectual influence on me. Like Clive, John gave me a hand when I needed help or encouragement. He talked to a journal editor who treated my submission badly and affirmed my creative ideas disdained by a senior academic attending my seminar. I gained reassurance from the light he shed on my path.

Special thanks go to Anthony Ryan, who took care of me like a brother as soon as I landed on Australia where everything was new to me. He drove me around, bought me coffee, invited me to private gatherings and chatted with me when I appeared isolated. I believe that his talents in psychology have made contributions to my social adaptation to the new environment, for which I am very grateful. Thanks also go to Wendy Proctor, who replaced Clive as my CSIRO supervisor from the second year. With her help and involvement I was able to continue and finish my project successfully. Her generous support is highly appreciated.

The success of this research, especially the reported deliberative workshop, owes to many other people. Simon Niemeyer has provided substantial organizational inputs and useful advice on the analysis of data. Kim Alexander has shown genuine patience in

guiding me through every single step of the programme and gave lots of constructive comments on a written report. Thanks to Mark Stafford Smith, Steve Hatfield-Dodds, Hayley Stevenson, and Andrew Reeson for giving informative lectures as part of the workshop. The 24 participants in the ‘Australian Climate Policy Forum’ created the most important set of data crucially supporting this research. Their active participation and efforts are appreciated.

I thank my ‘PhD buddies’ for their encouragement and nice chats over last three years. These include, but not limited to, Maria Dano (Weng), Liana Williams, James Wong, Anna Lee, and Julia Ang. Thanks also go to former colleagues at the Vienna University of Business and Economics, including Professor Sigrid Stagl, Tone Smith, Thomas Brudermann, Christoph Höglinger, Shanaka Herath, and Karin Dobernig, who enriched my time in Vienna, Austria as a part-time research associate while finishing this thesis. My lifetime teacher, Professor Chi Yung Jim at the University of Hong Kong, is far from forgotten for his constant guidance and support.

This research was sponsored by the CSIRO Social and Economic Sciences Program. The generous financial assistance, in the form of a three-year scholarship and one-off research grant, is acknowledged.

Going abroad has been a critical milestone of my career as well as a tough decision. The productive journey came with a price. The thesis is dedicated to my mother who encouraged while under sickness, and continues to encourage, her son to explore the world. My deepest appreciation goes to her and those omitted from here but had tremendous influence on my life.

Abstract

This research concerns the role of public deliberation in monetary valuation of the environment. The objective is to evaluate the potential for value pluralism of an emerging methodology known as ‘deliberative monetary valuation’ (DMV). The research includes a series of theoretical discussions and an empirical case study.

Recent attempts to redesign environmental valuation surveys are reviewed. The theory of deliberative democracy is explained and compared with another intellectual current influencing the development of DMV, i.e. the science of analytic deliberation. Current practice is critically assessed to identify major problems. It is argued that capacity for value pluralism does not grow with giving privilege to alternative values. The crux is the excess of predisposed definitions and judgements. Using deliberative methods to repair or reject the economic conception of value is problematic. Public deliberation plays an emancipatory role of exposing the contested and makes room for different frames of reference of valuing public goods. DMV is an inquiry into the level and quality of WTP articulated under value difference. Deliberative elements serve to ensure that the valuation processes be reflective and self-critical, on the part of the valuing agents and also the researcher. The practice lacks pluralistic potential as the method has been used to reinforce an established or alternative conception of value. A discourse-based approach is proposed which defines deliberative WTP as an ‘agreement to pay’ to emphasize its interactive nature and varying ethical composition.

The case study involves an experimental deliberative forum on the climate change policy of Australia. Twenty four ordinary Australian citizens participated in a one-day workshop to discuss a range of carbon pricing issues, including emission trading and carbon tax. Discussions were audio-recorded and responses to questions about climate change and emission mitigation, including a willingness-to-pay (WTP) request, were assessed. Results show little normative consensus on subjective values, but an initial agreement on preferences. Alternative perspectives became more accessible to participants. The improving discursive communication was related to the invocation of a communicative device that played a rhetorical function. Division was respected although a qualitative convergence on WTP decision was not precluded. Plurality of perspectives was preserved without compromising the capacity for making collective decision. In this light, the stated WTP is understood as a political or social agreement evolving from conflict and contradiction. An ‘agreement to pay’ is illustrated.

This proposed conception of DMV returns economics to politics. The kind of ‘economic’ valuation is a topical and not theoretical one, invariably about money and values yet allowing varying possibilities of theorization. Seeking monetary expressions is not unacceptable provided economic frame is not privileged. A pluralistic economic order requires unconstrained, self-critical disciplinary norms being actively embraced.

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PART I
INTRODUCTION AND REVIEWS

CHAPTER 1

SYNTHESIZING VALUATION AND DELIBERATION

1.1 THE DELIBERATIVE TURN IN ECOLOGICAL ECONOMICS

Ecological economics emerged in the 1980s in response to the limitations of neoclassical economics and its applications to environmental policy, planning and management (Costanza 1991, Spash 1999, Røpke 2005). The discipline explicitly addresses irreducible uncertainties and complexities, recognizes values underpinning science, and encompasses the multiplicity of legitimate perspectives and commitments. With these characteristics it has been described as a ‘post-normal’ science, in contrast to the ‘normal’ economic science (Funtowicz and Ravetz 1993, Funtowicz and Ravetz 1994). The new mode of science challenges the positivist tradition of neoclassical economics and policy sciences. Many ecological economists aspire to promote pluralistic policy formulation processes in which communication between decision makers, experts and the public is no longer vertical and linear and becomes circular and egalitarian (Maxwell and Randall 1989). A rising theme within the field is participatory planning and management of natural resources and its implications to economic valuation.

Ecological economists tend to question the liberal, ‘cowboy’ models of economics for their failure to respect biophysical realities and poor treatment of alternative values attached to the natural environment (Martinez-Alier, 1987; Daly, 1996; Spash, 1999;

Söderbaum, 2008). Many of them see better prospect from engaging in participatory research, particularly the use of deliberative methods and the idea of deliberative democracy (Zografos and Howarth, 2008). They find themselves increasingly aligned with the deliberative turn in democratic theory beginning in the 1990s. Prior to that turn, the democratic ideal was seen mainly in terms of aggregation of preferences or interests into collective decisions through devices such as voting. Under deliberative democracy, the essence of democratic legitimacy is sought 'in the ability of all individuals subject to a collective decision to engage in authentic deliberation about that decision' (Dryzek 2000 p. 1). One of its core requirements is reflection upon preferences:

Deliberation as a social process is distinguished from other kinds of communication in that deliberators are amenable to changing their judgements, preferences, and views during the course of their interactions, which involve persuasion rather than coercion, manipulation, or deception. (Dryzek, 2000, p.1)

Deliberative democracy can provide better means than its liberal counterparts for reconciling moral conflicts without unnecessarily compromising values. The task demands mutual justification from citizens for the collectively binding laws and the associated consequences to be acceptable to all. Key principles include reciprocity, i.e. 'the capacity to seek fair terms of social cooperation for their own sake' (Gutmann and Thompson 1996, p. 52-53) and the public use of reason.

The relevance of deliberative democracy has increasingly been recognized by leading ecological economists such as Niemeyer and Spash (2001), Vatn (2005), Norgaard (2007), and Zografos and Howarth (2008), giving impetus to a new mode of inquiry known as 'deliberative economics'. Ecological economists in the wake of the deliberative turn tend to see science and democracy intertwined (Söderbaum 2000, Norgaard 2007, Söderbaum 2008, Kesting 2010). As Norgaard (2007, p. 381) argues, 'it helps us see that the boundaries between science and democracy are more broadly

ambiguous and socially enforced.’ In addition, there is an enthusiasm to search for consensus or convergence on moral foundations that support ecological sustainability (Faber *et al.* 1996, Wilson and Howarth 2002, Venkatachalam 2007, Douai 2009). Douai (2009, p. 277), for example, suggests that a socio-ecological economics is based on the assumption that ‘politics is a space of convergence between different values’.

Following this trend, environmental valuation, which is a core research programme of ecological economics, is under a new stage of development yet struggling at crossroads.

1.2 THE IDEA OF DELIBERATIVE VALUATION

Value can be defined as ‘an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence’ (Rokeach, 1973, p. 5). Stated value has been used to indicate perceived importance assigned to something, including tangible goods and intangibles like processes and ideas. There are many different ways of appreciating public goods with many forms of sentiments attached, consequently yielding plural values. This has posed serious challenge to the conventional economic valuation which strives for some sort of generalization through a cardinal summary measurement.

Monetary valuation is a core research theme in economics. Neoclassical economists assume that individuals are utility-maximizing and prepared to sell the environment for the right price. Monetary valuation of the environment is based on assessment of hedonic preference intensity expressed in the markets. Among a range of economic techniques, the contingent valuation method (CVM) has risen to prominence. The CVM constructs a hypothetical market where individuals are confronted with a trade-off between a particular environmental good or service and money. It is a stated

preference approach involving direct inquiry into individuals' willingness to pay (WTP), or willingness to accept compensation (WTA).

Ecosystems valuation, which extends this market-based theory, has been the subject of persistent criticism for its narrow value ethic and poor representation of human psychology (Sagoff 1988, Vadsjøl and O'Connor 1994, Vatn and Bromley 1994, Spash and Vatn 2006, Gowdy 2007, O'Neil *et al.* 2008, Spash 2008a, Spash 2008c, Spash *et al.* 2009). Supporting theories are couched in utilitarian terms exclusively and thus compatible with value monism, in contrast to pluralism. Value pluralism refers to the advocacy of maintaining a number of distinct values irreducible to each other. It is a normative concept, whereas plurality is factual. Anderson (1993) has defined two conceptions of value plurality. A 'good' may be something that is appropriately valued, or a bearer of a bundle of qualities that meet certain standards or requirements. In one view, values are plural to the extent in which the goods under valuation are the proper objects of multiple evaluative attitudes, such as pleasure and respect; the opposite monistic view allows only one sensible *way of valuing*. On the other, the goods are able to meet diverse evaluative standards; the opposite monistic view requires that the diverse standards be reduced to a single ground or explained in terms of a single *good-constituting property*.

Within the field of ecological economics there is a 'post-CVM' movement. It has become the key site where alternatives to the CVM, or stated preference approaches more generally, are developed and tested in an attempt to capture plural environmental values more properly. These are built upon a range of interrelated concepts, theories or techniques including multi-criteria evaluation (Martinez-Alier *et al.* 1998, Munda 2006, Proctor and Drechsler 2006, Stagl 2006), experimental economics (Gowdy and Mayumi 2001, Gowdy 2007), social constructivism (Söderbaum, 2000; Douai, 2009; Vatn, 2009), social psychology (Kumar and Kumar, 2008; Spash *et al.*, 2009), post-positivism

(Norton and Noonan 2007), and discourse ethics (O'Hara 1996, Wilson and Howarth 2002). One promising candidate that potentially can link them up is deliberative monetary valuation (DMV).

DMV combines elements of economic valuation with deliberative processes (Jacobs 1997, Niemeyer and Spash 2001, Howarth and Wilson 2006, Spash 2007, Spash 2008b). The procedure of assessing environmental values in monetary terms is preceded by a deliberation amongst the valuing individuals, who form small groups to share information and raise concerns about a proposed environmental change. Typically they are given additional information and opportunities to discuss prior to stating a WTP or WTA. By enlightening individuals through participatory processes DMV can raise prospect for preference transformation and inclusion of non-utilitarian values.

DMV has been theorized and practised under two schools of thoughts. One is dominated by heterodox economists, philosophers and political scientists, who take issues of ethics and alternative values more seriously. The other consists of decision scientists and mainstream economists who focus on cognition and information issues without appealing to a morally critical intent. Both are known to be important to advancing the practice of environmental valuation, but they come into conflict in some aspects and this remains unexplored. On the other hand, critics have raised many issues in relation to the feasibility of combining processes. Within mainstream economics there are concerns as to the quality of the economic estimates. These broadly concern the problems with small-group participatory initiatives, such as the lack of statistical representation, strategic behaviour and conflict within groups (Powe 2007). Within the heterodox school there is a belief that public participation is at variance with monetary valuation. The latter has been dominated by utilitarian calculations which rest on a consumer frame of reference. Some authors therefore argue that it is incompatible with participatory processes, which ought to recognize citizen-type collective reasoning and

take into account the issue of value incommensurability, which refers to the fact that some distinct values are not reducible to each other or a common measurement of value (O'Connor 2000, Söderbaum 2000, O'Neill 2007, Vatn 2009). The deliberative turn in environmental and ecological economics brings forth varying opportunities and challenges awaiting clarifications.

1.3 THE CHALLENGES AHEAD

These concerns indicate some deep and persistent difficulties confronting deliberative economists. Group-based valuation approach has been identified as fulfilling two objectives, namely, preference construction and public involvement (Powe, 2007). They involve different means and ends: the former is a matter of science striving for rational decisions whereas the latter democracy embracing alternative rationalities. Where deliberative economics means any stronger bonding between science and democracy, one important question in need of clarification is the tension between the scientific and democratic facets of ecological economics. This study attempts to address this issue by studying the deliberative turn in environmental valuation.

Another disciplinary principle in dispute concerns the ethical consensus or convergence, or as some DMV practitioners put it, the emphasis on citizen frame. Consensus and pluralism seem to point in opposite directions. Signs of conflict have been observed in recent ecological economics papers. For example, Venkatachalam (2007, p. 556) complains that the pluralistic scope of the discipline has been 'too vast', 'focusing on too many areas', and that the ideological divide between disciplines has made 'hurdles for inter-disciplinary research'. Baumgärtner et al. (2008, p. 391) state that methodological pluralism 'requires a unified basis'. If ecological economists are committed to the enterprise of pluralism, deliberative value assessments heading for a

consensus would be held into suspicion. Similarly, for those who are critical of DMV, if monetary valuation inherently offers no hope to pluralism, then there would be little ground for a sustainability *economics* either. The overarching goal of pluralism begs clarification. This study attempts to answer questions concerning the potential of DMV in accounting for plural values while allowing a consensual decision to be made.

This study is significant by addressing these knowledge gaps and proposing a range of new perspectives crucially related to the future of DMV as an alternative or complement to the stated preference approaches. More broadly, it identifies the deeper implications of the deliberative turn as the rising prominence of deliberative methods has exposed all sorts of questions about the conflicting commitments of ecological economics. Through exploring DMV this study is expected to shed light on the positioning of deliberative economics and, more generally, ecological economics. In addressing these objectives it is guided by the general research question '*Can DMV satisfy the requirements of value pluralism?*'

This research question is followed by the following specific research questions representing two main themes:

1. *How do the researchers who contribute to the development of DMV deal with the problem of value pluralism?*
 - a. *What does a pluralistic valuation approach require?*
 - b. *What is the role of deliberative elements in monetary valuation?*
 - c. *Is the current practice of DMV in raising or reducing pluralistic potential?*
2. *How do individuals' monetary expressions change with their held values and preferences upon deliberation?*
 - a. *What kind of consensus is produced in a divided group?*
 - b. *What is the possible driver of the formation of the consensus?*
 - c. *How can the resulting monetary expressions be explained in terms of the*

observed consensus?

d. What are the implications to the science of DMV in terms of value pluralism?

The first theme pertains to the theories of environmental valuation and DMV in particular. An important theoretical issue that has to be addressed in the first place concerns the requirements of value pluralism (1a). There is a questionable assertion that public deliberation, being a political activity, is inherently conducive to value pluralism, because individuals are exposed to a wide range of viewpoints. History has shown that participatory engagement does not guarantee recognition or tolerance of alternative viewpoints. The real limiting factor needs to be identified. Different deliberative approaches can then be assessed in this light (1b). Deliberative processes that have little value pluralistic potential may be serving some purposes and possessing properties that vary from those with higher potential. These varying purposes and properties allow us to see what define the pluralistic potential of deliberative processes, and thus why deliberative elements can and cannot raise the capacity of monetary valuation in capturing the multitude of values (1c). The promise of DMV then needs to be qualified. Nonetheless, this also provides grounds for a normative theory of DMV that is compatible with value pluralism to the extent that the ‘can’ arguments are plausible. The requirements of this theory should be attainable and allow an empirical investigation.

The second theme supports the forgoing theoretical discussion with a case study, which involves a deliberative forum about climate change policy undertaken in Australia. A pluralistic DMV allows individuals articulating monetary expressions, preferably in the form of group agreement, while preserving their value differences. Yet, not many DMV practitioners have explicitly and appropriately addressed the requirement that DMV is destined for a kind of consensus which at the same time accommodates disagreements at a different level. This point can be substantiated and

observed by characterizing the actual variations in held values and stated preferences of the participants in a DMV exercise (2a). Granted that these variations are valid and make sense of the normative theory, the novelty of this conception allows reasonable doubts from the perspectives of established scientific understanding or even common sense, e.g. does it make sense for a climate sceptic to agree to pay for greenhouse gas mitigation? Reasons need to be provided to render such observations legitimate (2b). Based on these findings, the DMV results can be characterized and assessed for compatibility with the proposed DMV theory and its alternatives (2c). Plausible arguments and reasonable observations supporting this theory may offer new insights into the use of deliberative methods for environmental valuation and its theoretical implications (2d). However, more questions are raised in the formation of this new conception. For example, can DMV be seen as an economic technique? What is the balance between its scientific and democratic elements? Behind the idea of DMV lies a more fundamental conflict confronting ecological economics.

1.4 THESIS OUTLINE

The first half of this thesis (Chapters 2 to 5) provides a review and discussion on theories, while the second (Chapters 6 to 9) describes and reports the case study that supports it. **Chapter 2** presents a prologue of the deliberative turn. It outlines the major limitations of stated preference approach and the remedial and alternative measures that have been proposed to modify or replace it. A typology is developed followed by an evaluation against the requirements of value pluralism. **Chapter 3** presents the conceptual basis of this study. It is based on the theory of deliberative democracy that has contributed to the deliberative turn. Core principles and features are discussed at length. **Chapter 4** lays grounds for a comparison to address the science-democracy

conflict. It introduces the idea of analytic deliberation that also has strong influence on the development of DMV and explains the ways in which it differs from deliberative democracy. **Chapter 5** contains the core arguments guiding the empirical inquiry. It offers a critical review of the DMV literature to identify limitations of the current practice and knowledge gap that need further exploration. Two major approaches of DMV are questioned and a discourse-based approach is proposed as an alternative.

Chapter 6 sets up the theoretical context of the empirical inquiry which aims to assess the compatibility of actual DMV outcomes with the discourse-based approach. Propositions and expectations that require empirical support are outlined. **Chapter 7** describes the case study undertaken to address this issue. It introduces the policy background with a focus on the controversies over emission trading and carbon tax and the organization of the deliberative forum. **Chapter 8** reports main findings, which are examined in terms of the political ideals characterizing the discourse-based approach. It explains the policy preferences of the forum participants and provides a political interpretation of WTP responses, particularly those who initially refused the WTP request. This chapter seeks to reconcile pluralism and consensus in the context of DMV research. **Chapter 9** extends the analysis by exploring possible explanations for the findings reported. It seeks to identify factors contributing to the observed consensual outcomes, based on a qualitative analysis of transcripts which recorded the group discussions.

Chapter 10 offers a general discussion on the ways in which this research varies from the previous literature. I challenge a few established perspectives about environmental valuation and outline a better shape of DMV that is amenable to value pluralism. The thesis is then concluded by shedding light on the future of DMV and, more generally, deliberative ecological economics.

CHAPTER 2

RETHINKING ENVIRONMENTAL VALUATION

2.1 INTRODUCTION

Accepting the analytic vision that values are plural means that different ways of articulation could be considered acceptable. Practitioners who endeavour to redesign the larger project of environmental valuation differ remarkably in the ways in which they interpret the failure of the conventional approach and the nature of the communal value of the environment. To further complicate the story, the idea of public deliberation, recognized as part of the solution, is also contested. As many conceptual variables have come into play, streams of practice are being developed with varying objectives, standards and expected outcomes. Consequently this results in a wide range of remedial or alternative strategies for value articulation. Thus the post-CVM movement is fundamentally pluralistic.

In this chapter I set up a typology for an evaluation of practice. The post-CVM development of stated preference valuation is characterized. This will be useful for evaluating my DMV approach against its alternatives and can help clarify the significance of deliberative method. Given my broad definition of value plurality as discussed in Chapter 1, it is necessary to cover a wide range of emerging value concepts and valuation models, including those that retain some standard economic elements. The first section that follows introduces two conceptions of environmental value, which are couched in utilitarian and deontological terms respectively. Next, I briefly show how the practitioners of environmental valuation understand the issues about alternative

values differently. I then review and categorize those novel valuation approaches that have been proposed or tested over the years, by weaving pieces of perspective about the current science of valuation into a more comprehensible, coherent discourse. The fourth section discusses the strengths and weaknesses of the identified approaches.

2.2 NORMATIVE BASIS OF ENVIRONMENTAL VALUE

2.2.1 Utility

Underlying the conventional approach of economic valuation is the utilitarian theory of value. Utility can be defined in terms of maximizing net pleasure or happiness. Valuation is then treated as an assessment of human perception of well-being. This view is inherited from the tradition of welfare economics and embodies the philosophy of utilitarianism, which refers to the idea that the moral worth of an action is determined solely by its usefulness in maximizing utility. It is a subsidiary of consequentialism under which moral worth is a function of outcomes.

In modern orthodox economics, something is of value to the extent that some individual is willing to pay for an expected utility gain, or to accept a compensation for suffering an expected utility loss. Value is indicated by the level of WTP to secure a good, or WTA to abandon it. The notion is derived from the ways that people make choices in markets. Scarcity of resources mandates choice, so that individuals have to give up something in exchange for the goods preferred. Equilibrium price is determined when an individual buyer is indifferent between giving up an additional unit of alternative opportunities or resources for an additional unit of the goods preferred and keeping these alternatives, and the seller is in a comparable situation. Therefore, value is always relative to other goods that might be acquired using money as a numeraire and arises only when individuals exercise choice; it is regarded as a result of a particular

choice rather than the cause of it (Bromley and Paavola, 2002).

Valuing the environment involves measuring people's preferences in relation to environmental goods or services. Neoclassical economists believe that the value of unpriced environmental goods can be adequately revealed in a properly constructed hypothetical or appropriate surrogate market (Freeman, 1993; Pearce, 1993; Garrod and Willis, 1999; Bateman et al., 2002). They have developed a range of valuation techniques, including stated preference approaches. Monetary valuation of ecosystem benefits based on these approaches requires respondents making choice resembling a real tradeoff between a change in the level of environmental goods or services in question and other goods represented by the purchasing power of money. A hypothetical scenario is constructed where the environmental change is portrayed as a commodity supply change and the individual is instructed to think like a consumer. One of the most widely used stated preference methods is the CVM (Mitchell and Carson, 1989; Hanemann, 1994; Bateman et al., 2002). It requires direct inquiry into the WTP, or willingness to accept compensation (WTA), of the concerned individuals for an environmental quality or quantity change, usually through questionnaire. The monetary values elicited are then aggregated and taken as the economic value equivalent of the environmental change for use in subsequent cost-benefit analysis (CBA).

The main advantage of the CVM is the potential for capturing indirect use value in addition to direct use value. The direct use value category comprises those uses directly contributing to or supporting production or consumption. Indirect use values are normally associated with maintaining an option to use an asset in the future, the desire to make an asset available to future generations, and the mere existence of an asset. Under this conception expressed value for nature is couched in instrumental terms and not independent of human being, i.e. weak anthropocentrism (Norton, 1984; Pearce, 1998). Motivational basis is nevertheless not restricted to pure self-interest; preferences

built upon egoistic altruism, which is based on self-regarding concern for the welfare of others, may also be regarded as relevant. Either way, these values are assumed to arise from utilitarian, or more generally, consequentialist beliefs. Over the last two decades, however, much contention has arisen from an alternative view broadly concerning rights.

2.2.2 Principles and rights

Value may be expressive and manifested as an act to defend some principles or rights. It may be motivated by moral obligations or social norms concerning how things ought to be in society (Sagoff, 1988; Kahneman and Knetsch, 1992; Vadhajal and O'Connor, 1994; Vatn and Bromley, 1994; Holland, 1997; O'Neill and Spash, 2000; Spash, 2000, 2006; O'Neil et al., 2008; Lo and Jim, 2010a, b). Principles belong to a form of civic virtues more commonly found in civil society than markets and are different from the utilitarian conception. Environmental value of this sort rests on human's responsibility in relation to nature and future generations, and can be couched in terms of biocentrism and genuine altruism based on selfless concern for the welfare of others.

This category of value has been described in various terms, yet consistently indicating incompatibilities with standard economic theory. For example, some philosophers believe that these values are intrinsic constituting assignment of *status* to goods (Anderson, 1993). The value of a good depends on the extent in which it is evaluated according to appropriate criteria (Anderson, 1993; Holland, 1997), rather than depending on consequences. According to Holland (1997), value is a kind of *judgement*, such as whether hunting is morally wrong or not, which would inevitably conflict with alternative views. This is in contrast to statements of preference which do not conflict, such as tastes. Goodin (1992) doubts that preference is the key constituent of value. He contends that environmental value concerns the history and process of nature's creation

and exists dependently on human's consciousness but not material interest.

Human geographers have also defined the value of nature in ways varying from the orthodox economic approach. A historical-cultural account is substantiated by Tuan (1974). He considers the value of nature as an expression of loyalty to land and suggests that the sentimental attachment to place may emerge from the experience of nature's intransigence, which might bring little utilitarian satisfaction to the people concerned. The environment may be seen as a cultural metaphor or a source of social pride contributing to individual or group identity and it is the integrity of such a symbolical linkage that matters (Burgess et al., 1988; Clark et al., 2000; Noël et al., 2000; Lo, forthcoming b). Accordingly, the economic criteria of assessment, which rest on marginal utility analysis, may be regarded as inappropriate.

Behavioural psychologists have provided empirical evidence on the different properties of environmental values. For example, they find that stated values about public goods are quantity insensitive, i.e. do not substantially increase with quantity of goods offered, and are akin to an intended moral contribution expressing attitude and affection (Kahneman and Knetsch, 1992; Kahneman et al., 1999). Based on similar findings, Baron and Spranca (1997) indicate that such 'protected values' derive from deontological prohibitions of certain harmful or wrong actions and resist trade-offs. All of these understandings imply that value precedes choice, in contrast to standard economic assumptions.

Concerns over the environment might represent a political or social attitude defending a just entitlement or right (O'Connor, 2000; O'Neill and Spash, 2000). These are broadly understood as a community-regarding commitment expressed by individuals acting as citizens representing the larger society and exercising a political choice (Sagoff, 1988; Blamey, 1995). A radical form of these values, which may be triggered by discontent over power imbalance, procedural injustice or cultural conflict, resists

trading-off or buying-in, because this may crowd out the embraced civic virtues in relation to resource planning and management (Frey and Jegen, 2001; Claro, 2007). Such considerations involve an evaluation of the rightness of actions upon the environment. Environmental value is then not just a carrier of sentimental attachment to land, but also reflects a judgement on political or social order based on held principles.

Accordingly, a range of alternative motives has been proposed to explain the value statements in CVM surveys. A general observation is that value orientations are a function of altruism and social norms (Stern et al., 1999; Stern, 2000; Ojea and Loureiro, 2007; Spash et al., 2009). Stated WTP for environmental change has been statistically found to be associated with rights-based beliefs (Spash, 1997; Kotchen and Reiling, 2000; Spash, 2000, 2006). It is suggested to be an indicator of behavioural intention to protect the inviolable rights of nonhuman species rather than to maximize utility, leading to a view that the economic explanations exclusively based on consequentialism do not suffice (Spash et al., 2009). Attitudes toward valuing the environment are related to the perception of fairness of the valuation process or the provision of the public goods. Procedures and practices perceived to be unfair or unjust are associated with negative attitudes leading to protest responses in CVM experiments, suggesting a significant role for procedural fairness in valuing the environment (Jorgensen and Syme, 2000; Jorgensen et al., 2001; Meyerhoff and Liebe, 2006). A related set of motives pertains to trust, ascription of responsibility and decisiveness. Negative effects on the likelihood and willingness to pay may come from distrust in political agency, scientists or other members of community, a tendency to ascribe environmental responsibility to other parties, and a perceived inability to make a difference (Blamey, 1998b, a, c).

Capturing this category of value proves to be a difficult task for the CVM and stated preference approaches in general. Rights-based values are incommensurate with the utilitarian ones, making their reduction to a monetary numeraire problematic

(Vadnjal and O'Connor, 1994; Clark et al., 2000; Aldred, 2006; O'Neill, 2007; Spash, 2008a, c). In view of preference incompleteness and the observed role of social norms, it has been suggested that environmental valuation should be understood and redesigned as a process of social construction to enable information exchange, allow preference transformation, and capture value diversity (Schkade and Payne, 1994; Jacobs, 1997; O'Connor, 2000; Spash et al., 2005; Vatn, 2005; Spash and Vatn, 2006; Powe, 2007). However, these problems and proposed solutions have been subject to different moral judgements and technical definitions. Practitioners are consequently divided as to what kind of alternatives or remedies are needed.

2.3 THE VARIETY OF EXPERT RESPONSE

What has been shown above is the existence of value plurality, yet this is a controversial concept, especially in economics. Hard-core economists dismiss the deontological arguments for being not practical in terms of policy impact (Pearce, 1998) and being irrelevant to economics (Milgrom, 1993). Some authors doubt ontological pluralism and discredit plural values. They rebut arguments for alternative valuation methods on the grounds that those 'irrational' expressions are not non-economic (Cooper et al., 2004), that intrinsic values are substitutable (Price, 2000), and that the minority protest behaviours do not constitute a sufficient reason to abandon the conventional CBA (Orr, 2007). These views maintain that the evaluative capacity of the standard economic approach is not severely impoverished by presuming value commensurability.

Some economists admit, with qualifications, the limitations of stated preference approaches, yet only at a methodological level. Hanley and Shogren (2005) and Bateman et al. (2008) aver that the main problem is people's preferences deviating from the economic model. They seek to conform to standard economic theory and suggest

that people have to be educated to correct their uninformed, undiscovered preferences. Unstable stated values are considered an economic problem to be fixed by preference construction (Powe, 2007). These relatively more sympathetic economists generally support economic orthodox and hold no critical moral intent in economics.

In contrast, behavioural psychologists and decision scientists explicitly acknowledge the failure of consumer theory. Yet, some of them, like the economists, appear reluctant to recognize the non-economic observations as morally legitimate. Baron and Spranca (1997, p. 15) believe that rights-based responses stem from a desire for the consequence that is ‘contaminated’ by some ‘imagined means’ of achieving it, and ‘might be incorrect’ because they reflect values and emotions expressed in the wrong way. The failure to make instrumental choices is seen to be a cognitive problem due to individuals’ inability to comprehend or reluctance to face the required welfare tradeoffs (Gregory et al., 1997). Value conflict is regarded as reducible; it is a matter of technical incommensurability, which ‘refers to the issue of representation of multiple identities in descriptive models’ (Munda, 2006, p. 91). Among this group of researchers there is a tendency to understand moral controversies in technical terms.

Heterodox economists and political theorists who are more socially oriented hold a more salient moral intent on behalf of the valuing agents. Value incommensurability is regarded as an ethical reality to be respected. Different values are inherently only weakly comparable so that it is inappropriate to reduce everything to a monetary metric (Martinez-Alier et al., 1998; Vatn, 2009). Non-economic ethics and motivations are considered another aspect of life to be recognized and protected in their entirety rather than to be changed to fit into some economic ideal. An ontologically more pluralistic conception of value is espoused.

This initial characterization of scientific treatment illustrates the variation in hypotheses about the nature of value plurality. The hard-core economists favour the

status quo, while the more sympathetic ones accept minimal methodological adjustments. The psychologists advocate crafting people's psychology without attacking the moral basis of neoclassical economics, whereas the social pluralists explore alternatives beyond the neoclassical ambits. These positions and their interaction have produced a variety of remedial measures and new approaches to advance value theories and elicitation techniques. Examples can be grouped into three categories and are portrayed in the following section.

2.4 THREE ALTERNATIVE OR REMEDIAL APPROACHES

Every inquiry of environmental value comprises three basic elements, namely, object (the valued), subject (the valuing agent), and evaluative framework. Accordingly three pluralistic approaches can be identified from the post-CVM movement. Attempts to capture a wider range of values typically involve reorientation of more than one of these elements. Combinations with different emphases have produced a range of valuation models and techniques spreading along the monism-pluralism continuum. In most cases, they operate in more than one strategic level.

2.4.1 Functional diversification

Functional diversification is justified by the view that the ability to capture the full range of nature's value is constrained by its inherent physical complexity. Some of its contributions are not readily recognizable and estimable, due to human's limited knowledge. Much of the early attempts have focused on the flows of tangible resource properties, immediate productive or consumptive benefits, and short-term ecological changes, at the expense of the diversity of contributions. They fail to encompass the

entire ecological dynamic and intangible properties, notably ecosystem's irreversibility and resilience (the capacity to recover from disturbance due to natural or anthropogenic causes), and the interdependency of ecological functions and values (Barbier et al., 1994; Chavas, 2000). Since such primary or 'glue' values are not included in the calculation of total economic value, aggregating the total values of a given ecosystem's functions fails to account for the multiple values it generates (Turner et al., 2003). A primitive form of these perspectives could lead to a qualified defence of Pearce's (1998) dictum 'demonstration and capture'. According to this view, the success of a value inquiry depends on how much the 'true' state of ecosystems is comprehensively and objectively captured.

Of prime importance is a comprehensive informational basis. In de Groot et al.'s (2002, p. 394) standardized framework, the 'first step' towards an ecosystems valuation 'involves the translation of ecological complexity (structures and processes) into a more limited number of ecosystems functions'. It is proposed to 'make comparative ecological economic analysis possible' by identifying and defining 'the fullest possible range of 23 ecosystem functions'(de Groot et al., 2002, p. 393). The framework contributes to the ecosystems valuation literature not by diversifying evaluative perspectives, but by combining it with 'a comprehensive data base of ecosystem services and values' (de Groot et al., 2002, p. 407). Central to this approach is an objective, factual basis of analysis and a broad definition of ecological goods or services.

Functional relationships are a key element in Lockwood's (1997) 'integrated value theory'. The theory concerns the functional and instrumental relationships between three classes of end valuable entity, namely, human beings, non-self-aware biological organisms, and inorganic components of ecosystems. These entities and their functional relationships give meaning to the various modes of value expression and provide a basis

for ‘moral considerability’. Non-economic values ascribed to natural areas are then justified theoretically in functional terms. Lockwood (1997) believes that value assessment can be advanced by an explicit recognition of such functional realities and interdependencies.

This approach constitutes a weak form of pluralist theory that defines the range of values primarily in terms of the object of valuation. It concerns value multiplicity, a concept that emphasizes the multi-faceted contributions of the valued items. The primary problem of economic valuation is deemed to be that some critical qualities of ecological goods or services are unvalued and missing from the conventional treatment. The objective of functional diversification is to ensure a dimensionally more comprehensive assessment, by introducing such unvalued or missing components and encompassing a wider range of functional attributes or good-constituting properties of the valued items, including the less visible ones such as an ecosystem’s resilient capacity and the ecological role of a species along food chains. Acts of valuing are understood as an accounting exercise about some objective realities - ‘valuing the characteristics of a system’ (Barbier et al., 1994, p. 119). This account generally accords with Anderson’s (1993) secondary conception of value plurality, discussed in Section 1.2.

Functional diversification accentuates the importance of informing the valuing agents of the right aspects of the items to be assessed. A common methodological recommendation is improve the ways in which information about the impacts of the environmental change at issue is communicated, and its quality. Turner et al. (2010, p. 79) attempt to ‘identify a place for monetary valuation within the pluralistic approach’. The challenges to economic valuation identified concern the underestimated properties of biophysical structure and processes, including spatial explicitness, nonlinearities in benefits, and threshold effects, etc. One of the suggestions for recognizing value

plurality involves a ‘scoping exercise’, which employs ‘spatially explicit models of any given ecosystem service’ (p. 81) and may benefit from the use of GIS (geographical information system) which is regarded as ‘a valuable tool in valuation’ (p. 91). The general remedial strategy proposed, called ‘sequential decision support system’ (p. 83), has no explicit social or moral components, but an emphasis on improvement in knowledge and understanding of the ecosystem complexity and interrelationships. Deliberative methods also have been employed to address the issue of limited knowledge or information, as later discussed in Chapter 5.

2.4.2 Positional modification

The methodological focus of positional modification is the individual. It seeks to include the right people or to enlighten the right perspectives from which the ecological goods or services are evaluated. The standard economic approach is deemed to be flawed because of its unrealistic assumptions about the motivation and competence of the valuing agents, i.e. being rational utilitarians. The constituency adopted by this approach is morally improper and/or cognitively incapable of performing the required evaluation. Two groups of advocates can be identified according to the relative importance given to these two elements.

To those authors who stress the lack of evaluative capacity, the failures of the stated preference approaches rest more on the valuing agents than the economists who employ the techniques. Gregory (2000) is convinced that unaided individuals perform poorly in articulating their values. The operational objective of his ‘value integration survey’ is to activate the consumer mode of thinking for an environmental valuation task. Consumer sovereignty is reflected in the survey instructions which encouraged the participants to consider a car purchase decision as an analogy (Gregory, 2000, p. 160). Lienhoop and MacMillan (2007, p. 213-214) term their approach a ‘Market Stall’

approach, which is grounded on the belief that ‘The interaction with other people presents an environment that seems to better meet the needs of consumers’. A more radical treatment involves replacing lay people for experts. Mann (2004), for example, advances a technique called the ‘Expert Valuation Method’ (EVM) as an alternative to CVM. In EVM, the right people are defined not as consumers, but a group of scientists or local experts who have ‘considerable practical experience’ and are thus more competent to understand and assess the scientific implications concerning the ecological goods or services under valuation. These attempts seek to specify and reinforce a subjective scope or frame of reference for the evaluation required.

To others, the failures have more to do with economists. They are more concerned about ethics and question the conventional economic approach for unduly assuming that individuals are necessarily utility-maximizing. Acts of valuing are envisaged as social acts with social meanings (O'Neill and Spash, 2000). The variations in public attitudes give rise to value plurality. This account resembles Anderson's (1993) primary conception of value plurality. Positional modification of this type aims for a qualitative conversion of evaluative attitude to the right one. Alternative ways of value expression are introduced by activating or inhibiting certain personal or group characteristics or attitudes. In practice, this is achieved by experimentally controlling or selecting subjects of inquiry, or valuing agents, in a way that can adequately reflect the communal nature of the environment. To address the non-exclusivity of the use of environmental resources, the modification typically involves a shift in evaluative standpoint from private to public interest, and individual to social rationality. It is practised as a demarcation strategy to cope with the value incommensurability problem. ‘By ensuring all respondents adopted the same point of view (as citizens rather than consumers)’, Martínez-Españeira (2006, p. 194) believes, the problem of ‘aggregating apples and oranges’ - an analogy of the incommensurability problem - could be avoided.

The intrinsic nature and irreducibility of the value of natural wealth have contributed to a sceptical view that the economic realm and the utilitarian conception of value are irrelevant to the social modes of environmental valuation (Douai, 2009). Like the other group, these authors specify a subjective scope on behalf of the valuing agents, yet towards a different end.

These critics of economic orthodoxy tend to advocate an impartial stance. Brown (1984, p. 237) argues that: 'The appropriateness of an assigned value for use in a resource allocation decision depends on the degree to which its use in the decision enhances the resource owner's welfare.' The value should be determined in a context where the welfare of those who actually own the valued resource, or are entitled to its benefits, is recognized. This suggests that relevance or legitimacy depends on who are valuing, or for whom it is subject to valuation. Brown (1984, p. 245) urges for extending Rawls's (1971) ideal of 'veil of ignorance', which could be realized by inhibiting private interests, to all public resource decisions including environmental valuation.

Drawing on Rawls's theory of justice, Costanza (2000) champions the notion of 'fairness-based values', which can be elicited by individuals thinking as a member of the community, rather than as individuals. Brown et al. (1995, p. 258-259) expect each deliberating individual 'to act as society's representative', and recommend that those individuals who have 'compelling personal interest' should be excluded from the deliberation. This is echoed by Sagoff (1998, p. 221) who is of the opinion that the individuals 'might be asked to deliberate not so much about the welfare effect of an environmental policy on them individually' but for society as a whole. The citizen frame has been experimentally tested by Martínez-Españeira (2006) and Mill et al. (2007), whose subjects were asked to state a WTP on behalf of the society. The whole point is to change the position from which they evaluate the environmental change in question.

Functional diversification and positional modification deal with the object and subject of evaluation respectively and are complementary to each other. Combined approaches sometimes come with a reconfiguration of the structure of value-articulating framework dealing with the issue of evaluative framework.

2.4.3 Structural reconstruction

Structural reconstruction involves a fundamental change in the micro-political structure of the institutions where values are articulated. Advocates emphasize the failure of the standard economic approach to allow effective reflection upon various values. Particular restrictions on the norms and terms on which people interact with the environment have reached the point where their creativity and critical competence are compromised. Structural reconstruction seeks to emancipate the micro-political sphere that influences value formation and expression. Individuals participating in a valuation process are enabled to deliberate on and pursue their own forms of valuing. The key is to place the actual valuation processes, as well as the theoretical activities of the researcher, in a non-coercive, interactive and egalitarian dialogue where alternative ethical standards and assessment criteria are not actively excluded. Rather than specifying a value category to pursue, such pluralistic theories 'do not attempt to enforce a universal vocabulary upon the discourse of environmental value' (Norton and Noonan, 2007, p. 66).

This approach explicitly acknowledges the notion of 'value of diversity' (O'Connor, 2000). Acts of valuing are construed as not only an expression of attitude, but an outcome of a critical encounter with competing perspectives or criteria, leading to a value judgement. A key assumption is that public value is formed within processes of social interactions and does not exist prior to these interactions (Pritchard et al., 2000). The prospect for preference transformation is enhanced, but it is sought not from

external ideals. Structural reconstruction is reconstructive in the sense that it concerns the various competences of individuals and norms of interactions, and the categories of opinions and expressions are assumed to be contingent upon the operant dispositions of the subjects rather than being specified by the researcher (Dryzek and Berejikian, 1993). The appropriateness of an assigned value depends on the extent to which the processes of assembling and articulating preferences are procedurally fair and capable of supporting individuals 'in expressing their values in ways they find to be sound' (Spash and Vatn, 2006, p. 387), based on their own language and criteria of assessment. The definition of value and terms of articulation both remain reasonably open. No assumption is made as to what kind of values would be found prior to the inquiry (Norton and Noonan, 2007). The search for public value embraces the deontological ethic but does not attempt to marginalize utilitarian calculations (Martinez-Alier et al., 1998; Spash, 2007).

There is a more critical stance toward preoccupations held by the researcher. An example is 'discourse-based valuation', which is proposed as an application of the concept of discursive ethics to ecosystems valuation (O'Hara, 1996, 2001). Discursive ethics concerns authentic communication among individuals and presupposes no norms other than practical reason and seeks ethical quality from mutual recognition and acceptance (Dryzek, 1990). The concept entails not only a reconstruction of the dispersed 'lifeworld', but also a deconstruction of established hierarchies. Conventional scientific rationality has contributed to coercive professionalism and hegemony with obstinate barriers to change. The ability of humankind to deal with ecological uncertainties and their social implications requires a decent degree of reflexive potential. Discourse-based valuation seeks to minimize institutional rigidity that could compromise the openness of ecosystems valuation, by demanding a democratization of the conventional technocratic, exclusive valuation methodology. The frame of reference

for such a value theory is sought from within the discourse rather than being imposed from an external source. The role of the value researcher is restricted. A monetary valuation approach based on such perspectives would involve an inquiry of meaning and a search for mutual agreement on economic contributions at a societal or individual level. It is further elaborated in Chapter 5.

An example of structural reconstruction which has gained more widespread application, includes a subclass of multi-criteria evaluation (Munda, 1995; Martinez-Alier et al., 1998) and its deliberative extensions (Söderbaum, 2000; Proctor and Drechsler, 2006; Stirling, 2006). It is regarded as a democratic institution not only because of the participatory opportunities provided, but also the explicit juxtaposition of conflicting assessment criteria on equal footing with systematical evaluation. There is no requirement for a cardinal measurement, which reduces all value dimensions concerning ecological goods or services into one and raises issues of compromising irreducible values. Multi-criteria evaluation captures the notion of ‘weak comparability’ of values and allows transparent and equitable treatment of diverging interests and validity claims. (Munda, 1995; Martinez-Alier et al., 1998). People’s dealings with nature are changed under this approach, as the various value dimensions are no longer deemed as commensurate and assessed against a set of universal standards. In theory, therefore, the two distinctive bases of value introduced earlier, i.e. utilitarian and deontological, could coexist and be taken into account without priority implicitly assigned. Nonetheless, the merits of multi-criteria evaluation are limited to the extent to which scientific rationality is given excessive emphasis. Martinez-Alier et al. (1998) have pointed out that some multi-criteria evaluation approaches have failed to meet the pluralist requirements. Examples are discussed at length in Chapter 4.

2.4.4 Summary and comparison

Key features of the three approaches are summarized in Table 2.1. For functional diversification, the entity of main focus is the object of valuation, or substance. This includes ecological elements or processes whose multiple roles are interrelated and complex, and undervalued due to lack of understanding. Other and more good-constituting properties then need to be introduced to the valuing agents. Positional modification focuses on constituency, involving individuals and their perspectives. The intent is to improve their ability to handle complex information, and/or isolate certain moral dispositions. Specifying and generalizing a subjective scope of evaluation is deemed necessary to deliver a transformative experience. Structural reconstruction may subsume the above two approaches, but it necessarily rests on an institution whose significance increases with the degree of value diversity and presumptions as to the status of various values are minimized. It thus dispenses with a built-in normative hierarchy and allows for varying possibilities for theorization. While structural reconstruction leaves open value definition, functional diversification and positional modification operate under a given definition of value.

Functional diversification runs in line with an information-deficit model of learning. It seeks to improve the information support provided to the valuing agents and ensure an objective and comprehensive understanding of the items under valuation. Under positional modification, value-articulating institutions are defined in terms of a desired path of reasoning to which the valuing agents would be bounded. Appropriate perspectives are defined, quarantined and then facilitated experimentally to ensure that the otherwise unaccounted concerns and aspects of the items under valuation receive due consideration. Structural reconstruction is reflexive and allows the guiding theories of valuation to evolve, depending upon the critical interactions between various normative positions, including the researcher's own preferences. A basic step is to juxtapose conflicting values or criteria and encourage comparison and re-evaluation in

moral as well as epistemic terms leading to value reconstruction.

Although most authors tend to recognize the intellectual merits of functional diversification and positional modification, I consider structural reconstruction as a necessary condition for value pluralism. Arguments are presented in the next section.

Table 2.1 Key conceptual elements of the three pluralistic valuation approaches

	Functional Diversification	Positional Modification	Structural Reconstruction
Ontology	Substance (object of valuation)	Constituency (subject of valuation)	Institution (evaluative framework)
Justification	Complexity of object	Complexity of object / value incommensurability	Value of diversity / value incommensurability
Site of variation	Good-constituting properties	Subjective scope of valuation	Theory of value and valuation
Definition of value category	Given	Given	Open
Required institutional capacity	Informative potential	Transformative potential	Reflexive potential
Learning model	Information deficit	Focused reasoning and enlightenment	Critical interaction (extending to researcher)
Practical strategy	Supply information of better quality	Activate appropriate perspective	Juxtapose conflicting values or criteria
Expected outcome	Multi-dimensional understanding	Designated transformation of value	Reconstruction of value

2.5 INCOMPATIBILITIES WITH VALUE PLURALISM

All valuation methodologies are value-laden (O'Hara, 1996; Tacconi, 1998; Söderbaum, 2000). An important question is to what extent this compromises the capacity for capturing plural values. Problems arise when the merits of institutions for articulating

these values are conditioned upon some degree of value convergence. The strategies of functional diversification and positional modification either remain indifferent to, or seek to inhibit, actual value conflicts, and operate within a given institution predisposed to a particular moral tradition. Critical examination of preference and value might be prematurely closed.

2.5.1 Conflict avoidance

Public value is derived from collective life. Its social qualities emanate from the interactive process of communication, encounters of persons, confrontation of interests, ideas and experiences, reciprocal learning, and all these occur under the influence of social norms, rules and institutional constraints (O'Connor, 2000). Value statements are conferred meanings based on people's appreciation of the good as well as dissatisfaction with the bad. Their encounters with, and responses to, their alternatives and normative constraints, shaped by personal circumstances, contribute to discourse within which people make sense of the world by virtue of every other subjective position existing in the collective sphere. Formation of public value is thus a conflict-ridden process. If public value is understood as an intended action, it is a kind of *inter*-action between the homogeneous views within a discourse and the heterogeneous others outside. Public goods are commonly owned and shared among society's members, such that any single action directed at them is just one integral part of a collective whole. The interactive dynamic glues and gives meaning to the whole, so that mere aggregation of individual values, or actions, is not congruent to their mutually reinforcing integration. Just as social action is always a response to another action or inaction, public value is the coexistence of particulars functioning coherently with and dependently on their alternatives or rivals. In other words, 'an environmental value requires its antithesis for definition' (Tuan, 1974, p. 102).

A defensible approach to the valuation of public goods requires a social context (O'Connor, 2000; O'Hara, 1996, 2001; Spash and Vatn, 2006). It should be designed as an evaluation activity that allows an encounter between diverse perspectives. Functional diversification seeks to advance the science of evaluation by promoting individual rationalization supported by comprehensive information, rather than social construction through exposing differences. For instance, de Groot et al. (2002) ascribe environmental value only to various ecosystem contributions. Their framework is silent on the mediating role of social norms operating at the interpersonal level. A valuation exercise accordingly designed does not depend on the level of actual social learning and the extent to which the valuing agents are socially informed. Similarly, positional modification does not require an authentic social setting for preference construction, although it recognizes the role of social construction and social norms. Sagoff (1988, 1998) seeks to isolate citizens values from the consumer ones. The homogenous group of valuing agents created would be freed from the reality of value disagreement that characterizes plural societies. Preferences are transformed under a controlled social setting where an alternative discourse is inhibited. It involves merely a social construction of a singular value.

Both functional diversification and positional modification do not engage the valuing agents with diverse relationships and competing viewpoints. The individuals would not be required to explain their exercising a particular set of value judgements or assessment criteria to others to whom the evaluation results apply. That is, they are under no obligation to offer justification for the personal decision concerning common goods that would lead to shared consequences. This is likely to impede the development of mutual respect and recognition which is pivotal to the coexistence of different values in plural societies.

Structural reconstruction includes interactive elements. Good social relations

could bridge diverse values and interests in a harmonious state. Such bridging value is as significant as the functional value emanating from good-constituting properties and personal held value, for its coordinating role in the cultivation of value towards public goods which are broadly understood as a dynamic construct. It is qualified as a legitimate contributing factor of valuation.

Besides, individuals need a direct response from the natural world or its human representatives, at an equal communicative level, rather than within anthropocentric and self-selective institutions, such as markets, to which human impacts on it may not be comprehensible (Dryzek, 1995). However, nature cannot directly respond to human actions in socially meaningful ways. Human beings need to rely on the responses of ‘social others’ to validate their actions on the environment. The most important aspect is neither the identity of the social others nor the perspectives they set forth, but rather the opportunities for mutual validation by those representing the other ‘worlds’. Using the human form of interaction may still be considered unfair to the non-human world unintelligible to it. Nonetheless, it is fairer than the non-interactive type because the opportunities for social validation allow contestation and rejection within an authentic interactive process rather than within one’s own mind, which is more likely to be constrained by individual circumstances. Norms of social interaction may also discourage expression of individual interests, but this would not severely threaten the promise of pluralism so long as the effect is not enforced by an external party in a coercive fashion. In this sense, the ‘publicness’ of environmental value is conferred not by its substance or constituency, but the democratic legitimacy of the value-articulating institution.

2.5.2 Embedded judgements

Value-articulating institutions play a normative role by predefining the relevance,

validity or legitimacy of values. This may constitute the biggest impediment to the enterprise of pluralism to the extent that these embedded judgements are self-reinforcing. Functional diversification and positional modification either seek changes within existing value-articulating institution or propose a new one geared to a favoured end. This is ambivalent, as the ways to address value pluralism are specified in accordance with a particular set of end values defined in terms independent of the dynamic of value formation. The success of these approaches depends on the extent in which the favoured moral end is advanced.

This resembles a problem raised by Goodin (1992), who is convinced that the Green theories of value and agency are logically separate. The former are ecocentric whereas the latter operate, first and foremost, at the level of individual human agents. The viability of political agency causally depends on how much human interest is satisfied, but not the process-based Green values. Logically, as well as causally, individual human agency comes first (Goodin, 1992). Thus, any Green theory of values that regards the prevailing political agency as essentially unproblematic is indefensible (Dryzek, 2000). It is unproductive to internalize ecocentric perspectives and imperatives without adopting Green ideas about how to reform political structures and processes accordingly.

Consider economic theories as a specific form of institution and hence a theory of political agency. The approach of functional diversification is indifferent to the kind of institution through which green values are enfranchised and relevant actions are determined. Only the source and content of the supplied information is diversified. Holding the value and agency separate favours the status quo, since existing human agency is protected and legitimized by vested interests. Thus, functional diversification works well with the conventional forms of valuation survey. Under de Groot et al.'s (2002) framework, for example, all types of values generated by the defined ecosystem

functions are said to be compatible with at least one standard economic technique. Similarly, Turner et al. (2010, p. 79) hold a preference for cost-benefit analysis 'suitably adjusted for equity concerns'. The adopted value-articulating institutions remain inherently anthropocentric and the outcome bound to be an economic construct, regardless of the perceived functional diversity. Redefining values only implies or concedes that the established institutions are either environmentally benign or unproblematic. Such an inquiry, albeit being open to multiple values, might end up with a monist treatment, as they would eventually be adapted to the economic standards. Consequently only isolated successes under green capitalism could be achieved. A value theory that is indifferent to institution runs a risk of being wrested to serve the preoccupations of the theorist. The approach of functional diversification alone is too passive to specify what is to be valued.

Positional modification is confronted by the same problem, albeit to a lesser extent. Adopting an alternative evaluative attitude does not guarantee a pluralistic articulation. To activate a particular mode of evaluative attitude requires a controlled setting in favour of a particular constituency. The favoured evaluative attitude is most salient when its alternatives are deactivated. Success of positional modification thus depends on a polarization. Those institutions that foster a citizen mode of thinking are characterized by their inhabiting the consumer mode or a denial of its relevance. This provides an incentive to make monistic claims. Citizens-value theorists are tempted to launch an attack over the consumer theory in order to get established. The lower the diversity of values a theory embraces the stronger the case for its uniqueness and differentiation from its competitors. Being causally dependent upon a particular position being strengthened, such a theory would therefore benefit from adopting a narrower scope. Eventually it would become an anti-economic theory with limited pluralistic potential.

Moreover, positional modification relies on the researcher making a judgement about the relevance, validity or legitimacy of various value positions. The solution to the problem of ‘aggregating apples and oranges’ (incommensurability) is to make the choice on behalf of the valuing agents, e.g. all being asked to adopt a citizen mode. They are construed as merely a reacting agent and are not expected to contest the imposed frame, leaving little reflexive potential on the part of the researcher. Changing the subject’s ways of valuing according to the researcher’s preference is not a democratic evaluation practice defensible in terms of pluralism. The approach of positional modification alone is too active to pre-empt a subjective scope of evaluation.

Structural reconstruction seeks to reformulate value theory as well as agency theory. Diversifying value inputs is not sufficient; the barrier ultimately comes from the researcher’s preconceptions. Egalitarian communication is practised at two levels, namely, valuing agents and value theorists. The theoretical foundations on which a value-articulating institution is built must be pluralistic and the processes through which it is constructed privilege no substantive qualities of values. ‘Categorically charged’ institutions are self-reinforcing: the more alternative value categories are inhibited, the more successful they are. Practically, it is impossible to include all types of values; a more fruitful way is to repudiate institutions that seek to actively exclude any. The structural approach captures plural values by deconstructing hierarchies of any kind.

The above discussion suggests that mere recognition of value incommensurability does not constitute a sufficient condition for a pluralistic value theory. Technical incommensurability is recognized by functional diversification and, in some cases, positional modification, and moral incommensurability underpins the more socially oriented approach of positional modification. However, both of these approaches do not acknowledge the lack of conclusive value criteria. The institutions they seek are ‘categorically charged’, implying a prior choice about value category, typically

involving citizen vs. consumer mode, and utilitarian vs. non-utilitarian ethic. Value plurality is acknowledged, but so is a value hierarchy. Strongly pluralistic intent thus becomes a barrier.

A normative value theory committed to known moral ends is far from pluralistic. The importance of a pluralistic institution should be negatively related to the capability of determining the priority of one value category over its alternatives. Morally, as well as logically, a particular categorical preference cannot be a sustainable justification for the use of a pluralistic institution. The case for functional diversification and positional modification is grounded in such a commitment. Contra Douai (2009) claims that environmental values are, in no circumstances, of an economic nature I argue that no pluralistic value theory is justifiable on exclusively economic or anti-economic grounds. A fundamentally deliberative approach to environmental valuation is important because the researcher's preoccupations are the real threat to the endeavour of value pluralism. It can play an emancipatory role exposing not just differences but preoccupations hidden from conventional techniques.

2.6 CONCLUDING REMARKS

Attempts to capture plural values are classified at three conceptual levels. The functional approach involves changes mainly in terms of the substance of valuation. The methodological focus is wider and appropriate functional considerations. Good techniques are those that recognize the multi-dimensional properties of nature and remedial policy options. Since this approach does not challenge the constituency and the normative structure of value-articulating institution, the status quo is likely to be put under protection. The positional approach entails changes mainly in terms of constituency and is sometimes used in conjunction with the functional approach. A

diversity of people's perspectives, expertise or experiences is embraced within a particular scope of value specified by the analyst. The valuing individuals are encouraged or selected to speak for the same constituency. Both approaches rest on given value-articulating institutions with built-in judgements on the relevance, validity or legitimacy of particular value positions and dimensions. This creates a set of pre-emptive rules of inclusion or exclusion that do not allow individuals to embrace alternative criteria that go beyond the specified institutional boundaries. Any moral claim with which the theorist or analyst disagrees do not count.

Under these approaches the case for pluralism is not defensible. Underlying the notion of value pluralism are the reality of value conflict and a lack of a conclusive meta-principle to determine the merits of normative requirements. Value-articulating institutions dedicated to outranking a particular substantive moral end, or closing another, are counteractive. What is *required* to change is the scope, attitude or mode of valuation on the part of the valuing individuals according to some specified criteria theoretically justified as appropriate. The favoured ethical imperatives are treated as a constant, whereas the preferences of individuals are variables. Some researchers remain confident in the existing economic institutions, whereas others adopt an alternative approach competing opposite to the conventional economic philosophy. Both propose new value theories as a means to a given moral end. Neither runs short of conclusive judgement on values.

Establishing a pluralistic institution upon any one pole of a dichotomy is doomed to failure. The problem is that it would work better with monistic arguments in order to be established upon a differentiation from its alternatives. This happens to be the current approach by which value multiplicity is recognized and instituted, eventually placing a smaller bunch at an advantage. The sufficient condition for pluralism is, ultimately, not the ability to recognize multiplicity and difference, but the inability to make conclusive

choices among the differing many. The ability to outrank one category suffices the fundamental requirement of monistic institution, irrespective of how many categories, and how much distinction, are identified.

A theoretically consistent theory of plural values affirms the need for providing opportunities where alternatives to an established position could make a compelling case. Hardly any pluralistic programme would be defensible if, theoretically, the established is not refutable and under no circumstances do its alternatives stand a chance of being accepted as a basis of action. Normative value theory at the third level seems more appealing. It requires a democratization of the ways in which values are assessed and theorized. The nature of stated money values is understood in terms of their providers who are empowered to speak for themselves, rather than in terms specified by the researcher. Of importance to this exploration is the involvement of authentic subjective value profiles to allow a contestation of various real discourses grappling with a public decision about the environment. A pluralistic approach to monetary valuation is, therefore, one where no design barrier to access is put on the affected or interested parties; where the articulating institution is structurally pluralistic, requiring that the theorist's preoccupations based on some ideal subject be unfolded and granted no privilege, or at least, be made redeemable; and where the conferred meaning and category of the stated value are presumed to be contingent, to be sought from the language of the valuing individuals and not arbitrarily given by the theory.

The DMV approach I am arguing for is mounted on the third level, although there are various alternatives located at the other two levels. The divergence ultimately stems from the two intellectual currents influencing the deliberative turn in environmental valuation. The first one, deliberative democracy theory, is discussed in the next chapter, followed by the second one in Chapter 4

PART II
DELIBERATION IN THEORY

CHAPTER 3

TWO INFLUENCING CURRENTS (I):

THE IDEA OF DELIBERATIVE DEMOCRACY

3.1 INTRODUCTION

Participatory opportunities can be enhanced by making deliberative elements of value assessment more explicit. The use of deliberative elements, however, may be merely mechanical, without taking thorough consideration of the philosophical substance underpinning the deliberative strand of democratic theory. Conflicts in normative requirements may arise as a result. The stated preference approaches bear resemblance to the liberal models of democracy characterized by preference aggregation. While, the emerging deliberative models of democracy rest on a different set of requirements, this does not insinuate that the two are opposites. As a corollary, it may be premature to deny DMV, or more generally deliberative economics, of any pertinence to its neoliberal sources. The theory of deliberative democracy has deeper paradigmatic implications than have been identified by DMV practitioners, as its relationship with the traditional economic ideals is not strictly dichotomous. This chapter prepares the terrain for the critical review in Chapter 5 which addresses the idea of DMV in the context of ecological economics.

The next two sections provide a brief account of the historical development of the notion of deliberative democracy and its roles in contemporary society, respectively. It is followed by an exhaustive discussion on the principles and features of the theory of

deliberative democracy, and its significance to the project of DMV. Several forms of deliberative forums are then illustrated.

3.2 HISTORICAL DEVELOPMENT AND ANTECEDENTS

The emphasis of deliberation and the public use of reason can be traced back to the works of ancient Greek and classical theorists. Aristotle grounded practical reason in collective and construed rationality as a matter of collective interaction. Yet, the Aristotelian political virtue was aristocratic, limited to a small and homogeneous community. The aristocratic account remained robust in the elitist political discussion prevailing in eighteenth century in Europe. Nonetheless, some classical theorists at around the Enlightenment, such as Jean-Jacques Rousseau and Immanuel Kant, saw the potential of political virtues based on a commonality of interests, values and convictions sought in citizens' collective life. The communicative account of political life and the ideal of free use of public reason are considered to be definitive in the Enlightenment project. Conceptions of political legitimacy and the common good were set in the context of public interaction (Bohman and Rehg, 1997).

John Stuart Mill advocated in nineteenth century the imperative of 'government by discussion'. The notion is regarded as a source of deliberative democracy, but like Greek democracy is restricted to the better educated (Gutmann and Thompson, 2004). Despite this citizen communication came to be decisively joined to democracy in the writings of some early twentieth-century theorists such as John Dewey, the deliberative conception of democracy was overwhelmed by the liberal theories until the late 1960s.

Prospects for popular participation and citizens' agreement on a universal common good were held in suspicion by the pessimistic realism about politics in the traditions of Max Weber and Joseph Schumpeter. Political theorists and economists in the middle

twentieth century who recognized political elitism and competitive pluralism were generally suspicious of public deliberation. They reduced politics to a market theory and viewed democratic process as a power struggle between competing interests rather than a genuine search for the common good. In this opinion, citizens are politically uninformed and manipulable; they have diverse interests such that there is no such good acceptable to all. This view downplayed public deliberation and moral justification undertaken by citizens and their representatives (Bohman and Rehg, 1997; Elster, 1997; Thompson, 2008). Contemporary defenders of deliberation cast doubt on these economic conceptions and believe that democracy is to be found neither from an unmediated popular will nor the rent-seeking activities of stakeholders.

The notion of deliberation was given a stronger public orientation in the late twentieth century, and the theory of deliberative democracy took definite shape since the 1980s. The notion of deliberation received a more thoroughly democratic foundation in the hands of Jürgen Habermas, whose deliberative politics is firmly grounded in the idea of popular sovereignty (Gutmann and Thompson, 2004). Nonetheless the contemporary deliberative democrats hold into suspect the Rousseauian, communitarian variants of democracy (Bohman, 1996). Communitarians recognize the moral virtues of homogenous political community and espouse a version of public deliberation as a way to transform citizens' individual interests towards a shared, general will of the larger community (this view is received by some ecological economists such as Pelletier (2010) who defines deliberative democracy in communitarian terms).

A 'deliberative turn' in democratic theory began at around 1990 (Dryzek, 2000, p.1). The contemporary deliberative democrats (e.g. Bohman, 1996; Gutmann and Thompson, 1996; Dryzek, 1990, 2000) criticize the communitarian variants for the possibilities of giving rise to unreasonable oppression of diverse moral values by enforcing a general will which is not readily plausible in contemporary pluralist

societies. They emphasize the imperative of democratic justification and attempt to resolve the difficulties revolving around the conception of deliberative democracy by clarifying the conditions on which the epistemic as well as moral qualities of the public can be retained or cultivated. The proponents recommend open deliberation under a principled, substantive set of practice. The normative goal of this proposal is:

to show that a theory of deliberative democracy can recognize pluralism and complexity and still defend the democratic ideals of the autonomy and sovereignty of citizens. (Bohman, 1996, p. 14)

Democratic deliberation involves more than exposing policymaking to public scrutiny and discussion; it involves a discourse-based communicative process mediated through public reasoning.

The rise of deliberative democracy owes to the key social changes in our age. The next section explains its importance and advantages over its liberal counterparts in coping with the contemporary challenges.

3.3 ROLES IN CONTEMPORARY SOCIETY

The idea of deliberative democracy emerged against a background of risk society (Beck, 1992) compounded by increasingly intractable conflicts between cultural and moral beliefs. It has been manifested as a response to the limitations of aggregative democracy, which involves aggregation of the preference of individual voters. The liberal models of democracy prevailing today emphasize satisfaction of citizens' preferences seen as given and unquestionable. Preference aggregation through voting is given a central role. Being insensitive to reasons and extreme scientific uncertainties, this approach is poorly placed in resolving complex environmental problems and deep moral conflicts.

Preference politics and economics are built upon the assumption that the

individual has complete knowledge about her own preference. Known social preferences allow decision makers to exercise instrumental rationality – the capacity to devise, select, and effect good means to clarified ends (Dryzek, 1987a, b). Instrumental rationalists believe that complex ecological problems are decomposable into smaller pieces and resolvable by further advancing technologies. When ecological uncertainties are considerable, however, their ability to cope with contingencies and model preferences is overwhelmed. Effective means refining strategies can only work with well-bounded ends and demand adequate knowledge about these ends. Instrumental rationality fails insofar as the latter are not forthcoming. Larger ecosystems respond to human industrial activities and intervention in various unpredictable ways, which remain highly uncertain despite scientific advance. Conservation strategies designated to present ends may turn out to be non-adaptive or even maladaptive to the unforeseeable and unintended secondary and tertiary chain effects (Dryzek 1987a, b; Beck, 1992). Ecological surprises and the changing social realities pose limits to instrumental manipulation as it is invariably constrained by present state of knowledge and assumptions.

Pluralistic societies are characterized by the existence of diverging and irreducible values. Fundamental value disagreements involve incompatible principles and cannot be readily overcome (Gutmann and Thompson, 1996, 2004). Conventionally, aggregative institutions like voting are used to settle such conflict, often unsatisfactorily, by reducing moral choices to a preference calculus. Choice is justified by the mere fact of having a preference, and collective well-being is envisaged as the sum of the free choices of individuals. There is, however, little hope for resolving public good problems that involve diverse interests. Aggregative institutions give priority to the needs of the greatest number at the expense of minority, partial concerns, regardless of their reasonableness and mutual acceptability. Representation of repressed or emerging

groups may come without real influence. The increasing plurality of the contemporary society casts doubt on the conventional wisdom.

Deliberative democracy offers two sets of organizing principles as a response. Any rationality for effective dealing with extreme complexities must be open to modification and supplement, and not be deterministic and ideologically constraining. Deliberative democracy approximates 'holistic experimentation' which entails continual exploratory trial and testing of to our imperfect knowledge about the world (Dryzek, 1987b, p. 206). It operates as an ongoing process of holistically coordinating various elements and interactions associated with complex problems, rather than decomposing complex problems into subsets to be dealt with uncoordinated individual measures in a piecemeal fashion. The hope is that deliberative policy designs could develop the adaptive capacity of the society to respond to contingencies and changing realities.

3.4 PRINCIPLES AND FEATURES

3.4.1 Theoretical foundations

The theory of deliberative democracy is rooted in two conceptions of political ideals, namely, communicative rationality and public reasoning. Collectively binding decisions can be considered democratically legitimate to the extent in which the decisions survive the requirements of communicative rationality (Habermas, 1984; Dryzek, 1990). Communicative rationality stipulates a set of criteria oriented toward the linguistically constituted intersubjective understanding coordinated through discussion among members of the community (Habermas, 1984). An action is communicatively rational to the extent that it is characterized by the reflective and intersubjective understanding of the deliberating individuals on values, beliefs and preferences. Communicative rationality departs from instrumental rationality by contributing to the collective

generation of judgments on normative principles rather than merely selection of means to ends (Dryzek, 1990). The interaction that promotes normative judgment and reflection should be one of between subjects rather than between subject and object; so, it must be a social process. In addition, this interaction should be free from deception, strategic behaviours and domination through exercise of power (Dryzek, 1990).

Another conceptual root is the political ideal of ‘public reason’ (Rawls, 1993, 1997b, a). In this case, deliberation should promote the principle that ‘outcomes are democratically legitimate if and only if they could be the object of a free and reasoned agreement among equals’ (Cohen, 1989, p.22). Since the notion has received varying levels of support from deliberative democrats and is central to my critiques of the DMV literature, it is exhaustively discussed in the next section.

3.4.2 Reason-giving and reciprocity

From its inception, reason-giving has been the first and foremost requirement of the deliberative conception of democracy (Cohen, 1989; Dryzek, 1990; Bohman, 1996; Gutmann and Thompson, 1996; Habermas, 1996; Rawls, 1997a; Bohman, 1998; Dryzek, 2000; Thompson, 2008). Substantive qualities of a decision are sought in the reasonableness of citizens’ validity claims rather than the intensity of their preference. As Cohen (1989, p. 24) put it,

the mere fact of having a preference, conviction, or ideal does not by itself provide a reason in support of a proposal. While I may take my preferences as a sufficient reason for advancing a proposal, deliberation under conditions of pluralism requires that I find reasons that make the proposal acceptable to others who cannot be expected to regard my preferences as sufficient reasons for agreeing.

Collectively binding laws and policies are justified by the adequacy of reasons that their

proponents give to other citizens. Mutual justification among equal and free citizens is thus the essence of deliberative democracy.

Public deliberation is no longer loosely defined and receives a different role that is not merely supplementary to voting. Cohen (1997) speaks of 'public reasoning' in favour of 'public discussion', putting the former as the centre of political justification. He contends that any view of democracy will take public discussion as important to pool information against a background of asymmetries in its distribution. But deliberative democracy requires that citizens be prepared to be moved by reasons that may come at odds with their own preferences and interests. This may require they either to change them, or to defend their own in good faith. To this end, democracy is realized not by aggregation of preference, but their justification and transformation (Aldred, 2002; O'Neill, 2007).

The transformation should be mediated through the virtue of reciprocity on the part of the citizens. The idea of reciprocity is articulated by John Rawls as 'public reason' that every citizen is expected to recognize prior to entering into the deliberative forum. A reason is public to the extent that it *could be* reasonably accepted by all other citizens:

A citizen engages in public reason, then, when he or she deliberates within a framework of what he or she sincerely regards as the most reasonable political conception of justice, a conception that expresses political values that others, as free and equal citizens might also reasonably be expected reasonably to accept.
(Rawls, 1997b, p. 773)

The content of public reason is given by a family of conceptions of justice and not bound by a single one. The forms of permissible public reason are always several along with the variations in social realities from time to time. It is the criterion of reciprocity that limits the forms of public reason.

Rawls (1993, 1997b) claims that there is no definitive shape to the reasonable conception of justice. Public conception of the common good is formed by citizens' exercising arguments that are attuned to a set of political values. He defines political values as a) the values of political justice, including the values of basic rights, liberties and opportunities; and b) the values of public reason, including the guidelines for public inquiry and political reasonableness (Rawls, 1993). To Rawls, a reasonable politics is one of 'orderly contest' among citizens within a constitutional context. The use of public reason is reserved to constitutional affairs and basic justice issues and restricted to formal political institutions, such as supreme courts.

The issue is that only one type of reason could survive these formal political institutions. Different reasons proposed by citizens are expected to converge to one:

there are many non-public reasons and but one public reason. Among the non-public reasons are those of associations of all kinds: churches and universities, scientific societies and professional groups.....This way of reasoning is public with respect to their members, but non-public with respect to political and to citizens generally (Rawls, 1993, p. 220).

Rawls's conception of reason has a conformity intent; it permits only those terms of cooperation acceptable to all 'citizens generally'. Those that appeal to the well-beings of members of such public organizations, or 'non-public' in his own terms, rather than the society as a whole, do not count (Rawls, 1993, 1997a, b). There is little room for reasons in favour of what he called 'background culture' which is not of the larger society's interest. The Rawlsian public reason is thus singular, or plural only in a narrow sense.

This liberal constitutionalist conception poses non-negligible limitations on informal forms of value expressions and the diversity of moral arguments admissible to the debate. Such a deliberative democracy is likely to exclude those on the margins of

society who do not, or refuse to, fit the liberal paradigm of personhood or liberal assumptions about publicly reasonable communication (Dryzek, 2000). The scope of social cooperation is severely impoverished when deep conflict persists (Bohman, 1996). There are multiple public standpoints whose reasonableness is independent of constitutional essentials. Under the singular conception, however, citizens are expected to come to agreement for the *same* set of publicly accessible reasons. Accordingly, publicly reasoned decision is construed as a consensual choice based on convergence of values. This may undermine the capacity of respecting plural values when the ‘non-public’ and ‘public’ reasons come into deep conflict. Bohman (1996, p. 84) thus proposes that public reason should be conceptualized not as a constraint to deny or avoid moral conflict, but as a basis of cooperation.

Gutmann and Thompson (1996) substantiate this notion of reciprocal cooperation by taking reciprocity as a civic virtue and a moral basis for action under disagreement. They emphasize a sense of mutuality that citizens should bring forth and develop during the course of deliberation. Reciprocity calls on citizens to continue to seek fair terms of cooperation, even in the face of disagreement on moral values. It requires deliberating individuals to affirm the moral status of their own political positions and acknowledge those they oppose (Gutmann and Thompson, 1996). The practical aim is to minimize the range of their disagreement through a creative search for common grounds on which different conceptions of justice or values become mutually recognizable. Mutual respect rather than conformity is encouraged. The civil demeanour of ‘agreeing to disagree’ is recognized.

While Rawls employs public reason as a political rule to preclude the entry of ‘non-public’ reasons, Gutmann and Thompson’s (1996, 2004) approach to reciprocity is compatible with continuing moral disagreement among reasonable non-public claims. Their approach seeks agreement on how to deliberate publicly when citizens

fundamentally and reasonably disagree, rather than on how to purge disagreement. 'Deliberation cannot make incompatible values compatible' (Gutmann and Thompson, 2004, p. 11). The whole point is, therefore, how to live with irreconcilable disagreement. The basis of action agreement is built upon respecting reasonable differences amongst many. Irreducible conflict is recognized to a greater extent than the Rawlsian purely political approach.

This tradition of deliberative democracy recognizes both reasonable agreement and disagreement (Bohman, 1996; Gutmann and Thompson, 1996; Dryzek, 2000). Public deliberation may then be considered a plausible way to resolve conflict in morally and culturally diverse communities. Wider public inclusion then makes sense.

3.4.3 Representation

In a deliberative democracy, all those actors actually or potentially affected by the decision, or their representatives, should have the opportunity and ability to participate in the deliberation. There should be no barrier of access to those affected if the decisions are to be imposed on them. This principle is not only a standard of justification, but also provides those affected with reason and motivation to comply with the decision made (Cohen, 1989; Bohman, 1996). Deliberation succeeds to the extent that the deliberating individuals develop a sense of commitment and have influence on the outcome.

Political equality and autonomy should be granted to the deliberating citizens. They should be set free to deliberate in a non-coercive fashion and are given the same civil rights, freedom of speech and equal voice in the process of deliberation. They should be empowered and authorized to speak with reasons about the decision without being constrained by the authority of prior norms or third parties (e.g. state agencies).

This idealized picture, however, may be discouraged by the reality of human interaction. To deliberate meaningfully, individuals must possess a certain level of the

communicative competence, i.e. the ability to use language to communicate with others. Habermas's (1984) communicative action is linguistically constituted. A communicatively rational deliberation depends on the citizens' ability to master four competencies: cognitive competence to employ logic, linguistic competence to form sentences, pragmatic competence to make validity claims, and interactive competence to engage in discussion (Webler, 1995). They have to be able to reflect on and articulate their values, preferences and experiences, be open to alternative definitions of reality, and listen to others' arguments. The fact that not all normal citizens are communicatively competent suggests that inherent barriers to participation exist. Those individuals who are less able to systematically and logically organize their verbal expressions, such as the least educated, may be put at a disadvantage.

Representation is another issue of concern. Should a deliberative forum be organized in ways that maximize statistical or political representativeness? Crosby (1995) is convinced that it should consist of a group of randomly selected people to represent a 'microcosm' of the population. Group composition should give a simulation of what the population would decide if every member of the community were allowed to participate. Behind each deliberating individual is a larger group with similar interests which is characteristic of them. Renn et al. (1995) suggest, cautiously though, that random selection would ideally assure all values and preferences of those affected to be given an equal opportunity of being heard.

In theory, people who are not selected should be satisfied that their interests will be protected because there essentially is a guarantee that another person with similar interests will be selected. (Renn et al., 1995, p. 353)

Reasons for statistical representation have been questioned on both validity and normative grounds. Firstly, the small group size (normally 10-20) can hardly be demographically representative whatever selection method is employed. As Renn et al

(1995) acknowledged, it is technically impossible to mirror all the socioeconomic characteristics of a community. Those present may also fail to cover all the perspectives they are expected to speak for, due to the diversity of views within the demographic groups they stand for (Smith and Wales, 2000). The real benefits of statistically based methods are then limited (Aldred and Jacobs, 2000; Jorgensen, 2009).

Secondly, the key entities that populate the political world are discourses, not persons. Socioeconomic simulation does not guarantee that deliberation will capture the differentiated character of interaction that characterizes the political world of a given social issue (Dryzek, 2001). It is the interaction between competing conceptions of the good that shapes politics. The solid form of these conceptions is termed as 'discourse', which can be thought of as a shared means of making sense of the world (Dryzek, 2000). According to Dryzek and Niemeyer (2008, p. 481):

A discourse can be understood as a set of categories and concepts embodying specific assumptions, judgments, contentions, dispositions and capabilities. It enables the mind to process sensory inputs into coherent accounts, which can then be shared in intersubjectively meaningful fashion.

Examples include sustainable development and market liberalism. Discursive representation has been proposed by some deliberative democrats as an alternative where representation by persons falls short of political realities (Dryzek and Niemeyer, 2008).

Contemporary social conflicts are characterized by collision of discourses. Many environmental NGOs have made real impacts on policymaking but do not have an identifiable constituency; they do not represent individuals, but a coherent set of beliefs, or discourses (Dryzek and Niemeyer, 2008). Nonhuman species and future people are inherently absent from deliberation and none of us is any one of them. Renn et al.'s (1995) justification for random selection loses force because no such 'another person

with similar interests' exists. Environmentalists are not entitled to such 'similar interests'; they nonetheless subscribe to and act on the discourses concerning interests. A discourse may have no constituency but must have reasons acceptable to its subscribers.

The notion that discourses provide frames for speaking renders problematic the logic of socioeconomic representation. Discourse is composed of discursive selves, not individuals. A given social conflict can be conceptualized as a political world consisting of an array of different discourses. Any particular discourse may have no resonance to the whole of any individual. An individual may subscribe to more than one discourse and are divided in multiple political worlds. The different discourses an individual subscribes to may not be reducible to a single entity; some 'secondary' discourses may get diluted if discourse is not the basis of selection. The entirety of individuals is adequately represented only when the discursive self¹ gets its full shape (Dryzek and Niemeyer, 2008). Individuals enter into a political world in the form of their discursive selves and it is these discursive selves that actually shape this political world. Socioeconomic representation, however, erroneously treats the entirety of political world as embedded in a demographically representative group of individuals. There is no guarantee that the entirety of discourses is represented. The fact that individuals have 'fluid positionings instead of fixed roles' (Harré and Gillett, 1994, p. 36) makes representation by persons unduly restrictive and takes the deliberation far from the essence of the conflict. Composition of deliberating group ought to capture the 'divided selves' to the entirety assembled as discourses which can fully capture the picture. In this light, Dryzek and Niemeyer (2008) suggest that participants of formal group

¹ According to Harré and Gillett (1994, p. 25), cited in Dryzek and Niemeyer (2008), the discursive mind is multifaceted as the individual inhabits 'many different discourses each of which has its own cluster of significations' and 'most of us will fashion a complex subjectivity from participation in many different discourses'. The mind itself is situated at the intersection of such discourses constituted by languages, which in turn also shape the mind.

deliberations should be selected systematically to map the constellation of discourses relevant to the issue of concern based on their representativeness in terms of agreement with these discourses, using techniques such as Q methodology (to be introduced in Chapter 8).

This logic of representation pulls the debate down to a normative line beyond the ‘who’ question. It suggests that the aim of public deliberation and deliberative democracy in general is not to extrapolate or construct a general group view, but to enable a critical encounter between various discourses. Contestation is therefore a key feature.

3.4.4 Contestation

Constructive contestation of values and knowledge should be promoted in a deliberative democracy. This crucially affects the ways in which deliberative forums are structured and deliberative outcomes are interpreted. Liberal democracy presumes existence of self-contained and self-verifiable choices, and so does not see reflection upon preference as necessary. People have, for example, the rights to vote for any candidate in an election without providing any substantive justification. Preference is therefore justified for its own sake. Contestation is considered unnecessary or even counterproductive.

The theory of deliberative democracy rejects such a conception of politics. It focuses on the systems where citizens disagreeing with each other interact, more than their isolated inputs to the existing systems. A politics of the environment then sees creation of non-anthropocentric institutions as more important than institutionalization of non-anthropocentric values. Ecological communication, proposed by Dryzek, (1995, p. 18), involves ‘egalitarian interchange at the human/natural boundary’, focusing on ‘human dealings with the natural world’ – neither *within* the natural nor human world.

The key to this mode of democracy is ‘to downplay ‘centrism’ of any kind’ (Dryzek, 1995, p. 18). An ecologically benign democracy goes with citizens testing their proposals about the use of natural resources to the acceptance of other citizens holding fundamentally different dispositions and preferences. Mere existence of values, convictions and preferences does not mean acceptance.

Critical engagement by deliberating individuals is implied by the virtue of reciprocity. Accepting the principles of reciprocal reason precludes treating discursive communication as mere inclusion of discourses. Advocates recognize the advantage of including alternative values, but many, particularly economists and decision scientists, do not take the notion of contestation seriously. Their account falls short of the epistemic dimension of deliberative democracy that hinges on the ability to sort good arguments from bad, not just to bring all reasons into play (Dryzek, 2000). The inclusion principle is a condition for discursive contestation in the search for reciprocal understanding. Only when values, convictions and preferences are confronted is reciprocity required. Giving reasons is important in circumstances where other individuals *may* disagree. Including an individual who has no potential rival would add little to a discursive deliberation.

Deliberative democracy confers a new political import to ‘public opinion’ (Dryzek, 2000). Traditionally it is defined by liberal democrats simply as citizens’ *choices*. In a deliberative democracy it is understood as an outcome of contestation of discourses. The basis of the public will is established on the intersubjective communication across discourses, in favour of internal communication within one’s constituent discourses. Public opinion, therefore, exists in the discursive interaction among people, not within any one of them. Democratic institutions no longer serve the function of transmitting public opinion to the state only, but also construction of it.

There are practical concerns that public deliberation may become excessively

competitive and adversarial; mutual respect may then hardly be established among citizens leading to stalemate and poorly informed decisions (Burgess et al., 2007; Thompson, 2008). Antagonistic voices could be precluded by the selection of deliberative venue. Deliberative democrats have different views on this issue.

3.4.5 Deliberative venue

On a liberal constitutionalist conception, the ideal venue for deliberative democracy is a formal institution associated with government, such as a supreme court. As the leading figure in this camp, Rawls (1997b, p. 771-2) declares that his idea of ‘well ordered constitutional democracy’ should be ‘understood also as a deliberative democracy’. The right procedure is that the exercise of public reason be restricted to constitutional affairs and matters of basic justice and deliberation be undertaken in constitutional framework and formal political arenas (Rawls, 1993, 1997b). The defining deliberative activity is personal reflection in light of a family of values of basic justice and ‘guidelines for public inquiry’ including reciprocal reasoning (Rawls, 1993). Solitary thinking by legal elites suffices.

Socialization is given more weight by Gutmann and Thompson (1996) and Dryzek (2000). Solitary thinking on justice is invariably bound to one’s own rationality and knowledge. There is no exchange of arguments; actual acceptance or rejection of arguments is thus not forthcoming. Whether the conclusions could withstand actual public criticisms is questionable. Instead, deliberation has to ‘create a situation of social interaction where people talk and listen to each other, enabling each person to recognize their interrelation with a social group’ (Dryzek and List, 2003, p. 9). The advantage over hypothetical agreement is that:

it encourages citizens to face up to their actual problems by listening to one another’s moral claims rather than concluding (on the basis of only a thought

experiment) that their fellow citizens *would* agree with them on all matters of justice if they were all living in an ideal society (Gutmann and Thompson, 1996, p. 16)

Perspectives are further divided on the role of the civil society. Gutmann and Thompson (2004) make a modest claim that deliberative principles should be reserved to governmental institutions with civil society providing a ‘rehearsal space’ for political deliberation. Following the liberal principles, they are wary of extending deliberative mandate to civil society partly because it could ‘threaten the freedom of citizens and the associations they choose to form’ (Gutmann and Thompson, 2004, p. 33). They agree that deliberation is desirable in civil society, but hold that ‘truly voluntary associations’ like churches and colleges should be less subject to its demand. Since these associations are less public and their effects are less far-reaching holding less power over people, compliance with publicly defensible standards is a less important issue. Deliberation should remain an educational function to equip citizens to deliberate in politics.

Preference about deliberative venue has influence on the forms of arguments permitted. Formal political institutions tend to discourage emotional and radical responses. The liberal constitutionalist account favours rational considerations and ordered expressions. Rhetoric may end up with emotional manipulation and exaggeration, but some deliberative democrats are sympathetic to the use of rhetoric (Dryzek, 2000; O'Neill, 2007; Dryzek, 2010). ‘Rhetoric facilitates the making and hearing of representation claims spanning subjects and audiences divided in their commitments and dispositions’ (Dryzek, 2010, p. 319). O'Neill (2007) believes that rhetoric and emotional appeals are not deaf to reason and may be constituted by rational judgments and beliefs that warrant a place in the debate. These should therefore not be banned provided that they do not serve strategic action and are amenable to rational justification (Dryzek, 2000).

3.4.6 Consensual outcome

Consensus has been widely recognized as an ideal outcome of public deliberation. Nevertheless, deliberative democrats are divided on the basis by which action agreement is reached, producing two schools of thought, i.e. consensus and pluralist democrats (Gutmann and Thompson, 2004). Consensus democrats are wary of the value plurality in contemporary societies precluding the formation of collectively binding decisions and tend to prize consensus reached through realizing a comprehensive common good. They recognize that a comprehensive common good is not readily attainable given the reality of irreducible conflicts, but regard the failure to achieve it as a sign of defects to be remedied. These include those who 'identify with the republican tradition or with communitarianism in political theory' (Gutmann and Thompson, 2004, p. 26), such as Pelletier (2010).

Pluralists, on the other hand, believe that erasure of political disagreement built upon conditions of collective life may be undesirable and seek consensual basis of fair terms of cooperation in the face of persistent moral pluralism. There is much variation within this tradition.. For instance, Rawls's (1993) 'overlapping consensus' requires that consensual decisions be supported by moral reasons that respect the liberal ideals of justice. Some democrats, such as Dryzek and Niemeyer (2008), are unconvinced, because this idea demands prior agreement on the priority of some set of substantive values, such as liberalism, which may not always be available. Habermas's (1996) 'rational consensus' promises norms of communicative action to be impartially grounded. He believes that rational discussion is likely to produce public unanimous agreement. Rational consensus requires each participant's rationally motivated conviction which makes their uncoerced, autonomous 'yes' indispensable (Rehg, 1994). Habermas ties his discourse ethics to a principle of universalization, according to which a norm is valid only if:

All affected can accept the consequences and the side effects its *general* observance can be anticipated to have for the satisfaction of *everyone's* interests (and these consequences are preferred to those of known alternative possibilities). (Habermas, 1990, p. 65, emphasis original)

This principle specifies a rule for an impartial testing of norms for their moral worthiness and is highly demanding. There is much confidence in the capacity of the argumentative rationalization in realizing truly consensual agreement.

Consensus idealized as agreement both on action and reason, or unanimous agreement, has been noted to be hardly achievable in practice. Cohen (1989, p. 23) states that:

ideal deliberation aims to arrive at a rationally motivated consensus.....Even under ideal conditions there is no promise that consensual reasons will be forthcoming. If they are not, then deliberation concludes with voting, subject to some form of majority rule.

Criticisms anticipated, Cohen (1989) stresses that this notion is different from arbitrarily aggregating preferences because citizens who vote have been committed to finding reasons that are persuasive to all. Political legitimacy defined as such is sought in the procedures of the prior deliberative activities rather than voting itself (Dryzek and Niemeyer, 2006).

To the pluralists, plurality is a reality to be respectfully accommodated and supported by the virtues of civility. They believe in a thin conception of the common good that it is not always desirable and feasible to seek a comprehensive common good because moral disagreements may be inherent in human life. Moral disagreements cannot be overcome without some forms of compromise (Gutmann and Thompson, 1996; Young, 2000). Instead, the deliberative project should aim at finding good ways of living with them. Rather than promoting cooperation under value convergence,

pluralist democrats seek cooperation under differences that cannot be reasonably rejected (Gutmann and Thompson, 2004).

The pluralist account grounds agreement on fair terms of cooperation on respect for reasonable differences cultivated in unconstrained dialogue by citizens who hold multiple values encountering each other's viewpoints. Gutmann and Thompson (1996) land a different basis of consensus:

Even with regard to political decisions with which they disagree, citizens are likely to take a different attitude toward those that are adopted after careful consideration of the relevant conflicting moral claims and those that are adopted only after calculation of the relative strength of the competing political interests.....Deliberative democracy seeks not consensus for its own sake but rather a morally justified consensus. Citizens strive for a consensus that represents a genuinely moral perspective, one they can accept on reciprocal terms. They usually continue to disagree, often intensely, on many political relevant matters. (Gutmann and Thompson, 1996, p. 41-42)

This kind of idealized consensus is 'morally justified', rather than 'rationally motivated'. It is one that a sympathetic individual might approve for compelling reasons offered in a reciprocal manner, but might reject for violating personal preference. Political legitimacy is conferred by the substance of the kinds of claims that warrant mutual respect and recognition.

While Cohen (1989) and Habermas (1996) endorse consensual agreement for ideal procedures, Gutmann and Thompson speak of consensus in terms of its moral content and define its virtues in terms of reasonable disagreement. To the former, reasonable pluralism should end in reasonable consensus, whereas to the latter it could be reasonable 'dissensus'. Social cooperation under dissensus may indicate achievement of a 'workable agreement', which seeks agreement on a course of action yet for different

reasons (Eriksen, 1994; Dryzek, 2000). The idea of workable agreement has been linked to the concept of ‘meta-consensus’ by Dryzek and Niemeyer (2006). It will be used to assess the case study and explained in Chapter 6.

3.4.7 Second-Order Theory

Opportunities for deliberation have been recognized as the defining feature of the theory of deliberative democracy. Another key feature, which links up the conceptual elements discussed above and which I emphasize throughout this thesis, is its nature as a second-order theory. According to Gutmann and Thompson (2004), first-order theories seek to resolve moral conflicts by rejecting alternative theories and principles. Examples include utilitarianism and libertarianism. Each theory claims to be the single theory capable of resolving conflicts, but does so in ways that deny or exclude its rivals from consideration. They succeed to the extent to which they resolve conflict consistently on their own terms. For these theories, therefore, moral integration is a singular conception. Taken together, however, they are more likely to intensify the problem of value conflict than get it resolved.

In contrast, deliberative democracy, as a second-order theory, is non-exclusive and accommodative. Second-order theories are *about* other theories as they provide ways of dealing with the claims of conflicting first-order theories and do not affirm or deny their validity (Gutmann and Thompson, 2004). They make room for moral conflict to be resolved by some predetermined standards but do not reject in *a priori* moral principles expressed by first-order theories. They succeed to the extent to which they can justify their proposed resolutions and the moral disagreement that remain to all who will live with them. Another example is known as aggregative conceptions of democracy.

The core principles of first-order theories are justified on a single conception of justice. They assume that citizens subscribe to a particular end or require them to

change their moral beliefs accordingly. Second-order theories, on the other hand, govern their interaction by providing a set of standards and rules of conflict resolution. Citizens are required only to follow these standards and rules, and there is no prescription on which moral end to go, as these theories do not presuppose a particular conception of justice. Thus democratic deliberation does not necessarily aim to induce citizens to change their first-order values; it is rather to encourage the different values to live with each other even if they are mutually incompatible (Gutmann and Thompson, 1996).

Critics might, however, question the practical relevance of these idealized facets of deliberation. The variety of actual deliberative initiatives is an indication of variation from the ideals. This variation, as I will argue, reflects a dilemma confronting ecological economists engaging in the deliberative turn. I reserve this argument to the following chapters, and here I move from ideals to practice to provide some background to my observations presented later.

3.5 FORMS OF DELIBERATION

Attempts to resolve social conflict through deliberation can be characterized at two levels. One appears in the civil society and is formed largely by spontaneous order stimulated by current social controversies. New social movements, for example, are a real-world approximation of democratic deliberation (Dryzek, 1990). The second one is formed by design for policy advisory or research purposes. It is professionally constructed and oriented to a particular social issue. Only the second type of deliberation is relevant to the present study. Four of them are introduced below, namely, consensus conferences, deliberative polls, deliberative multi-criteria analysis, and citizens' juries.

3.5.1 Consensus conferences

Originally developed in Denmark, consensus conferences are a specific model of direct public participation used primarily to assess controversial technological issues (Joss and Durant, 1995; Einsiedel et al., 2001). The objective is to provide a platform for the general public, experts and politicians to formally communicate to examine the social impacts of technological developments, which they rarely have an opportunity to discuss together (Grundahl, 1995). A consensus conference typically consists of a group of 12-15 lay citizens designated to identify key issue areas, cross-examine experts, and then arrive at a consensus position to be presented to policymakers and the rest of the general public (Einsiedel et al., 2001). It is usually conducted over two to three preparatory weekends and a conference session. Throughout the last decade, there have been various attempts in different countries, such as Canada and Australia, on topics like food biotechnology.

The dialogue between lay citizen panel and experts is a key feature of consensus conferences. Technological advances involve great complexities and uncertainties about the consequences. Experts and policymakers want to seek citizens' advice on the public adaptability to introduction of new technologies. Confronted with a technically complex issue, the public, on the other hand, need expert explanation at an understandable level. This technique functions as a series of cross-sectoral seminars promoting exchange of information, learning and interrogation to assure informed decisions by each party (e.g. experts, government officials, and the public). It aims for an integration of scientific information and various social values leading to a consensual recommendation (Einsiedel et al., 2001). Despite including moral issues, consensus conferences do not act primarily as a moral debate which focuses more on mutual recognition than consensus. Every effort is made to attain the greatest consensus and minority opinions are allowed only when the differences of opinion are very wide (Grundahl, 1995). As a

result, consensus conferences appear poorly placed to deal with deep conflict.

3.5.2 Deliberative polls

Deliberative polls survey several hundreds of citizens who are given an opportunity to listen to and question experts or politicians, and discuss and think through a policy issue. It is essentially a post-deliberation opinion poll to record *individual* views of citizens after (and before as well) they are exposed to various political viewpoints. The strongest advocate of this technique, James Fishkin (1991, 1995), describes deliberative polls as having ‘prescriptive force because they are the voice of the people under special conditions where the people have had a chance to think about the issues and hence should have a voice worth listening to’ (Fishkin, 1991, p. 4). A group of randomly selected citizens (e.g. 500) gather to hear political leaders debating a current policy issue and question them. Repeated opinion polls are conducted to investigate the changes in the citizens’ views. Deliberative polls are applied more commonly to political issues than those of science and technology.

Deliberative polls provide a snapshot of public opinion with an emphasis of the citizens’ transformative experience. Political equality is a key concern. Deliberative polls attempt to simulate what the larger public would think by including a sizable, demographically representative group of citizens. Exposed to different political perspectives, the individuals are expected to become civically informed and have their preferences changed beyond self-interest. The primary purpose is to capture a transformed public view rather than to reach an informed consensus between groups. It is like a mass lecture with voting.

The claim that deliberative polls can avoid the difficulty of handling conflict is dubious. The technique suffers the same problems as aggregative democracy because of the procedure of preference aggregation. Public view is defined by majority rule, based

on intensity of preference and not reason. This is likely to suppress reasonable minority voices. In addition, it is a third party (analysts or sponsors) that balances competing opinions and values, and formulates policy recommendation as a result. Citizens remain passive in the argumentation process and are not given the opportunity to exercise the type of political judgement required of deliberative democracy (Smith, 2003).

3.5.3 Deliberative multi-criteria analysis

Deliberative multi-criteria analysis (DMCA) is a family of policy appraisal techniques combining psychological decision-aid and deliberative components. Attempts have been made with nuanced variations in design and in names, such as deliberative multi-criteria evaluation (Procter and Drechsler, 2006), deliberative mapping (Burgess et al., 2007), and deliberative ordinal multi-criteria approach (Zendehdel et al., 2008). DMCA makes use of a structured evaluation design that breaks down the cognitively exhaustive task of risk assessment into smaller parts and presents the decision problem in a multidimensional fashion. Major steps include problem framing, option identification, criteria elicitation, and option evaluation. The primary goal is to ease the difficult tasks through a particular decision pathway.

About a dozen citizens (or stakeholders or specialists) form a group to discuss the issue with expert inputs and relevant information provided by the project team. The deliberative component has group members sharing their knowledge and values raising the prospect for public reasoning. The decision-aiding component, on the other hand, tends to be scientific and expert-driven, and is supported by quantitative, computer-aided real-time analysis of group inputs about criteria weighting and option performance. DMCA thus requires the group members not only to talk and share, but also to rank-order and/or assign importance ratings to different options. It is well-suited for public assessment of technological risks and has been applied to controversial

medical issues such as organ transplantation.

DMCA is rooted in behavioural decision research. It acknowledges and makes explicit reference to the logical thought process that individuals enter when coming to a decision (Proctor and Drechsler, 2006; Zendejdel et al., 2008). Some of the applications, such as Gregory et al. (1993), generally follow the multiattribute utility theory (MAUT) to clarify values and preferences by simplifying the assessment tasks such that the individuals, under guidance, can make sense of their true preference level for each criterion. The role of public participation is to make sure that the policy appraisal is supported by comprehensive, multi-faceted considerations.

DMCA is claimed to be more democratic for its deliberative component (Procter and Drechsler, 2006; Stirling, 2006; Burgess et al., 2007; Stagl, 2007). Yet it is open to manipulation when the evaluative activities and procedures are entirely determined purposively by the sponsor or project team based on a set of behavioural assumptions, or worse, vested interests. The citizens are expected to follow every step required by a scientifically rational decision framework and then respond by stating their choices within a specified range of measurement. Citizens' influence is limited to preference expression. A structured DMCA design risks limiting individuals to a particular decision route, leaving limited room for alternative ways of reasoning.

3.5.4 Citizens' juries

Citizens' juries (CJ) were developed by Ned Crosby in the U.S. in the 1970s. The technique is generally similar to the form of legal juries, requiring a small group of citizens (10-15) to meet for several days to discuss a public issue. The jurors are given a specific 'charge', typically involving selection of a policy arrangement from a range of options provided. They are provided relevant information in printed form and, like hearings, listen to expert witnesses from different stakeholder groups, including industry

and NGOs. In addition, a variety of activities are provided to the jurors, such as lectures, panel discussions, watching videotape and field tours. They scrutinize the information, cross-examine the witnesses and discuss the issue in group under neutral facilitation. The findings and recommendations of the CJ group are publicized and submitted to the commissioning authority. Compared with other deliberative techniques, CJ offers a more balanced combination of information, scrutiny, deliberation and independence (Coote and Lenaghan, 1997). CJ is flexible in design and has been applied in a variety of public policy issues. It is particularly suitable for environmental planning which often involves a variety of moral and technical dimensions (Smith, 2003).

Unlike deliberative polls, the jurors of a CJ are empowered to review and approve the report of recommendations. This 'citizen report' is considered as an official document submitted to the commissioning authority, which is normally required to respond on any follow-up. The citizens play a more active role in the formulation of the specific policy issues. CJ is more than a communication platform for different parties and, in some cases, has real influence on policymaking. Another key feature is that CJ works better on value questions than technical issues (Crosby, 1995). It can be operated as a value debate among the jurors to discuss their competing values and preferences relevant to the issue. So the jurors are expected to *judge*, not just express or clarify values. CJ process should be made autonomous and free from coercion. The outcome is presumed to be both informed and just.

CJ is nonetheless a demanding task for lay citizens as they are expected to participate in a variety of activities, make value judgments on controversial issues and provide formal policy recommendations. They are given a relatively high degree of autonomy in this process which means that professional guidance is minimized. Compared with DMCA, the less structured design of CJ suggests that its success relies much on the skills of the facilitator and the competence of the jurors.

3.6 CONCLUDING REMARKS

Under the theory of deliberative democracy, public values articulated in a citizen deliberation can be re-conceptualized in several ways. First, it is expressed in terms of reason and judgment embedded in language, not preference revealed by choice. Also, it captures the subjective landscape of a political world rather than the demographic one. Third, it is formed in the context of interaction of discourses, not solitary thinking of individuals. Lastly, it could produce an outcome of ‘dissensus’, and not necessarily of consensus.

The idea that deliberative democracy is a second-order theory has particularly important implications to the project of DMV, which will be discussed in Chapter 5. Briefly, a deliberative monetary value might not be perceived as trading off values where economic preoccupations are not enforced and the conception of value is left open-ended. This conceptualization is important to rescue DMV from the hands of critics who cast doubt on the oppressive task of reducing plural values to single monetary figures. The nature of environmental value elicited from DMV, expressed in monetary terms or not, should then be assumed to be indeterminate prior to deliberation and provisional thereafter. As a second-order theory, DMV is not predisposed to a moral domain for its outcomes. This brings forth a tough question: whether DMV could be considered an economic technique anymore, or, more generally, whether deliberative economics as a political-economic hybrid has any bearing on ‘economics’. I will re-visit this issue in the Chapter 10.

Now I turn to the other current that has given impetus to the hybrid. The different forms of deliberation covered in the last section have crucial distinctions in normative terms. In particular, the pursuit of analytical robustness characterizing DMCA appears to threaten the promise of democratic emancipation underlying the enterprise of CJ. The democratic turn in environmental valuation research has an analytic counterpart.

CHAPTER 4

TWO INFLUENCING CURRENTS (II):

THE SCIENCE OF ANALYTIC DELIBERATION

4.1 INTRODUCTION

Apart from the political theorists and heterodox economists, critics of the neoclassical approach of environmental valuation include decision scientists and behavioural psychologists (Peterson et al., 1988; Kahneman and Knetsch, 1992). A few of them, such as Daniel Kahneman, are influential in the environmental and ecological economics communities by establishing alternative models of economic behaviour. Some are involved in developing deliberative methods for valuation amenable to human psychology, in contrast to democratic imperatives. Environmental economists influenced by these two intellectual traditions have to different extents, articulated different DMV strategies. The variation raises a fundamental question that lies at the heart of the CVM / DMV debate: are the problems with the stated preference approaches a technical or moral issue?

Those decision scientists and psychologists who tend to explain the problems in technical terms see preference engineering as a key component of the remedies needed. More cognitive aids are deemed to be necessary and the utilitarian ethics underpinning the economic tradition is reinforced rather than questioned. Further participant empowerment is suspected in favour of tighter experimental controls. These requirements stand at variation with the democratic principles discussed in Chapter 3,

suggesting a tension within the field of DMV research which is extended from both. To establish a comparative basis for the DMV review presented in the next chapter, this chapter offers an elaboration of the normative elements and assumptions underpinning what I refer to as the analytic strand of thought on DMV. Discrepancies are from its democratic counterpart is highlighted.

4.2 PRINCIPLES AND FEATURES

This section reviews the key elements of the analytic approach to public deliberation. Researchers designated as taking the analytic approach can be found from diverse backgrounds. The most prominent from the monetary valuation field are Robin Gregory, a decision scientist, and his associates², who are critical of the CVM and have contributed to the DMV literature. Their monetary valuation studies are clearly descended from their group-based non-monetary environmental assessments. Their work also shows a sharp contrast with the democratic approach to deliberation. It is therefore taken as the main focus of this chapter.

4.2.1 Assumption

Decision scientists believe that the cognitive ability of individuals in making complex decisions is fairly limited. For example, McDaniels et al. (1999, p. 498) state: ‘individuals (either lay or expert) will often not make informed, thoughtful choices about complex issues involving uncertainties and value tradeoffs’. People are regarded as performing poorly in handling unfamiliar choices and technical information, which may create a high level of stress blocking rational decision-making routes (Arvai et al., 2001). Expression of values is described as being often based on only a subset of

² Their works include, but not limited to, McDaniels et al. (1999), Arvai et al. (2001), Gregory et al. (2001), Gregory (2002), Gregory and Failing (2002), Gregory et al. (2005) and Failing et al. (2007).

available information (Gregory et al., 1993). For example, ‘some persons might select a single, most-important dimension and rank the alternatives on this one measure alone, and others might try to think about previous decision situations that were similar and remember what they did in those more-or-less analogous cases’ (Gregory et al., 1997, p. 241). Cognitive barriers are used to explain failures in clarifying multiple and conflicting values.

At the core is a belief that good choice-making necessarily depends on a good *thinking* process. Thus Gregory (2002) suggests that participatory initiatives fail simply because participating individuals refuse to recognize the complexity of the value dimensions and are not equipped to address the necessary trade-offs. For example he states:

most risk management public-involvement initiatives provide insufficient help to participants in thinking through their own values, evaluating the quality of impacts information, or assessing the trade-offs that characterise alternatives. In short, they fail to encourage the more deliberative, constructive type of decisionmaking response that is called for. (Gregory, 2002, p. 484)

Researchers then describe bias as arising when individuals appeal to heuristic reasoning processes that are easily influenced by contextual or task-related factors (McDaniels et al., 1999). Irrational or inconsistent choices (e.g. protest bids) are then attributed to cognitive failures that prevent people from selecting options that would best serve their preference.

A utilitarian conception of values is an integral part of this approach. The MAUT is applied, which assumes comparability and transitivity of preference relations, and allows complete substitution between subjective states. Unlike neoclassical economics, the analytic approach moves beyond choice and involves its fundamental structure and underlying motives. McDaniels et al. (1999), Arvai et al. (2001) and Gregory et al.

(2001) all make explicit reference to Keeney (1992)'s theory of 'value-focused thinking'. This theory suggests that consideration of values precedes that of available alternatives when individuals make decisions. This construes value as a standard of hedonic satisfaction and ultimately aims to satisfy people's *wants* in an instrumental manner:

Value-focused thinking essentially consists of two activities: first deciding what you want and then figuring out how to get it.....With value-focused thinking, you should end up much closer to getting all of what you want. (Keeney, 1992, p. 4)

In contrast to this approach, value could be construed as a 'judgment' rather than 'interest' (Holland, 1997). Judgment concerns 'what ought to be' whereas interest 'what we want'. An individual could make their judgment on something regardless of immediate interest, but would only *want* it if it is in their interest. Keeney (1992) seems to embrace ethics and the idea of 'value judgments', but the endorsement is largely limited to judgment on personal preferences, such as job choice (p. 4). Preferences do not conflict; only judgments do (Holland, 1997). If 'what you want' included subjective judgment over other people's well-beings, it would be a question of 'what ought to be'. 'Ought' questions entail the virtue of justification to others, whereas 'want' questions do not.

Gregory et al. (2001) and Failing et al. (2007) regard the conventional requirements of agreeing on values and seeking consensus as untenable, due to the irresolvable conflict between competing viewpoints. However, a pragmatic treatment is deemed to be necessary to identify an acceptable course of action. The suggestion is to construct a common hierarchy where incommensurate values become indirectly comparable (Gregory et al., 1993; Gregory, 2000). Social cooperation is then meant to be built upon the assumption that there is a state of affairs that all people *would* accept

as universal. Deliberation then involves seeking agreement on truths. Thus Failing et al. (2007, p. 49) state:

From the perspective of deliberative processes, we argue that it is at least in practice if not in theory, futile to assume the existence of universally “right” values. On the other hand, it is productive to assume that a true state of nature exists, and that reasonable people could reach agreement on a hypothesis or a set of hypotheses that have the greatest probability of accurately representing that state.

Value disagreement is considered as a matter of perception rather than principle. It is attributed to the different ways in which individuals interpret information, rather than ‘differences in underlying values’ (Gregory, 2000, p. 157). Value integration then becomes possible by making different dimensions ‘transparent’ and leading individuals to the ‘commonality of their beliefs’ (Gregory, 2000, p. 157). The means to achieve this is simplification. A common language of values is employed to lessen individuals’ cognitive burdens by reducing the dimensionality of values to a comprehensible summary. As Gregory (2002, p. 478) explains:

a decision is simplified because one dimension of value (now the same for the two choices) can be ignored as it no longer helps to distinguish between the options.

Examples include ‘the number of air miles you would give up to get a \$100 cost saving on your next ticket, or the number of vacation days you would relinquish to receive a higher salary at work’ (Gregory, 2002, p. 478), both involving a personal consumption choice.

Deliberation is given a supplementary role. Communication is circumscribed by and serves science: ‘[to] fill the important missing links in individuals’ fragmentary scientific understanding’ (Gregory et al., 2005, p. 9). Democratic imperatives give way

to decision-scientific standards. As McDaniels et al. (1999, p. 509) state:

In our view, risk management decision processes can be made more “democratic,” as the title of this piece [Democratizing Risk Management] suggests, but only with a clear structure and a decision framework focusing on values, meaningful technical information, tradeoffs, and insight.

The strong scepticism to unaided deliberation contributes to this view. The idea of redeeming popular participation by employing group deliberation is ridiculed. Gregory et al. (2001, p. 418) put it this way:

there appears to be a naïve assumption that a simple cure for the shortcomings of unaided individual decisionmaking processes is to work with people as a group, thereby ensuring that a wiser choice emerges from the group discussions...A rich body of psychological literature supports the contrary hypothesis, that group participation often encourages people to conform, even if the influence of others leads to erroneous choices...These findings give little confidence that either self-designed or semi-structured consensus decision processes are likely to develop responsive approaches to clarifying objectives as a means to creating well-informed policy choices. (Gregory et al., 2001, p. 418)

The argument is that unaided collective thinking cannot help counter individuals’ cognition problems, because it is vulnerable to the tendencies to establish entrenched positions and to adopt common perspectives leading to ignorance of contrary information (McDaniels et al., 1999). Self-designed, autonomous deliberation by lay people about environmental risk is described as ‘a recipe for disaster’ (ibid, p. 500). There is little room in the analytic approach for an autonomous public to take issue with or modify the frame of analysis: ‘the scope of their role falls well short of a license to redesign the process’ (ibid, p. 500).

Group participants are expected to play only a passive role, i.e. simply to report to

the elected or appointed decision-makers who are seeking advice from the process about what alternatives the various stakeholders can support. More generally, the objective of public involvement is stated as to provide insight to decision-makers, rather than to resolve a dispute. The decision analysts believe that 'one should never allow public involvement processes to actually set policy. Presumably that role should be reserved for legitimate government agencies or elected representatives' (McDaniels et al., 1999, p. 499). This clearly suggests a hierarchy in which the public or stakeholders are subordinate to the elites.

4.2.2 Strategy

Value-articulating institutions are constructed as a kind of 'tutorial' (Gregory et al., 1993), where analysts 'look for trouble' such as 'false fluency', which refers to respondents claiming that they understand a problem better than is actually the case (Gregory et al., 2005, p.13). The process seeks to mirror the ways in which individuals 'naturally think', which is assumed to be weighing-up benefits and costs systematically (Gregory, 2000, p.153). Expert instructions are provided to help participants go through a professionally designed learning scheme which imitates human's natural cognitive process. The general strategy is to help participants break down their entangled value considerations into several dimensions. The starting point of assessment is their own held values and then to proceed through to weighing-up required costs and benefits, leading to a choice that best fits given objectives. Since this calculative process requires systematic thinking, while few individuals are natural systematic thinkers, the analysts believe that it must be led by decision experts.

Under the analytic approach, deliberation is used to facilitate self-exploration. It aims to foster the weighing of benefits/costs and arguments in a mental dialogue. For example, in a study by Greogory the participants were asked individually about their

value dimensions with the reminder: ‘value dimensions are of different importance to different people. We want to know what is important to *you*’ (Gregory, 2000, p. 160, emphasis original). The decision steps of the ‘structured decision-making process’³ outlined in Failing et al. (2007) can in principle be undertaken by solitary individuals. Communication as a group is not essential.

It is suggested that preferences should be corrected. Analytic deliberation is meant to enable a constructive dialogue among participants, creating a ‘legitimate forum’ (Failing et al., 2007). The notion seems to be consistent with the idea of deliberative democracy. Yet, it requires that the individuals while making decision articulate clear distinctions between treatments of facts and values (Gregory et al., 2005). Failing et al. (2007) do not shrink from restricting their approach to fact-based dimensions. They claim that the aim is not to pit one validity claim against another, but ‘expose differences, and understand the contribution of each to a full understanding of the system under consideration’ (Failing et al., 2007, p. 55). This suggests that the main activity is demonstration, rather than contestation. Participants are free to use affective and emotional expressions (Gregory, 2002), but ‘competing hypotheses’ have to be justified on an ‘evidential basis’ (Failing et al., 2007). Priority is given to expert knowledge. Validity claims made by lay participants are compared with expert beliefs to reveal ‘the critical gaps in *lay understanding*, thereby disciplining claims about the adequacy of *lay comprehension*’ (Gregory et al., 2005, p. 9, emphasis added). Failing et al. (2007, p. 57) admit that the communications are constrained by demanding that the participants articulate their concerns in accordance with a structured decision scheme with clear references made to scientific data concerning probabilities and consequences.

Analytic deliberation is oriented to practical tasks. Value disagreements are

³ ‘the core elements of which include defining objectives and measures of performance, identifying and evaluating alternatives, and making choices based on a clear understanding of uncertainties and trade-offs’ (Failing et al., 2007, p. 51)

acknowledged, but fundamental value contest is deliberately avoided. In a report of a water use planning issue, Failing et al. (2007, p. 56) suggest that:

On the values side, participants often enter a deliberative process highly polarized. Asking for value statements such as “what's more important, drinking water quality or ecological health?” or “how do you feel about toxic waste?” is unlikely to lead to anything but divisive positioning. A key role of knowledge in a decision-oriented process is to distinguish among the relative merits of proposed actions. Unless participants are focused on the practical task of deciding not just the positivist question of what is, but also the normative question of what to do about it, it is possible to spin endlessly in technical and philosophical debates that prove ultimately to be largely irrelevant for management.

Analytic deliberation is devoted to clarification of facts and a search for practical solutions. ‘Normative’ questioning is understood in a pragmatic way, i.e. ‘what to do about it’. This offers an alternative interpretation of the earlier democratic pledge by the same group of researchers that local knowledge and cultural values have to be *critically* assessed. By critical, they actually mean objective scrutiny based on evidences and facts rather than moral merits. A good analytic deliberation is defined in terms for its capacity of deepening participants’ understandings. The focus is on ‘analysis’, suggesting an orientation to the technical and informational dimensions.

4.2.3 Procedure and validation

Analytic deliberation involves a schematized process of clarifying uninformed values which needs ‘technical guidance’ (Gregory, 2002, p. 476). All procedures are designed for making ‘unavoidable’ value tradeoffs. Gregory (2002) argues that making value tradeoffs is psychologically challenging due to the multiplicity of value dimensions,

uncertainty about consequences, and unfamiliarity about the evaluation context. Yet the tension can be eased, without transgressing the emotional or moral bounds of individuals, by addressing them head-on. Trade-offs are deemed as not inherently irresolvable, provided that they are adequately clarified and made explicit by following the value-focused model (Arvai et al., 2001).

The optimism can be explained by the analysts' understanding of values. First, value is understood in technical terms as an expression of wants, which can be expressed in various formats. Conflict is attributable to the use of incompatible formats, or unlike attributes. An example given by Gregory (2002, p. 486) is the choice between incremental levels of 'more guns or more butter', which is seen as a 'confusing type of choice'. Alternative attributes should be adopted as the expression formats are considered independent of the real utility function. Thus natural and constructed metrics are suggested for easing trade-offs. Rights-based beliefs are understood as a result of exercising 'simplistic decisions rules (e.g., any loss, however small, of a valued resource is prohibited)' to 'escape' from hard trade-offs (Gregory et al., 2005, p.11). Such trade-offs can evoke affective responses when individuals adopt these rules, and may create confrontations between the individuals. Cognitive aids are used 'to defuse such confrontations' by 'stabilizing' emotions (ibid, p.11).

Second, value belongs to the personal domain. Making informed value trade-offs are accordingly viewed as a solitary affair largely based on individual introspection. Gregory's (2002, p. 467) solution, i.e. 'addressing people's concerns head-on', deals with internal conflict within one's own mind. Deliberating individuals are required to justify their trading-off morality or principles only before themselves. They succeed when they feel satisfied, regardless of whether or not the choice would be actually justifiable or acceptable to the affected others. These authors might defend analytic deliberation as having group discussion elements to make room for this. However, as

revealed throughout all their works, group discussion plays merely a supplementary role of facilitating information sharing and exposing differences. Mutual justification is not a necessary requirement to get a policy option passed, and utility points are assigned as an individual decision. The critical decision moment is to a large extent free from mutuality. The toughest issue is avoided, namely, addressing one's choice in terms of the worldview of one's rivals.

In analytic deliberation, values are elicited using a disaggregation procedure. A complex issue is broken down into several dimensions each linked to an end objective, such as ecological health, which are then further reduced to a set of means objective, such as fish and wildlife conservation. By considering their more tangible constituents, the analytic approach aims to make the hard-to-define spiritual and cultural values recognizable and include them into evaluation. Then, participants may be asked to individually express their preferences by assigning 'importance points' to each performance measure. According to Gregory and Slovic (1997), this can make possible conversion of perceived importance of one dimension in terms of another one, and the use of such a natural or constructed metric as a neutral unit can avoid provocative forms of value expressions such as the monetary value. Participants are not directly asked to substitute their held values for something incompatible, but indirectly so. Failing et al. (2007, p. 57) believe that this treatment can avoid 'the unnecessary controversy' involved in trading-off protected values. Psychologically, expressing importance is less challenging than evaluating a loss. The analytic procedure seeks to make trade-offs more explicit by framing them in a different way.

The overall importance for each option is calculated by aggregating the importance points assigned. The levels of aggregate preference for all the policy alternatives then become visible and comparable. The analytic approach facilitates learning to compare and make choice through focused calculative procedures presented

in a decision-friendly way. These procedures mainly serve and regulate individuals instead of groups.

Arvai et al. (2001) assess the quality of a deliberative decision according to three dimensions: participants' satisfaction, diversity of issues discussed, and improvement in knowledge. The first and third dimensions are assessed by the participants while the second the research team. Either way, these measures operate at the individual level. By these assessment standards, it is possible for a process of analytic deliberation to be judged as effective, even if it merely involves solitary thinkers provided with adequate decision supports and relevant information. Assessment of communicative dynamic is not given priority despite the process being called 'risk communication'. Another measurement is time consistency of preferences. Properly aided deliberations could change values and preferences, and preferences ideally would remain roughly stable after the process. Again, the assessment focus is individual rationalization.

Another set of assessment criteria for process validity concerns the extent in which accepted standards of decision analysis, which policy debates often lack, are met (Gregory et al., 2005). McDaniels et al. (1999) stress that decision quality depends more on a right decision framework than right people or right information, suggesting the importance of procedural scientific-ness over fairness. The other assessment criteria offered by McDaniels et al. (1999, p. 507-9) pertain to quality of recommendations and cost-effectiveness. A good public participation initiative is one that can provide useful insights to decision-makers and satisfactorily meet the given objectives at reasonable cost.

4.3 CONTRASTING WITH DEMOCRATIC DELIBERATION

Table 4.1 summarizes and compares the core features of the analytic and democratic

approaches to public deliberation. Analytic deliberation involves an expert-led learning process for engineering preferences by providing cognitive aids. Participants in need of education are required to adjust themselves to the expectations of the science. Under the rubric of democratic deliberation, participants are idealized as autonomous political agents charged to assess the merits of alternative proposals. They are given more room to reorganize the deliberative processes and, in effect, execute some of the deliberative principles.

Analytic deliberation aims at facilitating instrumental considerations, seeking logically consistent, systematical and efficient ways of value elicitation. In democratic deliberation, mutual recognition is regarded as a meaningful outcome. Although deliberative democrats favour a set of political ideals, it is not destined for a comprehensive moral end, from which a course of action in relation to resource allocation could be logically deduced from various options. There is little presumption of universal acceptance beyond basic rights. To the contrary, the analytic-deliberative approach takes utility maximization as such an end. Furthermore, value plurality is handled in different ways. Behind analytic deliberation is the philosophy of value reductionism, i.e. decomposing decision into smaller elements for isolated consideration. The democratic deliberative approach is not necessarily incompatible with moral integration, but it is far from a necessary criterion of good decision-making. Differences in perceptions of reality are not to be reduced for the sake of pragmatic needs. Reasonable differences are an acceptable outcome.

These differences indicate inconsistent elements between the two deliberative approaches. Three interrelated inconsistencies are identified, concerning the organizing principle, value pluralism and evaluative focus, respectively.

Table 4.1 Comparison of Analytic and Democratic Deliberation

1. Assumption	Analytic Deliberation	Democratic Deliberation
<i>Policy challenge</i>	Cognitive inability of individuals	Irreducible moral conflict
<i>Conception of value</i>		
- <i>Ontological foundation</i>	Monistic	Pluralistic
- <i>Dimensionality</i>	Multiple	Multiple
- <i>Comparability</i>	Strong	Weak
- <i>Source of value disagreement</i>	Different ways of information interpretation	Competing ethical principles
<i>Participatory democracy</i>		
- <i>Role of democracy</i>	Secondary	Primary
- <i>Relationship with science</i>	Aided by science	Scrutinize science
- <i>Role of the public</i>	Provide insights	Provide insights and/or make decisions
2. Strategy		
<i>Analogy</i>	Tutorial	Dialogue
<i>Imitation</i>	Natural cognitive processes	Political/social interactions
<i>Organization</i>	Expert-led	Participant-oriented
<i>Reflection</i>	Introspective	Inter-subjective
<i>Primary goals</i>	Correct preference; deepen case understanding	Contest preference; deepen mutual understanding
3. Procedure and Validation		
<i>Degree of behavioural intervention</i>	High	Low
<i>Decision steps</i>	Clarify values, think broad, make rational tradeoffs	Justify values, think broad, determine acceptability
<i>Value elicitation</i>		
- <i>Treatment</i>	Disaggregation and aggregation	Holistic assessment
- <i>Formal expression pathway</i>	Via natural or constructed metrics	Via speech
<i>Assessment criteria</i>		
- <i>For participants</i>	Self-assessed levels of satisfaction and knowledge gain; internal stability of preference	Level of reciprocity; inter-personal consistency of preference
- <i>For procedure and outcome</i>	Procedural scientific-ness; quality of recommendations.	Procedural fairness and openness; meta-consensus

4.4 ASSESSING DEMOCRATIC POTENTIAL

4.4.1 The Fallacy of Impartial Deliberation

Impartiality demands that reasons given by the individuals be acceptable to anyone who is similarly situated in morally relevant respects. Impartiality differs from reciprocity because it ‘demands that reasons be *impersonal*, requiring citizens to suppress or disregard their partial perspectives and individual projects’ (Guttman and Thompson, 1996, p. 54). That is,

Impartialists can recognize the existence of moral disagreement...but they regard it as a sign that moral reasoning has failed. At least one of the reasoners has erred, one or more have not carried the reasoning far enough, or else the problem itself is beyond the capacity of mortals to resolve. In the face of disagreement, impartiality tells us to choose the morally correct view and demonstrate its correctness to our fellow citizens, who, if they are rational, should accept it. (Gutmann and Thompson, 1996, p. 59)

Deliberating citizens must give reasons that would be justifiable from an impersonal perspective. The goal of this process is to establish a comprehensive moral view applicable to *all*. Other citizens are then bound to accept value claims as reasonable so long as they meet the doctrine. The function of deliberation becomes demonstrating conformity by all citizens to that moral doctrine. There is no requirement for mutual justification or debate.

Based on utilitarian compensation the analytic approach enforces an impartiality principle and therefore displaces the need for actual communication. Deliberative opportunities have been used to advance case-related knowledge comprising ‘fact-based inputs (what is) and value-based inputs (what ought)’ (Failing et al., 2007, p. 50). It is

believed that value questions need clarification rather than refutation:

Exploration of value-based knowledge (priorities and preferences) on the other hand, must focus on seeking clarification and understanding rather than corroboration or refutation...The quality of a value claim will be related to clarity, consistency and explicitness. (Failing et al., 2007, p. 50)

The idea that normative questions about public goods, which affect the well-being of other people or species, can be satisfactorily answered merely by clarifying knowledge content is doubtful. To settle such a 'what ought' question, an individual has to either justify their claims or refute those of others. The question is a matter of judgment rather than preference (Holland, 1997). Convincing justifications or refutations must go with reasons which in principle could be rejected even if sufficiently clarified. Clarifying attempts not prepared to be challenged belong to a preference-type question, rather than a 'what ought' question. If a clarifying attempt requires acceptance from a second party, it would become a kind of justification and turn the discussion to a value debate.

Yet, analytic deliberation is actually a programme of demonstration, although 'justification' is stated as needed at various points. The principle of impartiality requires a process of demonstration whereas reciprocity requires deliberation (Gutmann and Thompson, 1996). It relies on objective evidence and factual information to enable the individuals to see which policy option is the best according to *the* universally acceptable criteria. Analytic deliberation fits squarely into this notion. This is evidenced by its emphasis on evidential basis and clarification, and scepticism to opening philosophical debates and unnecessary controversy (Failing et al., 2007). Further proofs are evident in those general statements in favour of objectification of value expressions and scientific rationalization of public participation.

There is little room for value debate and the normative question of 'why to do'. It is then dubious to employ democratic vocabularies such as 'justifying knowledge

claims’, ‘to debate...competing claims’, ‘normative judgment’, ‘legitimate forum’, and ‘constructive dialogue...about values’ (Failing et al., 2007). ‘Justification’ has been understood as justifying the knowledge content of validity claims (demonstrating), which differs from justifying value content. The former accepts knowledge upon perfect validation in objective terms, whereas the latter could still reject knowledge despite validation. Under such an approach, to make an impartial public decision, policy-makers need no more than collecting the most credible evidence and demonstrating it to the public. This is all the justification required. There is no moral need for mutual justification and actual discussion. The merits of analytic deliberation diminish with the intensity of fundamental social conflict. This indicates a departure from the concept of deliberative democracy to which the opposite applies.

Democracy without value debate is problematic. With commensurability assumed and value debate avoided, what the analysts would need is simply a well-designed questionnaire and a computer, not group deliberation. Where deep moral conflict is at issue, analytic deliberation can hardly produce feasible agreements without compromising some democratic principles. Crafted along the line of a hard science it threatens to excessively limit the range of values being articulated.

4.4.2 The Engineer Mentality and the Meta-democratic Problem

A function of analytic deliberation is exposing differences. However, not all positions are reasonable so that some of them should be excluded through democratic processes. Deliberative democracy demands that discursive space be sufficiently open and seeks reconciliation within deliberation. Analytic deliberation offers no decision principle that is exercised within deliberation to identify and exclude unqualified proposals. Otherwise the deliberating individuals would have been allowed to reject other people’s claims on acceptable grounds. Instead, they are led to merely learn from each other.

Learning could be an uncritical experience without contesting each other's claims. Thus value contest is not encouraged and the 'tutorial' is used as analogy.

The emphasis on an evidential basis could be regarded as such a decision principle. However, its formulation and execution is external to the deliberative process from which political legitimacy is sought. Value claims must be made measurable and articulated in universally acceptable and objective terms. The definition of these terms is circumscribed by the scope of decision science. Following Keeney (1992), Gregory and Failing (2002) devise a value-articulating framework based on three criteria, namely, measurability, operationality and understandability. The strategy is not to empower participants to determine acceptability, but to determine acceptability on their behalf by limiting the discursive space *a priori*. Diverse perceptions of reality are reformulated in accordance with the predefined rules. Such rules or instructions were adopted by Failing et al. (2007), but appeared to be constraining from the perspective of their aboriginal respondents⁴.

A defensive response is that uninformed, ignorant public may fall captives of interested stakeholders or agencies (Gregory et al., 2005). Gregory et al. (2005, p.7) add that 'To create a better-informed public, the managers of deliberative processes must circumscribe the potentially relevant facts and set priorities among them'. However, informing (forming) public will in this way too is open to manipulation. Manipulative intent might be hidden behind alleged scientific rigour. It is not uncommon that scientists supported by industrial or political organizations with vested interest are caught for selectively defining irrelevance and arbitrarily setting priorities in favour of a preferred agenda that could guarantee continuous support (Spash, 2010b). The top-down analytic approach is predisposed to a particular social state and problem definition which ought to be subject to a democratic process. This raises a meta-democratic

⁴ These respondents 'rejected the notion of placing a value on heritage sites and making "trade-offs" about a resource of such deeply spiritual value' (Failing et al., 2007, p. 56)

problem.

Analytic deliberation embraces, in Anderson's (1993) terms, a secondary conception of value plurality which captures diverse authentic standards of evaluating qualities of goods. However, it falls short of a primary one based on a plurality of evaluative attitudes by which goods are sensibly valued in different ways. This conception pertains to the extent in which goods are *appropriately* valued and may be independent of their meeting any authentic evaluative standard. With 'why' and 'ought' questions avoided, analytic deliberation fits well to the opposing monistic view that 'all goods are the proper objects of a single evaluative attitude' (Anderson, 1993, p.4). Alternative evaluative modes are restricted. The reduction to a mono-criterion decision may unnecessarily strip-off some culturally specific ways of organizing value 'language' and preclude individuals from expressing ethical propositions based on moral conviction and emotion (Satterfield, 2001). Anecdotal and rhetorical forms of expressions are put at a disadvantage.

Expert cultures could pose threats to value pluralism (Spash, 2009). Failure to democratically elicit values limits the plurality expressed. Failing et al. (2007, p. 50) claim that some but not all science is reliable. Being strong advocates of decision science, presumably they believe that their science is reliable. This gives license to applying restrictions to the agency of participants in validating the selected frame of analysis, let alone taking issue with the decision experts. The limited procedural flexibility has led to selective inclusion of agendas. To the contrary, deliberative democrats hold that both deliberative design and even principles are redeemable in their own terms and that outcomes remain indefinitely provisional and revisable (Dryzek, 1990, 2000). Value pluralism is considered a concept to be defined in a public context on a continual basis. The schematized analytic-deliberative framework requires values be expressed in a particular shape compatible with some scientific predispositions.

Science itself offers a way by which to value things. Circumscribed within the scope of decision science, the range of values articulated is predetermined, paradoxically, by one kind of value meant to be openly debated. The incremental movement from one science (neoclassical economics) to another (decision science) offers minimal potential for value pluralism.

4.4.3 Subject-centred Evaluation

A subject-centred view of public deliberation is tightly linked to serving the values and interests of individuals and groups (Renn et al., 1995a). An option is chosen for its ability to satisfy the dominant values and interests. Renn et al. (1995a, p. 7-8) contend that people's values and interests are nearly always diverse, so participatory process must have losers by any evaluative criteria. Philosophically, then, no evaluation could be justified over another. This view sees public participation as a zero-sum game. In practice, it is hard to not recognize certain justice principles as legitimate, such as equality and efficiency. Forcing people to accept one side only is likely to lead to a vicious cycle of conflict. It is better to interpret some social goals as demanding balance and recognition, such as religious pluralism and multiculturalism. These goals could be 'satisfied' only by simultaneously satisfying the preferences of competing groups, which seems unattainable given resource constraints. A better evaluative focus concerns people's interaction in which recognition of shared values and reasonable differences are realized. A subject-centred view gives little credit to the role of inter-subjective communication in seeking fair terms of social cooperation.

Analytic deliberation promises informed individual thinking processes, whereas social interaction plays a minor role. Efforts at aiding decision are based on the satisfaction of values and interests of the individuals to the greatest extent. This makes little room for the virtue of mutual respect that could lead participants to recognize or

agree on a course of action for reasons that deviate from their personal values or interests. The idea of a ‘workable agreement’, based on varied values and interests and coordinated through communicative norms, is not taken as a criterion of ideal deliberative outcome. Choices divorced from one’s well-clarified objectives would be discredited as a product of cognitive failure. A successful workable agreement might then be relegated to an inferior solution, because the decisions of at least some of the participants deviate from their own values and interests.

Value conflict is resolved ultimately not by striving for mutual acceptance or recognition, but indirectly by deriving an algorithmic solution from an aggregation of individual decisions. Attainment of inter-subjective understanding is not taken as a criterion of success. With the algorithmic solution rationally arrived at, a deliberation might be judged as successful, irrespective of the extent to which diverging participants appreciate rival viewpoints and mutually respect each other.

Merely enabling disagreeing individuals to speak and express their preferences does not constitute a sufficient condition for deliberative democracy. Of more importance is the capacity to *listen*, which is crucial to respecting irreducible diversity out of empathy. Gregory et al. (2001) admit that analytic deliberation does not aim for conflict resolution. Where deep moral conflict is at issue, such a calculation-oriented deliberative approach might reach a rational decision without giving the affected individuals adequate respect and motivation to genuinely cooperate and contribute to a collective action. The inadequacy of inter-subjective encounters may deplete the moral qualities which are essential to a democratic state.

4.5 CONCLUDING REMARKS

The analytic approach to deliberation seeks to strengthen the scientific rigour of group decision-making processes. The starting point is the pathologies of public deliberation,

including the incompetence of individuals expressing preferences, the ambiguity involved in unconstrained dialogue, and the wishful thinking of democratic theorists and philosophers. In other words, this approach primarily aims to correct problems associated with democracy. Science (decision science) is being used to rescue participatory democracy, rather than the other way around which is seen as a potential contribution of deliberative democracy. The notion of analytic deliberation is therefore separated from its democratic counterpart.

As discussed in Chapter 2, a sound value theory that is conducive to value pluralism rests on a structural reconstruction of the ways in which things are valued. Neither variation in the valuational substance nor perspective alone suffices. Deliberative democracy warrants credits for raising prospect for a new structural relation to the natural environment and society through a communicative rationalization of political and social order. Analytic deliberation seeks to advance instrumental rationality with a more sophisticated scheme of value elicitation. The underlying philosophical system, however, remains unchanged, if not being reinforced. A value theory under this tradition has limited pluralistic potential. Nonetheless, monetary valuation of the environment has suffered from individuals lacking competence to provide internally consistent monetary expressions. Decision analysis therefore has a pragmatic role to play where a great deal of ecological complexities are at issue.

I have shown that the territories where deliberative democrats and decision scientists lay their claims about public deliberation differ in many important aspects. Despite this variation, the current practice of DMV has been grounded on both. Practitioners have come to realize that both value pluralism and analytical robustness are crucial to redeem the stated preference approaches. The dilemma facing DMV is then that its two intellectual sources come into serious conflict. The practice has been split into two streams.

CHAPTER 5

DELIBERATIVE MONETARY VALUATION (DMV): COMBINING ECONOMICS AND POLITICS

5.1 INTRODUCTION

Deliberative monetary valuation (DMV) is an exemplary product of the deliberative turn in environmental valuation. It involves valuing the environment in monetary terms through some deliberative procedures. The body of literature has grown rapidly during the past few years with variations in assumptions and designs. Unfortunately, the proliferation turns out to be a deliberative ‘rush’. Some DMV applications have been criticized for engaging in rhetorical use of deliberative methods to repair and revalidate state preference methods to justify neoclassical economic approaches (Spash 2008b, Jorgensen 2009). While this failure has its root in the second current (analytic deliberation), those DMV initiatives drawn on democratic theories are far from flawless.

The two intellectual currents have contributed to a divergence in the practice of DMV. While there is much in conflict, some conceptual limitations are shared. In this chapter I not only provide a descriptive account of the practice, but also seek to substantiate the earlier critique by elaborating on a larger body of literature and lay grounds for a conceptual re-orientation. It is a response to the concerns raised and proposals in relation to the role of DMV and the import of the monetary value determined. The first section gives an overview of the project. I then show the conceptual variations in the earlier attempts and their limitations in light of a theory of deliberative democracy. An alternative conceptualization is outlined in the third part.

5.2 OVERVIEW OF PRACTICE

In DMV, the procedure of quantifying environmental values in monetary terms is preceded by a dialogue or deliberation amongst the valuing agents. Participating individuals form small groups to share information and raise concerns about a proposed environmental change. They are typically supported and guided by practitioners or researchers and given opportunities to discuss prior to stating a WTP, or WTA. The deliberation may be concluded with voting or a unanimous consensus. The value obtained is meant to be of potential use in project appraisal, cost-benefit analysis or other formal decision processes. Design varies but deliberative sessions usually last a few hours and may be repeated over several days.

A great variety of intellectual traditions is involved in the development of DMV. From the first theoretical discussions in the 1990s, the method attracted attention from a range of disciplinary experts including not only mainstream and heterodox economists, but also social psychologists, decision scientists, applied philosophers and political scientists. The key aspects of the existing DMV studies are summarized in Table 5.1. The notion was first proposed with explicit reference to democratic theories by Jacobs (1997) and Sagoff (1998). Decision scientists, notably Gregory et al. (1993) and Gregory and Slovic (1997)⁵, have also participated in the movement, yet from a behavioural psychological point of view. Later attempts are typically influenced by both perspectives to varying extents.

⁵ This chapter is based on their group-based *monetary* valuation studies. There seems to be some overlapping with the last chapter. But this is just because these studies share the same scientific system with those (non-monetary) risk assessment exercises reviewed earlier. This clear resemblance reflects their intellectual linkage, which is what I want to point out. The overlapping has been minimized by their drawing on different sets of publications, although it can hardly be completely avoided.

Table 5.1 Summary of the key aspects of previous DMV studies

Author	Author's Academic Background*	Major Theoretical Account**	Representation of Interest / Perspective ^	Primary Decision Rule / Expected Outcome	Forms of WTP Proposed / Adopted ^^	Case Study (Y/N)	Study Area	Study Topic	Payment Vehicle
Gregory et al. (1993)	Decision scientist	Decision science; social psychology	Consumer	Individual statement	Charitable contribution	N			
Brown et al. (1995)	Economist; psychologist	Ethics	Public	Consensus	Arbitrated social	N			
Jacobs (1997)	Economist	Deliberative democracy	Any relevant	Voting	Arbitrated social	N			
Sagoff (1998)	Philosopher	Deliberative democracy; ethics	Public	Consensus	Charitable contribution, fair price, and expressed social	N			
Ward (1999)	Political scientist	Deliberative democracy	Public	Consensus or 'dissensus'	Arbitrated social	N			
Gregory (2000)	Decision scientist	Decision science; social psychology	Consumer	Individual statement	Charitable contribution	Y	Oregon, U.S.	Old-growth forests [#]	Household expenses
Gregory & Wellman (2001)	Decision scientist; economist	Decision science; social psychology	Any relevant	Individual statement	Expressed social	Y	Oregon, U.S.	Estuary planning	Public funds
Niemeyer & Spash (2001)	Political scientist; economist	Deliberative democracy	Any relevant	Consensus	Not specified	N			
Macmillan et al.	Economist	Welfare	Consumer	Individual	Charitable	Y	Scotland,	Goose	Tax

(2002)		economics		statement	contribution		U.K.	conservation	
Wilson & Howarth (2002)	Economist	Deliberative democracy; ethics; social psychology	Public	Consensus	Arbitrated social	N			
McDaniels et al. (2003)	Decision scientist	Decision science; social psychology	Not specified	Individual statement	Charitable contribution	Y	Canada	Fisheries production	Electricity costs
James & Blamey (2005)	Economist	Deliberative democracy; welfare economics	Any relevant	Voting	Arbitrated social	Y	Australia	National park management	Levy
Philip & Macmillan (2005)	Economist	Welfare economics	Consumer	Individual statement	Charitable contribution	Y	Scotland, U.K.	Wildlife conservation	Tax
Álvarez-Farizo & Hanley (2006)	Economist	Welfare economics	Consumer (session 1); public (sessions 2 & 3)	Individual statement (sessions 1 & 2); voting (session 3)	Charitable contribution (sessions 1 & 2); fair price (session 3)	Y	Spain	Water quality improvement	Household expenses
Howarth & Wilson (2006)	Economist	Deliberative democracy; social psychology; welfare economics	Public	Consensus	Arbitrated social	N			

Macmillan et al. (2006)	Economist	Welfare economics	Consumer	Individual statement	Charitable contribution	Y	Scotland, U.K.	Green energy & endangered species conservation	Electricity costs & annual subscription to a trust fund, respectively
Urama & Hodge (2006)	Economist	Welfare economics	Consumer	Individual statement	Charitable contribution	Y	Nigeria	River basin restoration	Annual subscription to a trust fund
Lienhoop & Macmillan (2007)	Economist	Welfare economics	Consumer	Individual statement	Charitable contribution	Y	Iceland	Wilderness conservation	Electricity costs
Spash (2007)	Economist	Deliberative democracy; ethics	Any relevant	Consensus or 'dissensus'	Arbitrated social	N			
Spash (2008)	Economist	Deliberative democracy; ethics	Any relevant	Consensus or 'dissensus'	Arbitrated social	N			
Álvarez-Farizo et al. (2009)	Economist	Welfare economics	Public	Individual statement (sessions 1 & 2); voting (session 3)	Charitable contribution (sessions 1 & 2); fair price (session 3)	Y	U. K. & Spain	Radioactive contamination	Tax; daily living cost
Dietz et al. (2009)	Psychologist; sociologist	Deliberative democracy; social psychology	Any relevant	Individual statement	Charitable contribution	Y	U. S.	Greenhouse gas emissions reduction	Not specified
Ito et al. (2009)	Economist	Welfare economics; deliberative	Not specified	Individual statement (sessions 1 & 2);	Charitable contribution (sessions 1 & 2);	Y	Japan	Wetland restoration	Tax

		democracy		2); voting or consensus (session 3)	fair price (session 3)				
Jorgensen (2009)	Psychologist	Deliberative democracy; social psychology	Any relevant	Consensus or 'dissensus'	Not specified	N			
Robinson et al. (2009)	Economist	Welfare economics	Public	Individual statement	Charitable contribution	Y	Australia	Water quality improvement	Levy

Notes:

* For the first and second authors only. This is a general description though since many of them work across disciplines.

** Based on my interpretation, although it is sometimes specified by the authors. Typically, these papers covered most of the relevant theoretical accounts to varying degrees. Those listed in this column are perceived to be at work.

^ The type of interest or perspective that the deliberators are expected or encouraged to represent during deliberation, or one that is understood by the authors as factors at work (for empirical studies)

^^ Based on the four categories presented in Table 5.2. Here the WTP is classified according to the processes in which it is formed, based on our interpretation. The original authors may not agree with the classification.

The valued goods were policy options which consisted of a bundle environmental and non-environmental goods.

A more solid structure than the earlier attempts has been formulated by Howarth and Wilson (2006) and Spash (2007). DMV is proposed as a discourse-based valuation approach that captures concepts from economics, politics, social psychology, and ethics, and is established upon a wider range of assumptions concerning human values and behaviours than the CVM (Howarth and Wilson, 2006). It combines economic and political processes in valuing the environment (Spash 2007). The standard economic approach of environmental valuation is couched in terms of a microeconomic model where individuals are construed as utility-maximizing consumers engaging in a market transaction and an exchange value is intended. (Figure 5.1). DMV, on the other hand, involves a political process where individuals express various concerns and reflect upon preferences within a social setting (Figure 5.2). Participatory opportunities are provided to enable preference transformation and internalization of non-economic values.

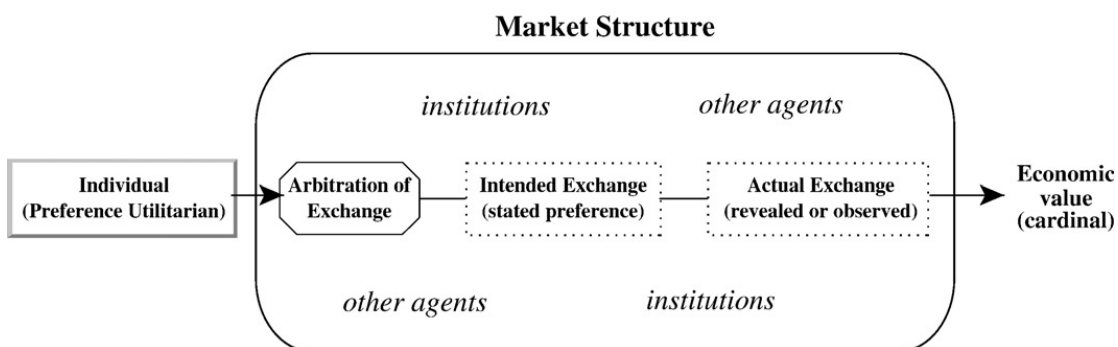


Figure 5.1 The economic process of valuation

Source: Spash (2007)

As shown in Table 5.1, empirical attempts proliferate since the early 2000s and have been dominated by economists. Still, some of them are not restricted to the conventional economic models. Decision scientists and social psychologists have a strong presence, although the former rarely appeal to the democratic ideals. As far as the preferred experimental features are concerned, those economists who are influenced by

the democratic theories are divorced from their welfare-economic counterparts. Support for consumer-type perspectives largely come from economists. Most of the theoretical works appreciate the consensual, aggregated social WTP approach. Of which, those who are sceptical to the likelihood of achieving genuine consensus have explicitly recognized reasoned disagreement, or ‘dissensus’, as an acceptable outcome. To the contrary, the majority of the empirical studies are built upon individual valuation and the contribution model, whereas none adopts the democratic ideal of consensus. It is then natural to use tax or household expense as the payment vehicle. Study topics included a wide range of environmental issues. Until recently, few were conducted in non-English-speaking countries.

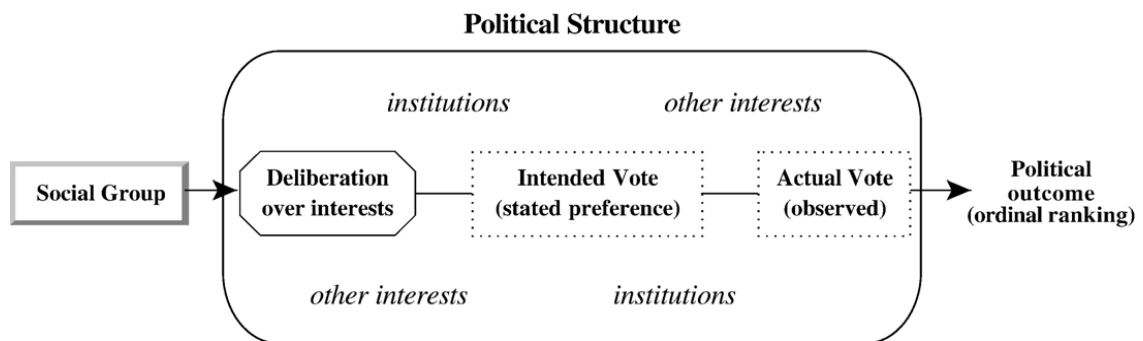


Figure 5.2 The political process of valuation

Source: Spash (2007)

Notwithstanding the prospect of ‘the best of both worlds’ (Spash, 2007), there are doubts as to the appropriateness of DMV in providing valid benefit estimates for economic analysis. Concerns are couched in terms of, to name a few, statistical representation and stability of response (Powe, 2007), failure to deal with necessary tradeoffs (Orr, 2007), WTP question format (Aldred 2005), and poor communication skills of participants (Turner et al., 2010). DMV is also questioned on philosophical grounds for unnecessarily reducing plural values into a single metric which invariably violates the incommensurability of ethical values (Vatn, 2005; O’Neill, 2007). In

general, this philosophical critique means that ensuring procedural openness and a cognitively sound decision structure does not change the fact that DMV remains a kind of economic valuation and as such reduces plural values into a single metric, i.e. dollar. Ethical considerations are compressed and non-economic values are forced into the economic frame or excluded, with little room left for concepts such as inviolable rights. Critics contend that there is no hope for the endeavour of rights and equity so long as a money value is assigned. For example, Vatn (2005) points out that DMV is based on a contradiction, because:

It mixes collective reasoning and consensus building over principles and norms with individual trade-off calculations. It combines a VAI based on capturing incommensurability with one that is focused on commensurability. It mixes a VAI directed towards the 'We' with one based on an 'I' perspective. (Vatn, 2005, p. 361)

Such scepticism seems warranted. However, as will be argued, the issue here is not *I* versus *We* perspectives but rather the imposition of impartiality and the prevalence of a utilitarian philosophy underlying DMV.

5.3 FROM DISCIPLINARY FAILURE TO MULTIDISCIPLINARY SYNTHESIS

The development of DMV by multiple disciplines has contributed to some variety in conceptual models. The variations are broadly attributable to two widely discussed limitations of stated preference approaches to environmental valuation. First is a concern I refer to as the internal critique expressed by economists that individuals confront too difficult a task when being asked to value an environmental change in monetary terms during a relatively short interview or survey (e.g. 15 to 20 minutes).

Typical arguments are the lack of time to reflect or engage in arbitrage (MacMillan *et al.* 2002, MacMillan *et al.* 2006, Robinson *et al.* 2009) and respondents' inadequate cognitive capacity to understand the welfare tradeoffs being requested under such circumstances (Gregory and Slovic 1997, Gregory 2000, McDaniels *et al.* 2003). Individuals who are then classified as giving 'irrational' response, as a consequence, are regarded as falling short of standard economic assumptions underpinning stated preference approaches. Among practitioners expressing such positions there is a belief that people should behave more economically.

Second is what I term the external critique. This is a concern by both economists and non-economists that stated preference approaches restrict the type of values which an individual is able to express. For example, respondents may be forced to act as consumers rather than citizens (Sagoff, 1988), or those adopting rights-based rationales may be treated as protestors or expressing irrational lexicographic preferences (Spash 2000, Spash 2008a). Under this critique, stated preference approaches overlook concerns over procedural justice, non-utilitarian ethics and the role of social norms, because they are built upon the assumption of monetary commensurability, (Jorgensen *et al.*, 2001; Spash *et al.*, 2009). Standard economic assumptions then fail to properly capture the plural values held by individuals concerning a collective choice about the environment. There is a belief amongst DMV advocates expressing such positions that economics should embrace plural values or be qualified by alternative values.

There are thus two contrasting ways to justify the idea of DMV: one questioning the capacity of individuals, and the other questioning the economic frame. Those practitioners who put more weight on people's limited cognitive abilities tend to run DMV as a tutorial or educational workshop to improve the face validity of their results. Those who regard values as being excluded emphasise institutional design, procedural fairness and the articulation of alternative ethical basis for values. This is not

necessarily a sharp dichotomy and as will be shown later there are some shared basic perspectives.

This distinction is in addition and complementary to the value classification of DMV studies presented by Spash (2007, 2008b) (Table 5.2). This explains social value under standard stated preference techniques as typically calculated by asking individually focused valuation questions of respondents, who decided as individuals. A DMV exercise designed to address the internal critique does not need to withdraw from the methodologically individualistic economic frame and the procedure of preference aggregation. However, the group process involved makes individual values into ‘charitable contributions’. Methodological individualism could also be maintained to derive a recommended aggregated value or an ‘expressed social WTP/WTa’.

Table 5.2 Forms of value expression in DMV

Value provider	Terms in which WTP specified	
	Individual (disaggregated value)	Social (aggregative value)
Individual in a group setting	Charitable contributions	Expressed social WTP/WTa
Group	Fair price	Arbitrated social WTP/WTa

Source: Spash (2007, 2008b)

In contrast, a DMV addressing the external critique is likely to appeal to group procedures and break with strict methodological individualism. Influenced by the idea of deliberative democracy, the process requires individuals openly communicating with each other. The standard economic practice is called into doubt and replaced by political processes which include group decision-making. This leads to either a ‘fair price’ or an ‘arbitrated social WTP/WTa’, depending upon whether the value is at an aggregate level or not.

This variety in problem definition allows a clear distinction to be drawn in terms of the WTP category favoured by different DMV advocates, as shown in Table 5.3. The

practitioners are split into two groups: one advocating ‘charitable contributions’ whereas the other ‘arbitrated social’. The former is dominated by decision scientists and mainstream economists with a focus on empirical exploration, whereas the latter includes a group of heterodox economists informed by political theories exploring theoretical content. This indicates a gap between theory and practice reinforced by the long-standing conflict between mainstream economists and heterodox economists alike. The variation suggests that two currents are at work influencing the development of the method. It has also contributed to the multiple ways of understanding the monetary value expressed in a deliberative setting. More broadly, it has indicated the diverging approaches to ‘deliberative economics’.

Table 5.3 Recent DMV studies classified

Charitable contributions	Expressed social WTP/WTB
Gregory et al. (1993); Sagoff (1998); Gregory (2000); Macmillan et al. (2002); McDaniels et al. (2003); Philip & Macmillan (2005); Álvarez-Farizo & Hanley (2006); Macmillan et al. (2006); Urama and Hodge (2006); Lienhoop and Macmillan (2007); Álvarez-Farizo et al. (2009); Dietz et al. (2009); Ito et al. (2009); Robinson et al. (2009)	Sagoff (1998); Gregory and Wellman (2001)
Fair price	Arbitrated social WTP/WTB
Sagoff (1998); Álvarez-Farizo & Hanley (2006); Álvarez-Farizo et al. (2009); Ito et al. (2009)	Brown et al. (1995); Jacobs (1997); Ward (1999); Wilson and Howarth (2002); James and Blamey (2005); Howarth and Wilson (2006); Spash (2007, 2008b)

Extending Spash (2008a) Tables 1 and 2

However, the earlier theoretical explorations of DMV fail to make such a clear distinction. In fact, some seek to synthesise different intellectual traditions to establish an aggregative enterprise. Wilson and Howarth (2002, p. 432), for example, argue that DMV is ‘derived from a convergence of arguments from economics, social psychology, decision science, and political theory’. DMV is understood as a unifying institution. The competing conceptions about the role of the valuing agents (the public or stakeholders) and the inquirer (scientists or social scientists) are not explored. This neglects the conflict between the traditional classification of economics and psychology as conducting a scientific discourse, whereas politics and ethics are regarded as normative. The former tends to construe individuals as an object for predefined scientific treatment, rather than the latter’s approach to the individual as a subject within self-defined social processes. Aggregating these traditions is far from straightforward.

Another questionable assertion is that public deliberation, being a political activity, is inherently conducive to the pursuit of value pluralism, as individuals are exposed to a wider range of viewpoints (Jacobs, 1997; Howarth and Wilson, 2006; Vatn, 2009). A value pluralistic view recognizes and seeks to maintain multiple ways of valuing. While the opposite monistic view characterizes neoclassical economics, it too is present in the literature of political theory and philosophy. The criticism against some deliberative democrats who advance a singular conception of values (see Dryzek, 2000) suggests that organized participatory processes may end up with closing-down alternative values (Stirling, 2006). History has shown that participatory engagement does not always guarantee pluralism.

This means the literature on DMV needs to be distinguished on two contrary grounds. First, there are contrasting approaches arising from the internal and external critiques. Second, there are unexposed problems facing all approaches because of some commonly held methodological positions. I first further explain the distinction between

the contrasting approaches before analysing the literature in terms of common organising principles.

5.4 TWO CONTRASTING APPROACHES OF DMV

5.4.1 Preference economization

Decision scientists and some resource economists favour an analytical form of deliberation which leads to preference construction in accordance with economic principles. The primary objective is to ease respondents' cognitive burdens. Adequate information and time to think and discuss are provided to tackle what are regarded as the problems arising from individuals' limited imaginations and calculating abilities. Behavioural psychological literature indicates that individuals do not hold informed, stable and pre-existing preferences (Peterson *et al.* 1988, Kahneman and Knetsch 1992, Kahneman *et al.* 1999), and often fail to meaningfully express their entangled values (Gregory *et al.*, 1993; Gregory and Slovic, 1997). Monetary valuation of ecosystem goods and services can then be seen as an excessively demanding task. Protest and 'irrational' responses are explained in terms of cognition problems resolvable by preference engineering (Gregory, 2000; Hanley and Shogren, 2005). Practitioners then aim to implement a process whereby preferences are clarified, constructed and articulated in a cognitively rational manner. Strictly structured, informative group discussion is then regarded as a method for lessening the impact of impediments to WTP elicitation, such as bounded rationality.

The underlying problem diagnosis makes no philosophical arguments. Full commitment to this scientific-behavioural view protects some fundamental economic principles, including value monism. DMV is then devised to ensure more rational choice making by correcting ill-constructed preferences. Respondents can be guided

through a structured thinking process designed in accordance with MAUT (Gregory et al., 1993; Gregory, 2000; Gregory and Wellman, 2001). Under this formulation, they express preferences for each attribute by assigning weights, which can then be used as a basis for translating environmental values into equivalent money terms. Another stream of thought simply supplements stated preference approach with additional information and time, opportunities to share knowledge, and occasionally a citizen-type frame of reference (Macmillan et al., 2002; Robinson, 2002; Philip and MacMillan, 2005; Álvarez-Farizo and Hanley, 2006; Macmillan et al., 2006; Urama and Hodge, 2006; Álvarez-Farizo et al., 2007; Lienhoop and MacMillan, 2007; Álvarez-Farizo et al., 2009; Robinson et al., 2009). A modified exchange value is intended, and deliberative engagement is minimal, although in fact the process produces charitable contributions (Spash, 2008a). This divergence is neglected because of the way in which the valuation problem is framed.

Cognitive issues are considered as central to this preference construction approach. The starting point is individuals' inability to measure values in monetary terms rather than inherent incommensurability. 'Irrational' behaviours commonly documented in valuation studies are relegated to a first-party problem, i.e. it is the individuals who fail. Uninformed respondents need professional guidance to clarify values and this is supported by additional information and time for thinking. Moral dispute over values is irrelevant or unimportant because everything is assumed reducible to the cognitive difficulties. There is no need to subvert the economic frame; only better science is needed, i.e. decision analysis and consistency with economic theory.

Valuing agents cannot then be left to themselves. For example, Gregory and associates are highly sceptical of unaided value articulation. They offer a strictly structured valuation approach involving re-engineering of agents' mind in accordance with a *given* evaluative model (Gregory et al., 1993; Gregory and Slovic, 1997; Gregory,

2000; McDaniels et al., 2003). The evaluation tasks are designed to streamline personal heuristic reflection supported by group discussion. Moreover, it is believed that subjective values must be properly articulated using a quantifiable scale. Gregory and Slovic (1997) and Gregory (2000) suggest that the perceived importance of, say, preservation of old-growth forests, can be measured by the respondents assigning 'value points' to one arch of critical habitat. Value points are also assigned to a specified amount of money. Comparing the two sets of value points, which now become a common unit, allows translation of the value attached to forest preservation into money value. This procedure operates under the assumptions that the valued items are divisible without affecting their perceived importance and the values attached to them are commensurable. This group of researchers has designed their group-based monetary valuation surveys in ways that resemble their risk assessment initiatives reviewed in Chapter 4.

Some economists are preoccupied with some orthodox economic perspectives (MacMillan *et al.* 2002, Álvarez-Farizo and Hanley 2006, Urama and Hodge 2006, Álvarez-Fariza *et al.* 2007, Álvarez-Farizo *et al.* 2009). The purpose is stated as achieving a more robust exchange value. In most cases, the core valuation tasks are framed as a consumer-type decision-making process. One obvious outcome is arbitrary exclusion of protest responses which include those failing to genuinely consider the required economic tradeoffs, presumably because these confound the standard economic explanations (Spash, 2008b). A consumer frame is also sustained by Gregory (2000) who directly asked the participants to think about a market analogy (car purchase) as a demonstration.

The attempts of these economists are oriented to an information-deficit model. Robinson (2002, p. 97) employs citizens' jury to address the 'problems of information bias' observed in conventional valuation studies. Likewise, Urama and Hodge (2006)

are satisfied with their educational participatory workshop for overcoming the ‘challenge’ of information provision. The rhetoric bears some resemblance to Gregory’s strategy of easing human’s cognitive burdens by making information provision and learning more efficient. They believe that the principal problem is respondents lacking information to clarify their preference. The whole DMV experiment is designed to feed the valuing agents with adequate information and encourage personal reflection. The role of group discussion is trivial – helping participants ‘to learn what they want to know’ for making rational decision (Macmillan et al., 2002, p. 57). The processes are then in line with Gregory et al.’s (1993) suggested student tutorial analogy.

The economic preference construction approach emphasizes value elicitation at the individual level. Group discussion support individuals in making their choice rather than the other way round. This approach seeks to induce instrumental considerations by focusing participants on the possible practical consequences of their prospective choice, and enforce an intra-personal integration of values by making individuals more conscious and informed of the relevant knowledge relating to that choice. Public values are sought from the focused thinking on public interests, but the ideal deliberative WTP remains as an economic construct. This approach nurtures rational economic men.

5.4.2 Preference moralization

DMV theorists from a wide range of disciplines identify the principal problems of environmental valuation as inadequate opportunities for expressing values and inappropriate attention to non-economic considerations, including social norms, rights and procedural fairness (Vatn and Bromley 1994, Clark *et al.* 2000, Jorgensen *et al.* 2001, O’Neill 2007, Spash *et al.* 2009). Various attempts have been made to draw on political theories to establish more ethical, open and fairer value-articulating institutions (VAIs) (O’Hara, 1996; O’Neill, 2007; Vatn, 2009). Of particular interest to this group

has been the theory of deliberative democracy.

Preference moralisation follows this tradition by giving more credence to legitimacy issues, civic engagement, and social learning (Brown et al., 1995; Jacobs, 1997; Sagoff, 1998; Ward, 1999; Niemeyer and Spash, 2001; Wilson and Howarth, 2002; James and Blamey, 2005; Howarth and Wilson, 2006; Spash, 2007, 2008b). A social process is constructed in which participants bring forth a variety of perspectives, and debate and reflect upon their preferences. There is a strong emphasis on the interactive aspects. Participants are expected to exercise the virtue of reciprocity and appeal to the ‘force of the better arguments’ in a group process aiming for consensual outcomes. This approach actively pursues collective reflection on public interests beyond personal considerations.

Participants would typically have more freedom in agenda setting and calling expert witness than under preference economisation. After hearing expert presentations and discussion, participants provide a WTP estimate in the form of a value for society or individual contribution. In either case, some form of group agreement is desired, although minority positions are not excluded a priori. In general aggregated values are sought leading to arbitrated social WTP/WTB is preferred (see Tables 5.1 and 5.3). A democratic process, and not merely an economic estimation, is sought..

Value convergence under preference moralization (e.g., Ward, 1999; Sagoff, 1998; Brown et al. 1995; Wilson and Howarth, 2002) is couched in terms of public interests. There is a thread of argument that deliberation should be limited to *we*-perspectives. Sagoff (1998) argues against the usual practice that environmental valuation experiments are designed to elicit consumer preference based on *I*-perspectives. Instead, ‘a deliberative, discursive, jury-like research method emphasizing informed discussion leading toward a consensus based on an argument about the public interest’ is recommended (Sagoff, 1998, p. 213). In such a context, individuals might be asked to

deliberate without emphasising the welfare effect on individuals (Sagoff, 1998). Sagoff (1998), however, has ignored the fact that individuals often play the dual role of citizens and consumers simultaneously. Such a distinction is unrealistic and unnecessary.

In this regard, consider Brown et al.'s (1995) proposal in which representation of private or partial interests is completely excluded. The 'overriding objective' of their jury selection procedure is to avoid including those who have 'compelling personal interest': 'If a potential jurist's personal interest in the outcome is such that he or she is not likely to be willing or able to see and fairly consider the collective good, that person should be excluded.' (Brown et al., 1995, p. 256) Since all the jurors are required to act as society's representatives and set aside personal interests, such a strategy can quickly become reason-blind.

Ward (1999) generally follows the same line when prohibiting personal evaluations in a citizens' jury: 'Jurors are not asked to express their personal evaluations but their judgements about what environment quality is worth to society as a whole.' (Ward, 1999, p. 79) Despite this, he then asks people to defend their personal evaluations in a 'properly functioning citizens' jury': 'jurors would be forced to defend their personal evaluations because others would use these as evidence for making their own collective evaluations under extended sympathy.' (Ward, 1999, p. 91) The first statement renders the second logically redundant: if a participant is not allowed to express their personal evaluation there would be no reason to defend it. Elsewhere in the paper Ward (1999) accepts that participants appeal to personal childhood memory when deliberating on heathland preservation. Unfortunately he then again contradicts himself by suggesting that participants should not be asked to express what the environment is worth to them as individuals (Ward, 1999, p. 91). Such authors appear ambiguous towards the program of capturing public interests.

Wilson and Howarth (2002, p. 436) too suggest that participants should be

encouraged not to 'take a narrow or group-interested standpoint', quoted from Rawls (1971, p. 360). These authors are inattentive to the inconsistency between the Rawlsian approach and the different tradition of discursive democracy (another major strand of deliberative democracy theory). Espousing Rawls's ideal of 'original position' which promises singular values undermines the capacity of DMV to maintain value plurality (Spash, 2007).

While the ideal outcome value is singular as if it is articulated by a group of 'Rawlsian men'. Public values are sought from a conditionally open debate which focuses on collective well-beings exclusively. For this approach of DMV, the deliberative WTP obtained is informed by both facts and values. Unlike the constructed preference approach, debate on fundamental values is encouraged. The WTP manifests as a political construct for Sagoff, while it tends to be both political and economic for Howarth and Wilson.

The general aim of those advocating a preference moralisation approach is for consensus (Sagoff, 1998; Ward, 1999; Wilson and Howarth, 2002; Howarth and Wilson, 2006). They consider appeals to public interest as a means to overcome differences between multiple comprehensive doctrines like those required of the Rawlsian public reason. Seeking consensus in the light of public interest is to seek moral support from a shared tradition that is assumed to be acceptable by all parties involved. The feasibility of reaching consensus is self-justified by such an assumption. However, moral disagreement often arises from precisely the absence of a shared tradition. People subscribe to different ethical views and live in different traditions, sometimes simultaneously, i.e. act as both a consumer and citizen. This partially contributes to the incommensurability problems grappling with the stated preference approach. To ask all people to stop thinking as consumers is to silence that conflict altogether. That is, to impose such public-interest frames might unrealistically remove the fundamental

conditions of moral disagreement that deliberation is designated to address. Consumer-type respondents may still reasonably protest against the citizen frame. Silencing conflict cannot make a valuation theory free from the dilemma, irrespective of the type of values crowded out.

5.5 PROBLEMATIC ORGANIZING PRINCIPLES

Deliberative democracy affirms the role of mutual justification in pluralistic societies. This demands that proposed value claims be, at least in theory, ‘rejectable’ on their merits. Such a position is challenged both by the impartialist perspective common amongst preference moralisation approaches and the prevalence of utilitarianism common to both this and preference economisation approaches.

5.5.1 Impartiality

The impartial stance is reflected for example in Brown et al.’s (1995) participant selection strategy. In their ‘value jury’, facts are preceded by values as a deliberative focus. They link Harsanyi’s impartiality to Rawls’s (1971) ‘original position’, and argue for selecting participants who are capable of acting as agents of the larger public. The recommended selection criteria include: free of significant personal conflict of interest, willing and able to understand the issues and consider them objectively; possess adequate level of maturity, intelligence and education (Brown et al., 1995, p. 255-256). These criteria, however, prove to be excessively demanding. Logically, it excludes lay citizens and those holders of values who are affected by the decision involved.

The observation that Brown et al.’s (1995) approach of value jury is ‘firmly rooted in the principles of discursive democracy’ (Howarth and Wilson, 2006, p. 8) is unwarranted. For their recommended jury selection strategy and the philosophy behind,

it actually bears more resemblance to the Rawlsian approach than discursive democracy (see Dryzek, 1990, p. 43; (Dryzek and Niemeyer 2008). Howarth and Wilson (2006) appreciate Gregory's (2000) deliberative strategies. However, as Chapter 4 has shown (see also Lo, forthcoming a), Gregory's analytic approach is qualitatively different from, and at times competing with, its deliberative-democratic counterpart. The former is characterized by an expert culture and technocratic orientation, and therefore cannot survive some key democratic imperatives such as participant empowerment.

Howarth and Wilson (2006) attempt to demonstrate cross-disciplinary relevance. They draw on Dryzek's (1990, 2000) discursive democracy, which emphasizes contestation of discourse and condemns hierarchy following the tradition of critical theory. But their deliberative ideal of 'aggregation by mutual consent' subscribes to the normative model of liberal democracy advocated by, among others, John Rawls. The Rawlsian approach is hinged on a set of 'superior' political ideals functioning as a singular conception of values; acceptance of which would weaken the moral need of actual deliberation by citizens (Dryzek, 2000; Bohman, 1996). This makes their DMV model unfit to the critical strand, which challenges the idea of impartialist pre-accepted universal appeal (Dryzek, 2000).

5.5.2 The Prevalence of Utilitarianism

Utilitarianism appears in the context of DMV as a common moral doctrine which is a specific form of the imposition of impartiality. It clearly underlies the value system of those analysts who are strongly committed to meeting pragmatic policy needs. Gregory and associates have applied the MAUT to a group CVM process (Gregory et al., 1993; Gregory, 2000). Those practitioners theoretically grounded in decision science attempt to make valuing agents thoroughly think through each key dimension of

an issue and systematically construct and express their values. The outputs are then mathematically combined to form a summary measure. The final calculation is based on 'expected utility'; a single utilitarian value structure is embraced. As Gregory et al. (1993, p. 188) state:

The eventual goal is to find a single hierarchy of values that all the shareholders can agree is complete. The values hierarchy must also be built with due concern for the form of the utility combination rule.

The nature of values as perceived by these decision scientists can be traced back to the value-focused model sketched by Keeney (1992), in which values are understood as 'what we want'.

Other DMV preference construction practitioners place a strong emphasis on the psychology of information processing, while operating under an orthodox economics framework. Some are keen to deny or hide the validity of non-utilitarian responses which are commonly found in conventional CVM studies (Spash, 2008b). Álvarez-Farize et al. (2007, 2009), for example, seek the 'committed value of a citizen' but are reluctant to give credit to rights-based dimensions, probably because this would cast doubt on their favoured utilitarian framework. Such perspectives are remainder to being 'things' which fall under the valuers' economic preference in an undefined way. Thus, they state: 'the willingness to pay will not only include those things that favour individuals, but also those that favour the community' (Álvarez-Farize et al., 2009, p. 790). The 'Market Stall' approach adopted by Macmillan et al. (2002, 2006), Philip and Macmillan (2005) and Lienhoop and Macmillan (2007) is designed to lead people to think like consumers making purchase decisions in real markets. This approach is not called citizens' juries because, as Macmillan et al. (2002) explain, it attempts to combine (only) the 'desirable features' of citizens' juries – presumably referring to the opportunities of discussion and information sharing – with economic valuation.

Non-economic considerations are precluded by removing the ‘undesirable’ features.

The philosophy of utilitarianism can also be found in Gowdy and Parks (forthcoming), who argue that deliberative valuation is consistent with findings from contemporary welfare economics. A contribution of research into group processes, as they see it, is to ascertain situations that give humans utility. They conclude that individuals are the best judges of what is best for themselves and endorse Bentham’s utilitarian principle of the ‘greatest good for the greatest number’ as a basis of environmental policy-making. The theory seems at odds with the principles of mutual justification (which seeks approval from other citizens) and granting minority voices equal deliberative status.

The proposal of Ward (1999) is stated to be based on Harsanyi’s utilitarianism. His normative ideal requires that individuals put themselves into others’ shoes, extending their sympathy to others’ interests. So long as a natural entity has interests that people would empathize with, a utility function can be ascribed to it. Such utility functions ‘reflect the idea that it best serves interests if expected utility is maximized’ (Ward, 1999, p. 90). Those interests admitted to citizen deliberation must be impersonal, as indicated by the preference for citizens to engage in the ‘norms of impartial debate’ (Ward, 1999, p. 79).

Deliberatively elicited monetary values are interpreted by James and Blamey (2005) with a welfare-economic framework. While these authors are sympathetic to the idea of deliberative democracy, they pursue an ‘economic interpretation’ of the elicited values in terms of a social welfare function and social optimality. Although they consider a citizen-type frame of reference more appropriate than a consumer one, it was relinquished to a ‘purchase model typically assumed in environmental economics’, in order to make the WTP estimates compatible with traditional CBA (James and Blamey, 2005, p. 238). Yet this does not preclude them from suggesting that a citizen perspective

was sustained.

Howarth and Wilson (2006, p. 11) define the deliberative groups' maximum WTP for increased environmental quality as 'the level of W [group payment] for which the group would be indifferent between implementing the proposed project and maintaining the status quo'. They note that the WTP is based on a standard utility function that summarizes preferences, beliefs and moral judgments and is not limited to a person's individual well-being or consumer preferences. Yet this does not preclude them from linking it to a maximization rule. Public deliberation is envisaged as a 'fair negotiating' process in which individuals engage in a search for maximization of group well-being.

Deliberative democracy does not exclude utilitarian calculation. However, if individuals holding diverse values are presumed and/or encouraged to follow a single comprehensive ethic, e.g. utility maximization, what is the point of debating values?

5.5.3 Crowding out deliberative democracy

Utilitarianism offers a single inclusive end as the proper home to all moral claims. The axiom of utility maximization challenges the pursuit of a deliberatively democratic state. Maximizing aggregate well-being leads to a neglect of partial and minority interest positions for which a reciprocal perspective must make room (Gutmann and Thompson, 1996). Such interests, however reasonable, are always marginalized by the maximization rule. This means the imperative of reason-giving fails to function properly. If a deliberative group is designated to make a decision that would guarantee a maximum social utility, participants would only need adequate supply of information and a process of corroboration, not reasoned debate. The moral role of DMV would be reduced to a pedagogical one emphasizing information exchange and clarification.

Dryzek (2000) attacks Rawls's (1997b) theory of public reason on the grounds that it could be undertaken by a solitary thinker, so that there is no need for actual

deliberation. Arguments that must be couched in terms potentially acceptable to all citizens require only personal reflection - setting aside material self-interest and weighing of arguments in mind. Accordingly, the best individuals to exercise public reason would not be ordinary citizens, but intellectual elites. The participant selection strategy recommended by Brown et al. (1995) would undermine the moral need for citizens to deliberate. As the logic goes, the best combination of deliberators would consist of, say, philosophers, economists, scientists, judges, etc. Those lay citizens who have to live with the decision made would be excluded. This unambiguously violates the basic principles of deliberative democracy.

Group deliberation is needed to introduce reasons that do not inherently possess universal appeal and to expose them to the possibility of being reasonably rejected. Unlike impartiality, the principle of reciprocity does not categorically exclude partial interests that can be connected to a generalizable domain and so necessitates actual deliberation.

Those who deliberately insert a specific preconception of public interest into their model are trapped in the same problem as the Rawlsian public reason which seeks *potential* acceptance from *all* members of society in light of liberal values. Since the reason is singular, it is destined towards a particular end wherever it is exercised; no interactive process is necessary to enable it to produce its conclusions (Dryzek, 2000). Thus James and Blamey (2005) correctly point out that if the participants act fully as citizens exercising the Rawlsian veil of ignorance and have perfect knowledge of relevant circumstances, limited representativeness would no longer be a problem. More precisely, in a such case authentic representation of idiosyncratic perspectives would indeed be meaningless, because all participants are bound to relinquish their specific concerns to an impartial stance. Although participants may discuss which sets of public interest to be privileged, downplaying partial interests by design would undermine the

arguments for invoking a communicative reasoning.

The Rawlsian public reason is something that citizens must adopt *before* debate (Dryzek, 2000). Yet, Wilson and Howarth suggest that the most appropriate value-articulating methodology is one that mirrors the Rawlsian ‘procedurally based public forum in which people are brought together to debate *before* making value judgments’ (Wilson and Howarth, 2002, p. 434, emphasis added). This view seems to be removed from the essence of the notion of public reason. Value debate is of little necessity if *the* reason has been endorsed as an overriding frame of reference. Authentic communication on a universally justifiable moral end is redundant as the reason sought is exogenous to it.

Under an orthodox MAUT approach, a multicriteria problem is replaced by a monocriterion one (Munda 1995). Like neoclassical economics, it cannot succeed without ‘tacitly asserting an individual dominant perspective and performance data set’ (Stirling 1997, p. 194). Philosophical debate avoided, group discussion is then assigned a supplementary role, serving to raise participants’ comfort and pool different evaluative judgements (McDaniels *et al.* 2003). Clarification of values, rather than justification, is the true purpose. This approach targets individuals’ cognitive failure, requires the use of impersonal expressions of values and regards demonstration of benefits and costs as key. Thus it fits squarely with the notion of impartiality. The whole project could be satisfactorily undertaken without actual discussion.

Any democratic principle predicated upon a preoccupied singular conception of values cannot be sustained in light of deliberative democracy. Deliberative valuation predisposed toward a utilitarian frame is not defensible. Couched in such terms, it would only result in a distorted notion of value pluralism.

5.6 PROSPECT FOR VALUE PLURALISM

What the literature reviewed has shown is that a researcher's preoccupations might lead to excessive intervention in the deliberative processes or even manipulation of outcomes (whether intended or unintended). Under both economisation and moralisation approaches, individuals are either required to strengthen their economic beliefs or transform attitudes toward a particular moral end. The proposed experimental controls appear to violate the requirement of value pluralism, which affirms the need for maintaining alternative values. An alternative conceptualization is then needed.

5.6.1 Expert Prejudgement and Bounded Reasoning

The foregoing DMV approaches raise the prospect for value pluralism but resort to an accepted ethical tradition. Deliberation of this sort is subject to restrictions on reasoning. The prospects for value pluralism are questionable if researchers deliberately downplay some reasons by design or force those not normally used in a given context into the deliberative forum. Worse is that some of the methodological preoccupations, such as 'no personal interest', should have been but are not open to debate as one of the candidate reasons. Research designs shape values as they are built upon some philosophical foundations. Debating values and beliefs but protecting the researchers' own from challenge is untenable from a deliberative democratic viewpoint. This leaves the project of facilitating reasoned pluralism undefined and undefended.

Economic preference construction strives to induce instrumental reasoning and focuses more on preference than reason. Cognitive failure amongst valuing agents is taken as the ultimate, overriding reason justifying the professionally aided deliberation. Other incompatible value positions have to be compromised to be considered. Firmly holding to the exclusively expert-led approach, Gregory and associates openly and firmly decline participants' autonomy in favour of a scientific deliberative design: 'the

scope of their role falls well short of a license to redesign the process' (McDaniels *et al.* 1999, p. 500). On this point decision scientists and economists are united. Powe (2007, p. 166), an economist who reviews the practice of DMV and leans towards preference economisation approach, believes that 'it may be considered inappropriate for the results from public consultation to directly determine the policy outcomes'. The economists' customary exclusion of 'irrational' responses also indicates a desire to protect some of the tenets of the neoclassical economic theory.

Exclusive we-perspective, whether utilitarian or other, is reason-blind. By restricting the deliberative space to considerations of public interest, the preference moralisation approach should be suspected for prejudging the problem at issue. The classic citizen-consumer dichotomy formulated by Sagoff (1988, 1998) is not very helpful for understanding environmental values in terms of green consumerism. Participant selection strategy preferred by Brown *et al.* (1995) might even silence potential protest against this treatment. Social utilitarian approaches like James and Blamey (2005) and Howarth and Wilson (2006) are committed to consensus-oriented deliberation for elicitation of informed economic value judgments. There is, however, no reason to expect that a deliberative WTP generated in accordance with communicative rationality is bound to conform to orthodox economic constructs.

Dietz *et al.*'s (2009) treatment is less restrictive than these others. They consider environmental valuation as asking an essentially political question that is open to various philosophical conceptions of values. They carefully avoid predefining the deliberative outcome as a utilitarian construct. Deliberative WTP is seen as 'emerging from a social dialogue about, among other things, whether to define value in terms of a utilitarian calculus or in some other way' (Dietz *et al.* 2009, p. 330). Thus the extent to which the value-articulating process should be framed in ways consistent with economics is an open question rather than taken for granted, as Niemeyer and Spash

(2001) and Jorgensen (2009) suggest. A procedure of anonymous tabling of reasons was used in Dietz et al. (2009) (also in James and Blamey, 2005). Each participant wrote down a list of reasons in relation to global warming and proposed one reason at a time. The proposed reasons were recorded and posted around the meeting room visible to all. The facilitator then asked for verbal comments on the listed reasons and prompted discussion. The process was repeated until all reasons were discussed. This approach enabled orderly argumentation over all concerns raised, and free articulation of reasons and their revision. It placed little restriction on the types of reason and forms of expression, making it conducive to communicative reasoning and less manipulative than Gregory's (2000) approach. The authors conclude that the deliberating individuals acted like policy analysts by taking more consideration of the specific policy attributes.

A theory of DMV would be unsustainable if it prejudices the nature of the outcomes according to one of its candidate values, or its implied values are exempted from being challenged from within the deliberation by participants. Such prejudgement means practitioners act as both a juror and a judge shift between roles at various points. When designing and explaining the project, they act as a juror to insert values; when defending this, they act as a judge to override alternative interpretations or apply exemption. While valuing agents are asked to reflect upon their preferences, there is little reflection on the part of practitioners. 'Practitioners do not evaluate the fairness of their procedures nor examine whether individuals believe that their own and others WTP is relevant to their conception of the problem at hand.' (Jorgensen, 2009, p. 251)

The pursuit of pluralism is dubious if values and beliefs are led, according to the analysts' predisposition, to converge along one of the first-order values that ought to be openly discussed. There is no hope for fairness by unfairly expelling rivals.

At the same time, the theory of deliberative democracy is by no means value-neutral. Contrary to the view that the theory is no more than a procedural ethic, it

has both substantive and procedural elements (Gutmann and Thompson, 1996; Dryzek, 2000). Nevertheless, its core principles do not postulate a generalized moral end from which substantive operational norms could be deduced leading to a course of action in relation to resource allocation, nor does it define value pluralism on the basis of one of the competing values. In addition, the requirements of the theory are indefinitely open to rejection and revision where publicly reasonable (Gutmann and Thompson, 1996, 2004; Dryzek, 2000).

5.6.2 Agreeing to Disagree: Questioning Theory

On the premise that monetary value is inherently an economic construct, some practitioners appeal to the procedural benefits of public deliberation. As public deliberation can internalize equity issues and enhance procedural fairness, it is conducive to broadening the democratic basis of the economic estimation (James and Blamey, 2005; Wilson and Howarth, 2006). On the same premise, others endorse public (or stakeholder) deliberation for allowing richer and higher-quality information content. It is used to meet higher economic standards (Macmillan et al., 2002; Gregory, 2000; Urama and Hodge, 2006). Many are sympathetic to both.

Holding this premise unchanged, however, neither the procedural ethic nor the analytic substance can survive the normative critiques. The premise is a pre-reason embedded in conventional stated preference approaches that the analysts believe to be true and good for society. The analysts act as if a deliberating agent, either implicitly or explicitly, and justify the premise *a priori* to the deliberating individuals, based on which their respective reasons could be scrutinized. Constructed as an economic institution, monetary valuation of public goods always concedes trading-off morality given that this notion is part of the norms of economics. Most importantly, this is manifested as an undemocratically justified and unredeemable reason.

DMV then faces the problem of being interpreted as a first-order theory. As discussed in Chapter 3, first-order theories operate by rejecting rival theories and principles, whereas second-order theories function to govern the interaction between first-order theories without granting *a priori* judgements on their merits (Gutmann and Thompson, 1996). As far as irreducibility of plural values is concerned, a DMV framed by any first-order theory is doomed to failure. Deliberative democracy accepts solutions on the basis of reasoned differences and allows '*workable agreement*', in which participants agree on a course of action for different reasons (Eriksen, 1994; Dryzek, 2000). An ideal deliberative process mediated by the principles of reciprocity should proceed with participants cultivating mutual respect and recognition over each other's ethical perspectives provided that they can be justified as reasonable. Participants are not rigidly required to agree on the principles of the alternative perspectives in specific, but accept them, if justified, as a legitimate basis of decision-making. Mutuality in reasoned argumentation is crucially important to this endeavour.

Incommensurability of values cannot be resolved by simply informing preferences or opening up the valuation process to a variety of perspectives. The theory of deliberative democracy entails a re-orientation of the interactive structure, and not merely of the substance of valuation. The epistemic status of monetary valuation has to be left open. The key is to downplay privilege of any substantive value - and open its own for rejection – on the one hand; and to allow reasoned disagreement, on the other (Dryzek, 1990, 1995, 2000; Gutmann and Thompson, 1996, 2004). An ideal form of DMV should belong to no first-order theory and generate mutual agreement reached on the merit of each reasonable value claim.

5.7 DISCOURSE-BASED APPROACH

A DMV approach predisposed to a particular set of motivational criteria is problematic. Under neoclassical economics WTP is defined as invariably a function of expected utility change. It has to be redefined to reflect the pluralistic nature of the project of DMV. My approach is termed as ‘discourse-based approach’, following O’Hara (1996, 2001)⁶ (see also Lo and Spash, under review).

DMV primarily involves the individuals collectively searching for and defining an institution acceptable for valuing the environment in monetary terms, rather than pricing it under a perfectly predefined institution. Held values are construed broadly as reasons raised by the individuals to justify a course of action, and the process of valuation is akin to seeking fair terms of cooperation on an individual/group payment decision. The elicited deliberative WTP should be understood as a collectively bound ‘*workable agreement*’ embodying the ideal of ‘*what* is to be done while differing about *why*’ (Dryzek, 1990, p. 43). A deliberative WTP, formed on the basis of reciprocity between two individuals who hold different moral beliefs, might be influenced by at least two motivational criteria. These are reflected in the contrast between willingness and agreement.

To one individual, the monetary expression might be motivated by her own interest, and/or recognition of the other’s claim in view of the *legitimacy* of her cultural tradition and/or ethical beliefs. She might, however, still disagree in specific on the substantive principles held by the other. Based on mutual understanding and respect, this kind of agreement does not require or presume uniformity across participants or perfect agreement on norms (Dryzek, 1990). It merely involves sharing of subjective

⁶ ‘Discourse-based valuation’ has been adopted by Wilson and Howarth (2002) as well. Yet it is used as a way somewhat at odds with the idea of discursive democracy (Dryzek, 1990, 2000). Here I refer to O’Hara (1996, 2001) only to highlight its theoretical root in discursive ethics.

experiences (inter-subjectivity). Without subscribing or surrendering to each other's perspectives, the deliberating individuals might articulate WTP as a second-order agreement, which does not constitute trading off their personal moral beliefs against others' (Gutmann and Thompson, 1996, p. 93).

The deliberative WTP would no longer entirely represent a money payment for common interest, because the two individuals might fail to consider the other's interest as acceptable in specific. It is better described as, at least partially, an '*agreement to pay*' following the notion of *workable agreement*. A person might be *willing* to pay to obtain or do something she considers as good or right. The evaluation could be done by a solitary thinker given adequate information and a hypothetical transaction opportunity. The idea of *willingness* to pay does not capture the essence of the deliberative ideal of inter-subjectivity, as it is primarily motivated by and ends in one's own values.

On the other hand, a person might grant *agreement* on behalf of those she represents for something challenging to her own personal preference, so long as the reasons are compelling. This mutual justification process cannot be carried out by solitary thinking, but only by an interactive process pursuing inter-subjective understanding. Unlike willingness, engaging in some interpersonal connection or social relationship with those who are the objects of mutual justification is a necessary condition for agreement. A person might be willing to contribute to a course of action without other people's consent, but agreement always implies mutuality. The former is linked to personal interest (broadly defined as including utility, rights, or any other ideals considered to desirable), whereas the latter also applies to causes outside of personal interests. An ideal deliberative WTP is distinguished from the conventional one for the requirement that its ethical legitimacy has to be validated not just in the privacy of one's mind, but also to the acceptance of a second party. This means only group-determined WTP makes sense as a representation of democratic and pluralistic

process, i.e. fair price or arbitrated WTP/WTB.

Another property of a deliberative WTP is that its substantive meaning is envisaged as contextually contingent. What it means is always seen as an empirical question, rather than a pre-definable postulate. Pre-defining it according to standards exogenous to deliberation would imperil the pursuit of communicative rationality. The economic conception of values should be given no privilege, or the meaning would become dictated. The imperative of mutual justification demands that this and other conceptions be open to rejection in the valuation process. In principle, the WTP could be explained by any one. Participants are encouraged to bring forth a variety of values and beliefs and debate on them based on their merits. It is difficult to predict, and undesirable to prejudge, which set of values will contribute or explain the outcome. The natural dynamic is largely unknown prior to deliberation and all value claims have the chance of being rejected. Plus the context varies by case. To give a universal definition to deliberative WTP is impossible and unnecessary.

Vatn's (2005) critique quoted earlier in this paper is defensible if the valuation inquiry is entirely underwritten by a neoclassical economic framework. However, his arguments (see also Vatn, 2009) are weakened when communicative and economic rationalities are seen not as a dichotomy. Actually they are not mutually exclusive. The epistemic status of monetization is amenable to the rationality of the concerned VAI. Communicative rationality is the extent to which an action is characterized by reflective and inter-subjective understanding of competent actors on values, beliefs and preferences. As an inter-subjective discourse, it does not and should not preclude individual citizens from exercising utility maximization rules. Rejection of the *dominance* of economics should not be conflated with rejection of economics. The political ideal requires individuals to question or defend the case for monetary valuation, but does not by definition accept or deny it on their behalf. It is not defensible to restrict

public deliberation to we-perspectives and communitarian norms.

Valuing the environment is not inherently unacceptable provided that it is framed to the satisfaction of this higher-order rationality. Utility maximization rules and market rationality could be accepted upon mutual agreement among all the participants of a discursive process (Dietz 1994). The assertion that these economic imperatives are invariably incompatible with the rationality of public deliberation effectively renders the deliberative rules exogenous to the communicative process from which political legitimacy is acquired, i.e. it is not legitimate on its own terms. Such preoccupations are essentially no more different from those rejected earlier in this paper. Alternatively, the key should be to subordinate the economic rationality to the regulation of communicative reasoning and calibrate the discursive design to preclude any manipulative or coercive treatment privileging a particular comprehensive doctrine. Making the reason-giving process open, free and critical (e.g. Dietz et al., 2009) is normatively more appropriate than professionally 'guiding' it along a decision-scientific rationality (e.g. Gregory, 2000). The social meaning of assigning money value has to be set free.

DMV is not meant to be an exclusive economic construct, nor a rights-based one. At least it should not be predefined as tied to any one value orientation or philosophy, otherwise DMV cannot address incommensurability. Deliberative institutions cannot make incompatible value positions compatible, but they can help them live peacefully and respectfully together. As an institution, DMV contributes to the assigning of social import to the act of valuing and the money values elicited. The assigned meanings act as terms of cooperation and are not fixed; they are what the deliberative institutions should seek. There is no need to rigidly envisage the social act of paying always as a trade-off.

5.8 CONCLUDING REMARKS

The method of DMV is being developed under two different traditions. Arguments for more democracy have produced a version that takes ethics and alternative values more seriously and favours group-determined WTPs. Arguments for more science have created one that seeks to modify the traditional economic conception of values without a morally critical intent and favours individual WTPs. In the former case, a weak conception of deliberative democracy has been taken to overturn economics, while in the latter, implicitly reinforce it. A strong deliberative democracy does neither, but dismantles the *dominance* of economics. DMV theories and experiments that privilege or marginalize by design any single category of values should be held in suspicion. There should be more emphasis on inter-subjectivity as much as the informational content of the value obtained. It is proposed that DMV should seek the values of public goods not simply from expressing and/or aggregating values or preferences. It is re-conceptualized as a mutual agreement as a result of an interactive process enabling contestation of discourses.

As far as value pluralism is concerned, the two approaches share a key limitation. That is, they both seek to enforce a constrained form of rationality as a criterion or explanation for the elicited value represented in monetary terms. Any deviation from the specified standards is likely to be regarded as irrational or inappropriate. Alternative values, convictions and beliefs can hardly be sustained under these approaches where these dispositions come into conflict with the theoretical expectations underlying the value-articulating framework concerned. Neither, therefore, actually embraces a structural reconstruction and has adequate pluralistic capacity.

Reconstructing the ways in which a stated value is conceptualized is one possible way to redeem the project of DMV. This requires a radical treatment: decoupling the understanding of agreement on a WTP decision from individual preference where

appropriate. The last sections have provided theoretical justifications. The second half of this thesis is intended to shed empirical light.

PART III

METHODOLOGY

CHAPTER 6

THE EMPIRICAL DIMENSIONS OF DISCOURSE-BASED APPROACH AND ITS ALTERNATIVES

6.1 INTRODUCTION

The notion of a workable agreement introduced in the previous chapter has a seemingly counterintuitive component. That is, an individual may agree on a course of action to which she personally has serious doubts. Among the various issues DMV practitioners are grappling with, this one is chosen as the core theme of the empirical section of this thesis. It is related to a key problem common to both of the two DMV approaches which, as argued in Chapter 5, may undermine the promise of this strand of research, where value pluralism is taken as an overarching objective of environmental valuation research. Justifications for the discourse-based approach as a more promising alternative can be established through investigating the emergence of a workable agreement. A systematic characterization of its emergence and the related political ideals can provide insights into the nature of DMV outcomes and the prospect for value pluralism.

This chapter links the theory to practice by explaining how these ideas are applied to an empirical inquiry. Next the theoretical context is outlined on which the inquiry is base. The ensuing section elaborates how the expectations and requirements of the different models of DMV (i.e. preference economization, preference moralization, and discourse-based) are relevant to the inquiry, particularly in terms of the notion of workable agreement. The last section presents some research questions.

6.2 THE THEORETICAL CONTEXT

Economic valuation following the neoclassical tradition is based on a consumer model. Pricing the environment is experimentally constructed as an economic activity. Thus neoclassical economists endeavour to extract a modified economic value from the constructed preference approach. Those who are critical of the method doubt that it could guarantee economic qualities (Price, 2000; Powe, 2007). They argue that WTP for an environmental change is invariably an economic construct and should be made more so. Common to both sides is a belief that a stated value should literally *reflect* the entirety of individual preferences as they stand.

Advocates of the preference moralization approach seek to elicit an economic value amenable to value pluralism. The stated economic value, they believe, would have greater pluralistic potential where the political processes involved are open to a range of ethical perspectives. Critics of DMV doubt that political processes are compatible with economic valuation. Merging processes is deemed to be problematic because the stated economic value inherently cannot represent citizen perspectives (Vatn, 2005, 2009). Again, common to both sides is a belief that a stated value, be it economic or not, should literally *reflect* the variety of social preferences as they stand.

Let me first respond to the critics, who in effect assume a dichotomy between economics and politics. The established view that monetary valuation of the environment involves an economic and not political process is flawed. WTP responses prove to be politically motivated (Blamey, 1998; Jorgensen et al., 2001). The favoured apolitical, purely economic values are an artefact that contradicts the actual plurality of values. Capturing public values in neoclassical economic terms is itself part of a larger political process. It is political and should be treated as such - but in a more democratic way.

The opposite view - that merging economic and political processes is inappropriate

- does not take the actual political economy seriously. Take carbon taxes and emission trading as an example. These are market-based instruments embodying the concept of carbon pricing. To determine an acceptable level of carbon tax or emission cap, decision-makers need to be informed about people's WTP. If WTP elicitation has little political relevance, one should never have public deliberation on carbon pricing at all. Cost-benefit analysis has certainly been a subject of political debates. These two groups of critics have also ignored the fact that not all individuals are hostile to economic valuation, and they could reasonably complain about the repudiation of economic approaches. Isolating such economic inquiries raises issues about premature closure of conflicts that a democratic deliberation is supposed to deal with.

In most circumstances, a single solution cannot settle competing objectives without any compromise. Consensual outcomes are rarely comprehensive enough to fully account for all types of values raised. While the neoclassical economists alike are satisfied with capturing only one category of value, the sympathetic heterodox economists are not really close to value pluralism either. Pluralistic societies are characterized by individuals having competing interests and expectations. No single form of value could capture their wishes to their entirety. Any expectation that a deliberative WTP should act as a word-for-word representation of the diverse dispositions would render the project of DMV a failure.

The key problem confronting both the neoclassical economists, and heterodox economists and other value pluralists actually pertains to the largely unquestioned objective of 'capturing reality', or capturing values as expressed - the conventional underlying practice of ecosystem valuation as well as some of its heterodox counterparts. Under this approach, monetary valuation is a search for a single monotonic indicator. The conception does not work in pluralistic societies. The ability to indicate held values diminishes as their diversity increases. Construing WTP as an

indicator would ultimately be trapped in a contradiction where unlimited combinations of values are possible, making ‘indication’ meaningless⁷. Granted that these are limited, a single cardinal scale remains poorly placed to capture idiosyncratic or anecdotal forms of expression. Translating plural values into a particular form is more a daunting task than ever. This critique is nonetheless not limited to the concept of WTP, but also many other forms of deliberative outcomes. It is fairly strange and unrealistic to envisage a collective decision mutually agreed by deeply divided groups as a representative outcome fully and equally projecting everyone’s wishes.

The demanding concept of value indication or translation constitutes a barrier to the pursuit of value pluralism. A normative theory of DMV should tolerate coexistence of competing values. In DMV, multiple reasons might underpin a WTP decision construed as an agreement to pay. The decision, however, might be far from a logical outcome of some of these reasons. A *collective* decision on payment for climate mitigation, for example, might be supported by two groups of individuals holding competing concerns, such as climate sceptics and non-sceptics. It might then be underpinned by the dichotomous beliefs that human-induced climate change is evidenced by science and that, counterintuitively, it is not. Striving for consensus on such a collective action while demanding close association between one’s values and preferences could only yield two outcomes: no consensus, or consensus under perfect value agreement, which is unlikely under deep conflict. Neither makes room for effective action-oriented cooperation without perceived compromise. The traditional criterion is not a benchmark of this research. An agreed WTP decision might make sense of particular sets of values held by individual agreeing parties, but *not necessarily*

⁷ Indicating numerous unknown variables is indicating nothing. Each individual holds a bunch of values and no one knows how adequate their translation into a monetary expression has been. WTP would then become an empty concept and the notion of ‘valuing something’ would become dubious as the ‘something’ cannot be meaningfully defined. Although it is possible to give a definition in an *ex ante* fashion and in an inductive way, it proves to be increasingly difficult to mount multiple, divided values on a single scale, whatever is the scale.

all others. A modest degree of deviation might indicate a realization of the deliberative democratic principles. This assertion allows an empirical exploration of the expectations and requirements of the discourse-based approach of DMV, in contrast to its alternatives as discussed in Chapter 5.

6.3 EXPECTATIONS AND REQUIREMENTS

6.3.1 Workable Agreements and Meta-Consensus

As explained in Chapter 5, a discourse-based DMV should produce outcomes, including a WTP decision - preferably an 'arbitrated social WTP', (see Chapter 5) - that are theoretically consistent with the idea of a workable agreement. A workable agreement, involves individuals agreeing on a course of action while disagreeing on reasons that support it (Eriksen, 1994; Dryzek, 2000). It does not demand consensus on values, but recognition of the legitimacy of the reasons offered by other individuals. In DMV, the individuals seek mutually acceptable solutions to issues like the use of a pricing mechanism, the format and perhaps the level of payment, and allocation of raised funds. Agreement on subjective values, however, is not a requirement. Subjective conformity may compromise prospects for value pluralism. Although DMV is open to value transformation, striving for convergence would ultimately bring the use of deliberative methods into question. More appealing is to understand transformation as enhancement of sharing of subjective states (values) without erasing value differences. In that case, engagement in subjective states on the part of the deliberating individuals would fluctuate, yet producing no net change in group outcome. To illustrate, Table 6.1 shows the changes in subjective values of two hypothetical individuals. After deliberation the individuals become more sympathetic to each other's position (levels of engagement increase from 0 – 50). Mathematically these movements cancel out each other, producing a combined effect of no net change (the average levels of engagement remain

50) Agreement couched in such terms is not based on reduced diversity, but enhanced reciprocity at work. Enhanced mutual respect goes with some degree of conflict retained.

Table 6.1 Idealized movements in level of engagement in two value sets

	Pre-deliberation		Post-deliberation	
	Value Set 1	Value Set 2	Value Set 1	Value Set 2
Individual A	100	0	50	50
Individual B	0	100	50	50
Average	50	50	50	50

A workable agreement involves changes in values as illustrated in Table 6.1 coupled with an agreement on stated preferences. The desired form of agreement is described as a ‘meta-consensus’ by Dryzek and Niemeyer (2006), who believe that this concept can reconcile the seemingly opposing ideals of consensus and pluralism. Meta-consensus embraces value pluralism at a simple level while seeking consensus on values, beliefs and preferences at meta-level (Table 6.2). Individuals tend to have a high degree of agreement on the legitimacy of basic values at abstract level and the main difference among them is the relative priority of values. Consensus requires normative uniformity in terms of the latter. To the contrary, normative meta-consensus does not demand that citizens conform to others’ legitimate values nor agree on the priority of values. It requires agreement on the recognition of the *legitimacy* of a value. The shift to meta level contrasts the conventional conceptions of consensus which seeks agreement at preference level (Niemeyer and Dryzek, 2007). The types of consensus prized by Cohen and Habermas would produce consensual choice through preference convergence. Under Dryzek and Niemeyer’s (2006) treatment, pluralism and consensus could be reconciled in a less demanding way that supports ‘justice as recognition’. In this sense, the idea also differs from Rawls’s ‘justice as fairness’ approach by not

requiring normative uniformity towards basic liberal values.

Table 6.2 Types of consensus

	Element of Preference Construction		
	Held Value	Belief	Preference
Type of Consensus	Normative consensus (Agreement on the values that should predominate)	Epistemic consensus (Agreement on belief about the impact of a policy)	Preference consensus (Agreement on preference for a policy)
Meta-Counterpart	Recognition of legitimacy of disputed values	Acceptance of credibility of disputed beliefs	Agreement on the nature of disputed preferences

Adapted from Dryzek and Niemeyer (2006)

Collective actions formed on the basis of meta-consensus feature in coexistence with different perceptions of reality. Public deliberation should seek social cooperation among diverging groups in a pluralistic society and a creative search for collective decisions that respect all legitimate basic values. The role of deliberation is ‘to uncover existing meta-consensus obscured by the strategic actions of partisans who try to delegitimize the values held by their opponents’ (Dryzek and Niemeyer, 2006, p. 639). Recognizing opponents’ legitimate values means that the resulting agreement on actions might vary from one’s first preference. Normative meta-consensus is thus a basic component of a workable agreement.

Note that the terminology used in Table 6.2 differs from the standard definitions adopted by neoclassical economists. They contend that value is preceded by preference and equated to price which could be objectively observed. The social and economic psychological literature has revealed various forms of casual relationship between held values, beliefs and preferences (e.g. Stern et al., 1995; Stern, 2000; Spash, 2006). A common understanding is that value is more fundamental than and precedes preference (and also belief). This assertion is generally followed to the extent in which the

relationship is conceptualized at the individual level and seen as an empirical observation. The theory outlined in this section is understood as a normative one and does not aim to address the casual linkage between these elements. Moreover, for simplicity, I do not distinguish between value and belief. They are understood broadly as constituting normative discourse, i.e. a coherent body of assumptions, judgements, and dispositions about the issue of concern, as explained in Chapter 3, and hereafter referred to generally as ‘subjective value’.

Changes in subjective value at the inter-subjective level (between individuals) expected under the discourse-based approach are characterized by some variations from the general understanding, or expectation, under the preference economization and moralization approaches. The choice of a different terminology implies an important conceptual and normative distinction between these approaches.

6.3.2 Inter-Subjective Consistency

Preference economization is devoted to enhancing the capacity to meet clarified values. Advocates believe that a WTP response to a stated preference survey is bound to be an economic construct. Any ‘irrational’ response should be corrected in accordance with the standard economic assumptions by activating consumer considerations. The same logic also applies to the specific model of analytic deliberation depicted in Chapter 4, which aims to help individuals clarify their held values and make an informed decision that could meet these values. A choice that logically deviates from the clarified values is considered irrational.

Advocates of the preference moralization approach believe that the WTP response should be elicited in terms compatible with public interest by activating citizen considerations. Although they seek to create an ethical basis of values and preferences that is competing with the economization approach, they similarly expect a consistency

between value and preference. That is, a WTP provided by an individual who adopts a citizen mode of thinking is assumed to be a non-economic construct – at least something not in the economic traditional . Thus preference consensus is desired along with the group requirement of impartial judgement, as the consistency would otherwise fail to be maintained. This is the core premise of positional modification (see Chapter 2), i.e. inducing the desired sort of preference by adopting a single model of value.

Such consistency is not essential for the achievement of a workable agreement. A workable agreement allows differences in subjective values to persist under converging preferences. A group decision about a public issue that fails to relate to some group members' clarified values may be considered acceptable from the perspective of deliberative democracy, provided that the requirements of meta-consensus are met. Observations on the relationship between subjective values and preferences can be used to assess the plausibility and relevance of the discourse-based approach in an experimental setting. These observations can lend support to the argument raised earlier that such a variation from other deliberative approaches may provide better prospect for value pluralism.

The relationship between subjective values and preferences can be empirically tested by using the methodology and concept of 'inter-subjective consistency' developed by Niemeyer (Niemeyer, 2007; Niemeyer and Dryzek, 2007). The concepts suggests that a good deliberation should result in agreement on the relevant *domains* of reasons and preferences on the part of deliberating individuals. The individuals should be capable of identifying all relevant perspectives dictated by meta-consensus into their reasoning, whether or not they reach agreement at preference level. Accordingly, the outcome of an ideal deliberation should reflect 'the extent to which the individual positions resulting from deliberation reflect the integration of all the concerns present in meta-consensus' (Niemeyer and Dryzek, 2007, p. 507). The concept of inter-subjective

consistency is suggested as a benchmark to assess the quality of deliberation. Deliberating individuals may have different reasons and preference orderings when they make a collective decision. According to Niemeyer (2007), however, if inter-subjective reasoning is in action such that all relevant reasons receive consideration from all members of the deliberative group, it will create a situation where those who agree with the same set of reasons also agree at the preference level. That is, those pairs of individuals with similar values and beliefs should have similar preference orderings. This reflects the situation where individuals may disagree with each other for inter-subjectively consistent reasons (Niemeyer, 2007).

There is a clear tension between the two possible ends of deliberation (workable agreement and inter-subjective consistency) although they are both suggested to be an ideal of deliberative democracy. While inter-subjective consistency requires either agreement or disagreement at both levels, a workable agreement seeks agreement only at one level (Table 6.3). Thus Niemeyer and Dryzek (2007) admit that the condition of inter-subjective consistency precludes ‘incompletely theorized agreements’ (Sunstein, 1995), a concept seen by Dryzek (2000) as a synonym for a workable agreement.

Incompletely theorized agreements, or workable agreements, lack ‘theorizable’ content. This means that theoretical generalization of the underlying epistemic or moral principles is not possible or difficult. This is because of their ‘absence of any attempt to ground them in shared principles, so actors can consent for completely different reasons’ (Dryzek and Niemeyer, 2006, p. 643). Such agreements do not have internally consistent backing from moral principles. Since the observations of such agreements are grounded in competing explanations, they provide a weak conceptual basis for generalization toward a single theory of values. The paucity of necessary moral content for theorization nevertheless can preserve plural values, although the analyst may fail to assign an appropriate moral category to these observations in an attempt to produce a

theory. This inability to generalize the moral content of an ideal deliberative outcome, such as ‘agreement to pay’, is a key feature of the discourse-based approach elaborated in Chapter 5.

Table 6.3 Possible combinations of agreements at value, belief and preference levels

		Subjective value	
		Agreement	Disagreement
Preference	Agreement	Inter-subjective consistency	Workable agreement
	Disagreement	Strategic rationality	Inter-subjective consistency

The concept of inter-subjective consistency may be viewed as broadly compatible with the preference economization and moralization approaches as far as the DMV model is geared to a singular conception of value. In DMV preferences are expected to converge toward a form of monetary expression (especially for arbitrated social WTP/WTAs). An increasing inter-subjective consistency is thus desirable. Although the concept does not necessarily require instrumental rationality, it can greatly benefit from an enhancing instrumental reasoning developed as a result of deliberation. Being specific examples of positional modification, the two approaches are destined for a concurrent and consistent transformation at both subjective value and preference levels. Consistency between individuals is required or implied.

As such, the notions of inter-subjective consistency and workable agreement are important to the study of DMV. They draw a distinction between motives and choice at the subjective value and preference levels, and specify a politically ideal, *normative* relationship between them. A DMV exercise can be assessed against these benchmarks in terms of its linkage to the idea of deliberative democracy. The normative quality of the DMV results and their compatibility with the preferred discourses-based approach

can then be ascertained.

6.3.3 The Expected Role of Rhetoric

As shown in Table 6.3, workable agreement is not the only conceptual alternative to inter-subjective consistency. Inconsistency may stem from the use of strategic reason which is not a recognized component of the theory of deliberative democracy. Appropriate explanations have to be given to any observed consensus or agreement in order to characterize their role in a deliberative process and establish their normative status. One possible factor that is capable of facilitating the formation of workable agreement is the invocation of rhetoric.

Rhetoric can involve arguments, emotions, vivid metaphors, creative interpretation of evidence, arresting figures of speech, irony, performance, etc. (Dryzek, 2010). Social cooperation in the face of deep moral conflict can be facilitated by invoking a particular sort of rhetoric, called ‘bridging rhetoric’ (Dryzek, 2010). It can enable communication between differently situated actors by recognizing the situated character of its audience. ‘Effective rhetoric persuades rather than proves’; it involves invoking ‘premises that are either held by or can be made to appear plausible to a particular audience’, thus its currency is particular rather than universal appeal (Dryzek, 2010, p. 322). This form of rhetoric is suggested to be conducive to the kind of communication required by the theory of discursive democracy (Dryzek, 2000, 2010; Dryzek and Niemeyer, 2008). It is regarded as an opposite to the Rawlsian public reason, a defining concept of the preference moralization approach.

Formation of a workable agreement could benefit from the use of rhetoric which helps represent a discourse to those not initially subscribing to it. A desirable sort of rhetoric can play the role of bridging – reaching people with different social characteristics and political perspectives (Dryzek, 2010). The task required is to

represent a discourse in ways that enable partisans of an alternative discourse to discern their shared dimensions. Shared terms of social cooperation may then be identified. Members of competing discourses can engage in joint problem-solving on the basis of such terms, without the requirement of relinquishing the different 'situatedness' of discourse to a universal domain. Plural values are then more likely to be preserved in collective decision making.

Consider for example the frequent invocation by Dr. Martin Luther King, Jr. of the values embedded in the United States Declaration of Independence and Bill of Rights. These appeals were designed in part to remind white Southerners of their shared membership in a normative tradition within which claims for racial justice could then be processed peacefully (Dryzek, 2010). The reference to the basic idea of human rights embedded in a rights-based political system gave him access to both the civil rights discourse on his side and the liberal universalism in his white audience. Another example that can illustrate the notion of differential grounds of shared recognition is a speech by a nineteenth-century African American woman, Sojourner Truth. Speaking at the first annual meeting of the American Equal Rights Association in 1867, she pointed out that 'There's a great stir about colored men getting their rights, but not a word about the colored women; and if colored men get their rights, and not colored women get theirs, you see the colored men will be masters over the women, and it will be just as bad as it was before' (Logan 2004, p. 36). Truth aligned her discourse of 'colored' women's rights with women's rights generally. Discursive compatibility then became discernable as the language could reach her white women audience who were concerned about women's rights, as well as those on her side who saw the rights of the 'colored' addressed. Access to both discourses was gained while allowing varying bases of acceptance.

The importance of bridging rhetoric lies in its greater capacity than rationalistic

arguments of bringing policy debates towards meta-consensus upon which concrete actions can be built within the scope of value pluralism. Understanding the ways in which bridging rhetoric affects the communication among deliberating individuals is conducive to explaining how cooperative capacity is strengthened as a result of the deliberative process and how this makes sense of the deliberative model. A study of the use of rhetorical language in deliberation is therefore instrumental to the characterization of deliberative WTP construed as an ‘agreement to pay’ outlined in the last chapter. Based on the ideas depicted in this section, an intensive study of DMV results is proposed.

6.4 RESEARCH QUESTIONS

The operational objective of the empirical study, presented in the following chapters, is to characterize the results from a DMV exercise and assess its variations from the expectations under other DMV approaches, in terms of the concepts of workable agreement and meta-consensus. The findings will support an interpretation of the group agreement formed, including any remarkable change in WTP decision constituting an improving agreement to pay. The analysis involves an assessment of the extent to which these variations can be meaningfully understood within a specific model of deliberative democracy, as described in Chapter 3.

The empirical investigation is based on data collected from a citizens deliberation on carbon pricing in Australia and was undertaken for this study. Specific research questions that guided the inquiry include:

- 1) To what extent does the group deliberation promote agreement to contribute financially to a course of public action on the part of those participants who initially refuse to pay?

- 2) How do participants' expressed values change? Do the values diverge or converge between participants?
- 3) Do the subjective states of participants remain stable and how do their subjective states relate to each other?
- 4) Is there any 'workable agreement' formed among participants? What is the main factor contributing to its formation or failure to form an agreement?
- 5) How can changes in willingness to pay, or agreement to pay, be understood in light of this evidence?

6.5 CONCLUDING REMARKS

The critical review of literature presented in the previous chapters raises an important theoretical problem concerning the methodology of DMV. That is, adopting an evaluative framework that contains prejudgements on values is not conducive to the pursuit of value pluralism. It is proposed that, in the context of DMV, an agreement to pay does not require *a priori* assumptions about the moral category it belongs to, and that it could be supported by multiple categories, including those that do not logically point to such an intended action. Under this conception, DMV could produce information or facilitate decision making on WTP without compromising the ideal of value pluralism.

This conception forms the core premise of the discourse-based approach of DMV and differentiates it from other approaches discussed in the Chapter 5. Unlike these alternatives, it does not require consistency between individuals in terms of subjective values and preferences. Achievement of a workable agreement is regarded as desirable, which does not demand convergence in subjective values and can be facilitated by invoking bridging rhetoric. Evidence for bridging rhetoric

and workable agreement can then be used to ascertain the compatibility of the DMV results with the discourses-based approach. A case study is conducted to explore the issue in this light. Details are provided in the next chapter.

CHAPTER 7

CASE STUDY: A CITIZENS DELIBERATION ON CLIMATE CHANGE

7.1 INTRODUCTION

An underlying assumption of DMV is the existence of alternative values and irreducible value conflict that traditional valuation techniques fail to deal with. Clear difference between normative dispositions is a necessary condition for a study designated to explore the notion of workable agreement. This means that an empirical inquiry to address the research problems outlined in the previous chapter should feature discernable deep conflict in opinions. As a DMV study it should also involve pertinent topics about payment for environmental services and WTP elicitation tasks.

In Australia, there is ever growing contention over the issue of human-induced climate change, particularly its carbon pricing policy. It has drawn considerable attention from the public all across the country and contributed to major changes in political leadership, due to its global significance and the huge costs that would be required for the country to undertake mitigation and adaptation measures. Climate scepticism has been a key driver of the political resistance to take actions on climate protection and remains a significant minority group in the Australian society. Involving climate sceptics in a deliberative forum along with non-sceptics can provide a lively debate featuring clear conflict to meet the purposes of the present study. The focus on carbon pricing instruments, such as carbon tax, also allows a topical discussion on a range of financial payment issues that are relevant to the economic dimensions of DMV.

This chapter introduces the case study designed to offer empirical support to

address the theoretical problems identified in the preceding chapters. It is based on an experimental deliberative forum on carbon pricing issues in Australia. The next section provides details on the recent climate change policy initiatives, the policy debate and climate politics in Australia. It is followed by a description of the deliberative forum and method of data collection

7.2 POLITICAL CONTEXT OF THE DEBATE IN AUSTRALIA

7.2.1 Changing policy, shuffling leadership

In the late 1980s, the Australian government led by Prime Minister Bob Hawke was ready to respond to global climate change. The government's commitment was significant and progressive, thanks to gathering international momentum surrounding the issue and growing concerns by Australian scientific community and the public, coupled with the personal commitment of Hawke to environmental issues (Bulkeley, 2001; McDonald, 2005). The official enthusiasm was soon cooled down by the subsequent Keating government. Keating's centerpiece of Australia's response to climate change was the National Greenhouse Response Strategy, which was excessively reliant on voluntary industrial actions for achieving non-binding national targets of greenhouse emissions abatement. The government became more concerned about the economic impacts arising from emissions reduction and sought to retreat from the earlier commitment.

From the mid-1990s Australia saw growing political and sectoral resistance to more stringent emissions reduction. A conservative coalition government, led by John Howard, was in office during 1996-2007. Howard's leadership acquired notoriety for declining international cooperation and substantial domestic measures for addressing global climate change (Christoff, 2005; Hamilton, 2007; Rootes, 2008; Curran, 2009;

Stevenson, 2009). The cabinet resistance was flagged in many ways, notably by refusing to ratify the Kyoto Protocol and resisting official carbon pricing. The Howard government questioned the science of climate change and strongly opposed legally binding targets on emissions reduction. Armed with economic models provided by the Australian Bureau of Agricultural and Resource Economics, Howard's climate scepticism centred on the economic argument that ratifying the Kyoto would put the Australian economy at significant risk, leading to decline in GDP and job losses. Australia's energy policy during this period was moved towards ever more explicit support for fossil fuel and energy-intensive manufacturing industries (Christoff, 2005; Hamilton, 2007). There was much reliance on voluntary actions by the industry.

By 2007, Howard had lost popularity partly due to his sceptical position. Kevin Rudd, the then Opposition Leader of Labour party, picked up on the issue and promised to ratify the Kyoto Protocol. The Labour party, joined by all eight state and territory-level governments, appointed Ross Garnaut, a senior Australian economist, to head a large effort to make recommendations on Australia's climate policy. Following a landslide win in the 2007 national election, the Labour government promptly fulfilled the promise and set a target to reduce greenhouse gas emissions by 60% of 2000 levels by 2050.

Garnaut released a final report, known as Garnaut Climate Change Review, at the end of September 2008. The report contained a detailed assessment of the impact of climate change on Australia. It recognized the severe and costly impacts of uncontrolled emissions growth on the country's agriculture, infrastructure, biodiversity and ecosystems, and predicted that without mitigation, there would be a 92% decline in irrigated agricultural production in the Murray-Darling basin, the main food producing area, and catastrophic destruction of the Great Barrier Reef (Garnaut, 2008). Garnaut concluded that rapid progress on climate change mitigation is necessary and outlined

the level of mitigation necessary to achieve a global target of stabilizing greenhouse gas concentrations at 550 ppm.

A key policy initiative proposed by Garnaut was an emission trading scheme (ETS) for providing incentives for emission mitigation (Garnaut, 2008). The Rudd government responded by issuing a white paper that outlined a preferred target of a 5% reduction in 2000 greenhouse gas emissions by 2020, to be increased to 15% in the context of global action (Department of Climate Change, 2008). In the white paper, the government officially proposed an Australian ETS, known as Carbon Pollution Reduction Scheme (CPRS), which would cover around 1,000 major polluters in the energy, transport and waste sectors in Australia and be introduced in 2010.

An ETS involves setting an emission cap and selling emission permits at freely fluctuating prices. An emission permit is an instrument with established property rights. Under an ETS, the government creates a new market where firms have to buy a permit for each tonne of greenhouse gas they emit. The total number of permits issued by the government each year is limited. Firms that reduce their emissions can either buy fewer permits or sell their surplus. Businesses therefore have an incentive to reduce emissions in order to cut costs and stay competitive, but they decide if it is cheaper to reduce emissions or buy permits. The trading mechanisms, according to standard economic theory, could guarantee economic efficiency in emission mitigation (Spash, 2010). Effective emission abatement also hinges on transferring part of the revenues raised from these permits to related research and development activities. In fact, Garnaut strongly urged the government to set aside 20% of the revenue for this purpose and avoid exemption of individual industries to maximize coverage.

The CPRS, however, was fraught with special treatments. The Australian economy heavily depends on its mining industry, which is energy-intensive and thus vulnerable to rising carbon prices. Over the years the governments and major parties in Australia have

had a sympathetic ear for the industry and associated lobbying groups (Curran, 2009; Carson et al., 2010). The industry has significant input in shaping policy direction. Without exception, the proposed ETS has been a target of intensive lobbying activities supported by the major emitters. Against this background the proposal was carefully trimmed. Under the CPRS, the Australian government would provide free permits to trade-exposed energy-intensive industries, such as aluminum smelting and cement production. It would also return the \$A11.5 billion⁸ earned from selling emission permits to major emitters as compensation to minimize impacts on the economy (Department of Climate Change 2008). Again inconsistent with Garnaut's recommendations, the CPRS would include an initial exemption of the transportation sector for the first three years of the scheme to allow households to adjust to the prospect of higher fuel prices. Free price variation would be restricted by an initial government-administered price cap set at A\$10 per permit in the first year, rising to \$40 subsequently (Department of Climate Change 2008, Ch. 8, p. 37).

Critics were far from satisfied. The amount of compensation and subsidies to be available to the major polluters was too generous, effectively rewarding major polluters for their contribution to climate change (Spash, 2010). Garnaut himself criticized the white paper giving too much support for businesses and being severely distorted by lobbying from vested interest groups (Pietsch and McAllister, 2010). The price cap provision might also compromise the potential for economic efficiency (Jotzo and Betz, 2009). Furthermore, the CPRS has a very complex design; this raises concerns as to public transparency and potential for manipulation by powerful vested interests (Spash, 2010).

Public response to the proposal was initially generally positive in 2008. This support, however, started to wane in 2009 as the global financial crisis hit the economy

⁸ Australian Dollar to US Dollar: 0.93 (September 2010)

(Howes, 2009). The government was forced to delay the start of the scheme to 2011, along with a lower carbon price cap, more compensation to the industry and more free permits. The CPRS failed to satisfy other major parties, particularly the new Leader of the Opposition. The Greens did not accept the lenient targets set out in the proposal, whereas the opposition Liberal party was highly concerned about the potential economic impacts. The CPRS was not passed by the senate in December 2009. In April 2010, the then Prime Minister Rudd decided to delay the implementation of the scheme until the end of 2012.

The search for remedies, alternatives and complements to the ETS continues. There is support for a better designed ETS. Jotzo and Bertz (2009) suggest that access to international permit trading opportunities is important for the success of an ETS and Australia should dismantle the obstacles to bilateral linking with similar schemes, including the proposed price cap.

The most prominent alternative is carbon taxes. A carbon tax is an environmental tax that is levied on the carbon content of fuels. It can be implemented by taxing the burning of fossil fuels - coal, petroleum products such as gasoline and aviation fuel, and natural gas - in proportion to their carbon content. Accordingly, a carbon tax increases the competitiveness of non-carbon technologies by raising the relative price of the fossil fuels, thus helping to protect the environment while raising revenues. A carbon tax is usually imposed on firms, but would eventually affect all the prices in the economy due to the pervasive character of greenhouse gases. Pricing carbon this way would not guarantee a set target of emissions reductions achieved. Advantages of carbon taxes include lower administrative costs, lower potential for industrial manipulation, and more certainty for businesses (Humphreys, 2007; Spash, 2010). In January 2010, the Australian Greens proposed a *de facto* carbon tax at a rate of \$23-24 per tonne emission, to be implemented within the framework of the CPRS by limiting the price of emission

permits at a specific level. Proposed compensation to polluting industries is reduced.

Voluntary carbon markets have been considered by the Australian government as a complement. Accreditation is not required to sell carbon credits in voluntary markets. In Australia, only some of the voluntary programmes are accredited under a government protocol. The government's efforts to regulate Australia's fledgling carbon offset market hinge on its National Carbon Offset Standard came into effect on 1 July 2010 (Department of Climate Change, 2009). The Standard is intended to provide national consistency in the regulation of voluntary carbon offsets and to enhance consumer confidence in the voluntary market, by providing guidance on what constitutes a genuine voluntary offset credit, setting requirements for the verification and retirement of such credits, and providing principles for calculating the emissions of an organization, product or service which could be offset. However, a compliance scheme like ETS is likely to displace voluntary contributions. This raises concerns as to the actual complementarity (Reeson, 2009).

The political environment in 2010 was unprecedentedly tough. The Prime Minister of Australia, at the time, Kevin Rudd, lost public support in part due to the ETS withdrawal, and relinquished his office in June. The Leader of the Opposition, who opposed to the ETS scheme, almost succeeded in seizing power in the subsequent federal election which concluded with a hung parliament. In response, the incumbent Prime Minister, Julia Gillard, managing to form a minority government appeared cautious of resurrecting the ETS. In July 2010, she called for a high-profile 'citizens' assembly' to seek public advice on climate change policy. The public's views, nevertheless, are as divided as in the politics, as I show in the next section.

7.2.2 Changing public support, diverging opinions

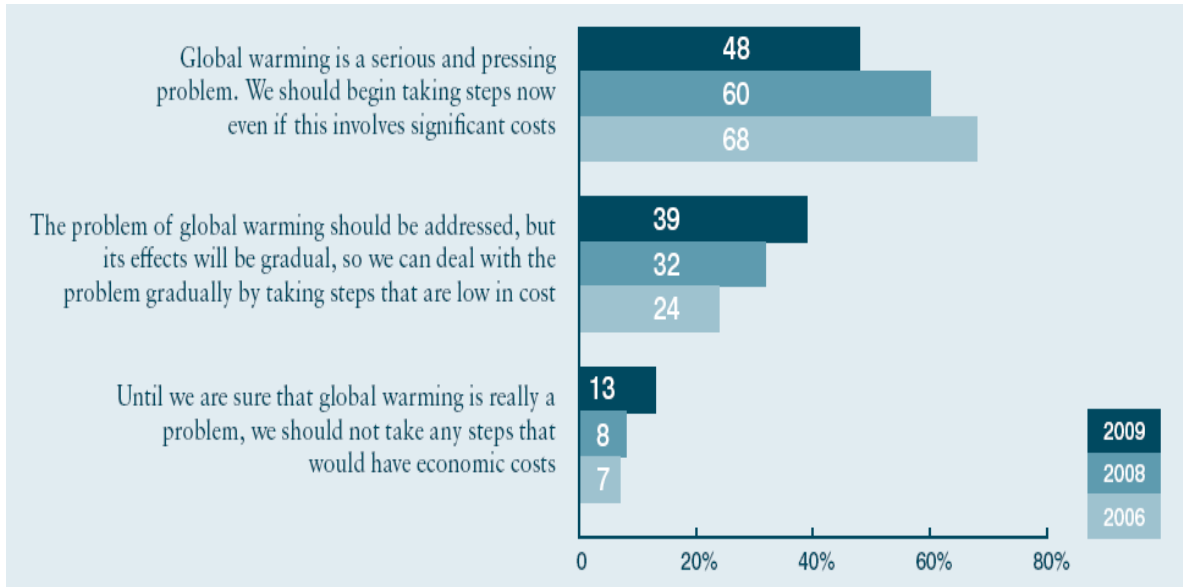
Public concerns about the economic impacts of radical actions for climate protection are

rising. According to the annual Lowy Institute Poll (Figure 7.1), in 2006, 68% Australians agreed that global warming is a serious and pressing problem and immediate actions are needed regardless of significant costs. These figures contracted to 60% in 2008 and 48% in 2009. Young Australians and females were slightly more likely to hold this view. In addition, those who thought that the effects of global warming will be gradual so that gradual measures that are low in cost are acceptable rose from 24% to 32%, reaching 39% in 2009. Only 7% did not accept actions that would put the economy at risks prior to consensus on the negative impacts of global warming. About 8% and 13% shared this view in 2008 and 2009 respectively. The Poll report notes nevertheless that this shift in opinion does not mean that Australians no longer recognize the importance of the issue of climate change. The majority (76%) of Australians agreed that climate change 'is a problem' (Hanson, 2009, p.13).

Public preferences for the ETS are divided. Pietsch and McAllister (2010) found that the ETS was supported by the majority (58%) of the Australians. Although 29% strongly favoured the scheme, 22% strongly opposed it (Figure 7.2). Of those who described themselves as very well informed about climate change, those who strongly supported it are equaled by those who strongly oppose it (both 31%). In both cases, strong opponents outnumbered milder opinions, suggesting a significant minority within the population against the ETS. There is a tendency for a polarization in attitudes, which has been accelerated by the successful knowledge diffusion from climate change sceptics and industrial lobby groups. The authors, however, stressed that the strong opponents may include those who accept the evidence of human-induced climate change but doubt that the proposed ETS is the right policy instrument to address it. Moreover, Pietsch and McAllister (2010) noticed that most of the respondents had a definite view either for or against the ETS, possibly as a result of the extensive media coverage and public debate over the last few months (2008 - 2009) which provided

them sufficient information to form a view promptly.

Figure 7.1 Public opinions on options for dealing with global warming (per cent of level of agreement)



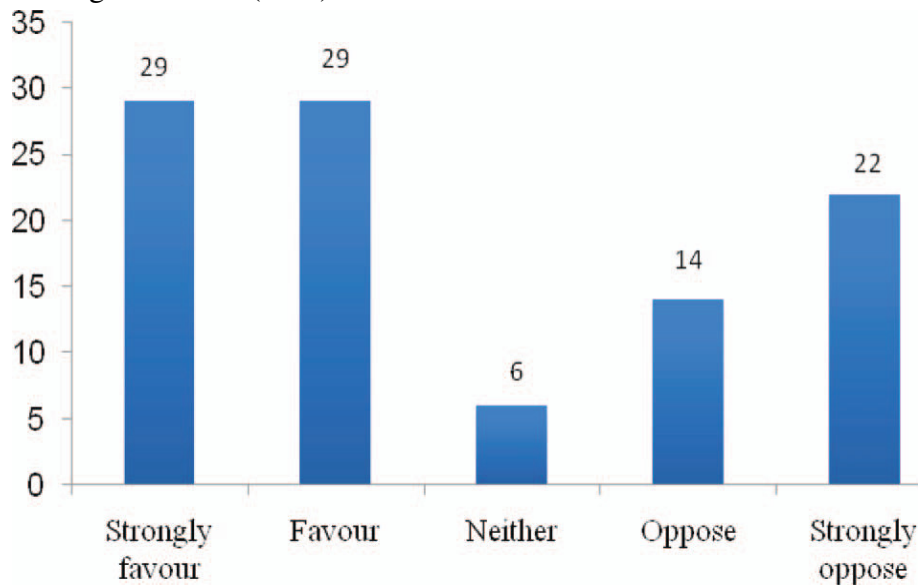
Survey question: 'What the countries of the world, including Australia, should do about the problem of global warming?'

Source: Lowy Institute Poll 2009 (Hanson, 2009)

Another national survey corroborated the previous findings that Australians generally recognize the importance and urgency of the issue of climate change (Carson et al., 2010). Respondents had a slight preference (51.4%) for redistributing revenue from a greenhouse gas mitigation scheme to low income households and seniors rather than reducing the GST (Goods and Service Tax). They were almost evenly split on whether the scheme should initially exempt the transport sector (Carson et al., 2010). Nevertheless they expressed a fairly strong opposition about giving special treatment to energy-intensive sectors even intensive sectors, even when told that this could minimize job disruptions. Furthermore, the Australian public affirmed the idea that devoting a substantial fraction of revenue from marketable permits to energy-oriented R&D is of long-term national interest. The majority (60%) believed that Australia should adopt a scheme with more than a 60% reduction in greenhouse gases even if this would incur

higher costs. Carson et al.'s (2010) survey included a trinary choice between achieving emission reductions using tradable permits, taxes or technology standards. Results indicated an overwhelming preference for technology standards (57.7%), over permits (25.1%) or taxes (17.2%). Support for taxes, nonetheless, rose to 22.5%, when the respondents were given more information about these different mechanisms.

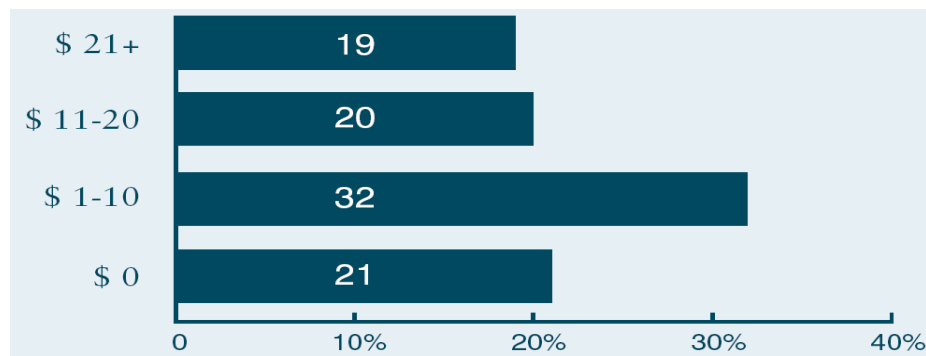
Figure 7.2 Public support for the emissions trading scheme proposed by the Australian government (in %)



Source: ANUpoll September 2008 (Pietsch and McAllister, 2010)

Intended financial contributions appeared to be slightly lower than what would have been incurred under the CPRS. The Treasury's econometric estimation suggested that the CPRS would cause a one off spike in inflation of 1.0-1.5%, resulting in an average increase in household spending of \$6-7 per week (Commonwealth of Australia, 2008). According to the Lowy Institute Poll, Australian people were generally willing to pay to help solve climate change. Yet, the majority (52%) would contribute no more than \$20 per month on electricity bills (Figure 7.3). Although 19% would pay more than that, 21% were not prepared to pay at all. It is noted that people aged 60 years or older were the least willing to pay to tackle climate change and only 7% were prepared to pay \$21 or more extra per month compared with 31% of respondents aged 18-24.

Figure 7.3 Willingness to pay to help solve climate change.



Survey question: 'One suggested way of tackling climate change is to increase the price of electricity. If it helped solve climate change how much extra would you be willing to pay each month on your electricity bill?'

Source: Lowy Institute Poll 2008 (Hanson, 2008)

Today in Australia climate change issues remain highly contentious. There is a continuing struggle over the priority of climate protection, and over emission trading vs. carbon tax. Climate sceptics are perhaps as many as climate activists.. The controversial idea of 'citizens' assembly' proposed by the Prime Minister Julia Gillard was officially dumped less than three months later after it was announced, in favour of a multiparty climate change committee, as part of a deal with the Greens to form a minority government. The present study is based on a similar initiative conducted one week after her announcement.

7.3. A CITIZENS DELIBERATION IN CANBERRA

7.3.1 Overview

A deliberative forum on climate change policy was held in 31st July 2010 at the CSIRO Discovery Centre, Canberra, Australia. The one-day event started at 9:30am till 4:30pm. It was sponsored by the CSIRO and organized by myself with support from several CSIRO social scientists, under the programme title of 'Australian Climate Policy Forum'. Objectives of the forum were to evaluate current government efforts, consider the future of Australian emission mitigation policy and assess its potential economic

implications. Activities included group discussions and expert presentations about global climate change. Twenty four ordinary citizens participated in the workshop. Remuneration was provided at the rate of A\$50 per person in the form of gift coupons.

7.3.2 Participant recruitment

Participants were recruited from around the Canberra region via random mail. The recruitment was initially undertaken by another ANU team under the project ‘Climate Change and the Public Sphere’ which involved a deliberative process on a similar topic. About 150 of those who were not invited to the programme of that other project due to limited vacancies were later contacted via email and invited to the present one. A ‘Project Outline’ was attached to the email to describe the project (Appendix A.1.1). About 28 of those expressed interest. All of them were then asked to respond to a short questionnaire administered through email, which gauged their basic socioeconomic information and initial views about three approaches for emissions mitigation, namely, emission trading, carbon tax and voluntary offsetting (Appendix A.1.2). These information provided basis for participant selection, which was intended to capture the whole spectrum of views across all age groups and education levels. Participation was confirmed via email about two weeks prior to the workshop. Two individuals eventually withdrew.

The number of interested individuals did not permit a rigorous selection. Twenty four were invited out of the 28 who expressed interest and two withdrew and replaced. This means there was little room for selection and eventually only two individuals were declined. This created a group of highly motivated individuals with firmly held beliefs, which means that dispute was more likely to occur. Another consequence was an unrepresentative demographic. More males (15) were in attendance than females (9). Most were middle-aged and educated working professionals. (Table 7.1). The homogeneity might be a result of the relatively narrow local demographic profile and

the failure to reach a larger population of potential participants. Thus, younger generations and working class were underrepresented. Twenty lived in Australian Capital Territory, mainly Canberra, and four New South Wales, mainly Goulburn.

Table 7.1 Forum participants' background

Group No. *	Name**	Gender	Education Attainment	Age Group	Occupation	State^
1	John	Male	University degree	18-25	Student	ACT
1	Brian	Male	Postgraduate	>55	Company director	NSW
1	Cynthia	Female	Postgraduate	46-55	Management consultant	NSW
1	Ian	Male	University degree	> 55	Public servant	ACT
1	Ross	Male	University degree	46-55	Patent examiner	ACT
1	Claire	Female	University degree	46-55	Community coordinator	ACT
1	James	Male	University degree	> 55	Retired	ACT
1	Mark	Male	University degree	> 55	Retired	ACT
2	Elaine	Female	Postgraduate	> 55	Enterprise architect	ACT
2	Phillip	Male	Postgraduate	> 55	Police officer	ACT
2	Howard	Male	Postgraduate	26-35	Environment officer	ACT
2	Stephanie	Female	Postgraduate	46-55	Public servant & consultant	ACT
2	Dan	Male	Postgraduate	> 55	IT professional	ACT
2	Wilson	Male	University degree	> 55	Retired	ACT
2	George	Male	University degree	18-25	Student	ACT
2	Alan	Male	University degree	> 55	ICT executive	ACT
3	Helen	Female	Postgraduate	36-45	Policy advisor	ACT
3	Florian	Male	Postgraduate	46-55	Journalist	NSW
3	Liana	Female	University degree	> 55	Tutor	ACT
3	Kate	Female	University degree	> 55	Retired	ACT
3	Kevin	Male	Postgraduate	> 55	Media officer	NSW
3	Nancy	Female	Postgraduate	> 55	Retired	ACT
3	Mike	Male	Leaving certificate	> 55	Retired public servant	ACT
3	Sarah	Female	Postgraduate	36-45	Geophysicist	ACT

* Discussion group number.

** Names have been arbitrarily assigned to preserve participant anonymity.

^ ACT: Australian Capital Territory; NSW: New South Wales

7.3.3 Programme

Figure 7.4 provides a sample of the programme sheet. Four specialists were involved as invited presenters. The specialists were selected, based on their expertise and relevance to the theme of the workshop, to provide the participants information and knowledge related to specific topics, and an opportunity to raise questions about these topics in front of experts. The first seminar in the morning was delivered by Mark Stafford Smith, Science Director of the CSIRO Climate Adaptation Flagship, on the science of climate change, its impacts on Australia and possible adaptive strategies. It was followed by Steve Hatfield-Dodds, Assistant Secretary in the Department of Climate Change and Energy Efficiency, Commonwealth of Australia, who presented on the economic implications of climate change and policy responses. After the first section of group discussion among participants, Hayley Stevenson, a political scientist at the ANU, provided an overview of the international climate politics with a focus on the Kyoto Protocol and Clean Development Mechanism. The last seminar covered the economics of emission trading and carbon tax. It was delivered by Andrew Reeson, Research Scientist at the CSIRO, and focused on the mechanisms of these different policy approaches and their strengths and weaknesses. The presenters were allocated 30 minutes, however the final presentation was allotted 45 minutes to respond to queries by workshop participants and provide more detailed information suited to the participant deliberation that followed the presentations.

Opportunities for group discussion were arranged between the expert presentations and constituted the main focus of the event. The main theme concerned with the proposed carbon pricing and clean energy financing arrangements in Australia. Participants shared experiences, exchanged views and raised questions to the invited specialists. The deliberative process was split into three sessions. Assigned discussion topics were structured around the main theme and ranged from general to specific

aspects, including the need for more national commitments, the preference for different carbon pricing instruments, to the acceptable level of financial contributions at the personal and society's levels (described below). Duration ranged from 30 to 40 minutes each. Group consensus was not a requirement. Three tables were arranged and the participants were allowed to freely choose one for discussion (same set of discussion topics for all participants). Each of the three small groups consists of eight participants. They were encouraged to reshuffle, although all stayed at the same table throughout the programme. Three CSIRO social scientists facilitated the discussion. Indicative questions that guided the discussion were detailed in the 'Notes for Facilitators' (Appendix A.1.3). In each session, a worksheet was provided to all participants to provide some background information about the discussion topic and simple tasks to assist the group deliberation (see Appendix A1.4 - 1.7).

The first session served a 'warming-up' purpose and was titled 'Concern about Climate Change'. It was intended to spark a debate on the roles of Australian governments, citizens and other relevant parties in dealing with climate change. Participants began by defining the problem at hand and expressed their views about general issues, such as Australia's responsibility in greenhouse gas mitigation, the performance of the government and importance of emission mitigation comparing to other policy areas, etc. The debate started with participants reading and discussing a news article on the Prime Minister's announcement on the proposed 'citizens assembly' (Appendix A.1.4). Each of them also received Worksheet 1, which helped focus the discussion on specific subtopics by providing two simple ranking exercises about national priority and responsibility attribution respectively (Appendix A.1.5). The small group discussions finished in 20 minutes. In the remaining 10 minutes the three groups joined together to exchange opinions under facilitation. Each nominated one group member to share the views of the group he or she represented.

Figure 7.4 Sample of programme sheet

 		
Australian Climate Policy Forum Discovery Centre, CSIRO Black Mountain Laboratories, Acton, ACT 9:30am-4:30pm, 31 July 2010 (Saturday)		
Time	Activity	Details
0930	Registration	
1000	Introduction	Introduce the project team. Describe the project.
1030	Invited Speech Climate change and its impacts on Australia	Introduction to the science and impacts of climate change, and possible adaptation measures for Australia Mark Stafford Smith , <i>Science Director, Climate Adaptation Flagship, CSIRO</i>
1100	Invited Speech Economic implications of climate change	Impacts of climate change and policy responses Steve Hatfield-Dodds , <i>Assistant Secretary, Strategy, Projections and Analysis Branch, Department of Climate Change and Energy Efficiency</i>
1130	Morning Tea	
1150	Group Discussion	How concerned are you about climate change?
1220	Invited Speech Global Politics of Climate Change	Overview of the international climate politics and introduction to the Kyoto Protocol and Clean Development Mechanism Hayley Stevenson , <i>Postdoctoral Fellow, School of Politics and International Relations, ANU</i>
1250	Lunch	
1350	Invited Speech Carbon Markets and Implications for Australia	An introduction to emissions trading, carbon taxes and voluntary carbon markets Andrew Reeson , <i>Research Scientist, Sustainable Ecosystems Division, CSIRO</i>
1435	Group Discussion	Which approach for emission reduction is preferred?
1515	Afternoon Tea	
1535	Group Discussion	Would you financially support the development of low-emission technologies?
1615	Opinion Survey and Participant Feedback	
1630	Close and Thank you	

Updated 30 July

‘Carbon Pricing’, which was central to the current debate in Australia, was the theme of the second session. This session was devoted to an open discussion on the merits of the four possible carbon pricing arrangements, namely, emission trading, carbon tax, voluntary carbon offsetting, and no action (‘no carbon pricing on human activities is needed’). The four options were briefly described in Worksheet 2 (Appendix A.1.6). This session immediately followed the expert presentation on emission trading. The presenter, Andrew Reeson, joined the groups occasionally to clarify technical issues and answer relevant questions. Indicative questions included: ‘*Do you accept the idea of carbon pricing?*’, ‘*What do you know/feel about the proposed CPRS*’, and ‘*Is carbon tax better than emission trading?*’. Intended subjects of these questions (i.e. individual or society) were open to participants’ own interpretation, except those specifically concerning personal experiences. There was no attempt to insert a citizen frame. Twenty five minutes were reserved for the small group discussions. Again, the debate was opened up to all groups in the remainder of this session.

The third session had a more focused theme, i.e. ‘Financing Low-emission Energy Technologies’ and involved issues of WTP. Participants considered a range of WTP issues based on a semi-hypothetical scenario. The Australian Government announced in May 2010 that its Clean Energy Initiative (CEI) would be expanded (in addition to other existing initiatives), where \$5.1 billion would be spent over 10 years (2009-2019) in research and development of low-emission energy technologies. Participants were told that the CEI complements the Government's expanded Renewable Energy Target, i.e. by 2020, 20% of Australia's electricity supply is to come from renewable sources. Worksheet 3 provided some background information to the participants, including the 2010/11 budget of the Australian government and the share of energy supplied from renewable sources in different countries (Appendix A.1.7).

The guiding questions that followed constituted the hypothetical component. The

central issue here was how much the participants would be willing to pay for emissions mitigation through such a government programme. An indicative \$35 per person per year was stated as a reference point, which was calculated by dividing the required \$5.1 billion by working age population. The first set of guiding questions explored the individuals' concerns about the adequacy of the proposed funding amount (i.e. is \$5.1 billion or \$35 enough) and motives. Other questions examined the variation in their WTP decisions under various possible policy circumstances, such as if only 15% target would be guaranteed, if global financial crisis would return, if only one-third of Australians would be required to pay. These questions represented controlled variations in the hypothetical scenario in terms of anticipated outcome of payment, macro-economic condition, and distributional justice. The purpose was to understand how these variations would affect the individuals' WTP decisions. All these questions assumed payment via a tax. If time permitted, some of the issues were raised again under a different frame, where the money would be collected by energy companies through increased energy prices and the companies could use the raised funds at their discretion (resembling ETS). Additional questions covered trust issues, intention to contribute in the absence of official target (resembling voluntary offsetting) and the importance of global agreement. This session was limited to small groups.

7.3.4 Data collection

Data were collected in two ways. First, the group discussions were tape-recorded. The tape recordings produced a series of transcripts which formed the basis of the analysis of deliberative dynamic. Second, the participants completed a questionnaire at the beginning and the end of the workshop (Appendix A.1.8). The questionnaire was divided into three parts. The first part involved respondents ranking the mentioned four carbon pricing options (i.e. ETS, carbon tax, voluntary offsetting, and no carbon

pricing), from most preferred to least preferred (exclusive choice). In the later analysis this is taken as the policy *preference* of the participants. In the second part, they stated, in an open-ended format, a maximum monthly WTP in Australian dollar for emission mitigation for the next five years.

The final task of the questionnaire was based on 22 statements, which captured current opinions flowing around the actual debate about climate change and related policy issues. These statements spread across three main themes, namely, perceived importance of climate mitigation, expected role of the government and markets, and potential implications of official carbon pricing. Examples included '*Additional costs to households should be avoided*', '*We do not yet have consensus on the science of climate change and so should not take action to reduce greenhouse emissions*', '*Market-based approach should be used to ensure efficiency*', '*Direct regulation is more effective than any form of carbon pricing*', and '*Our climate policy should be able to affect other countries' decisions on emissions reduction*'. Each of the statements was assessed on the basis of a nine-point scale (from strongly agree to strongly disagree). They were subsequently analyzed using Q method (introduced in the next chapter) to provide information on the respondents' subjective values (and beliefs). A pilot test was administered to 6 individuals to ensure clarity and relevance of the survey questions.

7.4 SUMMARY

A case study was designed and organized by the author to lend empirical support to address the theoretical problems identified in the preceding chapters. It involved an experimental deliberative forum on the climate change policy of Australia and was conducted in Canberra, Australia. Twenty four citizens took part in a one-day workshop focusing on issues around the ETS and its alternatives. Activities include group

discussions among these individuals and presentations by four policy specialists and scientists. Audio recordings of the discussions provided a basis of analysis. Data were also collected from a questionnaire administered immediately before and after the main programme. The questionnaire gauged the participants' preference about four carbon pricing options, WTP for emissions mitigation, and values and beliefs assessed by 22 statements concerning various issues about climate change. These data are reported in the following chapters. The next chapter offers evidence on the emergence of a workable agreement and is based on the participants' responses to the questionnaire survey. The audio recordings are then analyzed in Chapter 9 to examine the actual role of rhetoric in the deliberative process.

PART IV

DELIBERATIVE DYNAMIC ANALYSIS

CHAPTER 8

OBSERVED VALUE AND PREFERENCE TRANSFORMATION

8.1 INTRODUCTION

DMV seeks consensus at a preference level (e.g. a group-determined social WTP or agreement to pay as an individual contribution) and attempts to preserve pluralism at a value level. These ideals seem to point in opposite directions. Prospect for concurrent fulfilment as a goal of DMV has been subject to doubts. I argue in Chapter 6 that if we hold the *normative* position that subjective values and preferences need consistency within and between individuals, then a value-articulating institution that strives for agreed solutions might risk compromising value plurality. For any stated preference associated with competing value categories would be relegated to an irrational response. Attempts to elicit plural values in monetary terms would then always imply a contradiction. This constitutes the key limitation of the preference economization and moralization approaches of DMV. Preference consensus and value pluralism have to be reconciled to make the project of DMV defensible.

This chapter empirically tests the idea that deliberating individuals may agree on a course of action while disagreeing on reasons. Survey data collected for this research provide a basis for assessing the impact of deliberation in terms of value and preference transformation. The operational objective is to examine to what extent changes in stated preference are in proportion to changes in subjective values,, by applying the concepts introduced in Chapter 6. A technique called Q methodology, which has been employed or proposed as relevant to the study of subjective values (Dryzek, 1990; Niemeyer and

Dryzek, 2007), was used to analyze the data. The next section describes this technique.. It is followed by a detailed report on the variations in the individuals' subjective states, preference rankings and stated WTPs as a result of the deliberation.

8.2 Q METHODOLOGY

8.2.1 Methodological assumptions

Q methodology was invented by the psychologist William Stephenson during the first half of the 20th century (Stephenson, 1935). It provides a systematic and rigorously quantitative means for the scientific study of human subjectivity while minimizing researcher bias (Stephenson, 1953; Brown, 1980). Q has been used in a broad range of fields, including political psychology, social psychology, sociology, and political science.

Subjectivity is a person's point of view on any matter of personal and / or social importance. Its components parts of a phenomenon have status only within the context of the whole (Brown, 1980). It can only be defined in terms of the participant's frame of reference, and not the survey analyst's. So the key to a Q study is to relinquish modelling of data to the respondent to preserve the integrity of the participant (Robbins and Krueger, 2000). Usual forms of opinion survey (i.e. R methodologies) involve an imposed reality; a participant's point of view is sought from his or her responses to scale items constructed purposively by the analyst. Agreement on a scale stimulus makes sense in terms of the analyst's prior definition of the constructed scale. An external frame of reference is applied.

The investigative focus of Q is a person's communication of his or her point of view within an internal frame of reference (McKeown and Thomas, 1988). The meaning is given by the participant's organizing his or her point of view in relation to a

self-assembled internal structure. In Q, every response is understood within the context of its relationship with the other responses. The meaning and significance of each response depends on its association with the self-constructed frame of reference of which it is a part. Moreover, each individual's location only exists and makes sense by virtue of every other subjective position found in the 'concourse' (the complete volume of discussion on a particular topic). A discourse identified by Q exists always in response to other discourses.

Q methodology does not engage in typical scientific measurement. Typical survey requirements do not apply. Predictability, for example, is irrelevant. Subjective opinions are unprovable and make sense on their own terms; no outside criterion apply. Thus the concept of validity is of little relevance (Brown, 1980). Q methodology does not attempt to measure anything objectively (Addams, 2000). Nor does and can it seek causal explanation of individual actions. It seeks explanation as to the patterns of viewpoints and attitudes appearing in different Q sorts.

Moreover, Q makes no claim of demographic representation. Unlike R methods, it does not need a large number of cases to cancel out the measurement errors as a result of the variations in individual understanding of the objective scale. It therefore works even with a small sample size (e.g. 12). Generalization of beliefs across the population is not a concern of Q methodology. Q pursues generalization of discourse across a concourse of concern (Dryzek, 1990). The participant under investigation is arguments and the population is the pool of opinions, not individuals. In Q, the statistical roles of respondents and their responses to survey questions are inverted.

Q methodology is used for this study because it is suitable for DMV study which typically involves small number of respondents. Another reason is that the method is compatible with the core idea expressed in the previous chapters that the researcher's prejudgements should be minimized. Solicitation of opinions using Q allows subjects

speak for themselves about their dispositions and the categories that these dispositions help construct in a self-referent fashion. Researchers do not hold them up against any measuring rod external to them. No preconceptions apply to the content of subjects' dispositions. As such, conceptually Q is broadly consistent with the theory of discursive democracy (Dryzek, 1990). Q inquiry is attuned to post-positivism (Durning, 1999) and post-normal science (Swedeen, 2006).

8.2.2 Procedure and analysis

The method involves participants' sorting a purposively sampled set of stimuli, called Q sample. Q sample consists of a representative set of statements (usually 40-60) related to the issue of concern. The Q sample should reflect the diversity of views in the concourse, and refer to opinions rather than facts. Each Q participant is confronted with the Q sample and rank-orders them within a specified distribution, which is usually coded with a scale from 'most agree' to 'most disagree'. The rank-ordered set is called a Q sort. The (usually) forced distribution of the rating scale has fewer statements to be placed at the extremes and more in the middle. Thus Q sort takes the form of a quasi-normal distribution.

Q sorts are factor analyzed. A subjective outlook on the issue is produced by comparing the Q participants. This is accomplished by statistically correlating individual Q sorts against one another. Unlike R methods, individuals, rather than traits or Q-sample items, are taken as variables to be correlated. The purpose of factor analysis is to find a smaller number of families of Q sorts that constitute coherent patterns among the participants. Resulting factors represent assembled points of view, or discourses. Each identified discourse consists of a distinct set of responses and represents categories described similarly by those individuals who are significantly 'loaded' on the same factor. A single factor does not represent the point of view of any

one individual, but an idealized Q sort that is distinguishable from other subjective orientations uncovered. Factor loadings are essentially correlation coefficients, indicating the extent to which each Q sort is similar or dissimilar to the composite factor.

Factor interpretation is based on the factor scores. Factor scores for each factor are the scores gained by each Q statement and calculated as a weighted average, where higher weights are assigned to those Q sorts more significantly loaded on that factor. The weighted scores are normalized for direct comparison by converting to z-scores. Individual factor scores show how each statement would have rated on a factor had it been measured directly. These factor scores yield a composite factor that models a hypothetical individual who has a 100% loading on the factor. The statements are substantially significant relative to the factor; the interpretation of each statement, therefore, is participant to the dynamic of all statements as rank-ordered by the respondents, i.e. self-referent. Each factor is also given by the context contributed by all other factors. As such, Q methodology derives opinions from the interaction of perspectives existing in a concourse.

Examination of significant factors, or 'typical discourses', is an interpretative activity by Q investigators. This involves an elaboration on the overall patterns and interrelationships of those statements as rank-ordered in the idealized Q sorts that indicate distinct viewpoints and attitudes. The interpretation is advanced in terms of consensual and divergent subjectivity with attention given to the relevance of such patterns to existing or emerging theories or propositions (McKeown and Thomas, 1988). Possible explanations are provided for the factor arrays by taking into account how statements are placed relative to one another both within and between each discourse. As a common practice, each factor is given a label to pinpoint a particularly salient characteristic of the factor type and reported in the form of a narrative which

summarizes the viewpoints and attitudes the factor represents.

8.3 ANALYSIS OF STATED PREFERENCE AND VALUE

8.3.1 Preference ranking and WTP

Each participant completed a questionnaire in two sessions (before and after deliberation), producing two sets of policy ranking and WTP response. Despite the requirement of exclusive choice some individuals put more than one option at the same rank. Both before and after deliberation there was a clear tendency towards official carbon pricing in terms of stated preference (Table 8.1). By aggregate ranking a carbon tax would be chosen. It received 12 primary votes, or 50% (12/24 participants), whereas 9 votes, or 37.5%, went to emission trading. Neither grabbed more than half and the former beat the latter by a narrow margin. The group was fairly divided prior to deliberation. Nonetheless, the majority were united in putting voluntary offsetting and 'no pricing' in a low priority. These were consistently ranked as third or fourth choice, indicating a general endorsement of official carbon pricing. This might be an outcome of self-selection where most of the participants were highly motivated and committed to more than minimal actions.

It is worth noting that two participants (Mike and Nancy) held completely opposite views. 'No carbon pricing' was their favourite whereas carbon tax, the most popular option, was relegated to the least or second least preference. While Mike seemed to have a softer view toward unofficial carbon pricing, Nancy effectively rejected everything. The different views of these two participants had been expressed prior to the workshop when they were contacted via email. They were prompted for explanations for failing to complete the email questionnaire as requested⁹. The email replies

⁹ Yet they agreed to complete the paper questionnaire administered right before the deliberation. Table 8.1 reports their responses to this version of questionnaire.

suggested a belief that Australia's contribution to global CO₂ emission is minimal, climate change is not human induced, and it is not fair for Australia to reduce greenhouse gas emissions. The refusal to state a WTP is understood as a kind of protest response arising from a strong disagreement with the presumed scenario. It was not evident that the two participants saw *global* emission mitigation as unnecessary, but they doubted the responsibility required of the country and its citizens on some moral grounds (e.g. the justice of cost distribution between Australia and bigger countries in terms of population). Mike appeared to be more open-minded.

The aggregate ranking did not change following deliberation. Carbon tax and emission trading occupied the first two ranks in most cases, reflecting a continuing struggle over the two possible options of official carbon pricing. Carbon tax, the most preferred option increased in rank following the workshop. It was chosen by more people as principal option, yielding a net increase from 12 to 16 votes, or 50% to 62% of the total¹⁰. This suggested that an agreement on preference was emerging. Mike, who once rejected carbon pricing, has contributed to the increased support. Nancy became more sympathetic to emission trading, putting it at second. Support for emission trading declined by only one vote, leaving 31% in favour of this option. The widened preference gap indicated a tendency toward a particular option, although the emerging agreement was far from unanimous.

¹⁰ One individual (Dan) ranked three options as first preference, raising the total number of primary votes to 26. $16/26 = 62\%$

Table 8.1 Participants' preference ranking and willingness-to-pay (WTP)

Subject	Pre-deliberation					Post-deliberation				
	Emission trading	Carbon tax	Voluntary offsetting	No carbon pricing	WTP (AUD)	Emission trading	Carbon tax	Voluntary offsetting	No carbon pricing	WTP (AUD)
Alan	2	1	3	4	200	2	1	3	4	200
Brian	2	1	3	4	200	3	1	2	4	200
Claire	2	1	3	4	50	2	1	3	4	50
Cynthia	4	1	4	4	100	2	1	3	2	100
Dan	2	3	1	4	500	1	1	1	4	50
Elaine	1	2	3	4	100	1	2	3	4	100
Florian	2	1	3	4	100	2	1	3	4	100
George	1	2	3	4	Not specified	1	2	3	4	25
Helen	1	2	3	4	71	2	1	3	4	80
Howard	1	2	3	4	30	2	1	3	4	23
Ian	1	2	3	4	100	2	1	3	4	50
James	2	1	3	4	120	2	1	3	4	150
John	1	2	3	4	50	1	2	3	4	20
Kate	2	1	3	4	150	2	1	4	3	150
Kevin	1	2	3	4	100	1	2	3	4	90
Liana	2	1	3	4	100	2	1	3	4	100
Mark	1	2	3	4	20	1	2	3	4	4
Mike	4	3	2	1	Refused	3	1	4	2	20
Nancy	4	4	4	1	Refused	2	4	3	1	5
Phillip	2	1	3	4	50	2	1	3	4	50
Ross	2	1	3	4	200	2	1	4	3	200
Sarah	3	1	2	4	100	4	1	2	3	85
Stephanie	2	1	3	4	50	1	2	3	4	50
Wilson	1	2	3	4	100	1	2	3	4	70
Sum of rank	46	40	70	90		44	34	71	86	
Aggregate rank	2	1	3	4		2	1	3	4	
Principal option (No. of participants)	9	12	1	2		8	16	1	1	

The other two options, voluntary offsetting and no pricing, remained less popular.

Some participants ranked the latter more favourably (Cynthia, Kate, Ross and Sarah).

This does not match their relatively high WTPs (A\$100, A\$150, A\$200 and A\$85, respectively), but seems to reflect a reduction in preference for the main alternatives: voluntary offsetting or emission trading. Contrary to usual expectations, there was no obvious upward movement in the stated WTP. WTP went down in eight cases and up in just four. The deliberation resulted in enhanced agreement to pay for emissions mitigation. Both of the protest bidders (Mike and Nancy) returned to a positive WTP (A\$5 and A\$20 respectively). This indicated a qualitative convergence in willingness to pay, a form of preference agreement where all agreed upon the same course of action, i.e. making financial contribution. Note that, nevertheless, ‘no carbon pricing’ remained the first and second preference of Nancy and Mike respectively.

8.3.2 Subjective discourses

The two sessions of survey yielded 48 Q sorts, which captured the participants’ values and beliefs about human-induced climate change and emissions mitigation (see Appendices A.2.1 and A.2.2 for individual Q sorts). The Q sorts were factor analyzed as a single block using principal component method followed by varimax rotation. Factor analysis extracted three factors¹¹. An extracted factor represents a coherent set of idealized perspectives constituting a distinct discourse and is defined in terms of the normalized factor scores associated with each statement (Table 8.2). Each of the three discourses is accordingly identified with a label and described with a narrative. The narratives presented below are constructed based on my interpretation of the normalized factor scores, i.e. an interpretation of Table 8.2. (The numbers in the brackets refer to statement numbers in Table 8.2)

¹¹ The analysis was limited to three factors because an initial interpretation of the factor metrics suggested that extraction of additional factors led to a lack of clear distinction across two dominant factors.

Managed Marketization (*Factor A*). This discourse accepts the science of human-induced climate change as valid and sees mitigation of greenhouse gas emissions as necessary (1, 6, 18). It affirms the potential of markets and commercial investments in mitigation (7, 21), in favour of direct regulation (17). Nevertheless the market liberal discourse does not resist administrative measures. There is some confidence in a bigger government with no strong concern on transparency issues (4, 12). Compulsory contribution from households and businesses is supported (8, 9). An important yardstick is actual consequences defined in terms of mitigative effects and global influence (2, 22). The discourse demands that governments set agenda and enforce targets, while enabling the markets to meet these targets efficiently. It has captured the main features of cap-and-trade mechanisms, where governments set rules to utilize market forces. Factor loadings on this discourse are statistically higher for those who ranked emission trading as the most preferred option ($t = 3.573$, $p < 0.01$). This means that its adherents prefer emission trading to its alternatives.

Strong Government (*Factor B*). Like Managed Marketization, this discourse affirms the science of human-induced climate change and stresses the need to respond (1, 6, 18). It runs in a different direction by holding stronger resistance to market-based approaches (7, 21). Preference goes to direct regulation (17), but it is conditioned upon the balance of regulation and bureaucracy and the openness of the system (4, 12). Commitment to climate protection does not depend on actual global impacts through influencing other countries (16) nor, at least not strongly, a guarantee of a level of emission reduction (2). The belief that someone has to pay appears slightly stronger (3, 14, 20). This discourse is intrinsically motivated and hostile to the markets, which are better at providing extrinsic incentives for the

management of public goods, as part of the solution to the climate change problems. State-led regulatory programmes are granted with cautions. Adherents of this discourse prioritize carbon tax ($t = 2.686$, $p < 0.05$).

Scepticism (Factor C). Scepticism stands in contrast to the above two discourses. It involves a denial of the existence of human-induced climate change and refusal to take actions prior to scientific consensus (1, 6, 18). Compulsory contribution from households is categorically rejected as it would increase their economic burdens (3, 20, 8). It seems to be a liberal discourse being pro-market (7, 21) and indifferent to requests for more industrial commitments (9, 11, 14). However, it generally supports politicians and administrative solutions (4, 5, 17). The discourse is hostile to global citizenship: it does not seek to influence other countries while demanding their initiatives (16, 22). Sceptics tend to see no need for pricing carbon ($t = 6.804$, $p < 0.01$).

Table 8.2 Factor scores

No.	Statement	Factor			
		A	B	C	
1	Mitigation impacts	National greenhouse gas (GHG) emissions should be considerably reduced.	4	4	-4
2	Certainty of impact	An emission reduction scheme should involve a guarantee that a certain level of reduction will be achieved.	4	2	-1
3	Costs to households	Additional costs to households should be avoided.	0	-1	4
4	Bureaucracy	A government-led reduction scheme would create bureaucracy and should be avoided.	-4	0	-4
5	Trust in politics	We can't rely on the government to reduce GHG emissions. I don't trust politicians.	-1	0	-4
6	Scientific consensus	We do not yet have consensus on the science of climate change and so should not take action to	-4	-3	4

		reduce greenhouse emissions.			
7	Efficiency	Market-based approach should be used to ensure efficiency (i.e. lowest possible cost for a given level of emission reduction).	4	-4	3
8	Compulsory share (household)	Reducing GHG emissions should involve a compulsory share by households	3	3	-4
9	Compulsory share (business)	Reducing GHG emissions should involve a compulsory share by businesses	4	4	0
10	Continuity	Climate policy should involve political certainty, e.g. not easily affected by change of government.	4	4	4
11	Compliance	We need a system that enforces compliance of companies to reduce GHG emissions	4	4	0
12	Transparency	Emissions reduction policy should be transparent and easy to understand by all.	0	4	4
13	The poor pay less	Lower-income families should contribute proportionally less to emission reduction.	3	4	4
14	Industries pay more	Energy-intensive industries should be responsible for the costs of emission reduction.	2	3	0
15	Cost transfer	Businesses should not pass the costs of emission reduction on to consumers.	0	0	0
16	Global action	We should not take action if other countries do not do the same.	0	-4	4
17	Direct regulation	Direct regulation is more effective than any form of carbon pricing.	-4	3	3
18	Human contributions	The effect of humans on climate is small. Reducing emissions is not a priority.	-4	-4	3
19	Fairness	It is only fair that every Australian helps to reduce GHG emissions.	3	4	2
20	No tax	I already pay enough tax, we don't need a new one.	-3	-4	4
21	Profit allowed	Companies should be allowed to make profit by reducing their own GHG emissions.	4	0	3
22	Global influence	Our climate policy should be able to affect other countries' decisions on emissions reduction.	3	3	-3
Eigenvalue			16.83	17.13	3.92

Note: Level of agreement based on a 9-point scale (-4 = strongly disagree to 4 = strong agree)

Main differences between the three discourses can be identified in terms of trust in markets and trust in science. The two pro-climate discourses, Managed Marketization

and Strong Government, have comparable variance as indicated by their eigenvalues (16.83 and 17.13 respectively). They share the view that the global climate is changing due to industrial activities. Managed Marketization is characterized by a more pragmatic environmentalism that gives more emphasis on efficiency and mitigative consequences. Carbon pollution is attributed to market failures. Governments should correct the markets through proper regulation. Strong Government presents a more conservative and less consequentialist environmentalism. The markets are considered inherently flawed, so that governments should explore alternatives to avoid repeating the failures.

Scepticism has a much lower variance (3.92). It seems to be self-contradictory by containing both pro-market and pro-government elements. To the sceptics the climate is fine and the government has done enough. Unlike Managed Marketization, Scepticism does not embrace the markets *per se* (see the quote from Mike in Section 9.3.4 in Chapter 9). The disposition stems from a belief that there is no more need to get the government involved in emission mitigation beyond existing regulatory efforts. This is evidenced by the seemingly contradictory attitude toward the idea of carbon pricing (Statement 17 - direct regulation in favour of carbon pricing), which is based on markets. Although Scepticism has confidence in a strong government, this is probably because it does not regard the Australian government as failing to address global climate change. Strong Government, to the contrary, wants more from the government to redeem its failures, and thus remains cautious of politics.

In summary, the three discourses can be distinguished in terms of the expected role of government. To Managed Marketization, governments should do more to repair the markets, whereas to Strong Government, they should explore alternatives to the markets. To Scepticism, governments should avoid taking action until there is consensus on science and international politics.

8.3.3 Agreement and disagreement on values and beliefs

Table 8.3 presents the correlation between each participant's Q sort and the idealized Q sort denoting the corresponding factor. The great majority of participants were significantly loaded on either Managed Marketization or Strong Government (Factors A and B respectively) prior to deliberation, and many were associated with both at the same time. Scepticism (Factor C) proved to be a zone of polarization with a number of negative loadings. Only three mounted on this discourse (Kate, Mike and Nancy) and two of them were strongly associated (Mike and Nancy, factor loadings 90 and 87 respectively). These individuals are hereafter identified as sceptics.

Deliberation did not change the subjective landscape dramatically. Most of the participants continued to struggle over the two dominant positions and many mounted on both. Comparing with the pre-deliberation loadings, although four more participants subscribed to Managed Marketization to a significant degree, two more were principally loaded on Strong Government. Moreover, three more participants became associated with two factors, rising from 15 to 18. The three sceptics remained significantly loaded on Factor C although loadings decreased. The number of individuals in significant agreement did not decline across all of the three factors.

The post-deliberation relationship between Scepticism and the other two discourses is worth noting. The two strong sceptics (Mike and Nancy) experienced a substantial growth in affinity for an alternative discourse. Nancy became more sympathetic, although not to a statistically significant degree, to the Managed Marketization discourse with a correlation 28, rising from -24. Mike shared with

Table 8.3 Participants' Factor Loadings (x100)

Subject	Pre-deliberation			Post-deliberation		
	A	B	C	A	B	C
Alan	34	75 *	-32	56 *	70 *	4
Brian	63 *	71 *	-13	42 *	88 *	-11
Claire	73 *	59 *	18	83 *	29	4
Cynthia	24	89 *	-18	42 *	85 *	-13
Dan	37	67 *	19	49 *	77 *	-16
Elaine	58 *	49 *	-29	73 *	51 *	-1
Florian	64 *	60 *	-19	67 *	66 *	-15
George	73 *	39	-6	78 *	41 *	-15
Helen	54 *	77 *	1	69 *	69 *	8
Howard	77 *	50 *	10	75 *	58 *	-12
Ian	63 *	58 *	11	71 *	54 *	5
James	71 *	56 *	-4	50 *	65 *	-4
John	80 *	32	-4	82 *	21	-2
Kate	33	46 *	59 *	54 *	12	44 *
Kevin	68 *	64 *	23	58 *	74 *	9
Liana	39	85 *	-13	55 *	72 *	-3
Mark	74 *	52 *	0	80 *	45 *	-5
Mike	-10	-31	87 *	-10	50 *	58 *
Nancy	-24	-12	90 *	28	-16	72 *
Phillip	35	29	-24	61 *	5	38
Ross	56 *	69 *	-19	38	74 *	-2
Sarah	51 *	66 *	4	19	92 *	20
Stephanie	70 *	59 *	2	68 *	62 *	-12
Wilson	81 *	47 *	17	62 *	64 *	23
No. of participants	16	19	3	20	19	3
in significant agreement						
Principal factor	12	8	3	12	10	2

Note: * denotes significance, which is determined by standard error = $1/\sqrt{N}$ (Brown, 1980), where N denotes number of statements. At the 95% level, significance cut-off is around 40 ($1.95 \times 1/\sqrt{22}$).

Strong Government with a correlation 50, rising from -31. Other individuals appeared to be impressed by the sceptical perspectives to varying extents. They did not, however, remarkably withdraw from their pro-climate positions. Take the three observations with the greatest growth in Scepticism as examples. While being influenced by the sceptical views, Elaine and Phillip had their loadings on a pro-climate discourse increased, and Alan became associated with both Factors A and B. Scepticism was not swept away. Both Mike and Nancy were characterized by the same sceptical factor, and the reduction in their factor loadings was offset by the growth contributed by other individuals (see also Table 8.4 below). Kate and Mike (and perhaps Phillip as well) gained access to two competing discourses.

Table 8.4 displays the average correlation between subjective positions. The first row presents the correlation between participants and a discursive position, or an idealized Q sort. It is computed by averaging the factor loadings on each of the three factors, i.e. column average in Table 8.3. These estimates measure the extent to which the individuals adhered to a particular political ideal. All of the average values remained statistically unchanged after deliberation. Overall, therefore, there was no observed conversion of values and beliefs leading to shrinkage or expansion of discourses.

Table 8.4 Average correlations between subjective positions

Average correlation (x100)	Pre-deliberation			Post-deliberation		
Between participants and a discursive position	Factor			Factor		
	A	B	C	A	B	C
	52	52	7	56	54	7
Between pairs of participants	53			60*		

* $p < 0.01$

Average correlation between *pairs of participant* is presented at the bottom of Table 8.4. It is computed by comparing an individual's value ordering with every other's,

i.e. correlating each participant's Q sort to the other 23 participants individually. These estimates measure the extent to which the individuals shared with each other in terms of subjective experience (inter-subjectivity). The average value significantly increased from 53 to 60 ($t = 5.702$, $p < 0.01$). This shows that the deliberation has improved inter-subjective understanding among the participants. It nonetheless did not conclude with a normative consensus, as evidenced by the limited degree of convergence in subjective values in aggregate terms. The emergence of inter-subjective coherence did not go with a tendency of normative uniformity.

In summary, the deliberation has enabled communication between competing discourses. None of the identified discourses diminished, suggesting that differences in value and belief were not erased. Instead, there was a broadening of understanding across discursive divide, indicated by the increasing sharing of subjective experience between the participants. A symmetrical communication was working, contributing to the enhanced recognition of competing positions. There was more support to the concept of carbon tax and increasing willingness to pay from the sceptical individuals. In other words, the improving agreement on a course of action emerged under persistence of different reasons and not a tendency of normative uniformity. Therefore, it may be explained in terms of a workable agreement.

8.3.4 Diminishing inter-subjective consistency

If a workable agreement has been achieved, one would expect a reduction in inter-subjective consistency. Two individuals mutually agreeing on a course of action for different reasons are considered inter-subjectively irrational. Preference economization and moralization require the sharing of subjective values as well as preference among individuals and expect an increasing level of consistency as a result of group deliberation. The present case study illustrates a deep conflict in opinions, due

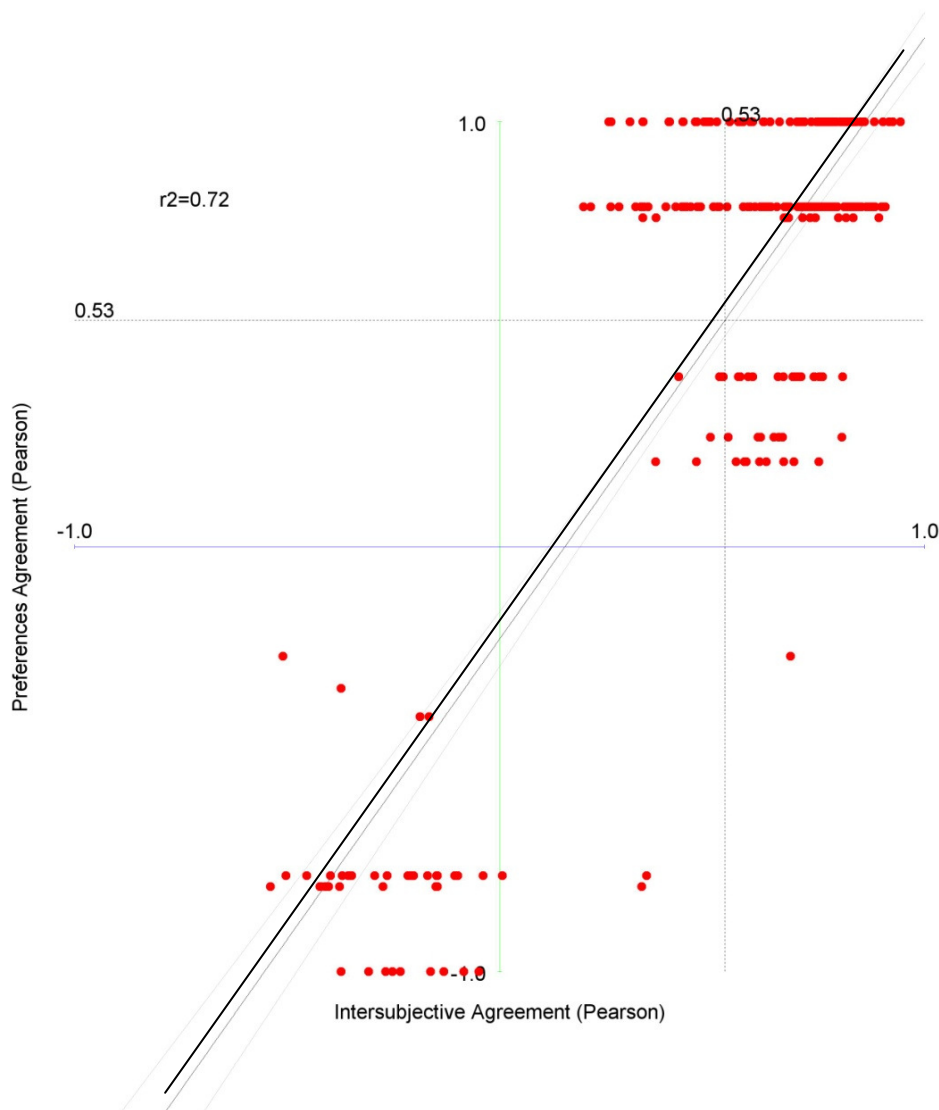
to the presence of two sceptical participants who demonstrated strong differences from the rest of the groups in terms of both subjective value and preference. Inter-subjective rationality requires that the deliberation ends in either a perfect agreement at both levels (e.g. tax or emission trading chosen and Scepticism withdrawn), or the conflict continues to exist – or even becomes strengthened in the case of increasing inter-subjective consistency.

The data collected were then tested for inter-subjective consistency using the methodology developed by Niemeyer (Niemeyer, 2007; Niemeyer and Dryzek, 2007). The test involves plotting agreement in subjective values against agreement in preference between *pairs of individuals*. The former is computed by correlating an individual's value ordering with every other's, i.e. the dataset presented in Table 8.4. The same procedure applied to the preference ordering produces the latter. This yields two correlation values for each pairs of individuals (276 pairs in total). A positive relationship between these two values is expected by the theory. Since 'preference agreement should be proportional to subjective agreement, an inter-subjectively rational situation will feature a positively sloped regression line, around which data points are tightly clustered' (Niemeyer and Dryzek, 2007, p. 516). The regression coefficient (R^2) is indicative of the amount of variation in preferences that can be explained by variation in subjective values, and thus taken as the indicator of inter-subjective consistency.

Figures 8.1 and 8.2 present results for the pre- and post-deliberation surveys respectively. Before deliberation a fairly high inter-subjective consistency already existed among the participants. The main reason is that the case features deep conflict with the presence of strong opponents who disagreed with their pro-climate counterparts. The negative cluster at the lower corner of Figure 8.1 has pulled the regression line down and contributed to the very high R^2 (0.72). All of these data points come from Mike and Nancy who were firmly held to Scepticism. This R^2 value is even higher than

what was achieved post deliberation in a previous study (Niemeyer and Dryzek, 2007) which was used to illustrate and justify the concept of inter-subjective consistency. The consistent disagreement at value and preference levels between two groups illustrates the second possibility of inter-subjective consistency shown in the lower grid on the right in Table 8.2 above.

Figure 8.1 Pre-deliberation inter-subjective consistency



Deliberation did not lead to an increase in inter-subjective consistency. To the contrary, consistency declined and R^2 went down to 0.39 (Figure 8.2). The diagonal clusters are replaced by dispersed spots spreading on the right hand side of the graph.

Along the y-axis there are both upward and downward movements. Data points at the lower corner moved to the right. This horizontal movement across the y-axis pulled the upper end of the regression line down, contributing to the decreasing slope.

Figure 8.2 Post-deliberation inter-subjective consistency

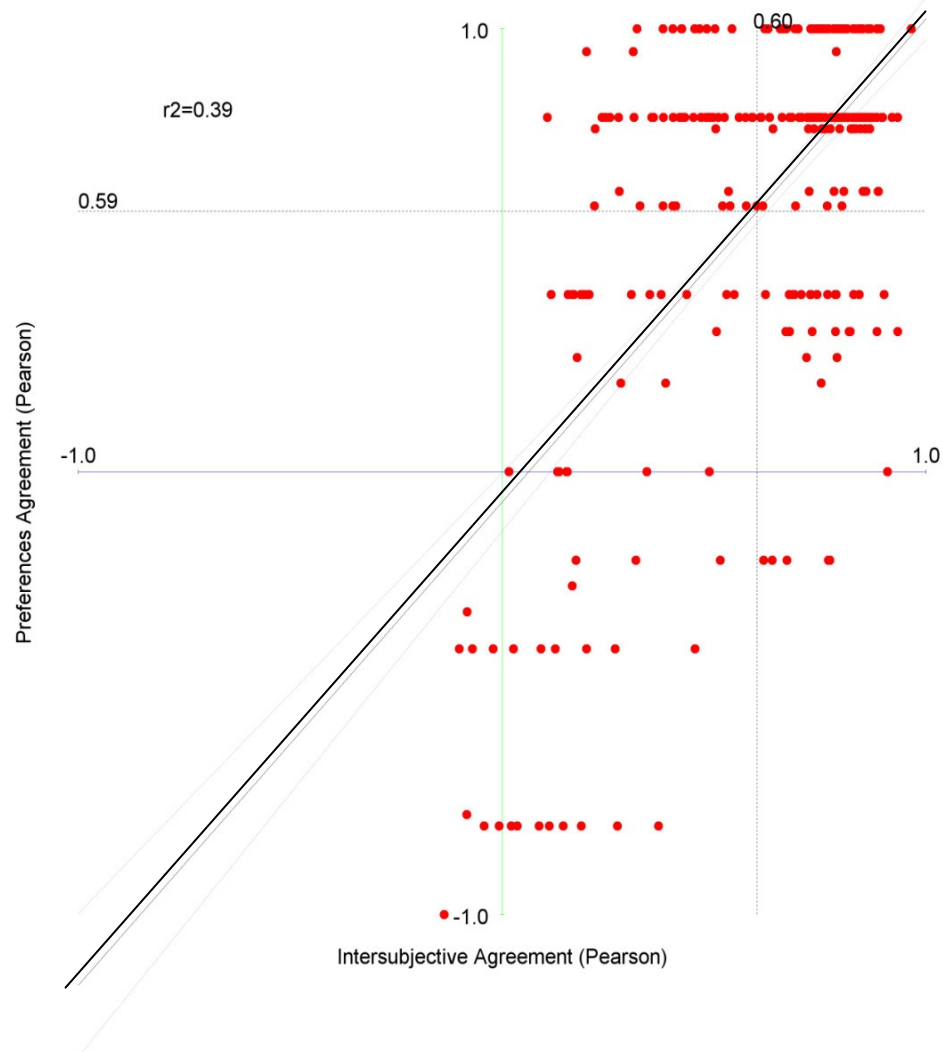


Figure 8.2 shows that, there was an improvement in value agreement but not a proportional change in preference. Note that this occurred mainly at the inter-subjective level. As Table 8.4 has shown, inter-subjective agreement on value and belief gained improvement without resulting in normative consensus. The kind of agreement observed in Figure 8.2 came from increasing attachment to competing positions, rather

than to a particular one¹². Thus the finding reported here does not contradict the earlier judgement that differences in perspectives persisted. It reflects an outcome of a two-way exchange, i.e. some of the individuals became more united than before in the sense that different viewpoints are recognized.

Although the preference orderings did not experience remarkable convergence, a consensus on one particular policy option (i.e. carbon tax) was emerging. Sarah, for example, was one of the main contributors to the flattening of the regression line by providing 8 negative preference correlations. Yet this participant was part of the consensus firmly held to carbon tax all the way through. The shift to the option of carbon tax on the part of the sceptical Mike was critical, but his preference correlations remained relatively low. Agreement on a single option may be independent of the inter-subjective agreement on the priority of the remaining ones. That is, consensus on a course of action does not necessarily require consensus on the ranking of its alternatives. Thus the lack of proportional change in preference came with improving consensus on the most preferred action.

8.3.5 Discussion of findings

The results of the case study may be interpreted in terms of workable agreement. There was an initial consensus at preference level. As a result of deliberation, the participants became more united around a carbon pricing mechanism, i.e. carbon tax, due to the increasing support from previously ETS advocates, including Helen, Howard and Ian, and one of the sceptical individuals, Mike. Both of the sceptical individuals (Mike and Nancy) came to join the rest of the group by indicating an intention to contribute to emission mitigation financially. The observation that carbon tax managed to secure majority support and protest bids disappeared deserves attention. This happened without

¹² Inter-subjective agreement would increase in both cases: if all individuals become subscribed to a single order of subjective positions, or they came to *mutually* recognize competing positions as illustrated in Table 6.1 in Chapter 6.

a consensus being explicitly prompted. Possible explanations are provided in the next chapter.

On the other hand, divergence in subjective values remained. Reasons underpinning the choices of the participants have been communicated, as evidenced by the interactive movement in factor loadings across the two groups (i.e. pro-climate and climate sceptical). While the deliberating individuals increasingly leant towards a single proposal, they extended their recognition to a fundamentally different and competing discourse and some have gained access to two competing positions without entirely withdrawing from the prevailing one. For instance, Mike and Nancy were associated with a pro-climate discourse, while a few others, such as Philip, became more sympathetic to Scepticism. This suggests that the initial consensus was associated with enhanced recognition of different subjective positions, which is an evidence of a workable agreement at work.

Workable agreement precludes inter-subjective consistency. The sample of this study features in self-selection of participants and clear division between two groups. Self-selection might create a group of individuals with entrenched views and high motivation. Entrenched views might stem from considerable knowledge, and high motivation might lead to active search for information and consideration of various relevant issues prior to deliberation. Improvement in knowledge and all-round consideration, which are regarded as a desirable outcome that a deliberation should produce, might have been achieved ‘too early’, leading to high consistency. On the other hand, one would expect that the chasm would float on at the beginning of the deliberation and diminish at the end. Sharp difference, however, generated diagonal clusters graphically as displayed in Figure 8.1. Such difference is supposed to be the very reason to run a democratic deliberation, but under this methodology it needs to be understood mathematically as indicative of an ideal outcome.

Although the group preference may be considered inter-subjectively less rational, the qualitative improvement in WTP has important implications. Climate sceptics paying for climate mitigation seems to be an inconsistent behaviour. As a result of deliberation, both of the sceptics (Mike and Nancy) turned to a sympathetic sentiment about climate change, but they were still bound to some key concerns that logically do not lead to an affirmative answer towards the WTP request. Completed questionnaires suggest that, for example, they remained unconvinced by the science of climate change and rejected a perspective tax rise. Even considering their increasing engagement in a pro-climate discourse, the affirmative response still implied weaker instrumental rationality than their original positions. From the perspective of preference economization, such a WTP response is a failure to address one's own values. Normative consensus which is favoured by preference moralization approach also does not seem to be a plausible explanation of these observations. Nevertheless, the affirmative response is critical to the formation of a workable agreement concerning societal WTP. The results are consistent with the discourse-based model of DMV. This clearly illustrates a tension between this model and the other two DMV approaches discussed in previous chapters.

Moreover, the observation that the WTP responses of the two sceptics (and also a few others, to a lesser extent) were underpinned by competing reasons lends support to the argument that a monetary WTP could preserve value pluralism. The individuals were not held to a dichotomy. Critics believe that such monetary expressions always involve a compromise of value plurality. I argue that elicitation of WTP as an open-ended construct may work under non-declining diversity and improving reciprocal understanding.

8.4 CONCLUDING REMARKS

Normative meta-consensus constitutes the conceptual basis of two competing forms of deliberative ideal: workable agreement and inter-subjective consistency. Analysis of survey responses based on Q methodology revealed two pro-climate and one sceptical discourses. Deliberation did not result in simple consensus at a normative level. Sustained divergence in subjective values came with enhanced discursive communication between participating individuals. There was emerging agreement on preference in terms of policy choice as well as WTP. This agreement appeared under value difference. On the other hand, inter-subjective consistency diminished. There had been high inter-subjective consistency due to the sharp contrast in opinions and it did not fall following deliberation.

The results provided backing to the idea of workable agreement. Monetary expressions supported by a workable agreement could preserve value pluralism. Yet there appeared to be a weak instrumental relationship between the stated preference and subjective value, particularly on the part of the sympathetic climate sceptics. Granted that this is a political ideal, one may wonder if there is any sensible reason making it possible. The next chapter attempts to provide some clues.

CHAPTER 9

TRACKING DIFFERENCE AND CONSENSUS FROM VERBAL INTERACTION

9.1 INTRODUCTION

People communicate via language. Groups of different social and political characteristics gain access to each other's discursive territory via a medium of communication, typically a particular sort of language. Rhetoric is one communicative device that can facilitate their making and hearing of representation claims (Dryzek, 2010). By enhancing mutual understanding it can promote social cooperation and formation of workable agreement binding the differing individuals to collective actions. Indication of an effective use of rhetoric in deliberation can provide useful hints about the quality and causes of meta-consensus. The last chapter has provided clues about the presence of an initial workable agreement. This chapter aims to identify possible drivers, catalysts or ways of its formation.

A fruitful way to ascertain the effect of rhetoric in a deliberative forum is to study the verbal interaction within the group. This chapter reports an analysis of verbal interaction between the participants during the formal discussions. The next section introduces the method employed, which involves a qualitative thematic analysis of transcripts. A close reading of the transcripts reveals several analytical themes emerging from the discussions. The ensuing discussion aims to ascertain their relationships and significance and characterize the effect of rhetoric on the formation of agreements. Results are discussed in terms of meta-consensus.

9.2 THEMATIC ANALYSIS OF TRANSCRIPTS

Each of the transcripts was assigned a file number, e.g. S1G1, where ‘S1’ refers to Session 1 and ‘G1’ Discussion Group 1 (see Appendix A.3.1 for copies of transcripts; see Table 7.1 in Chapter 7 for the composition of the three discussion groups). Line number was added for clarity of reference. The analysis also included the email correspondence between the author and one of the participants, Mike, which provided a detailed record of his opinions and reflections in relation to the theme of deliberation and the deliberative process. It is assigned a filename ‘EC’.

Transcripts were corrected and coded by the author using Nvivo 8.0, a computer assisted software package that facilitates the systematic coding of textual data and the subsequent categorization of coded pieces of text. Conversations containing creative and critical content were extracted and indexed. The analysis followed the steps described by Spencer et al. (2003) and Ritchie et al. (2003). These are summarized as below:

1. Read the transcripts carefully to identify initial themes or concepts and label the data as important issues arise;
2. Sort and synthesize the labelled data by theme or concept in search for coherence of content;
3. Assign categories to themes and concepts and group them accordingly;
4. Define category elements and dimensions and develop an initial coding scheme;
5. Scrutinize the transcripts to refine the coding scheme. Merge, split, add or drop categories where necessary;
6. Establish hierarchies and/or typologies to produce a master coding scheme;

7. Re-code the transcripts systematically according to the master coding scheme;
8. Detect patterns of association or clustering and develop explanatory concepts.

Table 9.1 Master coding scheme

1 Initial Confrontation	3 Problem Characterization
1.1 Perceived dichotomy	3.1 Limitations of market mechanisms
1.2 Enthusiasm	3.2 Lack of political commitment
1.2.1 Moral responsibility	3.3 Collective action problems
1.2.2 International demonstration	
1.2.3 Economic benefits	4 Criteria Articulation
1.3 Scepticism	4.1 Policy dimension
1.3.1 Incomplete evidence	4.1.1 Effect certainty and accountability
1.3.2 Minimal contribution	4.1.2 Trust
	4.1.3 Simplicity or flexibility
	4.1.4 Distributional fairness
2 Experiencing Conflict and Difficulty	4.2 Willingness to pay
2.1 Disagreement on key issues	5 Consensus Formation
2.2 Sense of powerlessness or incompetence	5.1 Medicare levy parallel
	5.2 Recognition from opponents

The purpose of this analysis is to systematically present and explain the flow and interaction of arguments raised by the participants, particularly the ways in which key viewpoints converged. The primary focus is the dynamic of the deliberation *per se*, rather than the assigned topic, i.e. climate change policy. Analytical themes and categories were therefore identified and defined in terms of the deliberative process.

Five broad themes were observed and included in the master coding scheme, namely, 'Initial Confrontation', 'Experiencing Conflict and Difficulty', 'Problem Characterization', 'Criteria Articulation', and 'Consensus Formation' (Table 9.1). These events took place on a loose chronological basis and overlapped in some cases.. These themes and their children categories were extracted through observing the ways in

which facts and opinions were perceived, concerns and doubts were expressed, and main arguments and metaphors were used. Each theme consists of at least two children categories and contains a set of thematically related text coded into one or more of these categories. An example coded into ‘1.2.1 Moral responsibility’ is ‘*Science seems to be saying we ought to. Otherwise our kids and grandkids will be living in an uninhabitable desert.*’ (S1G1, line 19-20). Text index can be found in Appendix A.3.2. Key counter examples or arguments were marked in italic form.

9.3 STRUCTURE OF ARGUMENTS

This section provides a descriptive account of the ways in which the participants interacted. First, I outline how they constructed their climate change discourses through giving reasons, defining imperatives and projecting boundaries to exclude non-members. Then, the key conflicts they encountered and shared concerns are illustrated. Third, drawing on these concerns I show how a set of interrelated decision criteria were developed. Fourth, the ways that the groups came to acknowledge a proposed initiative that could meet some of those requirements were detailed. Finally, I give shape to the initial consensus with a focus on opponents’ own evaluations. For the sake of clarity, I take extracts from conversations in different sessions to illustrate these interdependent processes. These are elaborated following the five main themes (italic text denotes direct quote¹³, bold text denotes coding category).

9.3.1 Initial Confrontation

The clear division between the pro-climate and scepticism discourses was extended to the group deliberation in the form of a **perceived dichotomy**. Many participants were

¹³ Real names were replaced for assigned names where they appeared in the conversation.

well informed of the technical and policy dimensions of climate change. They were aware of, and concerned about, the influence of climate scepticism in Australia, perhaps due to media coverage over the years. One of them started the conversation with a cynical tone:

James: No sceptics, climate sceptics here?

Ross: Well there are some, there are people who are sceptical about it. They don't believe that it's happening at all. (S1G1, line 23-26)

Those who had personal experience in dealing with the sceptical individuals tended to be cynical or even hostile towards the opposite view. When discussing an energy efficiency measure, Florian described a local campaign as a 'fight':

If the government pushes I agree, as we said we have implemented this Goulburn Goes Solar! project in Goulburn. But we are fighting climate change deniers. Not sceptics, deniers on a highest level. Several members of parliament you know. (Florian, S1G3, line 247-250)

Kevin echoed immediately:

It's not just in this area. I live in an area you may remember that I said I was a renewable energy activist, and in the area that I live, in Crookwell, there's wind farms going up. Whereas there was a vote of the people and 70 per cent of them were willing to have more wind farms. 30 per cent didn't, and those 30 per centers, a handful of those people that are very active and that are doing everything they can to stop renewable energy..... Yes there are small groups that are doing stuff,

but there are hardcore people that are against it, and they are fighting tooth and nail to stop anything to do with this. (Kevin, S1G3, line 252-258, 268-271)

Mike, the male climate sceptic, was also able to locate himself in the debate:

This has become a polarised argument amongst two distinct camps; those who believe that recordable global warming is not a result of human activity and those who believe that the emission of industrial carbon gases is directly the cause of irregular weather patterns.....My views are more directly associated with the first camp. (EC, line 13-18)

The two positions directly observed were generally consistent with the Q sort analysis presented in the previous chapter. Enthusiastic individuals constructed their arguments mainly around **moral responsibility**, indicated by phrases such as ‘*we ought to*’ (S1G1, line 19-20), ‘*greatest moral challenge*’ (S1G1, line 36-37), ‘*it’s the right thing to do*’ (S1G2, line 57-59), and ‘*we have a responsibility*’ (S2G3, line 212-215). Other reasons included **international demonstration**, i.e. making Australia a role model of the climate campaign:

*Dan: I think we need a leader who can review all this. Go out and role model.
You're depending too much on the...*

Howard: It demonstrates to the rest of the world.

Dan: We should be the leader.

Facilitator: We need one conversation. So you're saying that...

Dan: Leadership which takes the country first, forget about the world. Okay, they think about Australia first and then do what we can do here and try to

innovate things which we can export to other countries. The other countries will benefit from what we have done and slowly it will dissipate and mitigate. I mean we take it. (S1G2, line 104-115)

Potential **economic benefits** were also suggested to be an important factor: *‘I also think in terms of our tourist attractions and things, the Great Barrier Reef and that sort of stuff being impacted. So I think from a tourism perspective and climate perspective there will be benefits to actually doing an eco tourism industry which is a growth industry in tourism.’* (Elaine, S1G2, line 49-53)

Scepticism was expressed as two sets of argument. The first was based on **incomplete evidence**. Perceived uncertainties and limits of our current knowledge have led to suspicion of the scientific propositions concerning the significance of anthropogenic climate change. Rather than denying the harmful effects of industrial emissions, Mike doubted that the current level has reached a tipping point: *‘So we have less of a carbon dioxide, amongst other gases, absorption, so as you industrialise and farm more land there's less ground absorption. So everything you say Kevin is right, but it's grouped up now to what extent. What percentage?’* (Mike, S1G3, line 171-177). The second one suggested that Australia has **minimal contribution** to global climate change: *‘we are not the biggest polluters on Earth anyway, are we?’* (Nancy, S2G3, line 207-214). Yet the opposite view that smaller polluters should respond actively was also supported by some (e.g. S1G2, Line 175-179).

9.3.2 Experiencing Conflict and Difficulty

The attitudinal variation began to run into discernable conflict following increasing perceived security and openness among group members. **Disagreement on key issues** emerged as Kevin tried to exclude the options of voluntary offsetting and no carbon

pricing from further consideration. Mike indicated his reluctance by saying ‘*Yes, I give the no carbon pricing at this stage in time*’ and Nancy seconded ‘*I’m going with the last one too.*’ (S2G3, line 70 and 92). Kate, who was moderately loaded on the Q factor of Scepticism, was too leaning toward this option on the condition that global initiatives were not in place (S2G3, line 71-89).

Clear division unfolded as concerns about carbon pricing were explained. Explicit disagreements between the two groups, notably between Mike and Kevin, indicated heightened level of conflict.

Mike: No carbon pricing doesn’t mean no carbon emission. They’re two of the same thing really. We can still have a cap on emission without a cost. You just say you won’t do it that much.

Kevin: There’s no way we’re going to get a reduction of carbon without a cost. There has to be a cost..... (S2G3, line 105-11)

At this point Mike no longer challenged the evidence of harmful greenhouse effect, but stressed the ineffectiveness of the proposed policy measures. His reply to Kevin’s view concerning cost adjustment encountered a remonstrance:

Mike: That’s just because you assume that there must be a punishment for the emission. Now, what we didn’t discuss in there is that at this relative stage in the industry, particularly power generation that we’re talking about, there’s only a technological advance we can make. We’ve virtually hit the valley. At this stage in time we don’t have better [inaudible], but in general 90 per cent of the power that’s generated in Australia cannot be improved upon or made more efficient.

Kate: Yes it can.

Kevin: I totally disagree with that. Totally disagree.

Mike: With umpteen billion...

Kevin: Not umpteen - well there's a number of ways you could do it. You can do it with renewable sort of energy. Well you may discount that but there's a lot of people that don't discount that. (S2G3, line 119-132)

Pro-climate individuals experienced milder disagreement among themselves as the emission trading controversies entered into the debate in Session 2. For example, Alan and Elaine argued with each other on the feasibility and effectiveness of emission cap. The difference in perspectives was indicated by the consecutive 'But' that introduced their counterargument to the other's comments (S2G2, line 33-55). The varying levels of support for an ETS were observed not only at the beginning the Session 2 (e.g. S2G1, line 44-56), but also near the closure (e.g. S2G3, line 289-295 and 380-385). This seems to suggest that disagreement persisted. Yet a closer investigation has indicated emergence of common grounds between ETS and carbon tax:

Alan: The funny thing is that yeah, they didn't like to announce the fact that an ETS is basically going to be exactly the same really, the cost on the consumer. So really, if there was a good education campaign by the Government that said look, this is ETS and carbon tax are exactly the same, however you want to word it is fine, but basically an ETS is just a more complex way of tricking the public whereas carbon tax is easier to administer and we're just being up front with you and everyone's got to incur costs.

Howard: Well if you're taking power then, either way you'll just see it on your

bill. Either way the Government's using ministry to collect tax. (S2G2, line 253-262).

Later Kevin, a supporter of ETS, also pointed out a shared feature: *'That's the same thing, as I see it, with the carbon tax or the ETS - is that the government is going to compensate you like welfare to make up for the increased costs.'* (S3G3, line 277-285). The differing arguments did not rest on possible cost-distributional consequences.

A few participants experienced a **sense of powerlessness and incompetence** at the beginning as well as the midst of the deliberative process. An example of powerlessness was the perceived inability to create global impacts: *'I also think we need to be really honest about Australia's ability to influence other people. It's going to be the other way around, it's the Chinese and Indians telling us what to do.'* (Howard, S1G2, line 67-69), and *'we can only concentrate on us [Australia] really.'* (Alan, S1G2, line 67-69) Moreover, the lack of progress in greenhouse gas mitigation has created frustration: *'I actually think adaptation is more important because I think we've lost the game on mitigation. My feeling is that it's all over as far as mitigation is concerned, I'm fairly pessimistic. I don't think we've got a chance of changing minds.'* (Brian, S1G1, line 38-48) Note that the perceived inability and pessimism have equivalence in the Scepticism discourse reported, suggesting that shared concerns might exist.

Some participants appeared lacking confidence in the arguments they made due to barriers to understanding. These typically stemmed from the inherent complexity of the carbon pricing mechanisms under discussion: *'I'm puzzled by that. Maybe I'm wrong for that reason. Maybe there's something that I don't understand.'* (Brian, S2G1, line 106-112) Nevertheless this might not be a common experience, as Philip argued: *'Sometimes it's not a question of understanding the problem. I still don't understand how the emissions trading scheme works, despite the lecture this morning, it just*

brushed straight over the top.’ (S1G2, line 301-303)

9.3.3 Problem characterization

As the deliberation progressed shared concerns over key aspects unfolded. When the ETS controversy was introduced to the debate, more questions were raised and disappointments expressed as to the limited efforts on climate protection from major actors, namely, businesses, governments, and the public. The expressed doubts and disappointments contained important shared elements and led to alliance and shared agreement between previously differing individuals allied. I start with an identified problem that remained to be controversial.

Concerns about the **limitations of market systems** grappling with emission trading were overwhelming. Possibility of market manipulation was the biggest concern: *‘I’d be weary of the ETS of market manipulation. We see how proficient traders are at developing new systems like what brought down, went on the global financial crisis, with the manipulations of the market.’* (Ian, S2G1, line 84-87) Brian held a similar view: *‘to me all these market-based things, to me, they leave open the option of rorting¹⁴ and that’s what’s happened in our society.’* (S2G1, line 200-202) Another argument against market mechanisms was couched in terms of behavioural change and more relevant to voluntary offset markets:

Look at the difficulty we’re in in financial markets now with debt. You know, you’ve got situations even now where there are carbon credits are being bought by people and they’re just getting bank rolled somewhere, I mean nobody’s doing anything with them. They’re not stopping people travelling. When you tick that, nobody has said, I’m not going to fly with Qantas, and ticks the box. It’s had no

¹⁴ ‘Rorting’ is a term used in Australia and New Zealand. It refers to the action of defrauding, particularly relating to a financial impropriety of a government programme.

behavioural change and no improvement on CO₂. (Wilson, S2G2, line 240-247)

Mike, one of the climate sceptics, was also unconvinced and this was one remarkable occasion where an opponent of carbon pricing joined his pro-climate counterparts:

Well, that methodology [of ETS] has got a pretty big downer for me because it's not controlled sufficiently by Government from what I can see. It falls out into the hands of the private markets and we lose control of our own sovereign rights. (S2G3, line 177-180)

This was however not agreed unanimously. Being prompted to offer a counter at the closure of Session 2, Kevin summarized his view in favour of ETS: *'My approach would be ETS basically because I believe that the market will come up with more creative ideas and I believe it's the most efficient way of going about it.'* (S2G3, line 280-282)

Disagreements became less visible when the individuals turned the gun on the government and politicians. **Lack of political commitment** was a widely recognized problem with several dimensions. One of these concerned with the incompetence of the government and the believed shortcomings of bureaucracy:

The other thing I'm may go to too, is the emissions trading scheme. I mean, we're going to have a government minister for something that's much more complex than carbon. I mean, they can't even do pink batts and you're wanting them to look after an emissions trading scheme? I mean, they couldn't even look after a carbon tax, let's be exact. (Philip, S2G2, line 124-129)

Another observation was a cynical attitude toward the government resulting from the historical inadequacy of official promise and actions. When prompted to evaluate its contributions to addressing climate change, Ian responded '*It hasn't done anything.*' and Brian echoed ironically '*You're joking.*' (S1G1, line 185-186). There was widespread disappointment at the poor record of official response:

People are leading it. I don't think the government are leading it. I think the people that are driving this - the government keeps saying, oh we don't know what to do because there's all these sorts of..... I feel that the government's lagging behind, and even businesses working together in organisation, we're already doing things like turning the computers off every night and turning all the lights off. We've got geothermal power access in the building. These are happening whereas the government still doesn't appear to have. (Helen, S1G3, line 212-223)

The discontent was extended to politicians in general. Failure to properly respond was attributed to their 'playing politics':

Ross: I just feel that they're not having enough of a go.

Ian: Well they're not serious about it. They were trying to damage the other parties and...

Brian: Playing politics. (S1G1, line 203-206)

Some contended that politicians turned a deaf ear to the evidence of climate change, although some disagreed. Either case, politics rather than the global threat was seen as the main game:

Male¹⁵: Is anybody thinking oh, you know - we talked about the increasing frequency of...

Female: Extreme weather events

Male: These sorts of things happening but it hasn't twigged with most people

Male: Certainly not the politicians.

Male: I actually don't think that's true. I still reckon more than 50 per cent of the politicians in the House of Representatives know what we know. But they got these marginal seats with swinging voters and that's because they want to stay in [inaudible]... (S3G1, line 499-508)

The participants were a group of highly motivated individuals. Among them there was serious concern as to the low motivation on the part of the rest of the public. This pertains to **collective action problems** where only a segment of the society acts upon the collective interest. Suggested causes included lack of information and awareness:

Part of the problem is I actually think the government has to lead because there's a wack of people out there who are not maybe willing to do anything unless they're led. There's a small group of people like us who will do something and we'll put the insulation in our roofs, or change our life, our background stuff. Most people, look it's not on their radar. It's not on their radar until a bush fire goes through there and destroys all their house. Then they go, shit how did that happen. (Brian, S1G1, line 269-276)

Pervasive effects of carbon pricing would lead to general price increases. Some people doubted that the majority of the public would be willing to contribute in the form of

¹⁵ Participants who cannot be identified from the audio recordings are labelled as 'Male' or 'Female'.

higher bills at the expense of their personal consumption: *'I don't know whether enough people are so convinced'* (S3G1, line 443-454).

9.3.4 Criteria Articulation

Major differences began to diminish as the groups moved from 'Initial Confrontation' to 'Problem Characterization', despite not being a strictly chronological process. Having discerned some shared concerns, the groups were able to give insights into the criteria of good policy that could address those problems. Less conflict was observed at the level of broader principles of public policy.

All groups demanded **effect certainty and accountability**, requiring clear emission reduction targets, dedicated use of the raised funds, accountable allocation systems, and preferably guaranteed reductions. Advocates of ETS did not vote in favour of carbon tax because:

It doesn't give a guarantee of the emissions reduction and working out what that tax should be, and because while it gives economic certainty in the year, what will happen as you go, well okay that was a great tax, we set it at 10 per cent but that actually gave us great revenue but it didn't give us the result we wanted in emissions... (Elaine, S2G2, line 65-69).

Similarly,

I tend to lean towards the emissions trading schemes as an almost guaranteed way of reducing a very specific amount of pollution. So we will cap it out at five per cent reduction and what people are allowed to produce is you know, what's below that. It's a guaranteed reduction. (John, S2G1, line 57-61)

Carbon tax supporters wanted similar guarantees. Dedicated use proved to be a key criterion being repeated many times in all groups: *'I think it's a simple system and if we had a carbon tax and if we made it a dedicated carbon tax, dedicated meaning all the taxes collected from that goes to a particular cause or purpose and that cause or purpose, it wouldn't go into just general consolidated revenue. That purpose then is for developing alternative energy sources, energy efficiency programs and those sorts of things.'* (James, S2G1, line 128-133)

The climate sceptics did not oppose spending more money on the development of low-emission technologies. They too requested strict dedication: *'I see that the government says they're going to appoint overseers to ensure the money is actually being spent in the right direction. What you just mentioned makes sense. This levy - is levied on the individuals - can we be sure that all of those levies do go towards this R&D and assistance in construction of wind farms or whatever it might be. Not disappear back into consolidated revenue.'* (Mike, S3G3, line 67-72)

An ETS could give more certainty on emissions mitigation whereas a carbon tax could offer greater transparency of the use of the raised revenue. Central to both camps were the questions 'where the money is going to?' and 'what is going to be achieved?'. When the discussion moved on to intended financial support to low-emission technologies (Session 3), advocates of ETS and carbon tax articulated these concerns effectively with one voice. Ian, who shifted from ETS to carbon tax, aligned with his carbon tax counterparts:

Ian: So we'd have to have goals. So what we're going to do in - this is what you're going to pay and this is what you're going to get in 10 years' time.

Cynthia: Yes, and they're measured on those targets.

Ian: Yes, and every five years someone has to report to the parliament on how close we are to achieving those goals.

James: All the money is dedicated to establishing a low carbon economy. (S3G1, line 164-170)

Kevin, a vocal speaker for ETS, concurred: *‘So it depends on how it's being used and how you can show me that it's really been of benefit to this country.’* (S3G3, line 469-471) Florian in the same group argued for carbon tax with the same concerns:

if the government can get a solution that's very clearly outlined - where does the money go, how much it is, who will pay how much and who will not have to pay because they don't have the income - then this could really be a good thing. But if they don't explain it properly people will probably say no - as long as we don't know where the money goes to, then we're not part of it. (S3G3, line 477-483).

Florian would perhaps agree with Mark, an ETS advocate, who defined inappropriate use of money by saying *‘There should be a bit of accountability and it should not be about propping up an existing industry sector like coal’* (S3G1, line 212-213). It is worth noting that a relatively large portion of transcripts coded into this category (effect certainty and accountability) were suggesting its paramount importance from the perspective of the participants.

A related factor being frequently mentioned was **trust** – trust in government agencies, politicians and businesses. As emission mitigation does not have tangible benefits or visible consequences, assurance on the use of funds and outcomes is a function of the reliability and credibility of the collector and manager of the money required. Participants frequently appeared hesitant to endorse a policy option because of

the lack of trust, notably in businesses and in bureaucracies. They suggested that carbon pricing could provide electricity companies with a legitimate reason to raise prices. Many doubted that the companies would genuinely and properly allocate the money to tackle climate change. Willingness to contribute declined when a hypothetical ETS scenario was introduced:

Facilitator: So the energy companies would be required to meet the 20 per cent target.....But they could use the raised funds at their discretion.

Mark: In other words, would we trust the electricity generators?

Ian: So instead of the CSIRO instead of the government...

Facilitator: Nobody trusts the electricity companies?

Ian: I have my doubts.

Mark: Enron was an energy company wasn't it?

John: I mean, they do have a vested interest in providing electricity...

Richard: At the highest price.

John:Well, I probably wouldn't be willing to pay as much, but perhaps...

Brian: The thing is, at their own discretion could mean that they decide that they're going to invest that money in some company in Brazil. You know, it's got nothing to do with generation at all. I mean, if an electricity generating company can't ... to invest in electricity. If they've got their 20 per cent up and running and they think oh well, I like profits - let's go and invest in some profits because we're going to make money out of them, or whatever - they could just invest the money wherever they wanted to. If you say no strings attached - well, cigarette companies...

(S3G1, line 284-310)

More generally, the notion of trading was deemed to be an inappropriate transactional method. As Liana explained, with agreement from Florian, *'This trading scheme is too vulnerable to shonky dealing, shonky offsets, weird sort of trading loopholes and it's not, I sort of favour a straight carbon tax where everyone knows it's honest. Everyone is hit.'* (S2G3, line 249-253)

Questions raised against the promotion of voluntary offsetting were related to the lack of trust: *'I was told this morning there is a suspicion that when you tick the box when you buy an airline ticket, like carbon credits, that money is just being banked somewhere it's not actually doing anything.'* (Howard, S1G2, line 325-327) The reliability of the market systems was called into doubt:

John: I've sort of generally always on principle refused to buy them [carbon offsets]. I don't know, I don't know the system they're going to. They always do research into what it's going to but I really don't know where that money is going to.

Brian: It's a lack of trust.

John: Yeah, I just don't trust the system. (S2G1, line 156-161)

The climate sceptic, Mike, had little disagreement on this point: *'No. You can't trust business to actually take the place of government. There are certain things that government has a total responsibility for and one of them is the mechanism - a control of price'* (S3G3, line 246-248)

While everyone took the trust issue very seriously they gave different weights as to whom they trust. Although carbon tax supporters tended to be suspect of the markets, some of them failed to find more reassurance from the government: *'I don't trust the government to - I don't want it to go into a general fund and they feel like they can*

spend it on carbon capture, which I don't believe in.' (Florian, S3G3, line 415-417)

Kevin trusted the market and this factor contributed to his argument for an ETS: *'My approach would be ETS basically because I believe that the market will come up with more creative ideas and I believe it's the most efficient way of going about it.'* (S2G3, line 380-382) Likewise, Brian chose the markets in favour of the bureaucrats: *'we can have a trading scheme and I'm against a carbon tax simply because the bureaucrat.'* (S2G1, line 104-105)

The importance of trust is twofold. Firstly it crucially influenced the participants' policy choice. Secondly, the three groups of people, i.e. advocates of ETS and carbon tax and the sceptical individuals, somehow merged into two groups. As Florian observed: *'I think all these things we're discussing today, the matter of trust seems really important. We all do not really seem to trust governments. Some of us don't trust the markets'* (S3G3, line 475-477). The discursive boundaries were made more permeable through raising concerns over trust. Mike, initially sceptical, leant more toward tax supporters jointly arguing against the market believers:

Mike: A form of carbon tax, I think.

Kevin: I disagree, you can say what's the ETS because I believe in a market.

Helen: You could split them into four.

Sarah: I was just thinking about that, I thought we could actually divide this up a bit because that's okay.

Mike: I don't trust the markets.

Kevin: Well, I do. (S2G3, line 340-346)

On trust issues the three groups interacted in ways like there were only two groups. On certainty and accountability issues they spoke as if a single bloc loosely coordinated.

This means that these terms of acceptance were not only well received, but also shared among the individuals to a large extent. Legitimacy of these criteria was not considered controversial.

Another factor of concern was **simplicity or flexibility**. The public want transparency which rests on simple administrative mechanisms which give people greater access to relevant information for scrutiny. In the large group discussion after Session 2, the three group representatives indicated univocally their reasons for granting priority to carbon tax. One of the basic principles, they suggested, *'was that with the carbon tax concept we liked that it was fairly simple, it was straightforward, we could understand it, it was tangible'*. (Helen, S2LG, line 66-69). The prospect for a complicated system might perhaps lead Ian to shift from ETS to carbon tax: *'I really do feel though, that if we have an ETS that's too complicated, people will reject it for exactly the reason that James said.'* (S2G1, line 113-115) ETS supporters had little problem with this criterion. They differed from the other group in their personal judgment or experience as to what simplicity means: *'I'm all for simplicity but I reckon that's where the market is.'* (John, S2G1, line 123)

Distributional fairness was identified as the fourth factor. There was a general agreement that the potential upward adjustment in costs of living should be fairly distributed between the deprived and the rest of the society (e.g. S3G1, line 187-188). Advocates of carbon tax seemed to have less sympathy to the notion of paying someone to reduce pollution, i.e. rewarding major polluters for cutting emissions (e.g. Helen, S3G3, line 217-224), or exporting mitigation responsibility to developing countries (e.g. Brian, S3G1, line 421-423). At least one ETS supporter, nevertheless, shared this view: *'I worry about this exporting thing. It's really saying if you're in Australia and you're currently driving a big station wagon, it's okay to upgrade to an SUV because some poor peasant can put off having a life. I think we're just sort of putting off the day when*

we are saying driving giant cars.' (Mark, S3G1, line 416-420) The factors of simplicity and fairness illustrated again that some overarching principles could transcend the discursive divide.

The first two sets of criteria, trust and certainty/accountability, played an important role of facilitating agreement to pay for emission mitigation. These have been explicitly linked to **willingness to pay**, regardless of discursive position or policy preference. Kevin affirmed the causal relationship by suggesting that *'The more transparent it is, the more I'd be willing to pay. You've got to damn well make it transparent, not just pull my leg.'* (S3G3, line 496-497) It was articulated by Elaine in terms of guarantee of end use: *'that the amount of money depends on what it's being used for.'* (S3G2, line 176-177) In the conclusion of the last session, the other group reiterated the role of trust:

Ian: How much we're going to pay depends very much on how confident we are about what is to do.

Cynthia: It is a trust issue.

Ross: The government should just spend \$5 billion a year as part of the consolidated revenue to do this sort of stuff - but it's not going to happen because of this trust thing. (S3G1, line 539-544)

Participants under disagreement were connected through these concerns, although the underlying principles were sometimes subject to different interpretations. An alternative could bridge the conflict among the three groups when their members were reassured of these shared principles being properly accounted for. There was such an example found to be at work.

9.3.5 Consensus formation

All of the three discourses affirmed an active role of government. Although perspectives were split on what the government should do and why, there was a common concern about the reliability of the formal institutions that would need to be created to administer the initiatives required. The individuals grappling with variations in opinions converged on an institution they could trust. Connection emerged during the discussion on a carbon tax in a form resembling the Medicare levy¹⁶. The role of this **Medicare levy parallel** was particularly obvious in Group 3 whose members included a vocal ETS supporter and two climate sceptics.

In the second half of Session 2, a ‘Medicare for the environment’ was proposed by Helen, who was initially leaning toward emission trading and shifted to carbon tax:

right now today we could start a Medicare levy for the environment and have it at a really low level, start off just getting it, and we want to call it a carbon tax or an environmental levy or something and it's really low percentage wise.
(S2G3, line 279-282)

The idea soon received support from her group members and they appeared confident and excited when responding to it.

Helen: That's why I want this environmental tax thing to start tomorrow. Start it tomorrow and the rest of it we feed into it and we grow from there.

Florian: Medicare for the environment.

Helen: It needs it.

¹⁶ Medicare is Australia's publicly-funded universal health care system. It was introduced in 1975 as ‘Medibank’ renamed in 1984. Medicare provides affordable treatment by doctors and in public hospitals for all resident citizens and permanent residents of Australia. The program is now nominally funded by an income tax surcharge known as the Medicare levy, which is currently set at 1.5%.

Sarah: The administrators are already there. The department that governs it is already in place.

Helen: The structures are in place, we know how to do deal with it, okay everybody will have to pay a bit more. Immediately the Government will have money that can start putting in infrastructure to help renewable, if that has to go into communication, promotion, marketing, killing Alan Jones, I don't know what it means, it can start spending money now, not in three years, not in six years, not in 10 years. (S2G3, line 312-324)

The above quote provides some hints as to what contributed to the connection. The individuals were familiar with the Medicare levy and had first-hand experience with the system. It was trusted and deemed to be honest being dedicated to the good of the people (healthcare). Acceptance of the 'Medicare for the environment' was granted on the condition that the administrative system required would be designed in the same terms as the Medicare levy.

These features also pulled members of other groups into a Medicare thinking mode. Without anyone formally proposing a Medicare for the climate, some individuals referred to it as a response. For instance, when asked to what extent a returning recession would discourage willingness to pay, Alan responded: *'We all had to pay the Medicare levy last year didn't we? Whether there was a financial crisis or not, everybody still had to fork out for the Medicare levy.....There'll be no Medicare levy to worry about either.'* (S3G1, line 176-183) While some suggested that funds could be collected in a form of sales tax, Ross preferred this alternative: *'Or in the style of a Medicare levy'* (S3G1, line 112). Later James expressed his agreement with Ross, and Cynthia, who immediately raised an accountability issue, was reassured of the fact that such a levy is dedicated to a particular purpose (S3G1, line 139-147). Reference to the

Medicare was also found in a conversation about cost distribution (S3G1, line 184-193).

The ‘Medicare for the climate’ appears to be an imaginary and rhetorical idea. Being income-based, the proposed levy would primarily apply to individuals, rather than to firms as in the case of carbon tax under discussion. It was grounded on a reinterpreted justification for pricing carbon without necessary compatibility with the concept of carbon tax being put forward in the actual debate. The participants in proposing a modified ‘tax’ did not explicitly address the tension between the specific qualities of the two mechanisms. A rhetorical reading is that the idea projected a generic policy framework and principles on which the subsequent endorsement of a taxation programme to be operated by government agencies and regulate prices was based. It was a creative modification of the real option of carbon tax couched in more accessible terms.

Group 2 did not come up with an explicit appreciation of the idea. But a recorded conversation could shed light on the discussion. Alan responded to a suggestion of ‘a levy on electricity bills’ in this way: *‘I’ve got a bit of a concern about all these special levies. A good example is air travel. There’s all these uplifts - you don’t know what they are and where they’re going. We should trust the government - they raise revenue and then it’s their job to appropriate it sensibly.’* (S3G2, line 303-306) He would probably take issue with the proponents of the carbon levy. His concern, however, was based on the assumption that the levy was administered by private companies, such as airlines. The government was trusted. The counter example suggests that trust was a limiting factor determining the acceptability of the levy concept.

The innovative proposal received **recognition from opponents**. They appeared more sympathetic to a tax system that is familiar and accountable. Signs of rising consensus were clearer in Group 3 where views were more divided. The idea of a Medicare for the climate was respected by Kevin, who favoured emission trading all the

way through:

I'm against it but I would say that the carbon tax would be the prefer option of us all. (S2G3, line 338-339)

Well I like the Medicare. I think if you set it at one per cent or whatever and everybody pays and at the end of the year it goes in ... then they can deal with it. It's got to be able to be flexible enough to not slam the poor and not let the rich get off with not paying. (S3G3, line 54-58)

Later the market believer reaffirmed the group consensus and acknowledged its potential:

Female: Is this the levy that you are proposing to - this is the carbon tax that goes...

Kevin: This is the levy that we're going to pay that would go directly for renewable energy. Like you suggested, it seems to make sense to me that Medicare possibly would be a branch of government that would handle that. Or whatever's appropriate. The carbon tax compensates the less fortunate especially, plus it encourages the businesses to cut down on their use or production of carbon. (S3G3, line 381-388)

Established confidence in the Medicare system has been extended to the proposed carbon tax. This proved to be a key factor motivating the two climate sceptics. Nancy agreed to pay for low-emission technologies, provided that payment would be collected through a Medicare-like system:

Nancy: What is the Medicare levy used for? Is it very straightforward - we pay it and the government gets it and spends it only on Medicare purposes. Because if that's the same then one could agree with that. That they could then be equally safe, you know. The money - \$35 or whatever - if that could be only used like the Medicare levy. Does anyone know how the Medicare money - does that go in general revenue or...

Female: The Medicare levy is used for Medicare purposes.

Nancy: Only for Medicare. Then we have a blueprint for it, you know. So that could be done and could be safe. (S3G3, line 335-344)

Her support was conditional upon an equivalence, that is the mechanism of the proposed carbon tax would be ‘the same’ as the Medicare levy and thus ‘equally safe’. Confidence in institution, closely related to trust and accountability, was the determining factor. What concerned the other sceptic, Mike, was not actually the idea of pricing itself, but pricing through markets:

The biggest thing I thought we'd have to avoid was having the costing of this fall into the hands of the market that can set an artificial price. I really do think if a cost is going to put on it, it's got to be established by Government, what that cost does. (S2G3, line 30-34)

As reported in the last section, he felt unacceptable to allocate the raised funds to a party that is not accountable to the people, such as giving away as an ‘assistance package to industry’ (EC, line 401). In the post-workshop communication, he reiterated his preference for a carbon *levy* resembling the Medicare levy, which he thought was

‘transparent’, rather than a carbon *tax*. The endorsement stemmed from a belief that such a carbon levy could meet two criteria:

Further discussion arrived as a group consensus that agreed in this form of financing as being appropriate towards R&D funding. Two factors emerged in that there was already an established system to manage a levy as all infrastructure was in place and a means of collection existed..... It was stressed that any levy so collected from the taxable public was to be quarantined as a sole payment towards GHE [greenhouse emission] R&D. (EC, line 130-138)

The emphasis on ‘established’ and ‘quarantined’ well reflected the two key principles articulated by the groups. His change in policy preference and WTP decision was clearly based on a prospective Medicare for the climate understood as a modified carbon tax.

9.4 POSSIBLE ASSOCIATIONS AND EXPLANATIONS

9.4.1 A bridging effect

The concept of modified carbon tax, or carbon levy, demonstrated a bridging effect. Connection of discourses was facilitated through shared principles, without a clear tendency of displacing alternatives. It has been pointed out earlier that the participants differed substantially in their experience, understanding and judgment about the state of global climate and the merits of different policy instruments. The Medicare levy parallel did not address these specific concerns by, say, affirming scepticism or ensuring allocative efficiency. It was not even a kind of industrial taxation like the actual case, and Mike did try to draw the line: ‘A levy is in no way to be construed as a tax’ (EC,

line 400-401). As quoted above Kevin remained 'against it' despite increasing recognition. There was no substantial overlapping between the primary preference of these opponents and the advocates of carbon tax.

Instead some key policy considerations overlapped. Potentially the modified carbon tax could address some of the major problems identified by the groups and fulfil the key principles articulated. There were many associations between these three sets of arguments. The proposed concept was able to reach audience situated in different discursive spaces. In Group 3, Florian did not trust the government whereas Mike appeared more confident, and Kevin was optimistic about private markets but others in the same group seemed unconvinced. Nonetheless all of them accepted the concept of carbon levy, or at least acknowledged its potential. Based on an established system deemed to be reliable and accountable, the prospective Medicare for the climate could get access to the different discourses mediated through the principle of trust although their members might view differently about whom to attribute trust. Likewise, although the proposed levy might potentially provide some assurance about dedication of the use of revenue and transparency, it might not guarantee a level of emission reduction. Yet it might bring people toward the more abstract concept of certainty to which they recognized, although individuals such as Kevin having alternative interpretations of the term and emphases. The initial agreement was built upon a collective belief that the agreed principles would be properly accounted for. Such a belief provided individuals more access to other discourses, although they might hold different views as to why such principles were crucial and what these meant.

Couched in such terms the Medicare levy parallel played a rhetorical function, bearing resemblance to the notion of 'bridging rhetoric' (Dryzek, 2010). It stood at the intersection of multiple discourses, and addressed those dimensions that these discourses are equally concerned about. Moreover, it did not lead to normative

consensus but more of meta-consensus. Reflecting on his participation in the deliberative process, Mike contended that the groups were able to reach an initial consensus: *'Twenty randomly selected citizens representing a cross section of the electorate did arrive at a considered consensus. Well not quite, but close enough to form a probable electoral poll outcome.'* (EC, line 359-361) However, after reading a news article about global warming (attached in EC) a few days later, he almost withdrew from the consensual perspective: *'I have almost returned to my original position of complete disregard for scientific evaluation after reading this rubbish article.'* (EC, line 516-517) The validity of the science remained questioned by the sceptic, indicating coexistence of competing beliefs. Kevin, too, preferred an ETS although respected the consensus on tax. This shows that there was no sustained transformation or conversion of attitude or belief to an alternative, a feature defining meta-consensus (Dryzek and Niemeyer, 2006). Corroborating the findings of Chapter 8, there was no remarkable change at a value level.

9.4.2 Shared experience and willingness to pay

This explanation provides an alternative interpretation of the qualitative change in stated WTP. Recall that the two strongest climate sceptics changed from a zero WTP provider to a positive one. Both of them indicated recognition of the group preference for a tax. Thus there was some degree of overlapping between them and the rest of the groups in terms of *expressed* preference (more for Mike than Nancy). Survey findings and the above qualitative report nevertheless do not provide strong backing to the conclusion that the group preference adequately represented their primary, held preferences and values. These remained disputed to some degree. The qualitative improvement in WTP reflects something more than changes in their held values.

It bears more resemblance to a meta-consensual outcome. Confidence in a payment

mechanism proved to be the main factor turning the refusals to pay to positive WTPs. Scepticism tends to deny the need to pay for carbon. However, individuals disagreeing with each other on values are close to an agreement on a course of action when they feel that their perspectives have been respected, their voices adequately heard, and their efforts genuinely appreciated. Appealing to a common subjective state is the key. In the case study, it was the expectation that the requested financial contributions would be appropriately used by a reliable and transparent institution that connected the sceptics to their pro-climate counterparts. The notion of paying for carbon *per se* has not been fully accepted by these opponents. The unfamiliar ideas of carbon pricing and carbon tax were not the first preference of everyone in the workshop. Nonetheless, there is shared understanding and recognition of an established system. Everyone has some experience with the Medicare; everyone knows that it is safe and transparent, and used only for a good cause. Trust issues were central to the debate and the Medicare was trusted. Appeals to a prospective Medicare for the climate reminded the opponents of their shared experience with the Medicare. Perhaps paying for the climate did not make much sense to the sceptics, but paying through a Medicare-like system appeared appealing because of shared experience. A reciprocal relationship was then created, making the WTP questions more accessible to them.

Through shared experience the levy parallel helped constitute an overlapping discursive space ‘joining competent and reflective actors’ (Dryzek, 2010, p. 320). The WTP question appeared more plausible to the sceptics as they were offered terms of cooperation that they considered acceptable. As a rhetoric, the parallel was a particular rather than universal appeal, since people with no or poor experience with an equivalent universal healthcare system might refuse. The qualitative change in WTP was primarily driven by the subjectively more appealing terms of cooperation successfully bridging climate scepticism and enthusiasm.

9.5 CONCLUDING REMARKS

Good deliberative outcomes could dispense with normative consensus and be mediated via rhetoric. Thematic analysis of transcripts provided a detailed account of the arguments flowing around the discussion tables. Both disagreement and consensus were found in the deliberative forum. Conflict in opinions unfolded at the beginning but common grounds were found as the deliberation progressed. The government was given major responsibility for leading emission mitigation, whereas perspectives diverged as to the role of private markets. All participants held that their support and financial contributions to climate change initiatives depended on trust, certainty of effects and accountability of institutions. Articulated in similar terms, these criteria however did not always produce identical assessments across participants.

A Medicare levy parallel played the role of bridging rhetoric by making the carbon tax option more plausible to its opponents. One of the discussion groups that featured clear division reached an initial consensus based on a modified carbon tax resembling the Medicare levy. This option was recognized by advocates of emission trading and climate sceptics, who nevertheless remained held to their own arguments to varying extents. The increased support stemmed from the belief that the key criteria articulated would be properly accounted for under a Medicare system, which has been established and trusted. These principles and experience with the Medicare were shared. The levy parallel could then bridge the individuals holding diverging views through shared dimensions. The qualitative change in WTP couched in such terms begs innovative explanations. All of the individuals agreed to pay and the enhanced trust in the institution responsible for receipt of payment and delivery of services proved to be the major reason. Everyone recognized the legitimacy of this criterion although priority as to which party to attribute trust varied. The concept of deliberative WTP elicited under such a value disagreement stands at variance with previous literature.

PART V

DISCUSSION AND CONCLUSIONS

CHAPTER 10

THE IMPLICATIONS AND FUTURE OF DMV

10.1 INTRODUCTION

The first half of this thesis has provided a number of new perspectives regarding environmental valuation research. It is argued the deliberative turn not only introduces participatory procedures, but also an epistemological system at variance with the current practice of environmental valuation. Some of the core elements of the preferred discourse-based approach have been addressed and illustrated in the case study. The results have provided insights into the shape of satisfactory outcomes of DMV and possible drivers. However, the novel approach may fail to meet the economic purposes it is meant to serve. The findings are also at odds with the requirements of other DMV models. Further clarifications and justifications are therefore needed to establish its normative status.

This chapter presents a discussion on the theoretical implications of the proposed re-conceptualizations and supporting observations in a coordinated manner. I elucidate the ways in which they are linked to and come into conflict with the literature, and outline a political, pluralistic approach of environmental valuation. The discussion is focused on three sets of established perspectives concerning the advantages of DMV over the conventional approaches. These pertain to 1) the citizen-consumer dichotomy, 2) the requirement of consensus, and 3) the content of the monetary expression, respectively. Each relates to an alleged justification for the use of deliberative methods, which however needs substantial repairs to dispense with the incompatibilities with

value pluralism

Following the discussion, I conclude this thesis by reflecting on the science of DMV in the broader context of deliberative economics and shed some light on future research. To start with I summarize the previous chapters and indicate some limitations of this study.

10.2 SUMMARY OF CHAPTERS

Chapter 2 reviews the literature on environmental value and valuation. Neoclassical economics has failed to capture alternative values and motives, such as moral obligations and rights. Nevertheless there are different interpretations as to the failure of the neoclassical tradition and the nature of the communal value of the environment. This results in a range of remedial measures or alternative approaches for widening the value basis of monetary valuation. These are classified into three approaches.

Functional diversification involves changes mainly in terms of the substance of valuation (object). It focuses on the multi-dimensionality of environmental change and remedial policy options, and calls for wider functional consideration for a more comprehensive assessment. *Positional modification* entails changes mainly in terms of constituency of valuation (subject). A diversity of people's perspectives, expertise or experiences is embraced, yet within a particular scope of value. The valuing individuals are encouraged or selected to speak for the same constituency, such as the society at large. In both cases, the value-articulating institutions required are given and based on a prior judgement on the relevance, validity or legitimacy of particular value positions and dimensions. This creates a set of pre-analytic rules of inclusion or exclusion that do not allow alternative criteria that go beyond the specified institutional boundaries to be embraced.

Under these approaches the case for value pluralism is not defensible. Functional

diversification is benign to neoclassical economic principles, whereas positional modification tends to privilege one pole of a dichotomy. Both have their value-articulating capacity enhanced when value diversity is reduced. The third approach, *structural reconstruction*, is more appealing. It emphasizes the variability of value-articulating institution and does not offer a pre-definition and pre-judgement of values. The nature of stated money values is understood in terms of their providers empowered to speak for themselves, rather than specified by the researcher.

Chapter 3 sketches the theory of deliberative democracy. The theory assumes an important role of public deliberation in favour of preference aggregation. Advocates believe that it can recognize pluralism and complexity and still defend the democratic ideals of the autonomy and sovereignty of citizens. The qualities of a decision are sought in the reasonableness of citizens' validity claims rather than the intensity of preference. Some deliberative democrats favour universally acceptable reasons as a basis of social cooperation. Others emphasize reciprocity and encourage the search for fair terms of cooperation for their own sake, such that citizen must give reasons in terms that those with whom they disagree can accept. Also, individuals participating in a public deliberation should possess a certain level of communicative competence. It should be organized in ways that maximize statistical representativeness to produce a 'microcosm' of the population. An alternative is discursive representation; participants would be selected in terms of discourse which refers to a set of categories and concepts embodying specific assumptions, judgments, contentions, dispositions, and capabilities. It can raise prospect for capturing the differentiated character of interaction that characterizes the political world of a given social issue.

Liberal democracy presumes the existence of self-contained and self-verifiable choices, and so does not see reflection upon preference as necessary. To some deliberative democrats, constructive contestation of values and knowledge is a

requirement. Public opinion is then understood in terms of the critical interaction between citizens rather than simply their choices. Theorists hold different views about the ideal venue for deliberative democracy. Some suggest that it should be reserved to constitutional affairs and formal institutions. Nonetheless the public sphere has gained support from others who emphasize the role of civil society and informal expressions of opinion. Consensus has been recognized as an ideal outcome, but perspectives are divided in terms of the basis of action agreement. Consensus democrats prize consensus reached through realizing a comprehensive common good, whereas pluralists seek consensual basis of fair terms of cooperation in the face of persistent moral disagreement. In contrast to utilitarianism underpinning neoclassical economics, deliberative democracy is a second-order theory, which is *about* other theories as it provides ways of dealing with the claims of conflicting first-order theories and does not affirm or deny their moral principles in *a priori*.

Chapter 4 introduces another intellectual current influencing the development of DMV. A specific approach to analytic deliberation is reviewed. It is advocated by decision scientists and behavioural psychologists who have contributed to the DMV literature. The starting point is the failures of public deliberation and the goal is to strengthen the scientific rigour of group decision-making processes. It is regarded that individuals lack cognitive ability to make complex decisions and elicit preferences, and outputs from unconstrained dialogue are too ambiguous to support policymaking. Analytic deliberation is constructed as a kind of ‘tutorial’, comprising a schematized process of clarifying uninformed values and evaluating options systematically. It is led by decision experts seeking to engineer preferences by providing cognitive aids. Participants in need of education are required to adjust themselves to the expectations of the decision science.

This approach primarily aims to correct problems associated with democracy.

Science (decision science) is being used to rescue participatory democracy, rather than the other way around which happens to be a potential contribution of deliberative democracy. Analytic deliberation is thus departed from its democratic counterpart. For example, there is an emphasis on demonstration of the evidential basis of values whereas philosophical debate on moral values is avoided. Clarification rather than justification is encouraged. An engineer mentality is adopted, with a focus on individual rather than group, and instrumental rationalization rather than communication. Its democratic potential is called into doubt.

A critical review of the DMV literature is given in **Chapter 5**. DMV refers to monetary valuation of public goods based on deliberative methods. The development of the method by multiple disciplines has contributed to some variety in conceptual models. The variations are broadly attributable to two widely discussed limitations of stated preference approach to environmental valuation. First is a concern within economics that individuals are faced by too difficult a task when being asked to value an environmental change in monetary terms during a relatively short interview or survey. Second is a concern from within and outside of economics that stated preference approach restrict the type of values which an individual is able to express.

Accordingly DMV has been developed under two different deliberative approaches summarized above. One is *preference moralization* which is drawn on the theory of deliberative democracy and advocated by heterodox economists, philosophers and political scientists. It takes ethics and alternative values more seriously and favours group-determined WTPs. The other one is *preference economization*, which deals with the cognition and information issues and is preferred by decision scientists and mainstream economists. It seeks to modify the traditional economic conception of values without a morally critical intent and favours individual WTPs. In the former case, a weak conception of deliberative democracy has been taken to overturn economics,

while in the latter, implicitly reinforce it. Strong deliberative democracy does neither, but dismantles the *dominance* of economics. DMV theories and experiments that privilege or marginalize by design any single category of values should be held in suspicion. It is proposed that DMV should seek the values of public goods not simply from expressing and/or aggregating values or preferences. It is re-conceptualized as a mutual agreement as a result of an interactive process enabling contestation of discourses.

As far as value pluralism is concerned, the two approaches share a key limitation. That is, they both seek to enforce a constrained form of rationality as a criterion or explanation for the elicited value represented in monetary terms. Any departure from the specified standards is likely to be regarded as irrational or inappropriate. Alternative values, convictions and beliefs can hardly be sustained under these approaches to the extent in which these dispositions come into conflict with the theoretical expectations underlying the value-articulating framework concerned. Neither, therefore, has adequate value pluralistic capacity. My DMV approach is ‘discourse-based’. Construed as an ‘agreement to pay’, a WTP decision made would resemble the deliberative idea of ‘workable agreement’, where individuals agree on a course of action while disagreeing on reasons. The stated value should be given an open definition without privileging the standard economic conception.

Chapter 6 sets up the context on which the empirical study is based to address a set of theoretical problems concerning the method of DMV. The inquiry follows the conclusions of Chapter 5 that a WTP as an agreement to pay does not require *a priori* assumptions about the moral category it belongs to and could be underpinned by multiple reasons, including those that do not logically point to such an intended action. Such an agreement to pay can be identified and explained through observing the achievement of a *workable agreement* and effective invocation of *bridging rhetoric* in a

deliberative exercise.. The former may be driven by the latter which can facilitate the making and hearing of representation claims across differently situated individuals. The idea, however, contradicts the expectations and requirements of its alternative approaches, namely, preference economization and moralization, which require or imply a high level of *inter-subjective consistency* in terms of subjective values and preference. The methodological variation indicates different prospects for value pluralism. An empirical examination of these concepts allows a characterization of DMV results and assessment of the plausibility and relevance of the discourse-based approach. This is supported by the following case study.

Chapter 7 describes the empirical study. A citizens deliberation on climate change policy was organized in Canberra, Australia, where the issue of carbon pricing remained controversial. Twenty four citizens took part in a one-day workshop focusing on issues around the ETS and its alternatives. Activities included group discussions among these individuals and presentations by four specialists. The discussions were audio-recorded. Data were also collected from a questionnaire administered immediately before and after the main programme. The questionnaire gauged the participants' preference about four carbon pricing options, WTP for emissions mitigation, and values and beliefs assessed by 22 statements concerning various issues about climate change.

Part of the results of the deliberative forum is analyzed in **Chapter 8**. These are examined in terms of 'inter-subjective consistency' and 'workable agreement', which are both built upon the concept of 'meta-consensus'. Normative meta-consensus does not demand that citizens conform to others' legitimate values nor agree on the priority of values. It requires agreement on the recognition of the *legitimacy* of a value. Inter-subjective consistency refers to the situation where those pairs of individuals with similar values and beliefs have similar preference orderings. It is regarded as an ideal outcome as individuals disagreeing with each other do so for inter-subjectively

consistent reasons. To the contrary, a workable agreement requires agreement at the preference level only.

Survey results showed that, prior to deliberation, slightly more participants voted for the option of carbon tax in favour of emission trading. However, two sceptical individuals held the opposite view favouring ‘no carbon pricing’ and refused the WTP request. Deliberation resulted in stronger support for carbon tax including one vote from one of the sceptical individuals. Both of them now agreed to pay for emission mitigation. So there was emerging agreement on preference in terms of policy choice and WTP. Responses to the 22 statements were analysed using the Q methodology. Factor analysis extracted three factors, or discourses. These included two pro-climate discourses – one suspecting the role of markets whereas the other affirming, and one sceptical discourse that challenged the science of climate change. Deliberation did not lead to a normative consensus. None of the three discourses diminished, indicating a sustained divergence in subjective values. Discursive communication between participants was enhanced as revealed by the changes in factor loadings. Therefore, the initial agreement on preference appeared under value difference, illustrating a workable agreement at work. On the other hand, inter-subjective consistency diminished. There had been high inter-subjective consistency due to the sharp contrast in opinions and it did not fall following deliberation.

Chapter 9 reports findings from a qualitative analysis of transcripts which recorded the group discussions. It aims to identify possible drivers of the workable agreement. Formation of a workable agreement could benefit from the use of rhetoric which helps represent a discourse to those not initially subscribing to it. A desirable sort of rhetoric can play the role of bridging – associating with people with different social characteristics and political perspectives. Rhetoric can be expressed in the form of language. This chapter involves a search for verbal expressions that played a rhetorical

function.

Conversations containing creative and critical content were coded into five broad themes defined in terms of the deliberative process. Both disagreement and consensus were found in the discussions. Conflict in opinions unfolded at the beginning but common grounds were found as the deliberation progressed. The government was assumed major responsibility of leading emission mitigation, whereas perspectives diverged as to the role of private markets. All participants held that their support and financial contributions to climate change initiatives depended on trust, certainty of effects and accountability of institutions. Articulated in similar terms, these criteria however did not always produce identical assessments across participants.

Participants became more sympathetic to the carbon tax option. One of the discussion groups that featured clear division reached an initial consensus based on a modified carbon tax resembling the Medicare levy. This option was recognized by advocates of emission trading and climate sceptics, who nevertheless remained held to their own arguments. The increased support stemmed from the belief that the key criteria articulated would be properly accounted for under a Medicare system, which has been established and trusted. These principles and experience with the Medicare were shared. A carbon levy resembling it could then reach the individuals holding diverging views through shared dimensions. The qualitative change in WTP couched in such terms begs innovative explanations. All of the individuals agreed to pay and the enhanced trust in institution proved to be the key driver. Everyone recognized the legitimacy of this criterion although priority as to which party to trust varied. Through shared experience the Medicare analogy helped constitute an overlapping discursive space joining competent and reflective actors. The WTP question appeared more plausible to the sceptics as they were offered terms of cooperation that they considered acceptable. Like rhetoric, it was a particular rather than universal appeal. The qualitative

change in WTP was primarily driven by the more appealing terms of cooperation successfully bridging climate scepticism and enthusiasm. The workable agreement was formed on the basis of trust.

10.3 CLARIFICATIONS AND LIMITATIONS OF STUDY

The present study has made some important assumptions and qualifications at various points. These are listed as follows:

1. Chapter 4 is based on only one specific approach of analytic deliberation. The limitations identified and the variations from the democratic approach may be related to the nature of the environmental issues on which their arguments are based. These decision scientists deal with environmental risk issues which involve technically complex information. Strictly structured and professionally guided deliberation may be more helpful for the participants to develop adequate understanding of the issues. Deliberative democrats, on the other hand, typically work on moral conflicts involving cultural and in some cases religious issues. The key concerns are fairness, rights and justice, so that the democratic principles may prove more important.
2. The deliberative workshop failed to secure a representative sample, both demographically and politically. Many of the participants were retired elder individuals and most were educated professionals. Elder and educated individuals tend to hold stable views. But this is not necessarily a disadvantage because deep conflict could provide more insights into the formation of agreement. The lack of demographic representativeness however raises question about real policy impact. On the other hand, participants were concentrated on two of the offered policy options, i.e. emission trading and carbon tax. Almost no one voted for the voluntary offsetting option, which was intended to widen the opinion spectrum to

provide more useful data for a study of attitudinal change.

3. The WTP question included in the questionnaire was not designed in accordance with standard economic requirements. As mentioned in the Introduction and elsewhere, there was a deliberate attempt to avoid basing the study on the economic criteria. My central argument is that a pluralistic valuation approach should dispense with any exclusive framework of value articulation. Following those criteria would make it indefensible. There is no attempt to interpret the observed WTP as an economic construct or to assume DMV as an economic technique. This is nonetheless seen as an advantage rather than a problem, given that value pluralism is the ultimate theme of study.
4. The Q methodology was used to analyze the data and described in Chapter 8. The ways it was used varied from the standard practice in two aspects. First, statements were freely distributed. Statistically, however, this does not dramatically impact on the quality of results (Cottle and McKeown, 1980). Also, the workshop lasted for just one day with a tight schedule and a long questionnaire was not considered appropriate. To keep it short, only 22 statements were employed, well below the standard range of 40 to 60. The discourses identified may not be exhaustive.

10.4 CITIZEN-CONSUMER DICHOTOMY

Much of the disputes in environmental valuation research are related to the citizen-consumer dichotomy. It is first raised by Mark Sagoff (1988) as a philosophical critique and later empirically examined by others (Blamey et al., 1995; Kniivilä, 2005; Mill et al., 2007; Soma and Vatn, 2010). The Sagoffian view, generally respected by critics of the CVM, is that individuals making environmental decisions act as citizens concerned with the public interest, rather than consumers primarily motivated by

self-regarding wants and interests. Environmental valuation should seek to prompt citizen-type considerations and deliberative procedures are deemed to be a good fit to this endeavour. By internalizing ethical concerns in such terms, the practitioners find themselves aligned with the idea of deliberative democracy and public reason, particularly the Rawlsian conception. Societal perspectives and plural values are being preserved through enforcing universality and impartiality.

It is counterproductive to take the dichotomy as a basis of designing stated preference valuation surveys. Standard CBA involves a 'pre-emptive consensus' (Rydin, 1999) which assumes that everyone would accept utility maximization as a principle of decision making in relation to social and environmental affairs. The practitioners who embrace the Sagoffian / Rawlsian view effectively turn the argument the other way around. Criticisms of the CVM for promoting value monism could then almost equally apply. Eliciting citizen-type values in an exclusive fashion is morally repressive and contradictory.

It is morally repressive because a pre-emptive frame of reference is imposed on all respondents, some of whom may consider a consumer or personal frame more appropriate on legitimate grounds. Soma and Vatn (2010) experimentally instituted a citizen's role in a deliberative workshop and prized its potential. However, the research yielded evidence that individuals who invoked a personal frame felt repressed. These people found themselves confronting the group which was explicitly asked to adopt a citizen role. They were denied of a group member – 'He does not represent the group opinion but his own only', and consequently they 'created frustration', felt 'unsatisfied' and 'got upset' (Soma and Vatn, 2010, p. 36-38). These observations bore some resemblance to those protest responses frequently observed in CVM surveys. The instituted role led to a self-proclaimed demarcation from politics: 'We as citizens can only say something about the main principles that are important to us, and it is outside

the scope of our task to criticize the local politicians' daily practice of the law' (Soma and Vatn, 2010, p. 37). Scope of valuation was constrained. With some individuals feeling unsatisfied and the scope being deliberately narrowed down, it is doubtful that such an approach would be superior to the standard economic ones in terms of opening up debates.

It is contradictory because a citizen frame would render unnecessary public deliberation, and perhaps any form of participatory environmental appraisal. Individuals making a universal appeal that guarantees unanimous agreement would encounter little substantial conflict with other members of the society. The very reason for eliciting WTP or WTA then no longer exists. A social WTP couched in Rawlsian terms, prized by Brown et al. (1995) and Wilson and Howarth (2002), refers to the amount that *the society as a whole* would be willing to pay to avoid an environmental change. The problem is, if everyone withdrew from personal interest in favour of the public, no one would request any premium for preserving the environmental state in question. Monetary estimates from stated preference approach may be used to determine the level of 'payment for ecosystem services', which refer to the approach where self-interested or consumer-type, or economically incapable landowners are paid to take part in conservation activities (Kumar and Muradian, 2009). Should these individuals decide to act upon public interest exclusively upon deliberation they would do the job without asking for payment. No valuation would then be needed. Exclusive citizen frame is blind to the social or political conflict which necessitates monetary valuation as part of the solution. Enforcing the citizen-consumer distinction takes us further away from the actual political economy.

A pluralistic valuation does not rest on such a dichotomy, or the notion of value incommensurability. As explained in Chapter 2, one might give priority to just one category of value among many, regardless of their difference and relationship.

Repressive and monistic elements could be found in neoclassical economics, as well as in the Sagoffian citizen frame and multi-criteria analysis design (as illustrated in Chapter 4). Findings from the present case study provided further support. The deliberative forum ended with a particular kind of consensus which was amenable to deliberative democratic principles and requirements of pluralism (see Chapter 8). No citizen's role was explicitly required of the participants and the key driver of change (i.e. the Medicare parallel) was far from a universal appeal (see Chapter 9). These observations were assessed in terms of the ideas of meta-consensus and rhetoric, whose problem-solving capacity increases with actual value diversity. The Sagoffian / Rawlsian view of environmental valuation is unnecessarily demanding. Those practitioners who adopt such a distinction or demarcation (e.g. Brown, 1984; Costanza, 2000; Douai, 2009) would find their methodology losing power when value conflict becomes deeper, say, when consumer value or partial interest is actually considered an equally legitimate basis of environmental decision. The existence of conflict makes value assessment important. Yet the current trend is to elicit values by silencing conflict. A truly pluralistic approach should dispense with rather than embrace the impartialist perspectives, and seek a positive rather than negative relationship between capacity of value-articulating institution and value diversity.

10.5 CONSENSUAL BASIS OF WILLINGNESS TO PAY

Advocates of preference moralization believe that construction of monetary expressions through informed deliberation requires convergence on subjective values. To be theoretically robust, the deliberative WTP should be derived from an agreed set of subjective values and involve some respondents shifting to towards a single discourse. The kind of consensus required is a 'normative consensus', and not 'normative

meta-consensus' as distinguished by Dryzek and Niemeyer (2006).

Critics attack the idea of DMV for reducing value plurality by enforcing consensus. Vatn (2005, 2009), for instance, believes that the elicitation of group-based monetary statement presupposes an agreement on the nature of the stated WTP by asking the valuing agents to provide monetary estimates in accordance with economic assumptions and the associated moral domain. DMV is considered doomed to failure where such an implicit normative consensus is taken for granted.

Both proponents and critics have overestimated the conceptual significance of normative consensus. The former see the requirement of consensus as constructive, whereas the latter see repressive. The second group deserves some attention, because their attack takes issue with the hypothetical activity of pricing the environment while the main problem should be the underlying *assumption*.

Putting a price on the environment may be acceptable from the perspective of deliberative democracy. The limiting factor is the neoclassical assumption of a warranted consent among the individuals regarding the appropriateness of pricing the environment in a particular way. People may refuse to trade off the environment for money and assign a dollar value to it, but it is part of life to express concerns as to how much a tax rate or public funds are needed or acceptable for policy purposes. In democratic societies citizens are free to express WTP for improving environmental quality as a form of public opinion. It is unnecessary to assume that WTP expressed in actual occasions is always developed out of individual economic considerations. These monetary expressions may be given by a wide range of reasons for paying, including but not limited to individual trade-off calculations. Combining monetary assessments with deliberation would be a problem if only the underlying economic philosophy is presumed to have universal acceptance. No such presumption or consensus was applied to the present study. Following the caveats offered in Chapter 5, I do not claim that the

elicited WTP represents a measure of economic welfare.

Criticisms have been misplaced on the *monetary* expression while the crux is the assumed consent underlying the stated monetary value. What is unwarranted is a moral view presumed to have universal currency, rather than the economic philosophy specifically. The legitimacy of monetary assessment depends on its conceptual and experimental requirements, and it is not an imperative to tie deliberation on WTP to economic rules. Also it may be too rigid and unrealistic to prevent people from expressing preference in monetary terms for environmental reasons. Under DMV the concept of stated WTP needs to be reconsidered to dispense with the assumed consent underpinning the arguments of the two camps.

As a form of stated preference WTP may be elicited without explicit agreement on held values. Producing a universal value theory requires some degree of value transformation. For instance, normative consensus between citizen- and consumer-type respondents means one of the two groups withdrawing from their position. Granted that the transformation required is technically possible without compromise, the range of admissible values would diminish. As particular ethics are withdrawn, eventually the WTP would be definable only in terms of a smaller set of values, i.e. all respondents willing to pay for similar reasons. Preference economization and moralization are built upon such a premise. Requirements of consensus or transformation at the normative level encourage value plurality diminishing. Consistency of subjective values between the valuing agents should not be seen as a necessary criterion of group-based WTP.

DMV may be understood as a process of developing agreement on WTP decision, either implicitly or explicitly. Where inaction is costly or inappropriate, some sort of preference transformation is socially desirable. Collective decisions require involved parties mutually agreeing upon a course of action, which may be expressed in the form of a preference order, group approval, or agreement to pay (or WTP), etc. In the absence

of such agreement, authorized parties may lack legitimacy to proceed with formal actions, leaving pressing problems unresolved and eventually producing unbearable consequences. The agreement being required may involve no payment to be made socially.

On the other hand, consensus or convergence on subjective values is not required. It is more difficult and controversial to transform values than preferences, since values are more deeply rooted in the entirety of personhood and morally disputed. Maintaining a variety of values is also a generally received imperative in democratic societies. These principles have been demonstrated by the present case study. Participants were committed to seeking collective action to address climate change while respecting division in normative position. Consensus on preference, in the form of policy preference and agreement to pay, emerged without the identified discourses substantially diminishing (Chapter 8). Individuals might agree to pay and state a WTP by respect or sympathy, even though it is not their first preference to put a dollar value on the environment or financially contribute via a particular mechanism. An agreed WTP decision does not require the different subjective values to become compatible with each other. This conception constitutes the core element of my discourse-based approach of DMV, which recognize social construction of preference as well as reconstruction, and consensus as well as ‘dissensus’ at a different level.

10.6 WELFARE INDICATOR OR POLITICAL AGREEMENT?

10.6.1 Welfare indication as a rational objective

In neoclassical economics, economic valuation of the environment serves to translate the non-marketed benefits produced by environmental goods or services into monetary terms. Stated monetary value is used to indicate welfare. A positive WTP means nature’s

contributions being viewed favourably. Ecological economists add that non-economic ethics and institutional factors also matter. Although the two schools of thought diverge as to which category of value is relevant, they generally share the view that a stated WTP should accord with and reflect the interest or subjective state of its provider. Internal consistency has been regarded as an uncontroversial criterion. As Lockwood (1999, p. 396) argues, 'It is desirable that value institutions are employed to maximise the opportunity for participants to express assigned values in a manner which is consistent with their held values and cognitions concerning the issue'. This is also recognized as a primary objective by advocates of analytic deliberation, who seek to 'mirror how people naturally think' (Gregory, 2000, p. 153) and ensure that individuals could identify an option or express preference in ways that could best address their values (see Chapter 4). Environmental valuation has been used to make inferences about individuals' interest or subjective state from the WTP they state.

In DMV, however, the capacity of indicating economic welfare is uncertain. Construed as a workable agreement, a deliberative WTP may be drawn upon a range of relevant reasons for paying and factors associated with the act of paying. Providers of a positive WTP may include those who are influenced by social norms and rhetoric, those would not experience utility change as a result of the decision made, and those hold doubt as to the importance of the environmental entity being paid for or the ways that public funds are collected. Meta-consensus allows the situation where individuals hold positive willingness to pay for, for instance, greenhouse gas mitigation even though they are not impressed by the climate change science or might benefit from a warming climate. The WTP may then lack consistency with personal concerns. A meta-consensual monetary expression may fail to provide an accurate account of expected benefits or held values, at least for some of the respondents. It can then hardly fit into any conventional account of valuation. One may say that this approach does not

actually involve assessment of ecosystem contributions and encourage instrumentally 'irrational' responses. This indicates a tension between the idealized objectives of DMV and ecosystem valuation generally.

The established standards of welfare indication imply preference correction. A model of rational behaviour is set up to strive for formalization. Assessment requirements are defined and measured against a set of criteria embedded into the stated preference techniques designed in accordance with the positivist tradition. The perceptual and moral content of values is drawn on the researcher's preoccupations empirically confirmed. As argued in Chapter 4, the researcher's preoccupations are the biggest impediment to the pursuit of value pluralism. Practitioners tend to relegate the loss of internal consistency to an 'irrational' observation, as instrumental rationality has been taken as a measuring rod, by which chosen option must be consistent with clarified values. As Costanza (2000, p. 7) suggests, 'Valuation ultimately refers to the contribution of an item to meeting a specific goal or objective.....one cannot state a value without stating the goal being served'. In reality, however, people often express values in an internally inconsistent manner; for example parents may disagree on but support an action or lifestyle that their children are committed to. Welfare indication as currently practised tends to marginalize observations deviating from established professional preferences and standards. The internal inconsistency issue reflects the fact that the practice fails to take seriously alternative values that are formulated or presented in uncommon, 'unscientific' or unpredictable ways. Such instrumental strategies are not well placed to capture values held by individuals in a plural society where these are multiplying, ever-changing and evolving.

A pluralistic valuation approach would leave the definition of values open-ended - the core argument of Chapter 5. Subjective values, or subjective states, should be measured using techniques that recognize this indeterminacy, such as Q methodology as

has been demonstrated. A workable agreement may create a ‘weird’ situation where a WTP response is underpinned by a subjective state that would not logically lead to a positive WTP. A pluralistic approach would seek to redefine the notion of WTP rather than relegating those observations to irrational responses. Stated WTP should be defined as its providers see fit. As a scientific observation, the consistency between subjective values and preferences within and between individuals is useful for understanding how individuals behave. However, it should not be taken as a criterion for determining the relevance and validity of a group-agreed WTP, which should be explained in terms of the communicative dynamic between group members and on the basis of communicative rationality. Preserving value plurality in this way can make collective decision more tractable. Such a structurally reconstructive valuation approach involves, where necessary, changing the theoretical structure of value-articulating institution, including the established view about monetary expression to capture the entirety of subjective states. Welfare indication makes little room for this.

Therefore, the present DMV experiment does not claim to indicate economic welfare. The findings support some of deliberative democracy principles, but appear at odds with those of the analytic deliberation which emphasize preference indication and correction, as discussed in Chapter 4. This demonstrates a significant epistemological gap between the two traditions, making synthesis challenging. In this regard, the discourse-based approach outlined here also varies from the preference economization and moralization approaches described in Chapter 5. A pluralistic approach must recognize the reality that the valuing agents may construct and express values in various ways we disagree or fail to predict. In the next section, stated WTP is accordingly conceptualized as a form of agreement.

10.6.2 Willingness to pay as a political or social agreement

In economics, a stated WTP represents the preference of an individual in securing a state of well-being to maximize utility according to her preference ordering. In reality, however, individuals who pay may fail to consider or foresee the specific improvement in well-being as in their interest. The actual contribution may be a result of the acceptance of certain formal regulations or the influence of institutional norms, rather than out of spontaneous willingness. In some political and social relationships, disagreement does not preclude individuals from actually making financial contribution or indicating intention. For reasons discussed in Chapter 5 and above, the conventional model of WTP is poorly placed to portray the intention to pay expressed as a political outcome. As shown in Chapter 8, sceptics could agree to pay and some other respondents retained a high WTP while becoming more sympathetic to climate scepticism, which would be treated as a reason for giving protest bids in standard CVM surveys. The conventional model appears unfit to the observation. WTP construed as an economic construct cannot guarantee explanatory power where the monetary exchange involved is manifested as a political or social relationship.

As a political or social activity, the act of valuing may involve a search for meaning or identity or a desire to conform to social norms (O'Neill and Spash, 2000; Vatn, 2005; O'Neill, 2007). Sometimes this appears in ways that the valuing agents do not discern or admit, or in ways that contradict common sense or established scientific understanding. Preference economization, described in Chapter 5, endeavours to train individuals to the otherwise, i.e. able to discern and admit, be rational and scientific. The discourse-based approach I espouse accepts the fact of pluralism and adopts a grounded conception. Given the circumstantial variability of subjective values, specifying a direct logical relationship to WTP on a pre-analytic basis is not considered appropriate. Conventional treatment tends to inhibit surprises and variations. An

alternative approach should recognize the varying, ever-changing and contradictory elements of human's well-being. Candidates include satisfaction of wants, defence of rights, desire to respect and be respected, sense of trust, etc. WTP elicitation should maximally recognize the subjective, evolving nature of values.

Also it should make room for reciprocal considerations. While it has been assumed that individuals providing a WTP must accept the reasons for paying, the alternative conception is less demanding, extending to those forms of interest or well-being that individuals do not explicitly subscribe to. Such a WTP indicates the level of contingent agreement upon a course of action that would contribute to the well-being of an individual or group of individuals defined circumstantially. It is an actual or anticipated outcome of political or social interaction. Instead of 'willingness to pay', it should be labelled as 'agreement to pay' to highlight the actual or imagined involvement of a critical second party in determining acceptance, in contrast with the value concept formulated under the preference economisation approach which is justified in terms of a first party problem. In the case study, the two climate sceptics changed their WTP decisions when a successful communicative interaction involving a second party, including other group members and experts, took place. Trust proved to be a key driver. Agreement to pay could better describe the social nature of the improving commitment.

Such a monetary expression is 'incompletely theorized', to use Sunstein's (1995) term. Theorization is precluded due to the absence of shared theoretical grounds or principles – a positive WTP may be constructed upon perceived importance, unimportance or indifference. Thus epistemic generalization may not be possible. Pre-definition is also not permitted by the principles of value pluralism. This alternative approach does not actually involve quantification of values attached to the environment. Agreement to pay indicates how much is agreed to pay given justified reasons to proceed with an action leading to a change in environmental quality or quantity. The

monetary expression is a measurement of the likelihood and magnitude of a particular intended behaviour (paying). As such, this approach involves quantification of the intention to act upon those values however defined and constructed by the individuals. The expressed money value concerns what people want or agree to do about the valued object, whereas how its role is subjectively interpreted is not circumscribed.

The findings reported in Chapter 8 and 9 have provided empirical support to this re-conceptualization, although they do not support the preference economization and moralization approaches. In particular, the qualitative change in WTP on the part of the climate sceptics has illustrated the notion of ‘agreement to pay’ proposed in Chapter 5. The different conception adopted, as I have argued, should nevertheless be seen as a justification for DMV rather than a weakness as it proves to be capable of accommodating plural values. DMV research not only means a different value elicitation method, but a different epistemology as to what constitute a normative theory of environmental value.

10.7 THE FUTURE OF DMV

As specified in the Introduction, this study is guided by the following research questions:

1. *How do the researchers who contribute to the development of DMV deal with the problem of value pluralism?*
 - a. *What does a pluralistic valuation approach require?*
 - b. *What is the role of deliberative elements in monetary valuation?*
 - c. *Is the current practice of DMV in raising or reducing pluralistic potential?*
2. *How do individuals’ monetary expressions change with their held values and preferences upon deliberation?*

- a. *What kind of consensus is produced in a divided group?*
- b. *What is the possible driver of the formation of the consensus?*
- c. *How can the resulting monetary expressions be explained in terms of the observed consensus?*
- d. *What are the implications to the science of DMV in terms of value pluralism?*

My answers to these questions could shed light on the prospect of DMV: Capacity for pluralism does not grow with privilege given to alternative values. The crux is the excess of pre-definitions and pre-judgements. Using deliberative methods to repair or reject the economic conception of value is problematic. Public deliberation plays an emancipatory role of exposing the contested and makes room for different frames of reference of valuing public goods. DMV is an inquiry into the level and quality of WTP articulated under value difference. The deliberative elements serve to ensure that the processes of valuation be reflective and self-critical, on the part of the valuing agents as well as the researcher. In this light, the practice is regarded as lacking pluralistic potential as the method has been used to reinforce an established or alternative conception of value.

In the case study, there was no normative consensus on values. There was an initial agreement on preference driven by the recognition of a communicative device that played a rhetorical function. Division was respected without precluding a qualitative convergence on WTP decision. Plurality could be preserved without compromising the capacity for making collective decisions. Stated WTP is construed as a political or social agreement developed on the basis of conflict and contradiction. It is termed as ‘agreement to pay’ to highlight its interactive nature and variable ethical composition.

Two important implications could be drawn from the above conclusions. First, DMV may run into eclecticism since there is no standard way of valuing or requirement

to control quality. Any explanation or theory provided would not be taken as an evaluative yardstick. In the absence of standard assumptions and procedures, the method of DMV may lack consistency and reliability. My response to the everything-goes concern is twofold. There are requirements, but these are granted within the deliberative arena where ways of valuing are debated and resolved among the individuals. Also, standardization is called into doubt when the ultimate objective is to capture plural environmental values. Consistency and reliability may be a less relevant criterion where the public goods under valuation do not possess stable and universal definitional content. People's values attached to the complex and multifunctional environmental resources tend to be communicating, evolving and sometimes conflicting. Specifying a standard way of valuing seems contradicting the very reason for introducing deliberative methods, i.e. to accommodate variations. The potential of DMV depends on the extent that these properties are recognized.

Second, DMV may not be a *monetary* assessment as much as its name suggests. Since it does not guarantee an economic value, whether it could supply numerical inputs to a subsequent CBA is an open question. The method may then lack economic relevance. It should be stressed that, however, DMV is not restricted to non-economic valuation. Valuing in ways that accord with economic requirements is acceptable as long as deemed to be appropriate by the valuing agents. Furthermore, the kind of valuation under DMV is not a theoretical but topical one. It is not subject to the neoclassical economic theories or any single first-order theory (see Chapter 3 for definition). It is designated to dealing with WTP issues treated as a matter of monetary exchange in a social or political context. In other words, the subject of inquiry is invariably money and values, yet possibilities of theorization are seen as varying. DMV involves a monetary assessment not bound to the economic ambit. Still, the lack of economic relevance is likely to be a concern of economists who endeavour to create a

common currency in keeping with the dogmatic tradition. This issue can be linked to a larger debate about the content of the economics of public goods, to which I now turn.

10.8 RETURNING ECONOMICS TO POLITICS

Contemporary social and environmental problems are characterized by irreducible uncertainties in knowledge and ethics, and different legitimate ways of knowing and valuing (Funtowicz and Ravetz, 1993). What is considered relevant to the conventional economics may not be relevant to the kind of science required today to deal with the uncertainties and diversity. An economics of these contemporary issues is in need of a new disciplinary order that could enhance the adaptive capacity of human being. Novel research initiatives such as DMV cannot satisfy the requirements of neoclassical economics. Instead, the 'economics' of DMV could help clarify the relationships between environmental and ecological economics and the kind of inquiry that it should be restricted to. Based on the conclusions I offer the following reflections.

As far as complex environmental issues are concerned, there have been calls from within economics for an alternative to the neoclassical economics. Some ecological economists remain suspicious of monetary valuation and try to develop non-economic theories or non-monetary assessment techniques (Zendehdel et al., 2008; Douai, 2009; Söderbaum, 2008; Vatn, 2009). The search for a niche area runs into a competitive relationship where ecological economists identify themselves as heading to the opposite direction to their neoclassical counterparts (Sahu and Nayak, 1994). My counter to this tendency is based on the argument against the positional modification approach outlined in Chapter 2. As a defining feature, the competitive relationship cannot provide motivations for turning the discipline to a pluralistic programme. To make concrete its identity encourages the practitioners to sharpen the dichotomy. Strengthening the arguments required is best served by promoting some sort of unity within its

disciplinary confines. The endeavour could be made more successful by all practitioners adhering to a particular type of methodology, eventually diminishing the range of methodological possibilities and hence the potential for pluralism.

Conceptual problems confronting the field of ecological economics are twofold. As the overarching theme of ecological economics, the endeavour of sustainability needs scientific inputs to be ecologically sensible as well as democratic processes to be socially acceptable. In taking elements from behavioural psychology and decision science, its scientific wing needs to be strengthened. In taking elements from political theories, it commits itself to democratic principles to a greater extent. Science implies more controls, rests on expert culture and works with a narrow set of values, whereas democracy requires reducing controls, rests on popular culture and works with multiple values. There are occasions where they can work with each other but no guarantee in others. A lesson learnt from the deliberative turn is that the requirements of ecological economics established upon various natural and behavioural sciences may limit the critical intent of a deliberative democracy. The extent in which the discipline should be treated primarily as a branch of science, as was the case in the 1980s, is open to question.

Developing a deliberative democracy within economics hinges on a self-critical intent. What is relevant to economics at a theoretical level would be envisaged as an open-ended question subject to a more fundamentally democratic practice. The science of a deliberative ecological economics would remain topical being devoted to the study of the interaction of economic and ecological systems. Determination of relevance should be driven by the object of study, rather than by theory. As a concluding message of this study, the following caveats are offered.

The enemy of deliberative economics is not neoclassicism, but hierarchy of any kind. Countering the limitations of neoclassical economics appears to end in countering

the limitations of decision science or deontology. There are signs of granting privilege beyond redeeming the excluded. As a project of broadening democracy this is not justifiable on its own terms. Deliberative economics, as a demonstration of the political axiom ‘the force of the better arguments’, must make all of its contributing theories redeemable, including itself. The cure for the ailments of public value theory is *more democratic* theory – theory that is democratic in its production, and not only in its content¹⁷. The deliberative principles apply to the subject of inquiry (the public or stakeholder) as well as the inquirer (researcher). Deliberative economics involves a critical discourse built upon a set of principles and norms to facilitate critical encounter and dialogue on equal footing. It requires more than a platform to express or reinforce viewpoints. Of more importance is the reciprocal capacity to recognize alternative ones. Committed to value pluralism, deliberative economists should be well prepared to change their values, judgments, theories, and assumptions in ways fundamentally different from their preferences. Being deliberative means the more diverse the epistemic values and beliefs, the more important the science. Deliberative economics should therefore refrain from pursuing a unity of science.

An economics incorporating any ethical imperative is still an economics. Broadening representation or analytical content does not warrant a sufficient condition for a critical turn of economic rationality towards a socioeconomic rationality. Such a minimalist rejuvenation is bound to the existing value hierarchy which is more a part of the problem than solution. A maximalist view is to advocate one which actively seeks forces of critical adjustment and validation also from outside the paradigm. A structural transformation is called for to return economics to an economy of social conflict that puts unrestricted generalization of particular to universal interests into doubt. A viable economics of public value hinges on a democratization of practice, demanding

¹⁷ Adapting Dryzek and Berejikian (1993) citing John Dewey.

persistent self-critique and deconstruction of universal domain. Public value is then defined in terms of the value-articulating structure predicated on a democratized science, one that theorizes the political economy democratically. A truly pluralistic economic order is forthcoming only if unconstrained, self-critical paradigmatic norms are actively embraced. The enterprise involves an attempt to return economics to politics.

10.9 SUGGESTIONS FOR FURTHER RESEARCH

Psychological dimensions were not addressed in this study. It is not impossible that the respondents suffered from some cognitive failures that the decision scientists are wary of, such as the tendency to follow a majority preference uninformed. More analytic elements may be added to support the investigation of the changes in subjective values and preferences. A more aggressive strategy, nonetheless, would be to run multiple groups organized under different deliberative designs, or more specifically, conduct an empirical comparison between the democratic and analytic DMV approaches to ascertain their different impacts on stated WTP. Also, the respondents provided WTPs in the form of individual contribution. Agreed group or social payments seem to be more compatible to the theoretical framework being advocated and therefore may be explored in future research.

Moreover, the small sample size did not permit a regression analysis which is commonly used in CVM studies to identify explanatory variables. A larger sample size (e.g. 100) is needed to make a better comparison with the CVM in terms of the impacts on respondents' attitudes. Supported by Q methodology, the larger sample size would allow prediction of WTP by Q factor loadings to understand the relationship between WTP and changes in subjectivity. More generally more works need to be done to ascertain the motives behind deliberative WTP and across different environmental issues in dispute.

References

- Addams, H., 2000. Q Methodology. In: Addams, H. and Proops, J. (Eds.) *Social discourse and environmental policy : an application of Q methodology*. Edward Elgar, Cheltenham; Northampton, Mass.
- Aldred, J., 2002. It's good to talk: deliberative institutions for environmental policy. *Philosophy and Geography* 5: 133-152.
- Aldred, J., 2005. Consumer valuation and citizen deliberation: Towards a comparison In: Getzner, M., Spash, C. L. and Stagl, S. (Eds.) *Alternatives for Environmental Valuation*. Routledge, London.
- Aldred, J., 2006. Incommensurability and monetary valuation. *Land Economics* 82: 141-161.
- Aldred, J. and Jacobs, M., 2000. Citizens and wetlands: evaluating the Ely citizens' jury. *Ecological Economics* 34: 217-232.
- Álvarez-Farizo, B., Gil, J. M. and Howard, B. J., 2009. Impacts from restoration strategies: Assessment through valuation workshops. *Ecological Economics* 68: 787-797.
- Álvarez-Farizo, B. and Hanley, N., 2006. Improving the process of valuing non-market benefits: Combining citizens' juries with choice modelling. *Land Economics* 82: 465-478.
- Álvarez-Farizoa, B., Hanley, N., Barberán, R. and Lázaro, A., 2007. Choice modeling at the "market stall": Individual versus collective interest in environmental valuation. *Ecological Economics* 60: 743-751.
- Anderson, E., 1993. *Value in Ethics and Economics*. Harvard University Press, Cambridge, Mass.
- Arvai, J. L., Gregory, R. and Mcdaniels, T. L., 2001. Testing a structured decision approach: Value-focused thinking for deliberative risk communication. *Risk Analysis* 21: 1065-1076.
- Barbier, B., Burgess, J. C. and Folke, C., 1994. *Paradise Lost?: The Ecological Economics of Biodiversity* Earthscan, London.
- Baron, J. and Spranca, M., 1997. Protected values. *Organizational Behavior and Human Decision Processes* 70: 1-16.
- Bateman, I.J., Burgess, D., Hutchinson, W.G. and Matthews, D.I., 2008. Learning design contingent valuation (LDCV): NOAA guidelines, preference learning and coherent arbitrariness. *Journal of Environmental Economics and Management* 55: 127-141.
- Bateman, I. J., Carson, R. T., Day, B., Hanemann, M., Hanley, N., Hett, T., Jones-Lee, M., Loomes, G., Mourato, S., zdemiroglu, E., Pearce, D. W., Sugden, R. and

- Swanson, J., 2002. *Economic Valuation with Stated Preference Techniques: A Manual*. Edward Elgar, Cheltenham, UK.
- Baumgärtner, S., Becker, C., Frank, K., Müller, B. and Quaas, M., 2008. Relating the philosophy and practice of ecological economics: The role of concepts, models, and case studies in inter- and transdisciplinary sustainability research. *Ecological Economics* 67: 384-393.
- Beck, U., 1992. *Risk Society: Towards a New Modernity* Sage, London.
- Beckerman, W. and Pasek, J., 1997. Plural values and environmental valuation. *Environmental Values* 6: 65-86.
- Blamey, R. K., 1995. Citizens, consumers and contingent valuation: clarification and the expression of citizen values and issue-opinions In: Adamowicz, W. L., White, W. and Philips, W. E. (Eds.) *Forestry, Economics and the Environment* CAB International, Wallingford, UK.
- Blamey, R. K., 1998a. Contingent valuation and the activation of environmental norms. *Ecological Economics* 24: 47-72.
- Blamey, R. K., 1998b. Decisiveness, attitude expression and symbolic responses in contingent valuation surveys. *Journal of Economic Behavior & Organization* 34: 577-601.
- Blamey, R. K., 1998c. Trust, responsibility and the interpretation of contingent valuation results. *Australian Economic Papers* 37: 273-291.
- Blamey, R. K., Common, M. and Quiggin, J., 1995. Respondents to contingent valuation surveys: consumers or citizens? *Australian Journal of Agricultural Economics* 39: 263-288.
- Bohman, J., 1996. *Public Deliberation: Pluralism, Complexity, and Democracy*. MIT Press, Cambridge, Mass.
- Bohman, J., 1998. The coming of age of deliberative democracy. *Journal of Political Philosophy* 6: 400-425.
- Bohman, J. and Rehg, W., 1997. *Deliberative Democracy: Essays on Reason and Politics* MIT Press, Cambridge, Mass.
- Bromley, D. W. and Paavola, J., 2002. Economics, ethics, and environmental policy. In: Bromley, D. W. and Paavola, J. (Eds.) *Economics, Ethics, and Environmental Policy: Contested Choices* Blackwell, Malden, Mass.
- Brown, S. R., 1980. *Political Subjectivity*. Yale University Press, New Haven.
- Brown, T. C., 1984. The concept of value in resource allocation. *Land Economics* 60: 231-246.
- Brown, T. C., Peterson, G. L. and Tonn, B. E., 1995. The values jury to aid natural resource decisions. *Land Economics* 71: 250-260.
- Bulkeley, H., 2001. No regrets? Economy and environment in Australia's domestic climate change policy process. *Global Environmental Change* 11: 155-169.

- Burgess, J., Harrison, C. M. and Limb, M., 1988. People, parks and the urban green: a study of popular meanings and values for open spaces in the city. *Urban Studies* 25: 455-473.
- Burgess, J., Stirling, A., Clark, J., Davies, G., Eames, M., Staley, K. and Williamson, S., 2007. Deliberative mapping: a novel analytic-deliberative methodology to support contested science-policy decisions. *Public Understanding of Science* 16: 299-322.
- Carson, R. T., Louviere, J. J. and Wei, E., 2010. Alternative Australian climate change plans: The public's views. *Energy Policy* 38: 902-911.
- Chavas, J.-P., 2000. Ecosystem valuation under uncertainty and irreversibility. *Ecosystems* 3: 11-15.
- Christoff, P., 2005. Policy autism or double-edged dismissiveness? Australia's climate policy under the Howard government. *Global Change, Peace and Security* 17: 29-44.
- Clark, J., Burgess, J. and Harrison, C. M., 2000. "I struggled with this money business": respondents' perspectives on contingent valuation. *Ecological Economics* 33: 45-62.
- Claro, E., 2007. Exchange relationships and the environment: The acceptability of compensation in the siting of waste disposal facilities. *Environmental Values* 16: 187-208.
- Cohen, J., 1989. Deliberative democracy and democratic legitimacy. In: Hamlin, A. and Pettit, P. (Eds.) *The Good Polity*. Blackwell, Oxford.
- Cohen, J., 1997. Deliberation and democratic legitimacy In: Bohman, J. and Rehg, W. (Eds.) *Deliberative Democracy: Essays on Reason and Politics* MIT Press, Cambridge, Mass.
- Commonwealth of Australia, 2008. *Australia's Low Pollution Future: The Economics of Climate Change Mitigation*. Commonwealth of Australia, Canberra;
- Cooper, P., Poe, G. L. and Bateman, I. J., 2004. The structure of motivation for contingent values: a case study of lake water quality improvement. *Ecological Economics* 50: 69-82.
- Coote, A. and Lenaghan, J., 1997. *Citizens' Juries: Theory into Practice*. Institute for Public Policy Research, U.K.
- Costanza, R. (Ed.) 1991. *Ecological Economics: The Science and Management of Sustainability* Columbia University Press, New York.
- Costanza, R., 2000. Social goals and the valuation of ecosystem services. *Ecosystems* 3: 4-10.
- Cottle, C. E. and Mckeown, B. F., 1980. The forced-free distinction in Q technique: A note on unused categories in the Q sort continuum. *Operant Subjectivity* 3: 58-63.

- Crosby, N., 1995. Citizens juries: One solution for difficult environmental questions In: Renn, O., Webler, T. and Wiedemann, P. (Eds.) *Fairness and Competence in Citizen Participation: Evaluating Models for Environmental Discourse* Kluwer Academic, Dordrecht; Boston.
- Curran, G., 2009. Ecological modernisation and climate change in Australia. *Environmental Politics* 18: 201-217.
- Davies, G. and Burgess, J., 2004. Challenging the 'view from nowhere': Citizen reflections on specialist expertise in a deliberative process. *Health & Place* 10: 349-361.
- De Groot, R. S., Wilson, M. A. and Boumans, R. M. J., 2002. A typology for the classification, description and valuation of ecosystem functions, goods and services. *Ecological Economics* 41: 393-408.
- Department of Climate Change, 2008. Carbon Pollution Reduction Scheme: Australia's Low Pollution Future. Canberra, Commonwealth of Australia.
- Department of Climate Change, 2009. *National Carbon Offset Standard*. Commonwealth of Australia, Canberra;
- Dietz, T., 1994. What should we do? Human ecology and collective decision making. *Human Ecology Review* 1: 301-309.
- Dietz, T., Stern, P. C. and Dan, A., 2009. How deliberation affects stated willingness to pay for mitigation of carbon dioxide emissions: An experiment. *Land Economics* 85: 329-347.
- Douai, A., 2009. Value theory in ecological economics: The contribution of a political economy of wealth. *Environmental Values* 18: 257-284.
- Dryzek, J. S., 1987a. Complexity and rationality in public life. *Political Studies* XXXV: 424-442.
- Dryzek, J. S., 1987b. *Rational Ecology: Environment and Political Economy* Basil Blackwell, New York.
- Dryzek, J. S., 1990. *Discursive Democracy: Politics, Policy, and Political Science*. Cambridge University Press, Cambridge.
- Dryzek, J. S., 1995. Political and ecological communication. *Environmental Politics* 4: 13-30.
- Dryzek, J. S., 1996. Political inclusion and the dynamics of democratization. *American Political Science Review* 90: 475-487.
- Dryzek, J. S., 2000. *Deliberative Democracy and Beyond: Liberals, Critics, Contestations*. Oxford University Press, Oxford, U.K.
- Dryzek, J. S., 2001. Legitimacy and Economy. *Political Theory* 29: 651-669.
- Dryzek, J. S., 2010. Rhetoric in democracy: A systemic appreciation. *Political Theory* 38: 319-339.
- Dryzek, J. S. and Berejikian, J., 1993. Reconstructive democratic theory. *American*

Political Science Review 87: 48-60.

- Dryzek, J. S. and List, C., 2003. Social choice theory and deliberative democracy: A reconciliation. *British Journal of Political Science* 33: 1-28.
- Dryzek, J. S. and Niemeyer, S., 2006. Reconciling pluralism and consensus as political ideals. *American Journal of Political Science* 50: 634-649.
- Dryzek, J. S. and Niemeyer, S., 2008. Discursive representation. *American Political Science Review* 102: 481-493.
- Durning, D., 1999. The transition from traditional to postpositivist policy analysis: A role for Q-methodology. *Journal of Policy Analysis and Management* 18: 389-410.
- Einsiedel, E. F., Jelsøe, E. and Breck, T., 2001. Publics at the technology table: The consensus conference in Denmark, Canada, and Australia. *Public Understanding of Science* 10: 83-98.
- Elster, J., 1997. The market and the forum: Three varieties of political theory. In: Bohman, J. and Rehg, W. (Eds.) *Deliberative Democracy: Essays on Reason and Politics* MIT Press, Cambridge, Mass.
- Eriksen, E. O., 1994. Deliberative democracy and the politics of plural society. *Arena Conference on the Europeanisation of Normative Political Theory*, Oslo, Norway.
- Faber, M., Manstetten, R. and Proops, J., 1996. *Ecological Economics: Concepts and Methods* Edward Elgar, Cheltenham, U.K.
- Failing, L., Gregory, R. and Harstone, M., 2007. Integrating science and local knowledge in environmental risk management: A decision-focused approach. *Ecological Economics* 64: 47-60.
- Fishkin, J., 1991. *Democracy and Deliberation: Participatory Politics for a New Age*. Yale University Press, New Haven, NY.
- Fishkin, J., 1995. *The Voice of the People: Public Opinion and Democracy*. Yale University Press, New Haven, NY.
- Freeman, A.M., 1993. *The measurement of environmental and resource values: Theory and methods* Washington, D.C. : Resources for the Future.
- Frey, B. S. and Jegen, R., 2001. Motivation crowding theory. *Journal of Economic Surveys* 15: 589-611.
- Funtowicz, S. O. and Ravetz, J. R., 1993. Science for the post-normal age *Futures* 25: 739-755.
- Funtowicz, S. O. and Ravetz, J. R., 1994. The worth of a songbird: Ecological economics as a post-normal science. *Ecological Economics* 10: 197-207.
- Garnaut, R., 2008. *Garnaut Climate Change Review: Final Report*. Cambridge University Press, New York.
- Garrod, G. & Willis, K.G., 1999. *Economic valuation of the environment: Methods and*

- case studies* Cheltenham ; Northampton, Mass. : Edward Elgar.
- Goodin, R. E., 1992. *Green Political Theory*. Polity, Cambridge.
- Gowdy, J. M., 2007. Toward an experimental foundation for benefit-cost analysis. *Ecological Economics* 63: 649-655.
- Gowdy, J. M. and Mayumi, K., 2001. Reformulating the foundations of consumer choice theory and environmental valuation. *Ecological Economics* 39: 223-237.
- Gowdy, J. and Parks, S., (forthcoming) The theoretical, behavioral and neurological arguments for deliberative valuation.
- Gregory, R., 2000. Valuing environmental policy options: A case study comparison of multiattribute and contingent valuation survey methods. *Land Economics* 76: 151-173.
- Gregory, R., 2002. Incorporating value trade-offs into community-based environmental risk decisions. *Environmental Values* 11: 461-488.
- Gregory, R. and Failing, L., 2002. Using decision analysis to encourage sound deliberation: Water use planning in British Columbia, Canada. *Journal of Policy Analysis and Management* 21: 492-499.
- Gregory, R., Fischhoff, B. and Mcdaniels, T., 2005. Acceptable inputs: Using decision analysis to guide public policy deliberations. *Decision Analysis* 2: 4-16.
- Gregory, R., Flynn, J., Johnson, S. M., Satterfield, T. A., Slovic, P. and Wagner, R., 1997. Decision-pathway surveys: A tool for resource managers. *Land Economics* 73.
- Gregory, R., Lichtenstein, S. and Slovic, P., 1993. Valuing environmental resources: A constructive approach. *Journal of Risk and Uncertainty* 7: 177-197.
- Gregory, R., Mcdaniels, T. and Fields, D., 2001. Decision aiding, not dispute resolution: Creating insights through structured environmental decisions. *Journal of Policy Analysis and Management* 20: 415-432.
- Gregory, R. and Slovic, P., 1997. A constructive approach to environmental valuation. *Ecological Economics* 21: 175-181.
- Gregory, R. and Wellman, K., 2001. Bringing stakeholder values into environmental policy choices: a community-based estuary case study. *Ecological Economics* 39: 37-52.
- Grundahl, F., 1995. The Danish consensus conference model. In: Joss, S. and Durant, J. (Eds.) *Public Participation in Science: The Role of Consensus Conferences in Europe*. Science Museum, London, U.K.
- Gutmann, A. and Thompson, D., 1996. *Democracy and Disagreement* Belknap Press, Cambridge, Mass.
- Gutmann, A. and Thompson, D., 2004. *Why Deliberative Democracy?* Princeton University Press, Princeton, NJ.
- Habermas, J., 1984. *The Theory of Communicative Action I: Reason and the Rationalization of Society*. Beacon Press, Boston.

- Habermas, J., 1990. *Moral Consciousness and Communicative Action*. MIT Press, Cambridge. Translated by Christian Lenhardt and Shierry Weber Nicholsen.
- Habermas, J., 1996. *Between Facts and Norms: Contributions to a Discourse Theory of Law and Democracy*. MIT Press, Cambridge, Mass.
- Hamilton, C., 2007. *Scorcher: The Dirty Politics of Climate Change*. Black Inc. Agenda, Melbourne.
- Hanemann, W. M., 1994. Valuing the environment through contingent valuation. *Journal of Economic Perspectives* 8: 19-43.
- Hanley, N. and Shogren, J. F., 2005. Is cost-benefit analysis anomaly-proof? *Environmental and Resource Economics* 32: 13-34.
- Hanson, F., 2008. *The Lowy Institute Poll 2008*. Lowy Institute for International Policy, Sydney;
- Hanson, F., 2009. *The Lowy Institute Poll 2009*. Lowy Institute for International Policy, Sydney;
- Harré, R., and Gillett, G., 1994. *The Discursive Mind*. Sage, Thousand Oaks, CA.
- Holland, A., 1997. The foundations of environmental decision-making. *International Journal of Environment and Pollution* 7: 483-496.
- Howarth, R. B. and Wilson, M. A., 2006. A theoretical approach to deliberative valuation: aggregation by mutual consent. *Land Economics* 82: 1-16.
- Howes, M., 2009. A Climate of Change: Ecological modernisation and the politics of carbon trading in Australia. *Paper for the Australasian Political Studies Association Conference, 27-30 September 2009*, Macquarie University: Sydney.
- Humphreys, J., 2007. *Exploring a Carbon Tax for Australia*. The Centre for Independent Studies, Sydney;
- Ito, N., Takeuchi, K., Kuriyama, K., Shoji, Y., Tsuge, T. and Mitani, Y., 2009. The influence of decision-making rules on individual preferences for ecological restoration: Evidence from an experimental survey *Ecological Economics* 68: 2426-2431.
- Jacobs, M., 1997. Environmental valuation, deliberative democracy and public decision-making institutions In: Foster, J. (Ed.) *Valuing Nature?: Ethics, Economics and the Environment*. Routledge, London.
- James, R. F. and Blamey, R. K., 2005. Deliberation and economic valuation: national park management In: Getzner, M., Spash, C. L. and Stagl, S. (Eds.) *Alternatives for Environmental Valuation*. Routledge, London, New York.
- Jorgensen, B. S., 2009. Social learning and the economic valuation of environmental impacts: A real contribution or a missed opportunity? In: Martin, J., Rogers, M. and Winter, C. (Eds.) *Climate Change in Regional Australia: Social Learning and Adaptation*. VURRN Press, Victoria.
- Jorgensen, B. S. and Syme, G. J., 2000. Protest responses and willingness to pay:

- attitude toward paying for stormwater pollution abatement. *Ecological Economics* 33: 251-265.
- Jorgensen, B. S., Wilson, M. A. and Heberlein, T. A., 2001. Fairness in the contingent valuation of environmental public goods: Attitude toward paying for environmental improvements at two levels of scope. *Ecological Economics* 36: 133-148.
- Joss, S. and Durant, J., 1995. *Public Participation in Science: The Role of Consensus Conferences in Europe*. Science Museum, London, U.K.
- Jotzo, F. and Betz, R., 2009. Australia's emissions trading scheme: Opportunities and obstacles for linking. *Climate Policy* 9: 402-414.
- Kahneman, D. and Knetsch, J. L., 1992. Valuing public goods: the purchase of moral satisfaction. *Journal of Environmental Economics and Management* 22: 57-70.
- Kahneman, D., Ritov, I. and Schkade, D., 1999. Economic preferences or attitude expressions?: an analysis of dollar responses to public issues. *Journal of Risk and Uncertainty* 19: 203-235.
- Keeney, R., 1992. *Value-focused Thinking: A Path to Creative Decisionmaking*. Harvard University Press, Cambridge, Mass.
- Kesting, S., 2010. Boulding's welfare approach of communicative deliberation. *Ecological Economics* 69: 973-977.
- Kniivilä, V. O. A. M., 2005. Consumer versus citizen preferences in contingent valuation: Evidence on the role of question framing. *The Australian Journal of Agricultural and Resource Economics* 49: 379-394.
- Kotchen, M. J. and Reiling, S. D., 2000. Environmental attitudes, motivations, and contingent valuation of nonuse values: a case study involving endangered species. *Ecological Economics* 32: 93-107.
- Kumar, M. and Kumar, P., 2008. Valuation of the ecosystem services: A psycho-cultural perspective. *Ecological Economics* 64: 808-819.
- Kumar, P. and Muradian, R. (Eds.), 2009. *Payment for Ecosystem Services* Oxford University Press, New Delhi, India.
- Lienhoop, N. and Macmillan, D. C., 2007. Contingent valuation: Comparing participant performance in group-based approaches and personal interviews. *Environmental Values* 16: 209-232.
- Lo, A.Y., forthcoming a. Analysis and democracy: The antecedents of the deliberative approach of ecosystems valuation. *Environment and Planning C: Government and Policy*.
- Lo, A.Y., forthcoming b. Value pragmatism encroaches on pluralism: The practice of the valuation of urban green space using stated-preference approach. *International Journal of Urban and Regional Research*.

- Lo, A. Y. and Jim, C. Y., 2010 Differential community effects on perception and use of urban greenspaces, *Cities* 27(6): 430-442.
- Lo, A. Y. and Jim, C. Y., 2010 Willingness of residents to pay and motives for conservation of urban green spaces in the compact city of Hong Kong, *Urban Forestry and Urban Greening* 9: 113-120.
- Lo, A.Y. and Spash, C. L., under review. Deliberative Monetary Valuation: A Democratic and Value Plural Approach for Environmental Policy? *Journal of Economic Surveys*.
- Lockwood, M., 1997. Integrated value theory for natural areas. *Ecological Economics* 20: 83-93.
- Lockwood, M., 1999. Humans valuing nature: Synthesising insights from philosophy, psychology and economics. *Environmental Values* 8: 381-401.
- Logan, S.W., 2004. Identification and resistance: Women's civic discourse across the color line. In Hauser, G.A. & Grim, A. (eds.) *Rhetorical democracy: Discursive practices of civic engagement*. Lawrence Erlbaum: Mahwah, N.J.
- Macmillan, D. C., Hanley, N. and Lienhoop, N., 2006. Contingent valuation: environmental polling or preference engine? *Ecological Economics* 60: 299-307.
- Macmillan, D. C., Philip, L., Hanley, N. and Alvarez-Farizo, B., 2002. Valuing the non-market benefits of wild goose conservation: a comparison of interview and group-based approaches. *Ecological Economics* 43: 49-59.
- Mann, S., 2004. The expert valuation method for assessing agro-environmental policy. *Journal of Environmental Planning and Management* 47: 541-554.
- Martínez-Espíñeira, R., 2006. A Box-Cox Double-Hurdle model of wildlife valuation: The citizen's perspective. *Ecological Economics* 58: 192-208.
- Martinez-Alier, J., Munda, G. and O'Neill, J., 1998. Weak comparability of values as a foundation for ecological economics. *Ecological Economics* 26: 277-286.
- Maxwell, J. A. and Randall, A., 1989. Ecological economic modelling in a pluralistic, participatory society. *Ecological Economics* 1: 233-249.
- Mcdaniels, T. L., Gregory, R., Arvai, J. and Chuenpagde, R., 2003. Decision structuring to alleviate embedding in environmental valuation. *Ecological Economics* 46: 33-46.
- Mcdaniels, T. L., Gregory, R. and Fields, D., 1999. Democratizing risk management: Successful public involvement in local water management decisions. *Risk Analysis* 19: 497-510.
- Mcdonald, M., 2005. Fair weather friend? Ethics and Australia's approach to global climate change. *Australian Journal of Politics and History* 51: 216-234.
- Mckeown, B. and Thomas, D., 1988. *Q Methodology*. Sage Publications, Newbury Park, CA.
- Meyerhoff, J. and Liebe, U., 2006. Protest beliefs in contingent valuation: explaining

- their motivation. *Ecological Economics* 57: 583-594.
- Milgrom, P., 1993. Is sympathy an economic value? philosophy, economics, and the contingent valuation method In: Hausman, J. A. (Ed.) *Contingent Valuation: A Critical Assessment* North-Holland, Amsterdam.
- Mill, G. A., Rensburg, T. M. V., Hynes, S. and Dooley, C., 2007. Preferences for multiple use forest management in Ireland: citizen and consumer perspectives. *Ecological Economics* 60: 642-653.
- Mitchell, R. C. and Carson, R. T., 1989. *Using Surveys to Value Public Goods: the Contingent Valuation Method* Resources for the Future, Washington, D.C.
- Munda, G., 1995. *Multicriteria Evaluation in a Fuzzy Environment : Theory and Applications in Ecological Economics*. Physica-Verlag, Heidelberg.
- Munda, G., 2006. Social multi-criteria evaluation for urban sustainability policies. *Land Use Policy* 23: 86-94.
- National Research Council, 2008. *Public Participation in Environmental Assessment and Decision Making* National Academies Press, Washington, D.C.
- Niemeyer, S., 2007. Intersubjective Rationality: Measuring Deliberative Quality. Canberra, Deliberative Democracy Research Group, Department of Political Science, Research School of Social Sciences, The Australian National University.
- Niemeyer, S. and Dryzek, J. S., 2007. The ends of deliberation: metaconsensus and intersubjective rationality as deliberative ideals. *Swiss Political Science Review* 13: 497-526.
- Niemeyer, S. and Spash, C., 2001. Environmental valuation analysis, public deliberation, and their pragmatic syntheses: a critical appraisal. *Environment and Planning C: Government and Policy* 19: 567-585.
- Norgaard, R. B., 2007. Deliberative economics. *Ecological Economics* 63: 375-382.
- Norton, B. G., 1984. Environmental ethics and weak anthropocentrism. *Environmental Ethics* 6: 131-148.
- Norton, B. G., 2000. Biodiversity and environmental values: in search of a universal earth ethic. *Biodiversity and Conservation* 9: 1029-1044.
- Norton, B. G. and Noonan, D., 2007. Ecology and valuation: Big changes needed. *Ecological Economics* 63: 664-675.
- Noël, J.-F., O'connor, M. and Tsang, J. K. S., 2000. The Bouchereau woodland and the transmission of socio-ecological economic value. *Ecological Economics* 34: 247-266.
- O'connor, M., 2000. Pathways for environmental evaluation: a walk in the (Hanging) Gardens of Babylon. *Ecological Economics* 34: 175-193.
- O'hara, S. U., 1996. Discursive ethics in ecosystems valuation and environmental policy. *Ecological Economics* 16: 95-107.

- O'hara, S. U., 2001. The challenges of valuation: Ecological economics between matter and meaning In: Cleveland, C. J., Stern, D. I. and Costanza, R. (Eds.) *The Economics of Nature and the Nature of Economics* Edward Elgar, Cheltenham, UK ; Northampton, Mass.
- O'neil, J., Holland, A. and Light, A., 2008. *Environmental Values*. Routledge, London.
- O'Neill, J., 2007. *Markets, Deliberation and Environment* Routledge, London.
- O'Neill, J. and Spash, C. L., 2000. Conceptions of value in environmental decision-making. In: Spash, C. L. and Carter, C. (Eds.) *Environmental Valuation in Europe: Policy Research Brief*. Cambridge Research for the Environment, England.
- Ojea, E. and Loureiro, M. L., 2007. Altruistic, egoistic and biospheric values in willingness to pay (WTP) for wildlife. *Ecological Economics* 63: 807-814.
- Orr, S. W., 2007. Values, preferences, and the citizen - consumer distinction in cost-benefit analysis. *Politics, Philosophy & Economics* 6: 107-130.
- Pearce, D. W., 1993. *Economic Values and the natural World* Earthscan, London.
- Pearce, D. W., 1998. *Economics and Environment : Essays on Ecological Economics and Sustainable Development* Edward Elgar, Cheltenham.
- Pelletier, N., 2010. Environmental sustainability as the first principle of distributive justice: Towards an ecological communitarian normative foundation for ecological economics. *Ecological Economics*, 69, 1887-1894.
- Peterson, G. L., Driver, B. L. and Gregory, R. (Eds.), 1988. *Amenity Resource Valuation: Integrating Economics with Other Disciplines*. Venture Publishing, State College, PA.
- Philip, L. J. and Macmillan, D. C., 2005. Exploring values, context and perceptions in contingent valuation studies: The CV market stall technique and willingness to pay for wildlife conservation. *Journal of Environmental Planning and Management* 48: 257-274.
- Pietsch, J. and Mcallister, I., 2010. 'A diabolical challenge': Public opinion and climate change policy in Australia. *Environmental Politics* 19: 217-236.
- Powe, N. A., 2007. *Redesigning Environmental Valuation: Mixing Methods within Stated Preference Techniques* Edward Elgar, Cheltenham, England.
- Price, C., 2000. Valuation of unpriced products: contingent valuation, cost-benefit analysis and participatory democracy. *Land Use Policy* 17: 187-196.
- Pritchard, L., Folke, C. and Gunderson, L., 2000. Valuation of ecosystem services in institutional context. *Ecosystems* 3: 36-40.
- Proctor, W. and Drechsler, M., 2006. Deliberative multicriteria evaluation. *Environment and Planning C: Government and Policy* 24: 169-190.
- Røpke, I., 2005. Trends in the development of ecological economics from the late 1980s to the early 2000s. *Ecological Economics* 55: 262-290.

- Rawls, J., 1971. *A Theory of Justice* Clarendon Press, Oxford.
- Rawls, J., 1993. *Political Liberalism* Columbia University Press, New York.
- Rawls, J., 1997a. The idea of public reason. In: Bohman, J. and Rehg, W. (Eds.) *Deliberative Democracy: Essays on Reason and Politics* MIT Press, Cambridge, Mass.
- Rawls, J., 1997b. The idea of public reason revisited. *The University of Chicago Law Review* 64: 765-807.
- Reeson, A., 2009. *Carbon markets and their implications for natural resource management in Australia*. CSIRO, Canberra;
- Rehg, W., 1994. *Insight and Solidarity: A Study in the Discourse Ethics of Jürgen Habermas*. University of California Press, California.
- Renn, O., 1999. A model for an analytic-deliberative process in risk management. *Environmental Science & Technology* 33: 3049-3055.
- Renn, O., Webler, T. and Wiedemann, P. (Eds.), 1995a. *Fairness and Competence in Citizen Participation: Evaluating Models for Environmental Discourse* Kluwer Academic Dordrecht; Boston.
- Renn, O., Webler, T. and Wiedemann, P., 1995b. The pursuit of fair and competent citizen participation. In: Renn, O., Webler, T. and Wiedemann, P. (Eds.) *Fairness and Competence in Citizen Participation: Evaluating Models for Environmental Discourse* Kluwer Academic, Dordrecht; Boston.
- Ritchie, J., Spencer, L. and O'Connor, W., 2003. Carrying out qualitative analysis. In: Ritchie, J. and Lewis, J. (Eds.) *Qualitative Research Practice: A Guide for Social Science Students and Researchers* SAGE, London.
- Robbins, P. and Krueger, R., 2000. Beyond bias? The promise and limits of Q method in human geography. *Professional Geographer* 52: 636-648.
- Robinson, J. J., 2002. Environmental value transfer: An application for the South East Queensland waterways. *Water Science and Technology* 45: 91-100.
- Robinson, J. J., Clouston, B., Suh, J. and Chaloupka, M., 2009. Are citizens' juries a useful tool for assessing environmental value? *Environmental Conservation* 35: 351-360.
- Rokeach, M., 1973. *The Nature of Human Values*. Free Press, New York.
- Rootes, C., 2008. The first climate change election? The Australian general election of 24 November 2007. *Environmental Politics* 17: 473-480.
- Rydin, Y., 1999. Can we talk ourselves into sustainability?: The role of discourse in the environmental policy process. *Environmental Values* 8: 467-484.
- Söderbaum, P., 2000. *Ecological Economics: A Political Economics Approach to Environment and Development* Earthscan, London.
- Söderbaum, P., 2008. *Understanding Sustainability Economics: Towards Pluralism in Economics* Earthscan, London.

- Sagoff, M., 1988. *The Economy of the Earth: Philosophy, Law, and the Environment* Cambridge University Press, Cambridge.
- Sagoff, M., 1998. Aggregation and deliberation in valuing environmental public goods: a look beyond contingent pricing. *Ecological Economics* 24: 213-230.
- Sahu, N. C. and Nayak, B., 1994. Niche diversification in environmental/ecological economics. *Ecological Economics* 11: 9-19.
- Satterfield, T., 2001. In search of value literacy: Suggestions for the elicitation of environmental values. *Environmental Values* 10: 331-359.
- Schkade, D. A. and Payne, J. W., 1994. How people respond to contingent valuation questions: a verbal protocol analysis of willingness to pay for an environmental regulation. *Journal of Environmental Economics and Management* 26: 88-109.
- Smith, G., 2003. *Deliberative Democracy and the Environment* Routledge, London.
- Smith, G. and Wales, C., 2000. Citizens' juries and deliberative democracy. *Political Studies* 48: 51-65.
- Soma, K. and Vatn, A., 2010. Is there anything like a citizen? A descriptive analysis of instituting a citizen's role to represent social values at the municipal level. *Environmental Policy and Governance* 20.
- Spash, C. L., 1997. Ethics and environmental attitudes with implications for economic valuation. *Journal of Environmental Management* 50: 403-416.
- Spash, C. L., 1999. The development of environmental thinking in economics. *Environmental Values* 8: 413-435.
- Spash, C. L., 2000. Ecosystems, contingent valuation and ethics: the case of wetlands re-creation. *Ecological Economics* 34: 195-215.
- Spash, C. L., 2006. Non-economic motivation for contingent values: Rights and attitudinal beliefs in the willingness to pay for environmental improvements. *Land Economics* 82: 602-622.
- Spash, C. L., 2007. Deliberative monetary valuation (DMV): issues in combining economic and political processes to value environmental change. *Ecological Economics* 63: 690-699.
- Spash, C. L., 2008a. Contingent valuation design and data treatment: If you can't shoot the messenger, change the message. *Environment and Planning C: Government and Policy* 26: 34-53.
- Spash, C. L., 2008b. Deliberative monetary valuation and the evidence for a new value theory. *Land Economics* 84: 469-488.
- Spash, C. L., 2008c. How much is that ecosystem in the window? The one with the bio-diverse trail. *Environmental Values* 17: 259-284.
- Spash, C. L., 2009. Editorial: The new environmental pragmatists, pluralism and sustainability. *Environmental Values* 18: 253-256.
- Spash, C. L., 2010a. The brave new world of carbon trading. *New Political Economy* 15:

169-195.

- Spash, C. L., 2010b. Censoring science in research officially. *Environmental Values* 19: 141-146.
- Spash, C. L., Stagl, S. and Getzner, M., 2005. Exploring alternatives for environmental valuation. In: Getzner, M., Spash, C. L. and Stagl, S. (Eds.) *Alternatives for Environmental Valuation*. Routledge, London.
- Spash, C. L., Urama, K., Burton, R., Kenyon, W., Shannon, P. and Hill, G., 2009. Motives behind willingness to pay for improving biodiversity in a water ecosystem: economics, ethics and social psychology. *Ecological Economics* 68: 955-964.
- Spash, C. L. and Vatn, A., 2006. Transferring environmental value estimates: Issues and alternatives. *Ecological Economics* 60: 379-388.
- Spencer, L., Ritchie, J. and O'Connor, W., 2003. Analysis: Practices, principles and processes In: Ritchie, J. and Lewis, J. (Eds.) *Qualitative Research Practice: A Guide for Social Science Students and Researchers* SAGE, London.
- Stagl, S., 2006. Multicriteria evaluation and public participation: The case of UK energy policy. *Land Use Policy* 23: 53-62.
- Stephenson, W., 1953. *The Study of Behavior: Q Technique and Its Methodology*. University of Chicago Press, Chicago.
- Stern, P. C., 2000. Toward a coherent theory of environmentally significant behavior. *Journal of Social Issues* 56: 407-424.
- Stern, P. C., Dietz, T., Abel, T., Guagnano, G. A. and Kalof, L., 1999. A value-belief-norm theory of support for social movements: the case of environmentalism. *Research in Human Ecology* 6: 81-97.
- Stevenson, H., 2009. Cheating on climate change? Australia's challenge to global warming norms. *Australian Journal of International Affairs* 63: 165-186.
- Stirling, A., 1997. Multi-criteria mapping: Mitigating the problems of environmental valuation? In: Foster, J. (Ed.) *Valuing Nature?: Ethics, Economics and the Environment* Routledge, London.
- Stirling, A., 2006. Analysis, participation and power: Justification and closure in participatory multi-criteria analysis. *Land Use Policy* 23: 95-107.
- Sunstein, C. R., 1995. Incompletely theorized agreements. *Harvard Law Review* 108.
- Swedeen, P., 2006. Post-normal science in practice: A Q study of the potential for sustainable forestry in Washington State, USA. *Ecological Economics* 57: 190-208.
- Tacconi, L., 1998. Scientific methodology for ecological economics. *Ecological Economics* 27: 91-105.
- Thompson, D., 2008. Deliberative democratic theory and empirical political science. *Annual Review of Political Science* 11: 497-520.

- Tuan, Y. F., 1974. *Topophilia: A Study of Environmental Perception, Attitudes, and Values*. Prentice-Hall, Englewood Cliffs, N.J.
- Turner, R.K., Morse-Jones, S. & Fisher, B., 2010. Ecosystem valuation: A sequential decision support system and quality assessment issues. *Annals of the New York Academic of Sciences*, 1185, 79-101.
- Turner, R. K., Paavola, J., Cooper, P., Farber, S., Jessamy, V. and Georgiou, S., 2003. Valuing nature: Lessons learned and future research directions. *Ecological Economics* 46: 493-510.
- Urama, K. C. and Hodge, I., 2006. Participatory environmental education and willingness to pay for river basin management: empirical evidence from Nigeria. *Land Economics* 82: 542-561.
- Vadnjal, D. and O'connor, M., 1994. What is the value of Rangitoto Island? *Environmental Values* 3: 369-380.
- Vatn, A., 2005. *Institutions and the Environment* Edward Elgar, Cheltenham, England.
- Vatn, A., 2009. An institutional analysis of methods for environmental appraisal. *Ecological Economics* 68: 2207-2215.
- Vatn, A. and Bromley, D. W., 1994. Choices without prices without apologies. *Journal of Environmental Economics and Management* 26: 129-148.
- Venkatachalam, L., 2007. Environmental economics and ecological economics: Where they can converge? *Ecological Economics* 61: 550-558.
- Ward, H., 1999. Citizens' juries and valuing the environment: a proposal. *Environmental Politics* 8: 75-96.
- Webler, T., 1995. "Right" discourse in citizen participation: An evaluative yardstick. In: Renn, O., Webler, T. and Wiedemann, P. (Eds.) *Fairness and Competence in Citizen Participation: Evaluating Models for Environmental Discourse* Kluwer Academic, Dordrecht; Boston.
- Wilson, M. A. and Howarth, R. B., 2002. Discourse-based valuation of ecosystem services: establishing fair outcomes through group deliberation. *Ecological Economics* 41: 431-443.
- Young, I. M., 2000. *Democracy and Inclusion*. Oxford University Press, Oxford, U.K.
- Zendejdel, K., Keyser, W. D. and Huylenbroeck, G. V., 2008. A deliberative ordinal multi-criteria approach to environmental valuation. In: Zografos, C. and Howarth, R. B. (Eds.) *Deliberative Ecological Economics*. Oxford University Press, New Delhi.
- Zografos, C. and Howarth, R. B. (Eds.), 2008. *Deliberative Ecological Economics*. Oxford University Press, New Delhi.

Appendices

Appendix 1 Workshop Materials

- A.1.1 Project outline
- A.1.2 Email questionnaire
- A.1.3 Notes for facilitators
- A.1.4 News article
- A.1.5 Worksheet 1
- A.1.6 Worksheet 2
- A.1.7 Worksheet 3
- A.1.8 Full questionnaire

Appendix 2 Raw survey data (for Part 3. Question No. 1-22)

- A.2.1 Pre-workshop survey
- A.2.2 Post-workshop survey

Appendix 3 Coded Transcripts

- A.3.1 Transcript files
- A.3.2 Coding scheme with reference



Australian Climate Policy Forum

Project Background

The 'Australian Climate Policy Forum' is part of a research project funded by the Commonwealth Scientific and Industrial Research Organization (CSIRO) and undertaken by scholars from CSIRO and the Australian National University (ANU). The aim of the ACPF is to gain a more in-depth understanding of what the members of the public would like the government to do with emission reduction.

Australia saw a heated debate on climate policy in the last couple of years. In 2009 an emission trading scheme was not passed by the senate. Research is required to learn more about how to develop climate change policy that is acceptable to the majority of Australians. Possible policy instruments include a modified emission trading scheme, carbon tax, voluntary carbon offsetting, and 'no action needed'. Each of them is unique in terms of feasibility, effectiveness and costs. This project provides the public an opportunity to get deeper understanding about this issue as well as voice out their concerns to government officials and climate specialists.

Project Details

Members of the public are invited to attend a public forum to express their views. Below is the general information about the forum:

- Date: 9am-5pm, 31 July 2010 (Saturday)
- Venue: Discovery Centre, CSIRO Black Mountain Laboratories, Acton, ACT
- Objective: To make a recommendation to the Australian government on emissions reduction policy.
- Process: 1) Share discussions with climate policy specialists: presenters include a senior government economist, a CSIRO economist, and a climate scientist. 2) Share discussions with other members of the public: participants will discuss and evaluate policy options as a group under professional facilitation. 3) Complete a short questionnaire.
- Discussion topics (examples): whether or not the government has done enough, which policy approach would Australians support and why, and the level of intended contributions.
- Remuneration: A\$50 per person. Tea and lunch will be provided for free.

Contact

To ensure effective conversation only a limited number of ACT residents are invited to participate. We hope you will join us to speak for Australia's future. For inquiry about the project, you are welcome to contact the lead investigator:

Contact Mr. Alex Lo
 Affiliation Research School of Social Sciences, Australian National University
 Phone 02-6194 1717
 Email alex.lo@anu.edu.au

Please answer Q1 – Q10. You may send back a completed Word document or simply put down your answers in email text. (alex.lo@anu.edu.au)

A.1.2

Part A. Policy Preference

This is a question about how much you are currently willing to pay to reduce greenhouse emissions. In order to pay for emission reductions, three funding arrangements are available:

- A) **A carbon tax.** Polluters have to pay a tax on carbon emissions. The revenue flows directly to the government. Taxing emissions this way increases costs, but does not guarantee a set target of emissions reductions is achieved.
- B) **An emissions trading scheme.** Polluters bid for or are given free tradable permits that cap their emissions level. The revenue may flow to the government or polluters. Polluters can sell unused permits in a carbon market or buy extra permits they need. Such schemes fix the quantity of emissions but not the price.

Note that both A and B, will have price implications for you as firms pass on the costs. Households will pay more on electricity bill. If you choose one of the options we are interested in how much extra you are willing to pay **per month** out of your total annual budget.

- C) **Voluntary market.** Voluntary payments are made to independent firms that promise to offset your personal emissions through planting trees for a profit (as is often done for air travel). Such schemes neither fix the quantity nor price of emissions.

Which of the above options (A, B or C) do you prefer?:

Q1: Most? (Please highlight your choice)

A B C

Q2: Least?

A B C

Q3. For your most preferred option only, what is the maximum amount you would be willing to pay **monthly** for the **next five years**? __A\$_____

Part B. Personal Information

A.1.2

Q4. Full name:

Q5. Gender: Male Female

Q6. Education:

A. Year 9 B. Year 11 C. High school (year 12)

D. Technical degree E. Undergraduate degree F. Post-graduate degree

Q7. Age group:

A. 18-25 B. 26-35 C. 36-45 D. 46-55 E. Over 55

Q8. Occupation:

Q9. Contact number:

Q10. Postal address:

Session 1 Concern about climate change (30mins)

A.1.3

Topic: How concerned are you about climate change?

Guiding questions (indicative):

- Should Australia reduce its greenhouse gas emissions?
- How important is climate mitigation comparing to other key policy areas: social security and welfare, healthcare, education, employment, border protection, etc.
- Has the previous government done enough to address climate change?
- Which party has greater responsibility to reduce emissions? (the individuals, the business, the governments, the community, other big countries)

Step:

1. Small group discussion. (20mins)
2. Large group discussion. Present conclusions by one member from each subgroup (about any change and why). (10mins)

Task material: News article, Worksheet 1

Note: Worksheet 1 is used to facilitate discussion and not a questionnaire.

Session 2 Carbon pricing (40mins)

Topic: Which approach for emission reduction is preferred?

i.e. 1) emission trading, 2) carbon tax, 3) voluntary carbon offsetting, 4) no carbon pricing is needed.

Guiding questions (indicative):

- Do you accept the idea of carbon pricing?
- What do you know/feel about the proposed CPRS (Carbon Pollution Reduction Scheme)?
- Is carbon tax better than emission trading? (Note: my email survey shows that these two are the most popular options among our participants and slightly more of them preferred carbon tax)
- Do you have any experience in buying carbon offsets for your personal consumption (e.g. through airlines)?

Step:

1. Small group discussion. (25mins)
2. Large group discussion. Present conclusions by one member from each subgroup (about any change and why). (15mins)

Task material: Worksheet 2

Background

The Australian Government is expanding its Clean Energy Initiative (CEI). **\$5.1 billion** will be spent over 10 years (2009-2019) in R&D of **low-emission energy technologies**, including carbon capture and storage and solar energy (announced May 2010). It complements the Government's expanded Renewable Energy Target, i.e. by **2020, 20%** of Australia's electricity supply comes from renewable sources.

Link: http://www.budget.gov.au/2010-11/content/overview/html/overview_26.htm

(\$5.1 billion = ~\$35 per person per year – based on working age population only)

Part A: Assume the required \$5.1 billion would be drawn from a new tax to be imposed on individuals directly by the Government.

1. Are \$5.1b/\$35 enough?
 - a. How about more > \$5.1 for >20% renewable by 2020? (or less aggressive?)
2. How much are you willing to contribute? more or less than \$35?
 - a. In which form - like GST or income-based?
3. Why are you willing (or not willing) to contribute?
 - a. What does your WTP (e.g. \$35) mean to you? e.g. to ensure mitigation (consequence) or just for a good cause / good feeling? (which one more important to you?)
 - b. Would you still be willing to contribute the same amount if it were certain that
 - i. only max. 15% would be achieved?
 - ii. 2008/09 global financial crisis would return this year?
 - iii. only 30% Australians would be required to pay after some tax exemptions? (\$35 = assume only 67.5% Australians (working age population) would have to pay)

Part B (optional): Assume that the required funds would be collected by energy companies through increased energy prices. The energy companies would be required to meet the 20% target but could use the raised funds at their discretion.

1. How much are you willing to contribute? more or less than \$35?
 - a. Have you changed from your answer in A2? Why?
 - b. Do you trust the energy companies? (especially if 20% is a voluntary target)
2. Would you still be willing to contribute the same amount if it were certain that
 - a. only max. 15% would be achieved?
 - b. 2008/09 global financial crisis would return this year?
 - c. only 30% Australians would be required to pay after some tax exemptions?

Other optional questions (depending on time):

1. If no official target is enforced, would you still be willing to contribute the same amount annually to private carbon offsetting agencies (i.e. voluntary offsetting)?
2. Would you change your WTP decision if US and China do not intend to achieve 20% by 2020?
3. Should Australia officially 'outsource' emission mitigation to developing countries? (as currently under CDM, paying them to do so that the developed no longer have to cut emissions drastically)

Task material: Worksheet 3

Gillard to ask the people on climate change

A.1.4

July 23, 2010

ABC News By Tim Leslie

A re-elected Labor government would ask a new "citizens' assembly" for climate change advice, under a key part of the ALP's new climate change policy set to be launched by Prime Minister Julia Gillard today.

The ABC understands Ms Gillard will outline plans to set up a committee of scientists to advise the Government on climate change.

The committee will be paired with a citizens' assembly, consisting of 100-200 volunteers who will gauge feeling of the community on its attitude towards putting a price on carbon, and feed it back to the Government.

The policy launch comes two-and-a-half months after the Federal Government decided to shelve its emissions trading scheme.

Ms Gillard has signalled climate change as one of the key issues for the Government to address during the election campaign.

The decision to delay the ETS until 2013 is thought to be the main reason behind former prime minister Kevin Rudd's slide in the polls, which led to him being dumped by the party.

Ms Gillard is also expected to unveil a boost to efficiency and renewable energy programs.

The Government says it is still committed to a market mechanism for putting a price on carbon, but at present the Greens are the only party proposing such a policy for the next term of government.

Opposition Leader Tony Abbott has repeatedly ruled out introducing a carbon price, saying his government would only charge for carbon in the event of a global system.

The Coalition has instead promoted a direct action plan to address climate change, centred on carbon sequestration and rebates for businesses who cut their emissions.

The Coalition claims this policy will cut greenhouse gas emissions by 5 per cent by 2020 and only cost \$3.2 billion.

Mr Abbott says this policy will be funded by cuts to government spending and that no consumer should carry the burden of a carbon price.

Shadow Environment Spokesman Greg Hunt says Julia Gillard's proposed "citizens assembly" will fail to produce action.

He says the Opposition is promising a \$2.5 billion fund to battle emissions.

"It's a recipe for endless Rudd-type talks," he said.

"Kevin Rudd himself would be proud of the 2020 summit meets Copenhagen.

"Our approach is real action, direct action to clean up power stations to reduce emissions."

But former leader Malcolm Turnbull, who was rolled over the issue, said the Coalition policy was "less than ideal".

"The Coalition's policy is not the ideal from my point of view I grant you that, I'd like to see a market-based solution, but I'll tell you this, it does have the potential to meet the emissions reductions targets by 2020," he said.

"The real question is the policy. Everyone knows where I stand, I've stuck to my principles on it. But the fact is, we have got a policy, Labor has nothing."

Discussion Session 1

How concerned are you about climate change?

Which policy area is more important?

Policy Area	Rank	Policy Area	Rank
Climate change		Employment	
Healthcare		Social security and welfare	
Education		Border protection	
Others:			

Which party has greater responsibility to reduce emissions?

	Rank
The individuals	
The businesses	
The governments	
The community	
Other big countries	

Which approach for emission reduction is preferred?

- D) **A carbon tax.** Polluters have to pay a tax on carbon emissions. The revenue flows directly to the government. Taxing emissions this way increases costs, but does not guarantee a set target of emissions reductions is achieved.
- E) **An emissions trading scheme.** Polluters bid for or are given free tradable permits that cap their emissions level. The revenue may flow to the government or polluters. Polluters can sell unused permits in a carbon market or buy extra permits they need. Such schemes fix the quantity of emissions but not the price.
- Both A and B will have price implications as firms pass on the costs. Households will pay more on electricity bill.
- F) **Voluntary market.** Voluntary payments are made to independent firms that promise to offset your personal emissions through planting trees for a profit. Such schemes neither fix the quantity nor price of emissions.
- G) **No carbon pricing on human activities is needed**

Discussion Session

Would you financially support the development of low-emission technologies?

The Australian Government is expanding its Clean Energy Initiative. Additional **\$5.1 billion** will be spent over **10 years** (2009-2019) in research and development of low-emission energy technologies, including carbon capture and storage and solar energy. It complements the Government's expanded Renewable Energy Target, i.e. by **2020**, **20%** of Australia's electricity supply comes from renewable sources.

Note:

1. \$5.1 billion = **\$35** per person per year (based on working age population)
2. \$5.1 billion = \$0.51 billion per year = **0.14%** of the total estimated expenses 2010-11

Figure 1 Australian Government Budget 2010-11

Total estimated expenses = \$354.6 billion

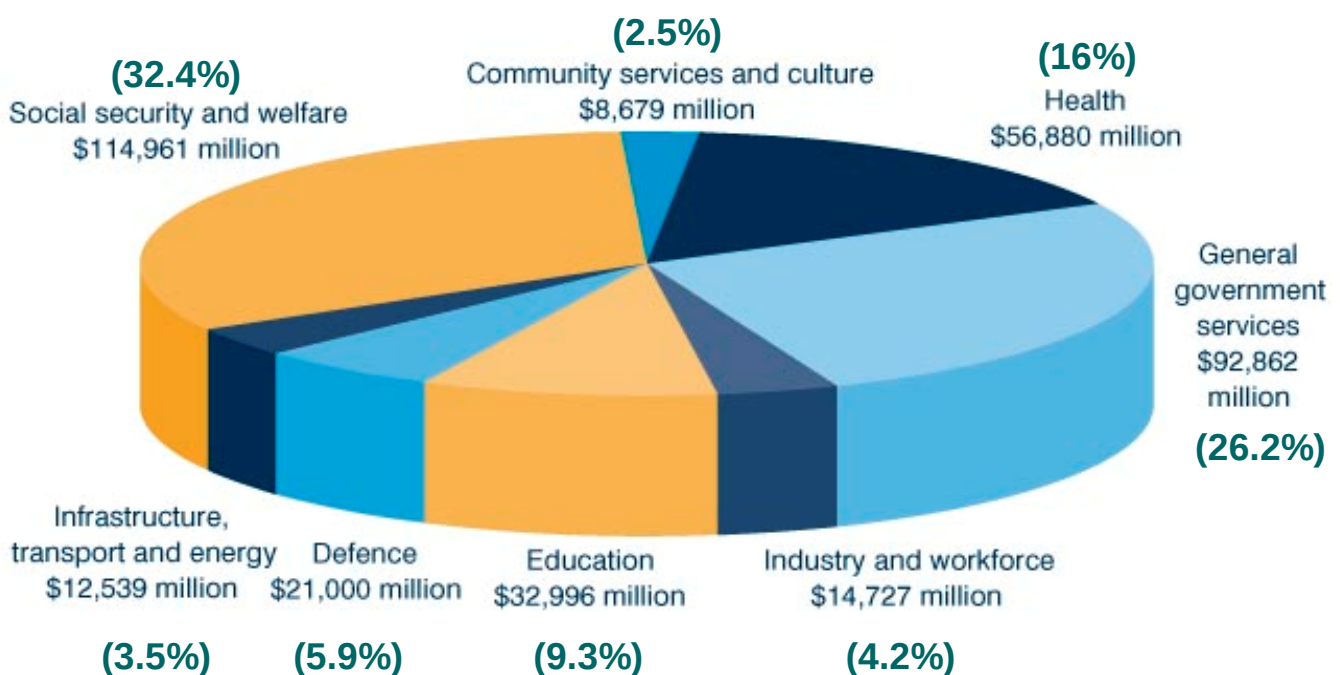
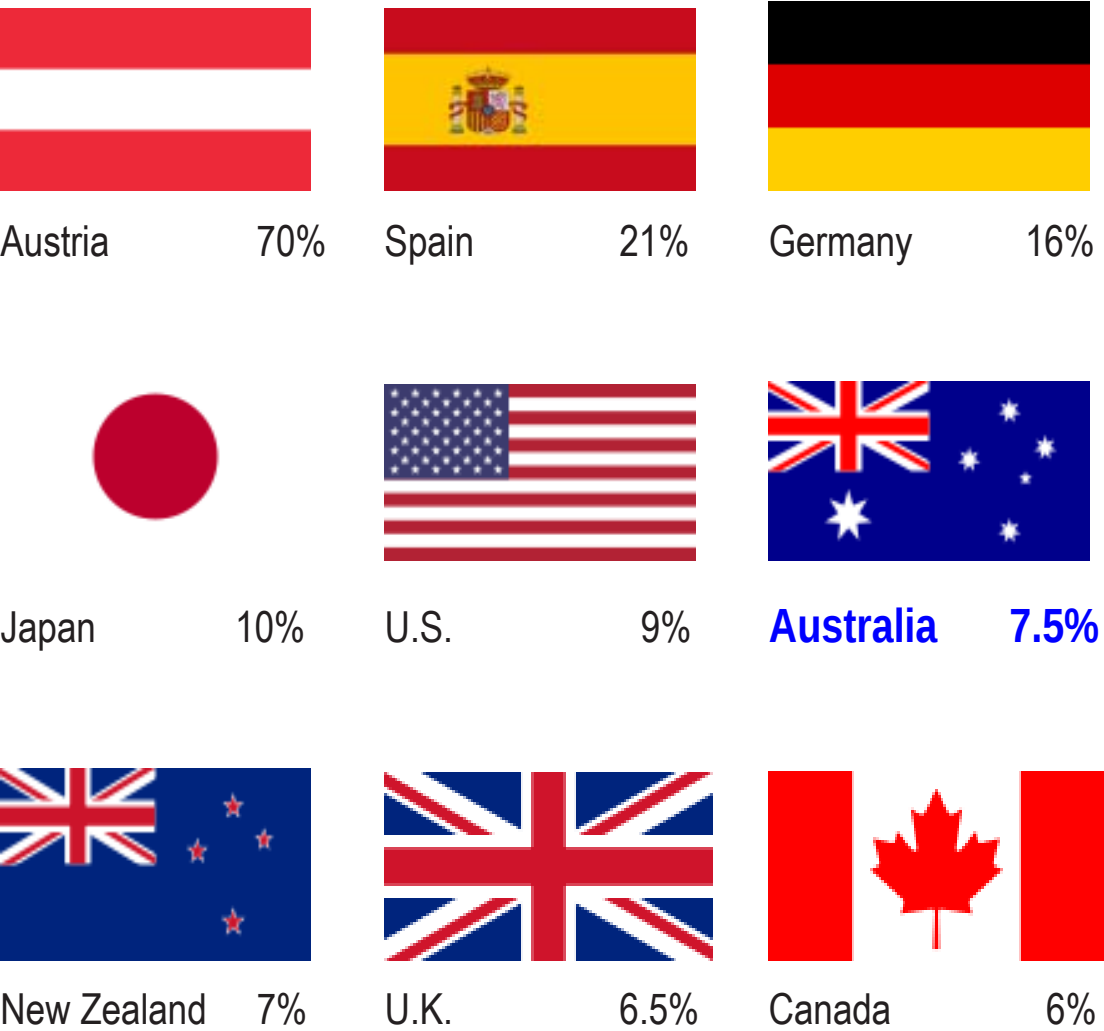


Figure 2 Per cent of electricity produced by renewable energy by country (2007)



Australian Climate Policy Forum

31 July 2010

Questionnaire

Participant Code (printed on your name badge): _____

1. Carbon pricing could contribute to emission mitigation. Which of the following scheme do you prefer? Please indicate your preference (use each number for once only):

 Most preferred 1 2 3 4 Least preferred

An emission trading scheme		Voluntary carbon offsetting	
A carbon tax		No carbon pricing on human activities is needed	

2. For your most preferred option only, what is the maximum amount you would be willing to pay monthly for the next five years? __A\$_____

3. When you choose between the four options, you may have considered the following reasons. Please indicate your agreement with them according to the following rating scale:

-4 -3 -2 -1 0 1 2 3 4
 Strongly Disagree Neutral Strongly Agree

Reason	Statement	Level of agreement (Please circle)
1. Mitigation impacts	National greenhouse gas (GHG) emissions should be considerably reduced.	-4 -3 -2 -1 0 1 2 3 4
2. Certainty of impact	An emission reduction scheme should involve a guarantee that a certain level of reduction will be achieved.	-4 -3 -2 -1 0 1 2 3 4

Reason	Statement	Level of agreement (Please circle)
3. Costs to households	Additional costs to households should be avoided.	-4 -3 -2 -1 0 1 2 3 4
4. Bureaucracy	A government-led reduction scheme would create bureaucracy and should be avoided.	-4 -3 -2 -1 0 1 2 3 4
5. Trust in politics	We can't rely on the government to reduce GHG emissions. I don't trust politicians.	-4 -3 -2 -1 0 1 2 3 4
6. Scientific consensus	We do not yet have consensus on the science of climate change and so should not take action to reduce greenhouse emissions.	-4 -3 -2 -1 0 1 2 3 4
7. Efficiency	Market-based approach should be used to ensure efficiency (i.e. lowest possible cost for a given level of emission reduction).	-4 -3 -2 -1 0 1 2 3 4
8. Compulsory share (household)	Reducing GHG emissions should involve a compulsory share by households	-4 -3 -2 -1 0 1 2 3 4
9. Compulsory share (business)	Reducing GHG emissions should involve a compulsory share by businesses	-4 -3 -2 -1 0 1 2 3 4
10. Continuity	Climate policy should involve political certainty, e.g. not easily affected by change of government.	-4 -3 -2 -1 0 1 2 3 4
11. Compliance	We need a system that enforces compliance of companies to reduce GHG emissions	-4 -3 -2 -1 0 1 2 3 4
12. Transparency	Emissions reduction policy should be transparent and easy to understand by all.	-4 -3 -2 -1 0 1 2 3 4
13. The poor pay less	Lower-income families should contribute proportionally less to emission reduction.	-4 -3 -2 -1 0 1 2 3 4
14. The industries pay more	Energy-intensive industries should be responsible for the costs of emission reduction.	-4 -3 -2 -1 0 1 2 3 4
15. Cost transfer	Businesses should not pass the costs of emission reduction on to consumers.	-4 -3 -2 -1 0 1 2 3 4
16. Global action	We should not take action if other countries do not do the same.	-4 -3 -2 -1 0 1 2 3 4
17. Direct regulation	Direct regulation is more effective than any form of carbon pricing.	-4 -3 -2 -1 0 1 2 3 4

Reason	Statement	Level of agreement (Please circle)
18. Human contributions	The effect of humans on climate is small. Reducing emissions is not a priority.	-4 -3 -2 -1 0 1 2 3 4
19. Fairness	It is only fair that every Australian helps to reduce GHG emissions.	-4 -3 -2 -1 0 1 2 3 4
20. No tax	I already pay enough tax, we don't need a new one.	-4 -3 -2 -1 0 1 2 3 4
21. Profit allowed	Companies should be allowed to make profit by reducing their own GHG emissions.	-4 -3 -2 -1 0 1 2 3 4
22. Global influence	Our climate policy should be able to affect other countries' decisions on emissions reduction.	-4 -3 -2 -1 0 1 2 3 4

Appendix 2 Raw survey data (for Questionnaire Part 3. Question No. 1-22)

A.2.1

Pre-workshop survey

	Helen	John	Brian	Cynthia	Florian	Ian	Liana	Kate	Elaine	Phillip	Kevin	Howard	Ross	Nancy	Claire	Stephanie	Mike	Dan	Wilson	Sarah	James	George	Alan	Mark
Q1	4	3	4	4	4	3	4	2	4	1	4	4	4	0	4	2	-1	3	4	3	4	4	3	3
Q2	4	4	4	4	4	3	2	2	4	4	4	4	3	0	2	3	0	3	2	0	4	-2	3	3
Q3	0	-3	-4	-4	-2	1	-3	-2	-2	-1	-4	2	-4	4	0	-1	4	0	-3	-2	-2	-3	-2	2
Q4	-4	-3	-3	-2	-3	-2	0	-3	0	2	-4	-4	-3	0	-4	0	0	-2	-3	0	2	-4	-1	0
Q5	0	-1	2	2	4	0	0	-2	0	2	-2	-2	2	0	-1	-2	-4	2	-4	2	-3	-3	4	1
Q6	-4	-2	-4	-4	-4	-3	-4	-2	-4	-2	-4	-4	-4	4	-4	-3	4	-3	-4	-3	-4	-3	0	-3
Q7	-1	4	-1	-4	4	1	-1	4	-2	0	4	4	-2	3	1	2	4	3	1	-1	3	3	-2	3
Q8	4	3	3	4	4	-1	2	-2	-1	1	0	4	3	0	1	2	-4	4	-1	-1	3	4	3	2
Q9	4	3	4	4	4	1	2	2	1	1	4	4	2	2	4	2	2	4	3	2	4	4	3	4
Q10	3	3	4	4	4	2	2	4	-1	-1	4	4	3	4	4	4	4	4	3	4	4	4	3	4
Q11	4	4	4	4	4	3	2	2	0	3	4	4	1	4	4	1	1	4	3	2	4	2	3	4
Q12	4	-2	4	2	4	3	2	4	0	4	4	4	4	4	2	2	4	4	2	4	3	-2	1	4
Q13	3	3	3	4	-2	1	3	4	2	-2	4	4	2	4	3	2	4	4	0	4	3	-2	1	4
Q14	3	-1	2	4	4	1	2	4	0	2	4	4	-2	4	3	2	1	4	3	3	4	3	0	4
Q15	0	-2	-3	-1	-4	-3	-1	-2	-2	-1	-4	1	-4	4	-2	-1	2	4	-2	-2	-3	-3	-2	0
Q16	-4	0	-4	-4	-4	-3	-2	4	-3	3	-4	-4	-4	4	-1	-3	4	3	-2	-3	-4	-4	-2	-3
Q17	0	-3	-3	2	1	0	2	4	-1	1	0	-3	-3	4	-2	0	4	3	-3	-2	-2	-3	2	-3
Q18	-4	-4	-4	-4	-4	-3	-4	-2	-3	-1	-4	-4	-4	4	-3	-2	4	1	-4	-2	-4	-4	-4	-4
Q19	4	2	3	3	4	2	1	2	2	3	3	4	4	4	2	2	2	4	4	2	4	3	3	3
Q20	-3	-4	-4	-4	-4	-1	-2	-4	-2	-1	-4	-3	-4	4	-3	-2	4	0	-3	-2	-4	-4	-3	-4
Q21	3	4	3	-4	4	0	0	2	3	2	3	4	2	4	2	2	4	2	3	3	0	3	2	3
Q22	2	2	4	4	4	1	2	-3	4	3	0	4	2	0	3	2	0	4	4	3	2	4	3	3

Appendix 2 Raw survey data (for Questionnaire Part 3. Question No. 1-22)

A.2.2

Post-workshop survey

	Helen	John	Brian	Cynthia	Florian	Ian	Liana	Kate	Elaine	Phillip	Kevin	Howard	Ross	Nancy	Claire	Stephanie	Mike	Dan	Wilson	Sarah	James	George	Alan	Mark
Q1	4	3	4	4	4	4	4	3	4	1	4	4	4	4	4	3	-2	4	4	2	4	3	4	4
Q2	4	3	3	4	4	3	3	4	3	-1	4	4	2	4	3	3	-1	4	2	0	-3	2	3	4
Q3	-2	-4	-4	-4	-2	0	-2	2	-3	-1	-4	-3	-4	4	2	-2	0	0	-3	-2	-4	-3	-3	0
Q4	-3	-3	-3	-2	-3	0	-2	-4	-1	-2	-4	-3	-4	0	-4	0	-4	1	-4	-2	-3	0	-2	2
Q5	-2	-3	2	4	4	-2	0	2	0	-1	0	3	1	-2	-4	0	-3	2	-4	-1	3	-3	-2	-3
Q6	-4	-3	-4	-4	-4	-4	-4	2	-4	-2	-4	-4	-4	4	-4	-3	2	-4	-4	-3	-4	-4	-4	-3
Q7	1	4	-2	1	1	2	1	4	2	3	4	4	2	4	3	2	-4	2	-2	-3	3	2	0	3
Q8	2	2	4	3	3	0	1	-2	-2	-1	2	4	4	-4	2	2	2	4	-1	0	3	2	2	3
Q9	3	2	4	3	4	2	1	3	-1	-1	4	4	2	4	4	2	4	4	3	2	4	0	2	4
Q10	3	3	4	4	4	2	1	4	2	1	4	4	3	4	4	4	4	4	4	3	4	3	4	4
Q11	4	4	4	4	4	2	2	2	2	3	4	4	1	4	4	2	4	4	3	1	4	2	3	3
Q12	4	-3	3	4	4	3	2	4	1	3	4	4	3	4	1	0	4	4	2	3	3	1	0	4
Q13	3	3	3	4	2	1	2	3	4	1	4	4	3	4	-4	2	4	4	0	3	3	-2	1	3
Q14	3	-3	4	4	4	2	2	2	1	0	4	3	-2	4	1	2	2	4	3	1	4	0	0	3
Q15	-2	-3	-3	1	-2	-2	0	-2	-3	-1	-3	-2	-4	4	-2	-2	0	2	-2	-1	-3	-2	-2	-3
Q16	-3	-1	-4	-4	-4	-2	-2	4	-4	3	-4	-4	-4	4	-4	-3	1	-4	-2	-3	-4	-4	-2	-4
Q17	0	-4	2	2	-3	0	1	-3	-3	-2	4	-4	2	0	-3	0	4	2	0	2	-3	-1	2	-3
Q18	-4	-3	-4	-4	-4	-4	-4	0	-4	-1	-4	-4	-4	2	-4	-3	0	0	-4	-3	-4	-4	-4	-3
Q19	4	1	3	3	4	2	1	3	3	2	4	4	4	4	4	2	4	4	3	2	4	3	4	4
Q20	-3	-2	-4	-4	-4	-1	-1	-4	-4	0	-4	-3	-4	4	-3	-1	3	-2	-3	-3	-4	-3	-3	-3
Q21	3	4	2	1	4	0	1	3	1	1	4	4	-1	0	4	2	4	2	3	-1	-3	4	2	3
Q22	4	3	3	3	4	2	1	-2	1	3	4	4	-3	2	3	1	1	4	3	0	2	3	0	4

Appendix 3 Coded Transcripts

1 Facilitator: Okay, this is really to start the discussion I guess. What we're filing in
2 now. So I'm going to ask just some broad questions just to start the
3 discussion that we're going to have. But the first thing I want to do is
4 call for a volunteer, I'd like to give the overall sum of the group's
5 discussion. Is anyone happy to do that? Because what we're going
6 to do after our separate discussion is come together for the larger
7 discussion with the others. So can I call on someone to just give an
8 overview of what they think the group's come up with?

9 Ross: Alright. I'll be relying on you to tell me what I have to say.

10 Ian: We will.

11 Facilitator: Okay, now do you want me to take notes on there or did you want to
12 take your own notes?

13 Ross: It might be better if you take them if you're willing to.

14 Facilitator: Yeah sure.

15 Ross: Put them up there so we can all see them.

16 Facilitator: Okay so the first question which I've got here as a guiding question.
17 Should Australia reduce its greenhouse gas emissions? Does
18 anybody have strong opinions on that or...?

19 Mark: Science seems to be saying we ought to. Otherwise our kids and
20 grandkids will be living in an uninhabitable desert.

21 Facilitator: Is everyone of the same view or?

22 All: Yes.

23 James: No sceptics, climate sceptics here?

24 Ross: Well there are some, there are people who are sceptical about it.
25 They don't believe that it's happening at all.

26 Facilitator: Yes absolutely.

27 Claire: I wouldn't say we ought to do it, I'd say we have to do it. We have to
28 do this.

29 Facilitator: Okay. How important is climate mitigation compared to other policy
30 areas? This is another issue that we have to think about. Do you
31 think it's more important than social security and welfare?

32 Ian: Yes.

33 Facilitator: This is in terms of what the government should be concentrating on.
34 Healthcare, education, employment, border protection. Is it right up
35 there at the top or are there other things?

36 Mark: From my point of view I still see it as Mr Rudd saw it a couple of years
37 ago, is the greatest moral challenge of our generation I guess.

38 Brian: I actually think adaptation is more important because I think we've lost
39 the game on mitigation. My feeling is that it's all over as far as
40 mitigation is concerned, I'm fairly pessimistic. I don't think we've got a
41 chance of changing minds.

42 Facilitator: You don't think so? So we shouldn't bother?

43 Brian: I think we should bother I think we should do everything we can, but I
44 think adaptation is going to be the main game.

45 Ian: Are you suggesting we won't even be able to compensate the two
46 degrees?

47 Brian: I don't think we've got a chance of stopping getting. I think it will go
48 above two degrees yeah. I think there's no chance of it going to stop.

49 James: Considering what happened in Copenhagen.

50 Brian: Oh yeah.

51 James: But there's not much happening on it.

52 Brian: No.
53 James: But having said that I possibly agree as a distinction between
54 mitigation and adaption. Perhaps adaption is a slightly more
55 important policy, but I'm not willing to really separate them too much.
56 Brian: I wouldn't say it's number 10 I'd say it's number two. My feeling is
57 that mitigation, we have to do everything we can but I actually don't
58 think it's the most important thing because I think in a way we've lost
59 the game and there's two reasons we've lost the game. There's two
60 reasons we've lost the game. We've lost the game in Australia
61 because nothing's happening and we're already about 295, I think,
62 [parts per man] so I don't think we've got much chance there.
63 Secondly the world doesn't seem prepared to do it and the world
64 counts a lot more in absolute terms than Australia does. It's not that
65 we shouldn't be doing anything.
66 Facilitator: You mean 390?
67 Brian: Yes 390 sorry. So it's like - its not that we shouldn't be doing
68 something because our consumption or production of greenhouse
69 gases is higher than anybody else. We should be doing something
70 but I think we've lost the game really.
71 Claire: I think adaptation measures also can mitigate. Because when you're
72 adapting you're also making positive contributions. So they're very
73 linked. So where you put your emphasis I'm not sure it really matters.
74 But I think just to go for mitigation now when the evidence is that we
75 keep on increasing and the government action is so low will mean
76 that we are even further behind the eight ball when it comes to
77 adapting. We're learning how to live on a different planet.
78 Ian: Back to the original question. Is it more important than social security
79 policy?
80 Brian: Yes
81 Ian: Well I think it is because it's such a long term issue. Social security,
82 policy, education policy, that sort of thing, that will ebb and flow with
83 the times and that can go through phases. Education policy turn that
84 around in a relatively short period of time. But this is such a long term
85 high impact issue that I see it as much more important than [unclear].
86 Mark: I would agree.
87 Claire: It underpins and affects all those others.
88 Brian: That's right yeah.
89 Claire: It's like a much more underpinning reality.
90 Mark: I think its even asking the question which is more important. Is a bit
91 of a wrong way to frame it, I think they are all important, the answers
92 I put down - if I thought of it, would I vote for a party that said we're
93 going to get rid of education, but we'll do lots of things with climate
94 change. I'd say, well no I wouldn't because you get social unrest
95 without good education. On the other hand I wouldn't want to support
96 anybody who was not taking action on climate change. So trying to
97 put them in their relativities. If the question was which of these would
98 be important enough to change my vote? Again just personally I'd
99 say that I don't think water protection is an important issue and I don't
100 think we're about to get swamped. So that's not... Whereas I think
101 climate change is going to affect things, but I think education and
102 healthcare are also incredibly important.

103 Brian: It's a matter of degree isn't it? You might put one against several of
 104 them.

105 Mark: I would mark down anybody who was treating climate change as
 106 crap.

107 Facilitator: Yes,

108 Mark: I would say that that would be just asking which is more important? I
 109 don't like to choose but I've certainly got ones where I say, I think
 110 some of them are...

111 Ross: I think by saying one is more important doesn't mean the others aren't
 112 important. I think we're not going to concentrate 100 per cent on the
 113 one we think is most important. We're still going to be developing
 114 policies in all the other areas. But I tend to agree with you that you
 115 say if we don't put climate change as a major or the major issue, or
 116 right up there at the top anyway, the others are not going to matter in
 117 the long term. When are they going to learn the longer term - 50
 118 years? Are we going to worry about education if we're running with
 119 temperatures of plus five or six degrees above where we are now.

120 Cynthia: Yes I was thinking take education. I was thinking well you actually
 121 make climate change the kind of most important issue you would
 122 actually impact on how education was delivered the content of
 123 education, what we were educating our young people for. So we'd
 124 actually have an impact that could be positive. It's not about getting
 125 rid of it, saying it's not important. You could actually shape the way
 126 we educate. Because one of the problems with climate change is
 127 educating the community about what's going on and what's going to
 128 impact us. So I actually saw them as inter related but that climate
 129 change as number one might actually positively impact some of those
 130 other areas and shape them quite differently.

131 Mark: I think when there was the discussion earlier from the CSIRO guide
 132 talking about timescales and difficulty is climate change is very
 133 gradual things that everybody believes is not going to make any
 134 difference in the next five or ten years.

135 Brian: That's like fags. That's what people say about smoking. Smoke this
 136 next fag it's not going to hurt you know. I'll have this fag and I'll stop
 137 later on. There's always that kind of thing.

138 Ian: It's pretty hard to say to somebody who is a voter, to take action on
 139 climate change your kid will get less money for their education.
 140 Putting it in those kinds of terms it makes the path to motivate
 141 change. I think it's partly about education, the issue, we've got to
 142 educate everybody to say we need to pay attention to things that will
 143 affect our lives in 10 years time, but we need to worry about 50 years
 144 as well.

145 James: I think, that's the difficulty as Ross pointed out, with climate change
 146 it's a long term issue. If we don't start doing things now and wait
 147 another 10 or 15 years, your scenario will definitely be up their tree.

148 Ian: Up a gum tree.

149 James: That's the difficulty. The policy the government has in selling the
 150 issue. It's not going to change things tomorrow or next week or even
 151 next year or five years that's going to be really noticeable guys . But
 152 if we don't do it now...

153 Ian: We'll really notice it.

154 James: Yeah, when we get down the temperatures at two, two and a half, five
155 degrees, maybe even more. The issue that goes with that is the
156 tipping points we talk about, positive feedback that we talk about and
157 no one, not even the scientists are saying they really know what's
158 going to happen when we reach that stage. That's frightening.

159 Ross: Scary.

160 James: They know a lot about the issue but they're still not sure what's going
161 to happen once we reach positive [unclear].

162 Brian: Can you tell a smoker who's 25 if you have that extra fag tomorrow
163 and then the next day and the next day, when you're 45 you're going
164 to be bugged. Now how do you - you'll reach a tipping point and all
165 of a sudden your lung will collapse. Well they're only 25 and they
166 think, oh you know, who cares about the fag tonight I'm going to have
167 one tonight. I'll worry about when I get to about 35. That's what
168 they'll say. I'll wait until I get to 35 and maybe I'll stop then you know.
169 That's kind of similar, incremental frog borne business. How do you
170 tell a frog, listen don't stay in there you're going to cook, you've got to
171 get out. He'd just think, oh it's nice and warm here you know, its okay
172 I can handle another degree. How do you actually? We're going to
173 have to convince our people really.

174 Facilitator: The thing is smoking, if they dramatically reduce their smoking levels
175 over the decade.

176 Brian: With scare tactics.

177 Facilitator: It is possible to make a difference that maybe the same principles can
178 be applied.

179 Brian: That's what I'm thinking. Scare tactics is one of them. Scare tactics
180 is one of the things they use.

181 Ross: Pockets.

182 Claire: Make it expensive.

183 Brian: Pockets, the other one you're dead right. Make it expensive.

184 Facilitator: I have another related issue just to steer it, possibly differently but
185 one of the questions here is, has the government done enough to
186 address climate change?

187 Ian: It hasn't done anything.

188 Brian: You're joking.

189 Facilitator: The problem is it doesn't win votes. Governments want to win
190 elections and this is a really really long term issue.

191 Ross: The issues tie in don't they? I mean the government is looking to win
192 the election in a couple of week's time, for a three year term. What
193 we're talking about is 30 or 40 years down the track. They're not
194 even thinking about that.

195 Ian: I think the government have done a fair few things. We have funding
196 for all sorts of things, we have departments of climate change, it is
197 bubbling along, so I think they've tried. I think they've played some of
198 their cards a bit wrong by trying to, like in the run up to Copenhagen, I
199 think Rudd was trying to get the scheme up, but he was also trying to
200 do it and embarrass the Liberals. By trying to do two things he's
201 ended up embarrassing the Liberals, but he's lost the climate change.
202 So it's over. I don't think they achieved enough by a long shot, but
203 they're certainly having a bit of a go. I think where we are now is a bit
204 of a hiccup.

205 Ross: I just feel that they're not having enough of a go.
 206 Ian: Well they're not serious about it. They were trying to damage the
 207 other parties and...
 208 Brian: Playing politics.
 209 Ian: They were playing politics with it and I think it's too important to be
 210 playing politics.
 211 Ross: If you look at what they're both offering at the moment, and we're
 212 coming up to elections and they're going to want the things right now,
 213 but what are they offering in this area? There's no long term climate
 214 change policy, really any substantial long term for either of them.
 215 Brian: That's because they're trying to appeal to a certain group of people
 216 that they're going to swing in the marginal seats in my view, that's all.
 217 I mean the rhetoric we're getting out of politics at the moment is it's
 218 only directed to a very small number of people and they're sitting in
 219 those marginal seats. They don't really care about anybody else at
 220 this stage because that's what gets them over the line and that's why
 221 the voting process sounds so simple. Because they run focus groups
 222 in marginal seats and they put the swinging voters and say, what do
 223 they think? Okay we've got to appeal to them. So everybody is trying
 224 to appeal to a small number of people that the rest of the country is
 225 just being neglected and that's just the way politics works here.
 226 Ian: Again, examples of doing something in the ACT, the new area of
 227 Molonglo is being developed to a high density, they've got planning
 228 rules that will encourage solar access and make solar access a legal
 229 right in that area. So I think that's all good stuff, but I'm not picking up
 230 that anybody's being amazingly grateful or there's not votes in it so
 231 it's chicken and egg kind of thing, where I think the governments are
 232 giving it a bit of a go with imaging labelling of washing machines and
 233 fridges and all those other kinds of things. There's still not votes in it
 234 sadly. Bottom line is I don't think they've done enough.
 235 Brian: Who knows, there maybe, I mean we heard from the economist
 236 [unclear] that businesses, lots of businesses were already doing
 237 something ahead of being required to do it, they were doing it
 238 because they thought it was good for business and probably altruistic
 239 reasons as well. But maybe it's just that the politicians are a bit
 240 scared to get up there with people like the ACT and businesses
 241 already, many businesses are already doing it. Maybe they'd get a
 242 shock if they got out there and said what they thought was good for
 243 us or what they were going to do.
 244 Claire: I mean the insulation scheme was a very big initiative. I guess the
 245 way the media picked up some of the problems with that it became - it
 246 was almost as though every person who had that system installed
 247 had a fire and a death in the family. It was so small, in fact there
 248 were less deaths after the insulation, proportionate, than before. But
 249 we all came out of that thinking that was a debacle. It was not
 250 actually. Huge numbers of people have got more energy efficiency in
 251 their homes as a result of the government initiative. They've backed
 252 right away from it now because of, as you said, the feedback for good
 253 stuff is fairly minimal.
 254 Facilitator: Okay well that sort of brings me to the next question. Which group
 255 has greater responsibility to reduce emissions? We've been talking

256 about governments and everything. So is it up to the individual? Is it
257 up to businesses? Government? Community?

258 Brian: That's a big question and is really really problematic, if you've got the
259 government saying we need to take issue and that's encouraging the
260 individual to take the issue. The individual won't necessarily take
261 action until the government's taken action. Government might not do
262 it unless business supports it. They are so linked to each other it
263 just...

264 Facilitator: So everyone needs to do something?

265 Ross: Yes.

266 Ian: A whole community thing which includes business and government
267 and individuals.

268 Ross: Well I think that ultimately we're all individuals and therefore we, as
269 the consumers ultimately have responsibility.

270 Brian: Yeah, that means - I agree, one of the responsibilities is to fade out
271 any party that doesn't take this seriously. Part of the problem is I
272 actually think the government has to lead because there's a wack of
273 people out there who are not maybe willing to do anything unless
274 they're led. There's a small group of people like us who will do
275 something and we'll put the insulation in our roofs, or change our life,
276 our background stuff. Most people, look it's not on their radar. It's not
277 on their radar until a bush fire goes through there and destroys all
278 their house. Then they go, shit how did that happen. That kind of
279 thing. So in a way governments aren't leading it really strongly
280 because of what Ian said, there's no votes in it. It's not on their
281 horizon as much as the marginal seats. What they want is to just to
282 check the facts or something like that. So in a sense we can all do it,
283 all of us people because we actually can see what's going to happen.
284 But what about all the punters out there where it's not on our radar, I
285 think the only way they can help the government success, carbon tax
286 thanks very much.

287 Ian: That's right.

288 Brian: Collects it and basically says, no it's not a democracy here folks, it's
289 an autocracy we're just going to wait for carbon tax on it.

290 Ross: The example from the past where that has actually worked quite
291 effectively is pollution control on cars that came in, in the late '70s.
292 The government decided right, we're going to pollution control all
293 cars. I remember the fuss that people made about it. Oh it's not going
294 to be safe, it's going to use more fuel, be not as powerful and all that
295 sort of thing. Still it got past that and I can't imagine what Sydney or
296 Perth or the cities must be like if we still had the same level of
297 polluting leaded petrol that came out of engines. But there was a
298 government decision about it. Right we're going to reduce pollution
299 on cars. All cars are going to have to have this device to reduce - a
300 catalytic convertors and the benefit flows to everyone. Everyone
301 ultimately had to pay for the extra cost.

302 Mark: Well I'm still not sure about, the questions like who has the greater
303 responsibility is going. I mean as a citizen I could say there's all sorts
304 of things, everybody's responsible. But I don't think who's got the
305 greatest responsibility for airline safety or whatever. Another way to
306 phrase it would be to say, look, I would prefer or I could just leave my

307 life as a citizen and have breakfast and do all of that, the government
 308 will worry about its complicated issues on my behalf. That's my
 309 preference. Is they've got the resources and the policy skills, but if
 310 there's an important thing that they're dropping the ball on... So
 311 responsibility you know comes either back to in a morale sense we
 312 could consume lots and maybe we should choose to consume less.
 313 But in terms of a preference of who should do all the hard work, I'd
 314 much prefer that the government did it like they did on a bunch of
 315 other issues.

316 Ross: I think it probably has to be. I mean we'd all like to be back in the '70s
 317 where we didn't have to worry about the atmosphere, it was all fine
 318 and nothing - just get on with our lives. But unfortunately we're not in
 319 the '70s so someone's got to do something about it. Individuals can
 320 make a contribution but you were saying they need a lead and the
 321 government seems the only mechanism to lead.

322 Facilitator: I actually think we're solely lacking in leadership and I think we need
 323 really strong leadership on this. But I think it's going to have to be
 324 driven by grass roots level by individuals, communities to make them
 325 do what we want.

326 Ross: Tell them they're our leaders they have to catch up with us.

327 James: I agree with Claire. It's got to be coming from the top and coming up
 328 from the bottom and we've got to meet somewhere in the middle. I
 329 agree with Claire it's got to be grass roots. People who work in local
 330 government know what we what done that we're worried about. We
 331 want certain things done and we want it done within a reasonable
 332 timeframe and it's up to the government then to give the leadership.
 333 At the moment we've got no vision in relation to climate - well at the
 334 moment most issues. But on climate change we need a vision and
 335 like I also said before it's a long term vision. It ain't going to be next
 336 week or next year it's 30 years down the track.

337 Ross: Not in three weeks on 21 August.

338 James: Three years until the next election.

339 Brian: But the trouble is with that James, and Claire, the problem is most
 340 punters are not going to put pressure on the government on this
 341 issue. In my view they're not going to - I agree that the best thing
 342 would be for all of us individuals out there to say to the government
 343 you've got to do something and then the government does something
 344 and starts leading. But the problem is they're not getting the
 345 pressure. The whole issue is they are not getting the pressure. Most
 346 of those people in government I think, well probably two thirds of the
 347 Parliament, the House of Representatives, know most of this stuff's
 348 probably correct. They probably know and scientists - there's a few
 349 idiots like Minchin and Dunn but most of them I think would actually
 350 go along with the science. They would probably go along with
 351 the fact that things are going to get really tough in the next - by the
 352 time their kids hit their 40s and 50s they're kind of thing - they
 353 probably know it. But they won't do anything. Because the punters
 354 out there aren't telling them to do something. Because they're still
 355 obsessed.

356 Ian: We've got to start to tell them.

357 Brian: But there's only us around the table here you know. You try going to a
 358 suburb like Penrith right and try and get them to put pressure. Forget
 359 it. They ain't interested in the price of fags.
 360 Claire: Given that we've got a long term view, have to have a long term view,
 361 I think it's beginning - it's not saying - well it's not happening now so it
 362 will never happen. It's actually getting involved like we do, you know
 363 local communities to try and build that awareness to pull off some
 364 really good projects. Project by project in a local area, like the one
 365 you - that sounds like a government initiative and could equally have
 366 been a community initiative that got that community going that way. I
 367 just think after a while there will, hopefully, be some sort of
 368 momentum.
 369 Ian: I think the other thing to go with that I think we've got to start to sell
 370 and get the message out there with some hope and optimism. We've
 371 gone through this period, particularly leading up to Copenhagen
 372 where it was all doom and gloom [unclear] those sorts of issues.
 373 But we need to be doing something positive, and we can do it.
 374 Energy efficiency issues, and tell people that we can change climate
 375 change. Using issues like energy efficiency that will bring prices
 376 down, energy prices will come down which means goods will come
 377 down. There's a raft of issues to get them onside.
 378 Facilitator: Excellent thank you very much for that. I believe we're back now to
 379 the group discussion.
 380 Ross: You're okay. Can I take it?
 381 Facilitator: Yes.

1 Male 1: Excuse me, what's the rating scale we are supposed to be using
 2 here?
 3 Dan: One, two, three, four, five.
 4 Male 1: It doesn't say.
 5 Facilitator: One to three I guess.
 6 Male 1: One to three? One to two I would have thought if you've only got two
 7 choices.
 8 Facilitator: Which policy here is more important? One, two, three, four, five six.
 9 Male 1: Oh I see. I thought it meant one against the other. Climate change
 10 versus employment right.
 11 Facilitator: Okay then we'll just bring to your attention what we're going to do is
 12 have a discussion about how concerned are you about climate
 13 change and then we're going to go to the [unclear] group to give that
 14 presentation in the larger group. Just so that we can see what's really
 15 bothering people, where they're positioned in this debate and what's
 16 important.
 17 So the first question is should Australia reduce its greenhouse gas
 18 emissions?
 19 Alan: Yes.
 20 Facilitator: Yes, don't know?
 21 Howard: Yes.
 22 Facilitator: Is that a yes or a no?
 23 Phillip: Yes.
 24 Male 3: Yes.
 25 Facilitator: Yes so we're all agreed that Australia should decrease its greenhouse
 26 emissions. Okay, why?
 27 Alan: For one regionally we're important, we command a bit of influence
 28 over the rest of south east Asia and our nearest neighbours, we're
 29 regionally important. Economically were important, we export huge
 30 amounts of coal so we've got large influence over the exported
 31 amounts of emissions. Developed economy, we've got large solar
 32 resources, we can be demonstrating we already have but then we
 33 exported our technology over the state so we should be a real
 34 innovator in terms of technologies, we've got the resources and
 35 capabilities to do it.
 36 Howard: Taking your own plan to reduce you can do that and nothing else, or
 37 you can influence other people and do nothing. I think they're
 38 separate things.
 39 George: I think you can develop mitigation techniques and export these
 40 techniques to other countries. That would you give you a big
 41 advantage. Technology again, but I think that was what you were
 42 talking about?
 43 Alan: So why should we? Well that's why we should because for one we've
 44 got the type of economy and the resources so solar we should
 45 pushing an agenda on renewable technology which we then can
 46 export and the onus is on us because I think as a developed
 47 economy.
 48 Facilitator: We've demonstrated as part of our export.
 49 Alan: Portfolio.
 50 Elaine: I also think in terms of our tourist attractions and things, the Great
 51 Barrier Reef and that sort of stuff being impacted. So I think from a

52 tourism perspective and climate perspective there will be benefits to
 53 actually doing an eco tourism industry which is a growth industry in
 54 tourism.

55 George: One of the big assets of Australia. But if you think exporting coal, you
 56 come back to emissions.

57 Phillip: But aren't we talking tactics here rather than the answer to the
 58 question which is why? Because it's the right thing to do.

59 Alan: Exactly.

60 Phillip: That's what the catch is, it's the right thing to do.

61 Howard: Well all these other things are putting a bold face on it to say well...

62 Alan: The nitty gritty,.

63 Howard: How do we do it in a way that minimises the impact on us and does
 64 the right thing like everyone else. I think we've got to be really careful
 65 to separate those things.

66 Phillip: I mean yeah, you can even take away the global warming, the fact is,
 67 it's still not the right thing to do.

68 Howard: I also think we need to be really honest about Australia's ability to
 69 influence other people. It's going to be the other way around, it's the
 70 Chinese and Indians telling us what to do.

71 Phillip: That leads to another question. The question was - we - are we
 72 talking about human beings or Australia?

73 Howard: I think it's Australia. The right thing to do for Australia.

74 Phillip: Was it or wasn't it?

75 Facilitator: Well I guess where the people are active and have to live in the
 76 climate.

77 Phillip: It's all of us.

78 Dan: Globally.

79 Alan: Why Australia specifically?

80 Facilitator: Well the question is you know, should Australia reduce it's
 81 greenhouse emissions.

82 Phillip: Why should it?

83 Elaine: The counter side to that is if we reduce our emissions and nobody
 84 else does, what impact is it going to have? What percentage of
 85 global emissions does Australia have. It will still have an impact.

86 Dan: Still depend on the global...

87 Elaine: but I think it's got to be as part of a bigger campaign, it's not just
 88 about Australia reducing its emissions so that's it's story.

89 Alan: But we can only concentrate on us really.

90 Elaine: But if you look at what else we can do, you said in terms of R&D and
 91 export.

92 Alan: Exactly yeah, so if we took a strong stance and said right, the price of
 93 coal is now going up triple, whatever, sure the markets will go, so that
 94 means as well that we will start pushing our exports onto more
 95 renewably focused technologies.

96 Howard: What you were saying to me is whilst reducing greenhouse gas
 97 emissions it demonstrates to the world that maybe commitment to
 98 climate change is...

99 Elaine: Yes. I think that that's - to me it doesn't really matter what course you
 100 choose it's a matter of saying, okay we as a country are making a
 101 stand and we believe that we should be doing something about
 102 climate change.

103 Phillip: I'm a bit worried about the leadership role. We're not in a position to
 104 do it.

105 Male 1: Leadership, role model is a question.

106 Howard: [Unclear]

107 Dan: I think we need a leader who can review all this. Go out and role
 108 model. You're depending too much on the...

109 Howard: It demonstrates to the rest of the world.

110 Dan: We should be the leader.

111 Facilitator: We need one conversation. So you're saying that...

112 Dan: Leadership which takes the country first, forget about the world.
 113 Okay, they think about Australia first and then do what we can do
 114 here and try to innovate things which we can export to other
 115 countries. The other countries will benefit from what we have done
 116 and slowly it will dissipate and mitigate. I mean we take it.

117 Alan: Also let's not forget we may say, look India and China are going to
 118 have more influence over us, but let's not forget about personal
 119 relationships between high ends of power. So Bush, Rudd, then
 120 you've got Blair, all a coalition of the willing, we're all prepared to go
 121 to war together and things like that. So why can't we also influence
 122 each other in saying right let's all push now for strong mitigation
 123 targets, why can't that exist if you've got strong ends of Parliament
 124 being personal friends with each other. It could have a huge
 125 influence.

126 Male 3: But it's hard to do that if we're not doing anything.

127 Alan: Exactly right.

128 Dan: Do we do it first?

129 Facilitator: Are you saying it's a scale thing, that if we are talking about Australia
 130 we should actually be looking at the scale of leadership and politics at
 131 the moment and exports? Is that what you're talking about at the
 132 moment?

133 Dan: Yes I think so.

134 Alan: But how do we operate in the global economy? Which is the
 135 important thing because it is the globe that matters on the whole with
 136 this problem.

137 Howard: Well that was my point. In the interest of the argument we stop sales
 138 of uranium and coal. If we are bothered about emissions. We then
 139 use those to us very low cost power sources in gaining economic
 140 advantage.

141 Alan: Uranium has very high embodied emissions for making this.

142 Male 3: That's not the question as to why we should reduce greenhouse
 143 emissions.

144 Facilitator: One conversation.

145 Male 3: I think coming back to what we were saying before, it's in Australia's
 146 interests because there are effects of global warming and it's clearly
 147 shown with greenhouse gas emissions lead to over warming, and the
 148 climate change effects on Australia could be quite serious. Things
 149 like increasing temperatures and change in rainfall patterns, effect on
 150 tourism because it's going to have an effect on the Barrier Reef.
 151 Those sorts of effects which we try to do something about. I would
 152 say it's one of the effective, if not the most effective developed
 153 country.

154 Howard: That came out in the presentation as well.
155 Male 3: Has anybody got any sensitivity and said well if these countries
156 achieve these targets, but these guys don't bother, what happens to
157 the picture? Is there actually a point where there's enough people not
158 doing anything, it's just not worth - our difference is so low, that we've
159 got to be very careful about what are our reasons for doing it. They're
160 no longer the greater good of the world or even our own local
161 environment. Do you see what I mean?
162 Elaine: It goes back to those international meetings doesn't it? Where you
163 get some agreement at that level, that one, there is a need to do
164 something and two they're going to be compliant. And until you get
165 sign off on those agreements I think we're going to be struggling even
166 if you did do projections.
167 Facilitator: China and India the two big areas. They're developing, they're
168 increasing their power usage at an astronomical rate. They are going
169 to dominate what happens so you can't do - us, Australia doing it is
170 going to solve the problem. You've got to do it for other reasons like
171 that's the right thing to do, it's about sending a message. We're not
172 going to solve the problem with just have [unclear] ourselves.
173 Male 3: Ghana addressed that - they pointed out that it's the United States
174 has got about 35 per cent of the world's emissions and China is not
175 far behind. It's above the US now is it?
176 Elaine: It's doubling every time.
177 Male 3: India is a close third. They obviously are the big polluters and what
178 they do has a dominant effect, but that shouldn't stop smaller
179 countries. It's no good us saying because we're only 2 per cent of the
180 world, therefore we don't have to worry. If everyone said that it
181 doesn't work.
182 Howard: [Unclear], where I was going with that is you can start from some high
183 order thinking it's the right thing to do you can work with other people,
184 hoping that globally something happens. But in your back pocket you
185 need a plan where if they don't do it then we shift from mitigation to
186 adaption. So you've got to have flexible thinking here and we feel
187 really bad about that but if it's a matter of survival as well.
188 Male 1: I think one of the things we need to look at is the fact that there's lots
189 of right things to do in the world, and one of the things is we have this
190 economic disparity between us and India and China and they see
191 themselves as having a right to develop to the level that we did and to
192 share their contribution of pollution the same as we more advanced
193 economies did previously.
194 Elaine: But that's where I think...
195 Male 1: That's the problem.
196 Elaine: ... the technology has progressed from when it first started. So there
197 are options which are both environmentally friendly and cost less than
198 coal stations.
199 Male 1: No. There's no energy runs that costs less than coal station.
200 Dan: No I think what we should do, there's a lot of technologies.
201 Male 1: It's true.
202 Dan: At present we are exporting coal to India, China and all that in
203 massive amounts. Instead of that, we should have an alternate
204 energy supply, like something like battery or solar or anything. That

205 supplied to India and China, that will reduce a little bit, keep on every
 206 year, keep increasing those renewable energies for exporting, the
 207 export market, and slowly we should reduce the coal export to other
 208 countries.

209 Elaine: I think one of the problems with places like India in particular is their
 210 population density, whereas in Australia we've got nice big open
 211 spaces.

212 Dan: That's true.

213 Elaine: Where you can put wind farms or solar panels or whatever, you don't
 214 have the large areas and coal stations in terms of footprint, physical
 215 footprint, are much smaller.

216 Dan: Yes, true, that is true.

217 Facilitator: I was just going to point out, what do we say to China and India if they
 218 say, you developed, we're trying to develop why can't we do stuff?
 219 But the point about solar panels, we know they're all made in China.

220 Dan: Yeah it's very interesting.

221 Facilitator: They export them to us for us.

222 Howard: Well that's right and if you put a bunch of solar panels in the Gibson
 223 Desert you'll get no power delivered onto the grid because the
 224 distances are too great.

225 Alan: Don't need to go that far as well.

226 Howard: I wasn't quite sure of your point about India and China and
 227 renewables.

228 Elaine: It's just in terms of how much of different things are an option for...

229 Howard: Are you saying it's too expensive?

230 Elaine: Well it's not a matter of expense, part of it is the physical footprint as
 231 well.

232 Howard: I don't know.

233 Dan: A present it's too expensive.

234 Phillip: China's got a lot of land actually.

235 Elaine: China does, yeah India's different.

236 Alan: Who allowed the expense of converting to renewables I think you've
 237 always got to keep in mind sure it's a short term expense but over the
 238 long run you're going to make money because 15-20 years down the
 239 track when that has paid itself off, return on investment has come to
 240 fruition and then you're making profits from then on. So Germany's
 241 gone and their economy's dipped slightly as a result, but in 30 years
 242 time when they're not paying for electricity they're going to be saying,
 243 wow our solar programme and tariffs and what not were really
 244 beneficial back then. That's just a scale of a temporal difference and
 245 if we've got the money at the moment to be able to put into high
 246 capital venture like this and we're spending billions of dollars on war
 247 in which we're not making huge amounts of difference anyway in
 248 Afghanistan and what not, and we're getting ourselves over global
 249 financial crisis through spending huge amounts of money as well, why
 250 can't all those funds be put into something more worthwhile, like this
 251 that will be better for us in the long term?

252 Facilitator: That's good because that leads us to the next question. How
 253 important is climate mitigation compared to other key policy areas?
 254 So do you think there's lots of right things to do, do you think we
 255 should be focussing on social security and welfare, or should we be

256 spending on healthcare or education? Do you think those are much
257 more important at this point in time to be focussing on things that
258 affect us and our society? That's also a right thing to do or do you
259 think that this is the elephant standing in the room.
260 Elaine: You can't afford to forget education.
261 Phillip: You can't forget any of those things.
262 Dan: Basically that's why we are still...
263 Alan: Ultimately
264 Howard: They're all interlinked.
265 Elaine: Yes that was something I found going through. I want to give them all
266 a one and say there isn't any difference between them.
267 Phillip: Yeah rank them one to six.
268 Elaine: Climate change, well that's going to affect our physical environment
269 it's going to affect our health, which is going to affect dah dah dah.
270 There are different ways that we can do it. Healthcare, which will
271 have an impact on the environment, so they're all...
272 Male 3: Isn't one of the big challenges though that you were saying about
273 short term and long term that things like education affect people.
274 Healthcare affects people right now and the timeframe is only a
275 matter of a few years in terms of its impact on people. Whereas
276 climate change tends to be a much longer timeframe and it's getting
277 that balance right and getting that message across to the community
278 that they need to make investments now, otherwise we're going to
279 have real problems in 20 years time.
280 Elaine: But just on the education, if you get it at the kids, I know that this is
281 not going to solve some of the other issues we've got, but if you get it
282 at the kids, it's automatic for them to then do it. I can give you an
283 example, the OCT government runs or is involved in the Australian
284 Sustainable Schools initiative. They do waste and they do energy,
285 but they start with waste. The number of kids who are in primary
286 school/preschool and going into high school, they all know how to do
287 it and they hassle their parents at home so that improves the home so
288 it does it that way. So it's the same sort of thing we need to get the
289 kids to help them to do it as well.
290 Alan: Which is why they don't need to be seen as education is just here. Or
291 the environment it's just here because you can combine the two.
292 Have sustainability, education, have sustainability in health so that all
293 industries are working together on these common problems, common
294 issues.
295 Phillip: It's all holistic.
296 Male 3: Well I think there is an enormous need for educating the general
297 population on the sort of things that we heard today. That the
298 average person just hasn't got an appreciation of the impact of
299 climate change, particularly greenhouse gases and so on. It can be
300 done, so if they don't understand the problem and they don't see
301 these long term effects it's very hard to get them to vote and spend
302 money on it.
303 Phillip: Sometimes it's not a question of understanding the problem. I still
304 don't understand how the emissions trading scheme works, despite
305 the lecture this morning, it just brushed straight over the top. There
306 was nothing there. I know what a carbon tax is, but I have no real

307 idea still and I've read a hell of a lot of papers and everything else.
 308 Nobody tries to explain what an emissions trading scheme is. Other
 309 than the fact that somebody has got to buy stuff and then they'll sell it
 310 and then you'll pay for it in the end. The money goes round in circles.
 311 Facilitator: Do you think that's deliberate or is it a part of the way our society
 312 functions?
 313 Phillip: Well if you can't explain anything how can you get people to accept
 314 it?
 315 Howard: Well it's an attempt to do something using free market forces, not on
 316 the assumption the fact they will ultimately be the best method of
 317 doing it and I personally...
 318 Phillip: But I did do some economic study.
 319 Howard: I'm personally very sceptical about that.
 320 Phillip: That's game.
 321 Howard: Because we've not got into the situation we are through [unclear]
 322 policies.
 323 Phillip: We don't know how it works.
 324 Howard: This whole idea of buying and selling some sort of [unclear] is so
 325 abstract it evolves. Anything like that is open to royalty, like for
 326 example.
 327 Phillip: Oh they're giving freebies out.
 328 Howard: I was told this morning there is a suspicion that when you tick the box
 329 when you buy an airline ticket, like carbon credits, that money is just
 330 being banked somewhere it's not actually doing anything.
 331 Dan: I don't think they even know what to do with it.
 332 Howard: Yes so that's a form of...
 333 Phillip: You sign up for green power.
 334 Male 3: That concept of a carbon trade system was modelled on the control of
 335 sulfurous emissions in power stations, in particular North America, the
 336 acid rain problem and that was solved back in the '80s using a similar
 337 sort of scheme and has worked successfully. The track record so far
 338 of carbon tax schemes is very poor. It doesn't look as though it is
 339 working, though people are paying taxes.
 340 Howard: Do you know why one worked and not the other?
 341 Male 3: Well the acid rain one was very specific because there was only a
 342 small group of power stations burning acid, or high sulphur coal and
 343 so it was a much smaller scheme and targeted a much smaller
 344 number of participants. But nevertheless it is a proven that model
 345 does work.
 346 George: There is this huge European emission trading system.
 347 Facilitator: Just one last, sorry. One last question. Who's got the greatest
 348 responsibility? Do you think it should be the individual the business,
 349 the government, the community or the whole world? What do you
 350 think?
 351 Phillip: Whole world.
 352 Alan: It's really tough.
 353 Male 1: The government.
 354 Phillip: The government yes.
 355 Dan: Tax on the individual so the individual communities, society and then
 356 the world. So everyone knows how to limit their pollution,
 357 automatically it will take care of the world.

358 Elaine: My view is community but again they are all so tightly coupled.
 359 Dan: Yes they're tightly coupled yes.
 360 Elaine: By getting a developing community base you've got enough voice to
 361 have an action and have an impact, then you can influence other
 362 parties.
 363 Alan: If you consider as well that a lot of governments recently haven't
 364 actually been listening to their voters on a large scale, so you can
 365 compare to that. So basically influencing things they see as being
 366 this is something you'll accept down the track. Like we were sold on
 367 lies if you like to go to some wars that we've been involved in, but we
 368 think this is right for the country at this point in time and we are going
 369 to put it in and then you'll come to agreement with that afterwards. It
 370 usually sells if governments continue with that line of thought,
 371 eventually they convince us.
 372 Facilitator: Can I wrap it up now.
 373 Howard: Sorry can I just answer that., I agree that it's everybody's problem,
 374 the snag is the world, communities and individuals are not going to
 375 work fast enough. It's got to be done now, the only people who can
 376 do it are governments. People with power.
 377 Alan: Government business.
 378 Howard: I went to an ANU session here about the aftermath of coconut
 379 because ANU sent a number of people along as observers. One of
 380 the messages coming back from that was that there are a lot of
 381 interest groups and people trying to influence our working groups, but
 382 the key decision makers were government. It was the government
 383 representatives who could make things happen and decide on the
 384 course of action.
 385 George: [Unclear].
 386 Howard: Yeah well look what happened there. I think they are all waiting for
 387 Obama.
 388 Phillip: Might be easier to achieve world peace...
 389 Facilitator: You guys just stay here I think.
 390 Phillip: Well thank you.
 391 [Over-talking]
 392 Howard: [Unclear] the world only reacts when something really catches...
 393 Phillip: Climate change might be that world pestilence problem.
 394 Howard: This is going to sneak up on us, that's a lie.
 395 Phillip: I don't know they keep promising all these earthquakes, cyclones,
 396 tempest storms, excessive droughts.
 397 Facilitator: Was anyone interested [unclear].
 398 [Over-talking]
 399 [Multiple Speakers]
 400 Alan: Before I accept the challenge.
 401 Facilitator: It can be what you I mean it's just a basic summary. You don't have
 402 to refer to this.
 403 Howard: It's better coming from us though.
 404 Facilitator: It is.
 405 Howard: You're biased.
 406 Facilitator: So I think just to run you through it. We think there's lots to do and
 407 we think it's really all about the right thing to do and it's everybody's
 408 problem. When we look at the scale of Australia it's very difficult to

409 see a global scale, because we're all [unclear]. There's key policies,
410 everything seems to be linked. We need messages, we need to work
411 together we need to educate communities. So that discussion is
412 we're really looking at this as multiple scales and that might be top
413 down or bottom up. Alright were just going to have a shared
414 discussion now.

1 Facilitator: Okay we're going to be recording this session just for Alex's
2 purposes, for his PhD. You've been hearing a bit of information and
3 now it's time for a group discussion. So I'm not going to really be
4 taking part, just to make sure that everyone is having a say and also
5 just to let you know what the time constraints are. So we plan on a
6 20 minute discussion now about what your concerns are about
7 climate change. So should Australia reduce greenhouse gases, how
8 important is mitigation compared to other policy areas? Has the
9 previous government done enough? Which party has greater
10 responsibility to reduce carbon emissions, so those types of
11 questions. After the 20 minutes what we plan is for the group to put
12 forward a small presentation, so just a couple of minutes. So I don't
13 know whether you want to use the butcher paper here, but it's
14 probably something with about five minutes to go if you - I would say
15 would probably be the best time to start organising collating the
16 information that we discuss. But if you want to do it a different way
17 it's up to you as well.

18 Kevin: Wasn't there some sort of a sheet we were supposed to be given on
19 topics? It seems to me that that's what we were talking about.

20 Facilitator: That's the topic that you're talking about but it's more just a general
21 discussion on - and also to rank here at the end what you think -
22 although that's something which is probably best done.

23 Mike: The only two topics we can talk on is the two presentations from
24 earlier. We can give an opinion on those.

25 Facilitator: Well you can also bring in your own opinion as well.

26 Helen: Basically if you want to talk about what you think should be
27 happening.

28 Facilitator: Yes what you think the issues are, what you think the parties are
29 doing.

30 Helen: What are the mitigating strategies that we would recommend.

31 Facilitator: What actually concerns you. If anyone at any point wants to take
32 notes, there's some butcher paper.

33 Helen: I'm happy to write. I'm not afraid to have a go. Permanent marker.

34 Kevin: Well then the first topic was do we think that there is a need to deal
35 with climate change? Is that...?

36 Helen: Yes I think that was the first. Do we think we need to do anything?

37 Mike: Well what can we do? This is the world you're talking about, not
38 Australia.

39 Kevin: No we have to be talking about Australia. We can't be talking about
40 what the world's going to be able to do. We have to talk about what
41 we can do in the country. To me it's as clear as - it's pollution. If
42 we're using coal fired power plants, it's pollution. We should be
43 dealing with that issue if for no other reason than we're dealing with
44 something that's harming people's lives. When you live near a coal
45 fire power plant you're likelihood is to have a higher rate of lung
46 diseases. If you live near a manufacturing plant that spews out
47 chemicals you will have other sort of health issues, health impacts
48 and for no other reason in my mind, we should be dealing with what
49 our industry does. What we do with our cars and our transport and
50 our general way of life for no other reason, just to make our way of life
51 better.

52 Kate: So what you're saying Kevin is what we should have is the impact of
53 different focus on what we're talking about with climate change is not
54 that somebody is putting stuff into the air which is making things
55 happen, or are they because there's quite a lot of talk about whether
56 things happening or not. But what is actually happening on the
57 ground to people in various places. What do we all want to do? We
58 all want to get away from the big city with the high pollution and the
59 smog and everything so that we can have a better standard of living.
60 Kevin: What happened in China when they had the Olympics? They shut
61 down all their manufacturing plants and what happened to the air? I
62 mean their air cleared up. So you couldn't get too much more
63 obvious that their manufacturing and their cars and all their whole
64 way of life was impacted on their own environment and therefore it
65 has to be their health in my mind. It's as clear as that.
66 Kate: You can do things like that. They did it in Britain in the '50s and '60s
67 the most terrible smogs and so they said we can't live like this. This
68 is no way to live. So they changed it all and it made such an
69 enormous difference just to everybody's life.
70 Kevin: I think we lose people when we start to say when they get into the
71 science of it all. Now I'm on all these different sorts of chat lines and
72 people are going this way about CO2 and it's good, it's bad and
73 there's arguments on both sides that are very strong. If you just listen
74 to those arguments after a while you go around the twist. But I think
75 people want their lives their daily lives improved. They see the
76 pollution they want something done about it.
77 Helen: Are you making a distinction between what people identify as being
78 climate change which is invisible effectively, and what people actually
79 physically have to deal with on a day to day basis which is pollution.
80 If we talk in terms of pollution then we are talking about something
81 that's very tangible. I mean acid rain is one of those problems which
82 was all but eliminated wasn't it, back in the '70s. CFCs in [unclear].
83 Kevin: Exactly, since the '50s since Chicago, there's all these sort of different
84 manufacturing companies, that all this air pollution, water is polluted
85 and when you started to deal with those you improved an entire
86 environment and you've improved the health of the people. Now I
87 may be wrong that pollution is not the problem, but I don't see
88 anything that indicates to me that it isn't the problem. If we just clean
89 up the pollution.
90 Liana: Unless someone can come up with a good argument that all these
91 emissions are good, are they good for us? Is there an argument that
92 says all this stuff that's coming [unclear].
93 Helen: Well yes, there's a very good argument. A very good argument is
94 people want to buy things.
95 Kevin: I think that puts it right in perspective. Is what we're doing good for
96 us? If it's not good for us let's change it and then we have to - what
97 are the areas that we have to mitigate? What is it here? Are the coal
98 fired power plants, good? Now obviously they provide us with
99 electricity and they have the base power that we need, but they also
100 cause health problems. So how do you deal with that? You can't just
101 shut them down. So you have to make a transition to the future.

102 Mike: Mt Isa and Broken Hill in Australia had a localised problem too. The
103 emissions of lead all those years ago. Now that was pollution in the
104 true sense of the word. It was a danger to human health. Now it was
105 local. It didn't affect us here in Canberra but it certainly affected them
106 there. What you said about Chicago was quite right, it went to
107 Cincinnati where I was too it was even more [unclear]. But they were
108 the bad old days of polluting around the world.

109 Helen: That's still happening.

110 Mike: When you still see on your ABC smoke stacks billowing out white
111 smoke, well that was 40 years ago. I mean those don't exist
112 anymore. There is no pollution like that occurring.

113 Facilitator: Well in Mendoza there still is.

114 Mike: There still is?

115 Helen: [Unclear]

116 Facilitator: Yeah, Mendoza still has the same problem.

117 Mike: The only trouble is I flew down to Sydney, flew my sister down, last
118 summer it was, it was a hazy day. I couldn't even get past
119 Campbelltown it was that bad. It was just a brown out. I had to call
120 up for radar [unclear] I couldn't see a thing.

121 Kevin: So it's still happening. Maybe in certain areas it's not as bad as what
122 we remember as kids, but it's still bloody bad and we have the
123 accumulation of this.

124 Kate: It's very easy to identify the people who have to be sacrificed. I think
125 that's a very good point like yes, why don't we identify the people who
126 will have to make a sacrifice if we stop. I'm not talking about - well
127 anyone. Yeah maybe if we can increase consciousness of those
128 people as a - I don't know, but I think that it's a very good point.
129 Those people or organisations can be identified., So that awareness,
130 maybe the whole community needs to be aware of the people who
131 are making sacrifices or being sacrificed.

132 Kevin: What needs to be mitigated? I mean what actual areas need to be
133 mitigated? We know that I think we all agree that would be power
134 plants, we need to do something about what's coming from them, and
135 from the big manufacturers and from the cars we drive. But the first
136 gentlemen mentioned cement. Now I assume what he was talking
137 about was the heat that is transmitted and brought up from all the
138 cement from all the big cities. I don't know that for a fact. But that's
139 what I thought he was talking about.

140 Kate: I think there's something in the manufacture process as well that
141 makes cement a really nasty...

142 Facilitator: Intense.

143 Kate: What does it do?

144 Florian: Well you mine the stuff first, materials, that's one thing. Then the
145 processing is extremely energy intensive and when it deteriorates.
146 Mike: Well every form of manufacturing requires energy or heat. Heat is
147 energy of course. It's got to be disposed of somewhere, either into
148 the ground, into the water or into the air. Now what I'm not so certain
149 about and not convinced completely yet, although I will admit our first
150 lecturer opened my mind. Does it all stay up there or do a lot of the
151 solid particles come to earth, get absorbed back into the ground and

152 the water, so there's really not all that much CO2 up there. Although
 153 what is up there is obviously causing significant problems.

154 Kate: There's supposedly an equilibrium so what comes in gets dissipated
 155 or so it seems. But because of the present population and growth in
 156 development, it's supposedly impacting on that status.

157 Mike: Put clouds in the diagram, it's only the tropicals, and that ends at
 158 65,000 or 70,000 ft so this carbon CO2 ban we seem to see it as a
 159 ban must exist between roughly 45,000 and 70,000ft. Now I'm not
 160 scientific enough to know is that the truth. I wish the little graph
 161 showed the altitudes on it and I would have known. Because I don't
 162 know whether it all falls down, dissipates out, changes its chemicals.

163 Kate: That's a very good point. That's one of the areas that hasn't been
 164 scientifically analysed. What happens in the stratosphere.

165 Kevin: At the end of the day what it is, is the accumulation of it, and as I
 166 understand it our systems, the ocean, the trees and our natural
 167 environment are not coping with the volume of CO2, and that there's
 168 a tipping point where it's not going to be able to cope with it at all.
 169 Now I may be wrong and stand to be corrected on that, but that's my
 170 understanding.

171 Kate: That's the argument.

172 Mike: Well if there's oceans acidifying, you're right. It's not coping with it
 173 because it would have - and we do know that there's been massive
 174 clearing of trees and jungle areas around the equatorial regions. So
 175 we have less of a carbon dioxide, amongst other gases, absorption,
 176 so as you industrialise and farm more land there's less ground
 177 absorption. So everything you say Kevin is right, but it's grouped up
 178 now to what extent. What percentage?

179 Kevin: I mean that's it. In my mind, if we're thinking about this whole thing,
 180 can we figure all this out, would it be good, like the guy that had - the
 181 first speaker. He had all that cartoon up.

182 Helen: Does that really matter? Shouldn't we be doing it all anyway?

183 Kevin: exactly. I mean just for our own local environment for our own health
 184 shouldn't we be doing it?

185 Female 1: Yes and we can go back a long way. I can probably go back further
 186 than most. This has been talked about forever. For 50 years.

187 Kevin: Longer than that.

188 Female 1: Much longer than that.

189 Kevin: I remember in the 50s being talked...

190 Female 1: Yes. What happens? Well sometimes things happen as we have just
 191 been saying, the change happened in Britain with the smog and with
 192 the CFCs and things like that. So you can actually make a difference
 193 but nevertheless there is this inextricable progression of exponential
 194 growth.

195 Facilitator: Can I just say while you're on this point it would be interesting to hear
 196 your thoughts on how to go about doing it. So compared to other
 197 policy areas. How important is this policy area and who is
 198 responsible? The individual, the corporations, the government. How
 199 you think that should work.

200 Kate: I think individuals have shown that they are prepared to act
 201 themselves in lots of ways. Yeah, so I think government is wanting
 202 powerful nations.

203 Kevin: There has to be a lead. To me there has to be a lead.
204 Helen: [Unclear] it seems to me.
205 Kevin: If the lead - it's awfully hard for us here to have a huge impact on the
206 country of Australia. So to me the lead's got to come from the
207 government. I don't think that.
208 Helen: Can I write this down?
209 Kevin: Yeah.
210 Helen: People see this as a key issue that we need a lead, or some form of
211 leadership.
212 Kevin: Where does the lead come from?
213 Helen: People are leading it. I don't think the government are leading it. I
214 think the people that are driving this - the government keeps saying,
215 oh we don't know what to do because there's all these sorts of...
216 People are actually doing things, putting solar panels on schools,
217 changing the way they're teaching children. Things are happening
218 anyway. It's a bit like the mines are already self regulating
219 themselves and showing up the baddies. I feel that the government's
220 lagging behind, and even businesses working together in
221 organisation, we're already doing things like turning the computers off
222 every night and turning all the lights off. We've got geothermal power
223 access in the building. These are happening whereas the
224 government still doesn't appear to have...
225 Helen: They are happening yet we're still seeing this exponential growth. So
226 despite what everyone is doing on the ground, it's clearly nowhere
227 near enough to halt these effects.
228 Florian: I actually tend to disagree with you.
229 Mike: The population as a whole, the population have accepted already the
230 very first change. Now if you get them to accept that we've all now
231 got low energy light bulbs in our houses and everywhere.
232 Florian: No we don't. I'm sorry, I have to...
233 Helen: There's no sacrifice being made in that regard either.
234 Florian: This may be the case in Canberra where people have rather high
235 education.
236 Helen: Incomes as well.
237 Florian: But not in the western suburbs of Sydney where Alan Jones reigns.
238 Or in Melbourne where you have that nutcase Andrew Bolt.
239 Liana: I think they're phasing them out so you can't buy them anymore,
240 they're not made.
241 Florian: Yes but still I mean it's simple.
242 Nancy: So in fact it's not being done.
243 Florian: You actually can buy them at K Market.
244 Mike: It's a government decision.
245 Nancy: It's a government decision [unclear].
246 Mike: People will accept that, they're used to it.
247 Nancy: But it doesn't happen.
248 Florian: That's right. If the government pushes I agree, as we said we have
249 implemented this Goulburn Goes Solar! project in Goulburn. But we
250 are fighting climate change denyers. Not sceptics, denyers on a
251 highest level. Several members of parliament you know. That's the
252 level that we are starting and that's rather typical I have to say for...

253 Kevin: It's not just in this area. I live in an area you may remember that I
 254 said I was a renewable energy activist, and in the area that I live, in
 255 Crookwell, there's wind farms going up. Whereas there was a vote of
 256 the people and 70 per cent of them were willing to have more wind
 257 farms. 30 per cent didn't, and those 30 per centers, a handful of
 258 those people that are very active and that are doing everything they
 259 can to stop renewable energy. They've convinced one of our local
 260 members for the state that a 2 km distance from a wind farm to a non-
 261 participating house should be a state law.
 262 Now in New South Wales, more than likely the Liberals and Nationals
 263 are going to get in and that's part of their policy is to have this 2km
 264 distance between a house and a wind farm. Now that's going to
 265 make these things un-buyable. You can only build on that in really
 266 sparse areas. Well the thing is we've got quality wind in our area and
 267 we're not able to use it because we've got this small group who are
 268 stopping it. That's going to spread out into the state it's going to have
 269 regulations, regulating what we can do with wind farms. Yes there
 270 are small groups that are doing stuff, but there are hardcore people
 271 that are against it, and they are fighting tooth and nail to stop anything
 272 to do with this. So I agree with you that there are people there, but
 273 government has got to add.
 274 Helen: So can we say that one of the key issues is lack of information
 275 perhaps? I mean is this a big problem? Even the wind farm thing is
 276 interesting example because there are some scientists who say that,
 277 in fact putting huge wind farms up across nations is in fact going to
 278 cause all sorts of climatic problems in themselves.
 279 Facilitator: Exactly.
 280 Kevin: But then who is running the information and how unbiased is it? I
 281 mean if you listen to all three parties right now, you've got the Greens
 282 on one far end of it, you've got, in my mind, the Liberals on the other
 283 end of it, and you've got Labor not sure what the heck they're...
 284 That's how I see it.
 285 Female 2: What sort of information are we lacking? I mean if we're going to talk
 286 to the group about the key issues that we face and one of them
 287 seems to be lack of information.
 288 Florian: I don't think there is any lack of information.
 289 Female 2: What do you think it is?
 290 Florian: We can source this information easily by the click of a mouse. Like
 291 we just saw, we can get this on the internet.
 292 Female 2: Yes but people won't click on climate.
 293 Florian: I know, the problem is...that people listen to the wrong information. I
 294 just mentioned these two nutcases, Alan Jones and Andrew Bolt,
 295 these are the main influencers, or how do you call it in English - they
 296 influence public opinion like there is no tomorrow. Wherever you go
 297 in the western suburbs, if you go into a shop, if you go into a
 298 workshop, Alan Jones.
 299 Helen: How do you mitigate that? I mean what do we propose to do to get
 300 information we believe as much as they believe which is accurate
 301 information?
 302 Sarah: Into schools.
 303 Mike: Are you talking about an educational chasm there.

304 Florian: No you turn around the argument. That's what we decided.
305 Facilitator: Like if you look at the sheets, I asked different policy areas into rank.
306 So we're not actually expecting you to rank it. But it's related to
307 education but how do you think climate change - how does it relate to
308 these other policy areas?
309 Mike: Well nationally as far as the people are concerned, very low down the
310 scale. It is not important.
311 Florian: Yes, in Australia.
312 Kate: It's asking what we think is important.
313 Mike: Well this is why we're here.
314 Kate: What do we think.
315 Mike: Going out there we've got to try and get a message through to the
316 people who don't want to know that message because they couldn't
317 care less about it. So what you've got to come up with is how you
318 communicate.
319 Kevin: That's the whole thing that I was talking about to begin with. Is that
320 we're talking about something like climate change which is very
321 complex. It is very hard to get the message out there in a way that
322 people are going to understand it. To my mind we should be talking
323 about the pollution side of things. How it is impacting on our health.
324 People can understand that and can grasp at that. Then we say
325 things that you can do or like your people are doing, producing their
326 own energy in their schools or their recycling their stuff, one of the
327 main problems that a local council has is with waste. This is going to
328 be a growing - is what you do with all the garbage we produce and all
329 the energy and all the facilities it takes just to deal with that. So I
330 mean if we put it out like that - in that sort of a platform I think people
331 are going to understand better what we have to do. Now that's my
332 opinion.
333 Florian: The other argument is money. You get them in the back pocket,
334 that's the issue. That's what we try to do. You save a lot of money if
335 you buy this solar system. You actually get paid by the electricity so
336 that's one thing. The other thing I think what we, what people who
337 are passionate about is the fact that we are actually not losing. That
338 the lifestyle, we have just seen it, is only, what is it, \$300 less or
339 something like that. People are - if you look to Europe you have to
340 prove that.
341 Kate: Yes but the money that you're talking about is a very very small, little
342 cosmos as opposed to the global problem where it isn't the same.
343 You don't get the same terms.
344 Facilitator: Okay now everyone's - I assume Helen you're presenting?
345 Helen: Unfortunately I think I'm going to have to feed my baby, he's over
346 there.
347 Facilitator: So who wants to be assigned the presenter role?
348 Mike: I think Kevin. I think the media or the communicating side of it which
349 is what we really come down to.

1 Facilitator: Thank you. So I'll ask again, who wants to be the person to do the
 2 sumClaire at the end?
 3 Male: Brian can.
 4 Brian: No, surely it should be shared.
 5 Facilitator: You did such a good job.
 6 Male: Brian was sounding like a very dominant personality just then. He
 7 was passing the buck to you. That almost looked like a volunteer.
 8 Facilitator: Do you want to do it?
 9 Brian: I suppose I can do it if you want me to do it. Do you want me to do it?
 10 Facilitator: Okay. Thank you very much. Everyone knows what we're going to
 11 do in this session is try and look at references for sort of emissions
 12 reduction scheme. So you've all done your reading on what
 13 everything, what these different script schemes are, emissions trading
 14 scheme. You should know anyway. Emissions trading scheme,
 15 carbon tax, voluntary carbon offsetting or no carbon pricing or any
 16 sort of scheme is needed. You all understand what the different
 17 schemes are or at least have an inkling of it?
 18 Male: Yep, more or less.
 19 Facilitator: Some of them are very complicated, I know. But just some sort of
 20 general things that you can sort out. I've got a few guiding questions,
 21 they're called here, just to start the conversation going. So do you
 22 accept the idea of carbon pricing? Should we put a price on carbon?
 23 Male: I believe so, yes.
 24 Male: I was going to suggest we could go straight to be deleted.
 25 Claire: I don't think Ds an option at all.
 26 Male: Well, you can have a regulatory approach that just says we won't
 27 have coal power, we will not build anymore coal powered stations,
 28 they'll all be just here and just pass a law to that effect.
 29 John: Is that what it's going on about? Is that really what it's asking
 30 though?
 31 Brian: It's the only other option.
 32 Male: I think D means by regulation. [It could mean certain] things, you
 33 cannot have incandescent light bulbs. So do a direct approach,
 34 would could actually be successful. It could make a difference to the
 35 carbon emissions and the cost could be borne in different ways.
 36 Male: It doesn't give people much choice in how they live their lives though.
 37 Male: No. You're trusting the Government to hose down the right
 38 industries.
 39 Male: Yes. Whereas the other schemes, well the first two, there's an
 40 incentive. You can change your behaviours according to that
 41 [unclear] phase which are imposed on us.
 42 Male: Yes.
 43 Facilitator: Okay. How do we feel about, do we know a lot about a carbon
 44 pollution reduction scheme?
 45 Male: That's just the carbon tax one?
 46 Facilitator: Yes. Sorry, no B. Emissions trading scheme. Does anyone have
 47 any strong feelings for that sort of thing.
 48 Claire: It seems to be one of loop holes. A lot of loop holes. That's my
 49 impression.
 50 Male: Yes. They were giving out to all sorts of people [unclear] in response
 51 to pressure groups, and it wasn't clear to me paying half attention,

52 that we were actually going to reduce enough to have that having
53 enough impact. There just seemed to be all sorts of special
54 pleadings. I was trusting [unclear] became so complicated.

55 Male: Too complicated. Too complicated.

56 John: I'm really happy with the emissions trading scheme, to throw that in
57 there. I'd say that it definitely has to be a, I mean I think we need a
58 complex solution to what is essentially a very, very complex problem.
59 I mean, it is between A and D for me. But I tend to lean towards the
60 emissions trading schemes as an almost guaranteed way of reducing
61 a very specific amount of pollution. So we will cap it out at five per
62 cent reduction and what people are allowed to produce is you know,
63 what's below that. It's a guaranteed reduction

64 Facilitator: So you know how much Australia is?

65 John: Yeah. On paper anyway. That appeals more to me because the
66 carbon tax, if it's set at the wrong level, people either just pay it
67 instead of reducing their emissions. So there's no guarantee
68 emissions reductions with the carbon tax unless it's sent through.

69 James: There'd be an incentive to reduce your emissions because you're
70 paying this tax of course because you're only paying tax on carbon
71 you produce so that's an incentive.

72 John: But I mean, it does cost money to reduce emissions, in which case,
73 because you have to make changes if you're going to reduce your
74 emissions. In some cases, that's very cheap so it is cost effective to
75 do that. But if the tax is set at the wrong level - so say it costs you
76 \$100 to reduce your emissions and the tax is \$50, I don't actually
77 think they're the figures, but do you know what I'm getting at?

78 Ross: What I like about the carbon tax though, is that I agree with you, that
79 you might set it at the wrong level but you can change it at fairly short
80 notice.

81 Brian: It's fairly flexible.

82 Ross: It's very flexible. Whereas the emissions trading scheme, once
83 you've got permanence out of it, I'm not sure how you'd go through
84 the process of adjusting their price in order to achieve what you're
85 setting out to do.

86 Ian: I'd be weary of the ETS of market manipulation. We see how
87 proficient traders are at developing new systems like what brought
88 down, went on the global financial crisis, with the manipulations of the
89 market. I'd be concern that that, you know, a commodities market
90 and the future of the market and all of it combined, it'd become more
91 of a market for making money than reducing pollution. That'd be my
92 worry.

93 James: I just worry that the same forest in Indonesia that isn't cut down will
94 be sold to twenty companies around the world and no one will reduce
95 pollution. ...So I think that in the long run an emissions trading
96 scheme that's properly designed and has got all the checks and
97 balances would be right. But trying to design and get it all working in
98 one go, just recently, so maybe a carbon tax today would be a useful
99 stick towards emissions trading...

100 Brian: Well I support an emissions trading scheme because I think the
101 market, and I'm economically dry, the market is the best method of
102 controlling things. Now, we don't have to start from scratch to have

103 one because the European Union has been running one since 2005
 104 and they got it wrong for three years but then they noticed their
 105 mistake and fixed it. So we can go there in 2011 and learn from six
 106 years of experience. So we can have a trading scheme and I'm
 107 against a carbon tax simply because the bureaucrat.
 108 But I take your point that it's difficult to understand but one thing that
 109 conflicts me is that you have a market trading scheme which is
 110 economically dry which is supported by Government which is Labor
 111 and you have a carbon tax which is bureaucratic supported by
 112 supposedly free enterprise party. I'm puzzled by that. Maybe I'm
 113 wrong for that reason. Maybe there's something that I don't
 114 understand.

115 Ian: Can I just respond to that? I really do feel though, that if we have an
 116 ETS that's too complicated, people will sort it for exactly the reason
 117 that James said. If somebody would say, I didn't cut down you know,
 118 the weeds on my farm in Western New South Wales and so I got a
 119 huge carbon credit for it.

120 John: You reckon people don't try to evade tax?

121 Ian: But no, if we had a much more focused emissions trading scheme
 122 that just says, let's just trade in pollution from power stations or
 123 something. Then at least you'd have a feel that there was a chance
 124 or...

125 John: I'm all for simplicity but I reckon that's where the market is. Because
 126 they're sorting it out among themselves. It's just a matter of getting
 127 the initial permit, that system right. If you do that then business looks
 128 after it from there on.

129 James: Can I put a case for the carbon tax? I'm supporting Ross on the
 130 carbon tax. I think it's a simple system and if we had a carbon tax
 131 and if we made it a dedicated carbon tax, dedicated meaning all the
 132 taxes collected from that goes to a particular cause or purpose and
 133 that cause or purpose, it wouldn't go into just general consolidated
 134 revenue. That purpose then is for developing alternative energy
 135 sources, energy efficiency programs and those sorts of things. Easy
 136 enough to do.

137 You could have an institution something like the Reserve Bank that
 138 looks after the country's monetary problems. We have an institution
 139 something like that that looks after the carbon tax. They review, they
 140 allocate the money out to various research programs and all that sort
 141 of stuff. They manage the whole system. I think you know, what
 142 we're doing then, we're not putting the money just in the general
 143 revenue, but we're actually putting it into something that's going to
 144 give us at some stage down the track, hopefully, either a very low
 145 carbon economy or maybe zero carbon economy.

146 Ross: Well, a similar allocation of funds is done...

147 Facilitator: The discussion is between the ETS and the carbon tax, and we've
 148 kicked out D but there is this voluntary one.

149 Brian: I haven't kicked out D actually.

150 Facilitator: You haven't kicked out D? Okay.

151 Brian: No. I'm still thinking about it.

152 Facilitator: Well, I have a question here. Do any of you have experience in
 153 buying carbon offsets for your personal consumption?

154 Brian: Every time you fly you have the offer.
 155 Ross: Yes.
 156 Facilitator: Does anyone do that?
 157 Ross: Yep. I've bought carbon offsets.
 158 John: I've sort of generally always on principle refused to buy them. I don't
 159 know, I don't know the system they're going to. They always do
 160 research into what it's going to but I really don't know where that
 161 money is going to.
 162 Brian: It's a lack of trust.
 163 John: Yeah, I just don't trust the system.
 164 Claire: It seems like a cop out. You're not taking responsibility yourself.
 165 James: We're not developing anything for the nation as a whole in that
 166 scheme. That's why I like the carbon tax redeveloping something.
 167 We're moving ourselves forward, moving the nation forward. We can
 168 develop a lot of infrastructure and that sort of stuff.
 169 Mark: But you can raise money from an ETS in the same way that you can
 170 from a carbon tax.
 171 James: But we've got no guarantee. If we have a dedicated carbon tax we
 172 know where it's going to go. That's what I like.
 173 Mark: I'm just saying you can have an ETS where you auction the permits
 174 and that money that's raised from the auction that's dedicated in the
 175 same...
 176 Male: If they did that, that'd change it...
 177 Male: What I'm saying is that dedication...
 178 Male: There'd be no, the Government...
 179 Mark: It was mentioned earlier, plus the cap and trade gives you control
 180 over emissions.
 181 Facilitator: The level of emissions. You know...
 182 Mark: Which is why I thought, if it's too hard to get up this week let's at least
 183 do a carbon tax.
 184 John: At least that gets people into measuring of their emissions.
 185 Mark: Which means everybody's measuring their emissions and they're all
 186 focused.
 187 Facilitator: That was the point that Andrew brought out with the carbon tax, you
 188 don't know how much is going to, you don't exactly have no clear...
 189 Male: There's no cap. But there is an incentive there for people to reduce
 190 because then you pay less tax.
 191 Male: People start measuring. Because at the moment businesses in
 192 Australia actually don't know what carbon...
 193 Cynthia: So it's an incentive to learn how to measure.
 194 Male: Yeah.
 195 Brian: That would perhaps, the Government would have a set what they
 196 regard as a greenhouse gas emission.
 197 Cynthia: That's what I mean, it would actually push for accurate measuring.
 198 Brian: Would it?
 199 Male: Well, you'd make it with your regulations so that they could tax you.
 200 Cynthia: Well, people wouldn't be happy to be taxed on something they didn't
 201 know or had some sort of definition?
 202 Brian: No, but I can see, to me all these market-based things, to me, they
 203 leave open the option of rorting and that's what's happened in our
 204 society.

205 Male: But say there's a tax system, and I mean Kerry Packer praying to the
 206 Australian Senate, overpaid tax in his life, wealthiest man in Australia
 207 almost, wasn't he?
 208 Brian: I know, that's just supporting what I'm saying.
 209 Male: What's the alternative, I suppose is the question. There'll be a portion
 210 of orders, you put enough people in the measuring control so it's a
 211 small proportion.
 212 Brian: I go to China a bit and I know there if the Government says we're
 213 going to do this, it gets done. Can you imagine if China said next
 214 year, we're going to have no greenhouse gas emissions in 10 years
 215 time you know darn well there'll be no greenhouse gases in China in
 216 10 years time. That'd be it. If they say this is what's going to happen,
 217 it happens. That's dirty. That's an authoritarian system that we don't
 218 have and don't want.
 219 No, no. But we have a system where we can say the Government
 220 does pick winners. People make mistakes for sure. But it says okay,
 221 no more hole to be used for electricity by the year 2015. That's it.
 222 You guys figure out how we're going to do it. But we're going to
 223 make the use of coal illegal for electric power stations in 2015 or
 224 2020, whatever it is. Figure out how you're going to do it, but at that
 225 date there, you ain't going to use coal anymore and if you do, we'll
 226 shove you in jail. Now, that would stop it real quick, wouldn't it?
 227 The whole thing revolves around a market mechanism and it revolves
 228 around what's given us the global financial crisis. That is, we've let
 229 these economists have their say, let's have a dry system, let's have a
 230 system where the market works sufficient and all that kind of stuff.
 231 I'm not so sure it is efficient. Well it may be efficient for some people
 232 but not for everybody, or it may be efficient for achieving certain ends
 233 but this may be one of those ends that ain't any good at it. I don't
 234 know. I'm not saying that.
 235 Ian: Hypothetical question. If say the coal mining industry ran a \$50
 236 million ad campaign against the Government proposing to abolish it...
 237 Brian: That's a political...
 238 Ian: Just hypothetically. They might change their mind.
 239 Male: You don't think they'd do that, do you Ian?
 240 Ian: They are all committed...
 241 Male: Extrata, the biggest coal miner wouldn't do such a thing.
 242 Male: If you don't like market systems, I mean you might like the system
 243 they had in the Soviet Union which would be the exact opposite and it
 244 wasn't a hell of a system, either.
 245 Brian: No, but that's just a black and white issue saying, either have one or
 246 the other.
 247 Male: Yes, I know.
 248 Brian: I mean, we do have a centrally controlled system here right now that
 249 says you're not allowed to drive 120 miles per hour through a
 250 suburban street. It's just a rule.
 251 Male: Yeah, I mean I'm not advocating [unclear] or anything, do whatever
 252 you like.
 253 Male: But Brian, just a few examples where there has been a regulation.
 254 We do have a [unclear] incandescent light bulb that's coming through
 255 the systems, we do have rules on energy efficient housing building

256 standards, so I think there is a fair bit that is being done on regulation.
 257 But as we're saying, you have to build houses to...
 258 Brian: I just don't think we should write that one off.
 259 Male: I agree with you on that.
 260 Brian: When you think about it, it maybe different if the scientists say, look
 261 the really big issue is coal, right. For the next 10 years the really,
 262 really big issue, we have to stop burning coal. That's what
 263 Bill McKibbin says. We just have to stop it, and we have to stop
 264 burning coal today. If you want to get to 350 plus, coals it. You have
 265 to stop it. Everywhere around the world coal has to be stopped. You
 266 can do that. It's really easy to do that, the Government just says,
 267 we're not going to do anymore coal.
 268 Male: How are we going to do it?
 269 Brian: Well, put people in jail who are going to use it.
 270 Male: What are going to use as an alternative energy source?
 271 Brian: That is an issue the Government has to sort out.
 272 Male: But there's no alternative.
 273 Brian: It can. Yes, there is, there's plenty of alternatives. There are heaps
 274 of alternatives to, right now in Australia you can get rid of, if we
 275 wanted to, we could get rid of coal powered generators straight away.
 276 Not straight away, but we could make the rule that says...
 277 Male: We could phase it out.
 278 Brian: We could phase it out. We could phase out top powered generation
 279 within 10 years if the Government decided this is what we should do
 280 and we would have to also decide to put a whole lot of money into it
 281 or encourage these companies to put a whole lot of money into other
 282 alternative systems. It can be done. It's not like you can't do it.
 283 Male: Of course, then you replace gas.
 284 Brian: You can replace it with solid.
 285 Male: The challenge is to find...
 286 Male: I don't think you could replace it with solar...
 287 Brian: You have a look at some of the research, within a short time it will be
 288 able to be done. Because within 10 years if you put enough money
 289 into it they can use all these new technologies, you know, picking up
 290 solar...
 291 Ian: I agree that that is the way of the future, but it's a fair way into the
 292 future. I don't think it can be achieved in 10 years, solar energy.
 293 Because we don't have, the source is there, the technology of
 294 converting it here isn't here. We haven't got it. In a market system I'd
 295 encourage people to develop that sort of way of capturing the energy
 296 from the sun. But it wouldn't be, I doubt that it will be within 10 years.
 297 But if someone could convince me or put up a good case that that
 298 was so, I would embrace it. Because the obvious solution, it's just a
 299 matter of converting.
 300 Ross: Spain's getting closer.
 301 Male: If everyone worked on it, it would get closer.
 302 Brian: If you have a big incentive to get them to work on it, is you will be in
 303 jail if you don't do something about it in 10 years.
 304 Male: What about shot? What about shot? Shot at five years.
 305 Brian: But if it became your legal in 10 years time and they really knew it,
 306 like there was absolute certainty about it, I think...

307 Male: Or we'd be going around in animal furs trying to read by candles.
 308 Brian: That's right. They don't want to do that.
 309 Male: Well, I don't want to do that either, so if that fails then I'm the one that
 310 will be doing it.
 311 James: I think the other question is, is it a political reality? Would we have a
 312 Government that would do that?
 313 Brian: Of course not.
 314 Male: No.
 315 Male: No.
 316 Brian: We don't have a political rally fit to do any of these, they won't do any
 317 of it. What are they doing?
 318 Male: That's a good question.
 319 Male: I suppose there's a couple of things. One is in a democracy there's a
 320 political ability to achieve that, which I personally think is not gospel.
 321 In terms of the technical ability, as many people have pointed to, the
 322 world economy was retooled in World War II and in five years people
 323 said we used to make this and we now make that and I kind of agree
 324 with you that I think if there was a will, it would be possible. But I
 325 don't think there's any political...
 326 Brian: I agree. I'm just saying that there has to be a will. I don't think it will
 327 happen though. Because I think the whole cigarette smoking thing,
 328 the problem with it is, it is the [unclear]. We're not going to get a huge
 329 bloody cyclone that's going to destroy America in one day. Because
 330 if that happened the whole world would think, Jesus what are we
 331 going to do. If something really, really climate wise happened, really
 332 bad, the world would snap out of it, but it ain't going to happen. It's
 333 not going to happen...
 334 Claire: If we wait for that it's too late you see. So my question is can it be
 335 one or the other or can it be a mixture?
 336 Facilitator: Well, this I what I'm hearing. This idea of having a gradual or
 337 [unclear]...
 338 Brian: We actually are doing it. Like I said, the Government actually has
 339 introduce some pissy little laws to change these things but it could do
 340 more.
 341 Male: The big ones are energy efficient housing. You build a house, it's
 342 there for 50 years and if you build it and it needs electric air
 343 conditioning you're stuffed for 50 years. If you build it right now, you
 344 are saving at your new house...
 345 Brian: Why can you mandate double glazing for example? Is double glazing
 346 mandated? No, it's not.
 347 Male: But we are getting there.
 348 Male: Whatever we do of a carbon tax or emissions trading system it would
 349 have to be done in conjunction with regulations of some sort. You
 350 can't wipe out regulations.
 351 Facilitator: Does anyone have a particular preference for one of those that they
 352 would say is the way to go?
 353 Male: I'm going emissions trading.
 354 Male: I'm going carbon tax.
 355 Facilitator: Can we say carbon tax?
 356 Male: Carbon tax.
 357 Facilitator: Number three?

358 Brian: Well, I'm committed to one but I take the other if it was there. As long
 359 as we get something.
 360 Facilitator: Emissions trading scheme?
 361 Brian: Yeah, everything.
 362 Facilitator: Emissions trading scheme, three. Voluntary market?
 363 Claire: I think that's part of it. It's just one or the other at the moment is it?
 364 Facilitator: Yeah, just one or the other. Voluntary market?
 365 Male: No.
 366 Facilitator: No. Okay. D?
 367 Male: I really object to the one or...
 368 Male: We need a fifth option here. Let's see if we're going to get a fifth
 369 option.
 370 Facilitator: Okay. What about a combination?
 371 Male: Yeah.
 372 Male: Combination.
 373 Brian: Some combination because I think it would be too hard to do a
 374 carbon tax [ETS] at the same time.
 375 John: It may be possible. Like, politically a carbon tax was easier to get
 376 through at the moment. You'd possibly all be happy with a
 377 reasonable carbon tax, yes?
 378 All: Yes.
 379 John: Ok. If that then lead to, because people are now measuring, they've
 380 got all that information and they've decided it is a little more efficient
 381 to have that emissions trading scheme, would you be ok with that?
 382 All: Yes.
 383 John: In conjunction with all that regulation, based like, things like housing
 384 and that sort of things, but increase those regulations.
 385 Male: Much tougher regulations.
 386 John: All happy with that sort of thing?
 387 All: Yes.
 388 Brian: So now you've got a speech, right?
 389 Male: I would say regulations particularly aimed at energy efficiency
 390 measures.
 391 John: Sure.
 392 Male: There's huge savings.
 393 Brian: The Government has the option right now of doing something about
 394 brown coal in Victoria. The Victorian Government could get rid of
 395 brown coal within five years if they made it [the rules] saying they're
 396 getting rid of it, like they're forcing us to go gas.
 397 Male: They should do so.
 398 Brian: They should do so. They should just say no more brown coal, you
 399 have to go gas and that's the end of it. Because all you're doing is
 400 replacing the boiler, you're not really touching the generator, you're
 401 just replacing the boiler, you're getting rid of the coal & you're shoving
 402 in a gas boiler instead of a generator. It's not all that expensive to be
 403 done. They won't do it, they've got no balls, they're so gutless, they
 404 won't be tough, because they're not convinced it's going to happen.
 405 Claire: You've got the lobby groups.
 406 Brian: Yeah, they've got a lot of lobby groups.
 407 Facilitator: Thank you everyone. I believe now we're going to go back to the
 408 bigger group.

1 Facilitator: Okay then, so the first question is, this is carbon pricing, which
2 approach for emissions reduction is preferred? So from the
3 discussions that you had and your own opinions prior to coming here,
4 did you want to start off with the first one or just - what about the
5 carbon tax? What was your impression?

6 Alan: [unclear] carbon tax, only because we might achieve a bit more with
7 the other one. The flexibility I think [unclear], particularly this
8 international trading. I don't understand how that's ever going to be
9 real.

10 Elaine: See, I like the emissions trading scheme because it's got a definite
11 cap. But based on the discussion today, one of the things that strikes
12 me about that is that you could actually start it on a sector basis and
13 then expand it out. So you could start it with something like, just
14 starting with the power supplies and whatever, where you've got more
15 of an idea as to what the inputs and outputs and whatever are and it
16 could have a more regular market and you've got you know, a bit
17 more control.
18 You don't have some of the issues with who gets it because the
19 polluters and the people who need them are the same people. So it's
20 not so much of a, and you can do it based on how much they're
21 producing, not that you're given the permits for. Not based on how
22 much energy they're producing, not based how much pollution they're
23 doing. So I still like...

24 Alan: So that's like a tax?

25 Elaine: The ETS but I think probably on the sector basis then you can
26 actually have a bit more control over...

27 Alan: So more certainty and control?

28 Elaine: Yep. Some of those limitations would disappear.

29 Dan: One thing on the ETS is that all the noise that they're giving the
30 permits, you know exactly how many permits there are [unclear]. If it
31 goes beyond that then no, it is not working. So they are doing
32 [unclear] so that's another advantage of that.

33 Alan: The trouble is, there's no mechanism to ensure it's capped correctly
34 in the first place.

35 Elaine: But you can at least do your cap based on what current emissions
36 are, which is what I'm saying. You can say, well okay our current
37 emissions from energy producers are this. Worse case, that's a cap
38 that will stop you going higher in the future.

39 Alan: Well, actually you've got to lower it because remember we're still
40 working against the [unclear] of some years ago.

41 Dan: No, it has to go lower every year. Has to go lower.

42 Alan: Yeah, it has to go lower every year, so you can't work on the currency
43 coming down.

44 Elaine: But the thing is that even setting a cap at the currency is better than
45 doing nothing.

46 Alan: But what it means when they certainly set the cap, you can set that
47 global cap but what's the cap for the different producers saying, no
48 you just swap them all around.

49 Stephanie: But they have to sell permissions with the trading scheme if they want
50 to change it, so you look and say well okay, we have this much power
51 being produced and it's creating this many emissions but...

52 Alan: But the point I was making before is when you provide these licences
 53 or whatever else you want to call them, the rights to do this, the
 54 politicians have got firm control on how that's done which gives them
 55 an awful lot of power in terms of kick backs, feedbacks.

56 Elaine: I think it's the same, well the carbon tax is probably less to do with
 57 that but I think with both the carbon tax and the emissions trading
 58 scheme, the devil's in the detail. You know, with either of them, it
 59 comes down to the particular scheme and the particular policy rather
 60 than the generics for me.

61 George: Do you think we'll have problems with the content then?

62 Elaine: Well, I don't like the carbon tax because it doesn't, because what is
 63 it...

64 George: It doesn't give a guarantee of reductions.

65 Elaine: It doesn't give a guarantee of the emissions reduction and working
 66 out what that tax should be, and because while it gives economic
 67 certainty in the year, what will happen is you go, well okay that was a
 68 great tax, we set it at 10 per cent but that actually gave us great
 69 revenue but it didn't give us the result we wanted in emissions so next
 70 year it's going to be 20 per cent. So despite the fact that...

71 Alan: No, no. Getting the market principle investment, [unclear] is that if
 72 you produce electricity and you put a 50 per cent carbon tax on top,
 73 you're going to have to charge your customers extra to cover that 50
 74 per cent thing. That's what I mean, it's still a market mechanism,
 75 however you handle it.

76 Dan: But the consumer is paying the bill.

77 Alan: The consumer always pays the bill.

78 Elaine: There's no certainty in it that you'll get any reductions. I think it
 79 unfairly targets lower income earners because the higher income
 80 earners, if you look at the price of petrol, as the price of petrol goes
 81 up, because petrol still gets sold. The only people that reduce their
 82 dependencies on cars are those that can't afford to fill up. So I think
 83 people will, higher income earners will just accept the extra cost. It's
 84 the same with the emissions...

85 George: A really advantage in jump in tax is that it gives certainty to the
 86 enterprise to develop like long term investments because with ETS,
 87 they don't know. Many [unclear] next year because the price for the
 88 allowance is really low. So the enterprise have no certainty.

89 Elaine: I think it's sent in with the carbon tax because I think...

90 George: The tax, they know the tax will be same next year or...

91 Elaine: No, because I think if you put it on say 10% and that's not high
 92 enough and you realise you're not meeting your trading targets, it will
 93 go up. Until you actually work out that steady state level where your
 94 carbon tax is enough there is no economic certainty so I don't think it
 95 has a benefit.

96 George: Okay. So the Government has to tell the taxes for the next years. So
 97 they say okay, this year...

98 Elaine: Yeah, and you're going to do it for three years and then you'll have a
 99 change of government that's going to say that this is ineffective so it
 100 doesn't have any certainty anyway.

101 George: Still, [three years] is better than no certainty at all about that carbon
 102 price.

103 Elaine: But if you've got certainty over what your initial permits are then you
 104 do have a degree of certainty with the emissions trading scheme.
 105 Wilson: But you've got that uncertainty with ETS. Because over a period of
 106 years you've created an ETS market, you've got no control over the
 107 price that those credits are going to trade for. Suddenly you may find
 108 that for some reason they're dirt cheap so straight away pollution...
 109 George: I don't think so.
 110 Wilson: Can I just finish? They may go the other way and become so
 111 expensive they're then passed on and you can't afford them but I
 112 think the main concern I have with ETS is, there's not a direct link to
 113 actually reducing something. So for example, there are a number of
 114 contracts in Canberra, therefore in other places where there are
 115 compliance measures built into contracts. If you don't comply you're
 116 fined. Either you pay money or you don't get what you want. There
 117 are many examples now where it's cheaper not to meet the obligation
 118 and to just pay the costs. I think that George's point is a really
 119 important one. That you know, this is going to make people find other
 120 ways to meet their obligation, not the primary aim which is to reduce
 121 emissions. Have I unfairly...
 122 Male: That's on an ETS?
 123 Wilson: Yes.
 124 Phillip: The other thing I'm may go to too, is the emissions trading scheme. I
 125 mean, we're going to have a government minister for something that's
 126 much more complex than carbon. I mean, they can't even do pink
 127 batts and you're wanting them to look after an emissions trading
 128 scheme? I mean, they couldn't even look after a carbon tax, let's be
 129 exact.
 130 Elaine: I don't think we could do a global ETS system at the moment. But I'm
 131 saying a sector based one might work.
 132 Wilson: So perhaps then this is the, nobody said you had to have only one.
 133 You know, you could say well, we'd prefer carbon tax but there is a
 134 role there, in your model. Because I think you have a point. Highly
 135 targeted like the [unclear].
 136 Elaine: Yeah, so you can target CO2 from power stations and you can look at
 137 different targets for different industries at different times.
 138 Dan: Yeah, you can have a different base and different types of carbon tax.
 139 Stephanie: Then you get away from some of the complexities of how do you
 140 measure CO2 across the whole, or gases across, which is a problem
 141 with both of them. I think the carbon tax is harder to do and
 142 incrementally out across different sectors but that's just my thoughts.
 143 Phillip: I would have thought [unclear] was sort of the same difficult no matter
 144 what scheme.
 145 Alan: Yeah, but if you can't, emissions trading scheme...
 146 Elaine: Emissions trading scheme is easier to do across a sector than a
 147 carbon tax is to do. We're going to have a carbon tax but it's only
 148 going to apply to this sector and it's a lot harder to do than to say
 149 we're going to have an emissions trading scheme for this sector and
 150 so that's why the emissions trading scheme...
 151 Phillip: The trouble with the sector one is though, it's like the old customs
 152 laws, that you just move yourself into a different sector or recreate
 153 yourself to be in a different sector. That's...

154 Dan: It's like a generic permit for different sectors. So they can put in
155 place, they can sell the sectors to the [unclear] same kind of sectors.
156 [unclear].

157 Phillip: We're talking about power production as a sector. It's not, it's hydro
158 electricity production sector. It's the coal, it's the uranium, nuclear,
159 they're all different. They're all producing electricity but they're not
160 the same sector.

161 Alan: In terms of emissions.

162 Dan: Yeah, it has to be different permits.

163 Elaine: No, see, I'd say that the aim of them all is to produce any - and I'd
164 have an agricultural sector, an energy sector and a whatever, and
165 you might not do the agriculture sector for a while because it's hard to
166 do but the danger I think with doing sectors is not what's being
167 erased. The danger is that the easy ones to do aren't necessarily the
168 ones that are producing the most emissions. So for example energy
169 is easy to do but what were the figures today? Was it 10 per cent or
170 something?

171 Alan: Oh no, coal is bigger.

172 Phillip: Coal production produces electricity...

173 Elaine: Was it transport that was 10 per cent or whatever? But...

174 Alan: Agriculture was about 10 per cent or something.

175 Elaine: Yeah, so that's the only issue I've got with the sectors, is you actually
176 have to be smart about which sectors to choose so that they're
177 actually ones where you've got, that are making a big contribution.
178 You don't choose...

179 Alan: But your coal power stations, or coal and gas, they're the real big
180 polluters.

181 Phillip: The Victorian ones.

182 Alan: Yeah. You'd include gas because that generates a fair amount of
183 carbon dioxide as well. Then you could apply, you can trade the
184 emissions trading scheme to that sector, as you were saying.

185 Elaine: Yeah. Then if you include all the ones that are in the, that have some
186 wind or whatever else, I guess it's a problem if you've got a company
187 that's involved in multiple things like ACTU where they've got the
188 internet and whatever else and how do you do it, but this bit of it is the
189 supply...

190 Wilson: If we test your model, let's say as a consumer buying electricity
191 through a retail outlet, by a retailer, the act says you can have
192 something from around brown coal plant or a nuclear plant so which
193 of these schemes will work best to actually reduce emissions.
194 Because you know, you may have a nuclear plant but the costs are
195 so high, the price is pretty much the same as the brown coal
196 generator with their credits and because there's then no competition
197 in the market, there's no incentive.

198 Stephanie: Brown coal tax versus nuclear, brown coal tax may be lower than
199 nuclear.

200 Wilson: But the brown coal people, they're quite happy. The Government's
201 happy because they never exceed their quota so the net
202 environmental impact improvement is zero. Whereas, if you've got a
203 tax then there's...

204 Elaine: No see, if it's an emissions trading scheme, you'll only have
 205 permission to make so much pollution and the coal [unclear] is open
 206 cut.
 207 Wilson: If you live within that...
 208 Alan: The cap's too high.
 209 Elaine: The cap's too high.
 210 Wilson: Yeah, I know.
 211 Alan: [unclear]
 212 Wilson: Or increase the tax. Someone's got to make that judgement call.
 213 Alan: But as you said you know, it's hard to set the tax whereas you can set
 214 the cap...
 215 Elaine: Emissions trading scheme, particularly for a particular sector is really
 216 easy to do.
 217 Alan: I was just trying to find a model where we could kind of test the
 218 theories.
 219 Howard: What about the issue of beyond compliance? Because with an ETS
 220 you're not going to really get that once you've reached your cap, your
 221 permits, your sweetener, I've done what I have to do now, I shouldn't
 222 go beyond that. Whereas with a tax and a price, you're constantly
 223 going to incur that price, you're constantly looking for ways to improve
 224 and if you see that high tax at the start and you know, it's easy to
 225 administer for one...
 226 Wilson: No, but with ETS a broker comes to you and says, I want some of
 227 your credit and I'll pay you for it. If I buy that new gizmo then I can,
 228 yeah.
 229 Howard: Yeah, that's true as well.
 230 Elaine: You also like may over invest because you're know that you're not
 231 going to invest in the following year or whatever. So you've only got
 232 to invest in the new plan or new whatever every several years.
 233 Wilson: I mean, I have to say philosophically I'm uncomfortable with trading
 234 incentives which is in a sense what tradings are, whereas a tax is
 235 crystal clear, it's directly related to some activity. You know, you may
 236 get it wrong and you may price it wrong and all those things, but at
 237 least in my mind I can see the link not somebody who's whole
 238 business is just flogging [unclear].
 239 George: Yes.
 240 Wilson: I realise money isn't intangible. Look at the difficulty we're in in
 241 financial markets now with debt. You know, you've got situations
 242 even now where there are carbon credits are being bought by people
 243 and they're just getting bank rolled somewhere, I mean nobody's
 244 doing anything with them. They're not stopping people travelling.
 245 When you tick that, nobody has said, I'm not going to fly with Qantas,
 246 and ticks the box. It's had no behavioural change and no
 247 improvement on CO2.
 248 Elaine: I think carbon tax is the same.
 249 Alan: Yes.
 250 Facilitator: How do you think the new Government roll out, the new tax on
 251 people? Do you think they'll be reluctant to do that if they weren't
 252 highly taxed? Which ones is palatable?
 253 Alan: There would be. The funny thing is that yeah, they didn't like to
 254 announce the fact that an ETS is basically going to be exactly the

255 same really, the cost on the consumer. So really, if there was a good
 256 education campaign by the Government that said look, this is ETS
 257 and carbon tax are exactly the same, however you want to word it is
 258 fine, but basically an ETS is just a more complex way of tricking the
 259 public whereas carbon tax is easier to administer and we're just being
 260 up front with you and everyone's got to incur costs.

261 Howard: Well if you're taking power then, either way you'll just see it on your
 262 bill. Either way the Government's using ministry to collect tax.

263 George: Under distribution of the allowances, if you give it to the polluters for
 264 free in the beginning they make the money again.

265 Howard: Yeah.

266 Phillip: I would have thought [unclear] auction would be best.

267 Howard: Yeah, I think so too. That'd be the best.

268 Alan: I think the auction would be totally unacceptable. But my
 269 understanding's that's one of the problems of the European scheme,
 270 that they gave out the permits. But didn't they...

271 George: But it changes.

272 Alan: Yes, they realised they needed to auction those permits.

273 George: It keeps changing to [unclear] and then it's completely auctions.

274 Howard: That's almost giving, going right, let's get up all future profits, bring it
 275 back to net presentation, here's all your future profits in one hit, have
 276 it all. That's what it is, giving out permits in one hit.

277 Phillip: It's politically convenient now, with nobody objecting.

278 Facilitator: What about the voluntary market? You mentioned about flying
 279 Qantas and whatnot, sort of buying offsets. Do you think that's one of
 280 the mix, have we decided we should have a mix rather than one tax
 281 or?

282 Howard: That's going to naturally be there anyway. We don't need to state it.
 283 It's going to be there.

284 Dan: That's part of the...

285 Phillip: It's got nothing to do with Government.

286 Howard: It's part of competitive advantage. Some businesses want to be seen
 287 to be green now, others don't. So that's naturally happened...

288 Wilson: When you fly Qantas you tick a box and provide the name of your
 289 electricity company. Qantas sends the money to them.

290 Phillip: Well, you can actually sign up for the green electricity anyway.

291 Alan: Facilitator, why haven't you included on this list, what I think is the
 292 most effective way of reducing emissions, that is energy efficiency.
 293 You haven't included measures to improve energy efficiency, which
 294 reduces the amount of energy and saves money at the same time?

295 Facilitator: Is that the voluntary market?

296 Alan: No. Because it's a Government requirement for...

297 Elaine: The regulation is not on here.

298 Phillip: You get a choice what to buy.

299 Alan: The light globe for example, the home insulation schemes, the
 300 building regulations, the move from concrete which is a very high
 301 energy material, to steel and other materials which are low energy.
 302 These are the sort of things that have the potential to not only save a
 303 huge amount of energy and reduce emissions that way but to save
 304 people money.

305 Facilitator: But won't that happen naturally as a result?

306 Alan: No, because sometimes there's vested interests which stop it from
 307 happening or certainly it happens over a very long time.

308 Phillip: It's also an education process though, that thing that was known...

309 Alan: It is. I mean, you know, how many of us for instance, if we buy a
 310 television would consider that a plasma screen churns out about 300
 311 watts and an LCD way, way less? That's not a reflection on anybody.

312 Phillip: We did that on the last couple of whitegoods that we bought.

313 Facilitator: You want footprints to be more obvious, do you?

314 Alan: Those sorts of things. Then you can save energies which are
 315 Government initiative schemes, like the home insulation scheme for
 316 all its flaws, I think it was very cost effective. But you haven't really
 317 improved that.

318 Dan: Regular Government regulation.

319 Elaine: Direct action as well.

320 Howard: But that would be in there of a mix of it all. Exactly, yeah.

321 Stephanie: I think the star rating on appliances and things are good but the star
 322 ratings are only once you've got them, they don't indicate what was
 323 used in fraction, they're not based upon the life of the appliance. I
 324 think that's one of the issues that we've got with a lot of stuff, that our
 325 ways of representing what the carbon impact or what the
 326 environmental impact overall of different things that aren't very good,
 327 they either look at, it's like the fuel consumption of a car.
 328 Well, that doesn't tell you what the environmental impact of the car is
 329 over its life. So there's production costs and the transport costs and
 330 everything else that go into how, what the value of something is and I
 331 think we need a good scheme for banking and be able to see what
 332 the impact of...

333 Facilitator: In the past I think we've just been the recipient of all this high class
 334 marketing to make us ongoing consumers and now what they're
 335 claiming I guess, is that we don't really want to be uninformed
 336 consumers, that there needs to be some more values put into
 337 consumers...

338 Howard: The thing underlying all of this as well, is...

339 Phillip: It's a very useful thing and I was just talking to Andrew about that,
 340 that CSIRO for example, have got a building research organisation
 341 and can provide very useful information to manufacturers and the
 342 general public about energy efficiency and houses and that would
 343 help people make decisions. That needs to be a Government backed
 344 scheme but we don't see that sort of information flowing through.

345 Howard: Let's keep in mind as well, with all of this that one of the largest goals
 346 of businesses and firms are to have price differentials and so you
 347 can't have easy comparisons. They want to be able to say right, we
 348 don't want complete life cycle analysis on old products. So you just
 349 go right, is a Ford Fiesta better value than a Holden Commodore?
 350 They don't want that because then you just go, right, well that's
 351 obviously better. The facts are there.

352 Elaine: You won't have to legislate the information schemes. But they've got
 353 high transaction costs as well, so.

354 Howard: Yeah, it becomes so complicated. Then you'd have all the
 355 transaction costs of trying to work out all this extra labour going into

356 figuring out each different model, what's it's life cycle analysis. When
 357 that effort can go into something else.
 358 Facilitator: Okay. So we've sort of drifted off the main...
 359 Alan: Yeah, but we're very comfortable.
 360 Wilson: There are two forces that seem to be at work, one is persuading
 361 creators of things, whether they're white goods, cars, energy to
 362 reduce the CO2 in the manufacturing process. Electricity is the
 363 simplest. But what the consumer wants is that to be reduced but also
 364 their costs to reduced. The thing is, these schemes can influence the
 365 manufacture, I think. But I'm not sure about consumers. My example
 366 is, I wanted a washing machine and I thought, well I can justify this on
 367 water consumption. So I did the calculations and it would take 100
 368 years, even allowing for price escalation, some stupid amount, to pay
 369 the price of a new washing machine. Because water's so cheap. So
 370 that's the problem, actually power and water options.
 371 Alan: But you see here, that's the point, isn't it? What if the Government
 372 legislated it to say in the area of water consumptions on washing
 373 machines, so it wasn't up to you to try and do that sort of sum, it was
 374 just the Government said, you can't build washing machines that use
 375 150 litres of water, you've got to build washing machines for each
 376 cycle only using less than 100.
 377 Wilson: Well, I think they're starting to do that by putting energy consumption
 378 figures on which are generally...
 379 Phillip: They're not mandatory, are they?
 380 Wilson: In this case, I have a clunker, so I was trying to do my own cash for
 381 clunker.
 382 Phillip: See, my point is that if the Government provides legislation or rules
 383 which manufacturers have to comply with the cost of that compliance
 384 can be quite low but the effect of it is quite higher. But if you don't
 385 have that and you leave it up to the consumer, it doesn't happen.
 386 Wilson: But again, it's like all of it, it's coming up with a simple model. I mean,
 387 in the supermarket, it would be nice to have some notion of food
 388 miles. I could imagine that the rules for determining that would be
 389 [stink] subject to roting. I mean, we can't even label what's in the
 390 stuff, never mind the energy that went into it. We don't even modified
 391 labels.
 392 Elaine: But we've already got Australian...
 393 Phillip: Australia from imported goods.
 394 Elaine: Yeah, made in Australia. I don't think it's influenced consumer habits
 395 that much. So you've got, I think the point is that what you do to
 396 change business, what you do to change consumers habits, and
 397 they're two different things potentially...
 398 Wilson: I think they're a different mix.
 399 Dan: I think we already have a star rating on electronic items and electrical
 400 items. That is all regulated already.
 401 Facilitator: No, a rating.
 402 Wilson: Those plasma TVs are still walking out the door, people are still
 403 saying plasma TVs are better than LCD even though they're...
 404 Dan: No, no, no. It is better, the new plasma has come, that is much better
 405 than LCD.
 406 Facilitator: In terms of energy efficiency?

407 Dan: The new plasma which is made by Panasonic, it is more energy
408 efficient than LCDs.

409 Facilitator: So what I'm hearing at the moment is you think that the general
410 community, if it's not too painful, are prepared to move and shift in
411 some of their buying habits as a response but also there is a need for
412 combination of policies at the top, either you know, sort of more
413 tending to carbon tax, is that right, rather than the emissions trading?

414 Wilson: Well, an example of direct action is changing of incandescent globes.
415 Now, I suspect if you look very carefully at it it's a joke. Like, the
416 clunkers, where the costs of manufacturing a new car spread over
417 five years that I could keep, my clunker, I'm sure it just doesn't work
418 out. It's a joke. So they've got to be careful how they do the direct
419 tax.

420 Elaine: Banning incandescent globes in new buildings might be a feasible
421 thing to do.

422 Wilson: Yeah, and halogens.

423 Alan: We've got a bad habit putting those new globes in with low usage.
424 We like...

425 Wilson: Yeah, I bet.

426 Alan: My wife bought a washing machine with the water saving and when
427 she found out it was a 50 minute cycle she was not very happy with it.

1 Facilitator: So what we're doing for this one is talking about carbon pricing.
2 Obviously there were some options given there. But which approach
3 of emissions reduction do you prefer from your advice on carbon
4 emission trading, carbon tax, voluntary carbon offsetting, no carbon
5 price at all? So you've got 25 minutes to have a general discussion
6 and then afterwards, once again there'll be a group presentation and
7 I'll only sort of like butt in if I've got some points here that I've sort of
8 been requested to go through.

9 Helen: When we're rabbiting on too much, you'll butt in.

10 Facilitator: No, I'll only jump in if I think it's necessary and yeah. Basically, if
11 you're rabbiting on.

12 Mike: This will be the most contentious one I think, of the whole afternoon.
13 Because this gets back to the nitty gritty. This is the bit where we
14 pay, there's no avoiding the fact. Every one of these schemes has a
15 personal cost in it. What you've got to accept yourself is which cost
16 am I prepared to accept, which will be minimised or more applicable to
17 my stance. So I was terrified when I heard about the emissions
18 trading scheme.
19 I thought to myself, this is dangerous trading, this is worse than the
20 Chicago Stock Exchange. You could be buying and selling things
21 you don't own, things you have no right to, and selling it for an
22 elevated price to someone else. It's like selling air, wasn't it. Now, I
23 think they made a dreadful mistake with the water scheme. Selling
24 up the Murrumbidgee irrigation permits and things like this. All that
25 happened is that it did create a market of traders to trade money you
26 don't own and you sell it to her. Now, you sold her nothing because it
27 worthless but you took it from him.
28 So this is why I came back to, I think a carbon tax is more applicable.
29 Neither of these is totally correct in everything they laid out. Some of
30 the points in one were applicable to the other one too. The biggest
31 thing I thought we'd have to avoid was having the costing of this fall
32 into the hands of the market that can set an artificial price. I really do
33 think if a cost is going to put on it, it's got to be established by
34 Government, what that cost does.

35 Helen: But how?

36 Mike: Now, we are well aware but we're not certain yet, exactly how we're
37 measuring the amount of emission. We heard that in the last lecture,
38 that our mathematics or our own reality is not yet totally correct. So
39 it's got to be adjusted. This year your permit will give you such and
40 such a value. Now, depending upon technological changes and
41 things, next year or the year after, we might hook it up.

42 Female: But how do you decide that in the first place?

43 Mike: That's what I heard earlier on, just before lunch time. We can't at this
44 stage, accurately, we cannot accurately say you are transmitting so
45 much pollution in the atmosphere, we just think you are. Now, are
46 you going to pay money for thinking?

47 Female: Okay. So...

48 Helen: I have a question about the carbon tax that someone might be able to
49 answer and that is, why can't a cap be applied to a carbon tax model
50 as well as the emissions trading model? Why is it always talked
51 about as something that we pay a tax on, there's no cap but why not

52 introduce a cap at the same time as introduce a carbon tax and
 53 dispense with the problems of the trading scheme which I think are
 54 potentially quite real, I don't really know.
 55 Mike: We could introduce bits of one, bits of the other.
 56 Helen: Does anyone know the answer to that?
 57 Kate: Is it that you can't measure? If you've got a carbon tax you can't
 58 measure. You should be able to.
 59 Mike: We can in the coal station because we send so much coal in and so
 60 much out. There's many other industries that don't.
 61 Kate: Well, the tax is supposedly going to actually impose a cap because
 62 people are only going to pay a certain amount for that commodity.
 63 Helen: Yeah, but as a back up measure, as a safety mechanism perhaps.
 64 You know, a bit unlike BHP debacle. A safety cap would be a good
 65 idea.
 66 Kevin: Is it fair to say that, I mean, we're talking about the carbon tax and
 67 emission trading scheme. Do any people give an weight to the
 68 voluntary market or the no carbon price on the human activities at all?
 69 Female 2: No, not me personally.
 70 Mike: Yes, I give the no carbon pricing at this stage in time.
 71 Kate: I think that's an issue as far as, if we're talking about a global process
 72 then maybe we should be trying to, at some point, achieve some sort
 73 of carbon pricing. If you're talking about an Australian approach I'm
 74 not sure that we should be looking at anything at the moment because
 75 it's too different.
 76 Kevin: I was just thinking if we could cross out a couple of things here that
 77 we're not going to discuss here, we don't consider are viable at all and
 78 then concentrate on the other ones. Is everybody agreeable to
 79 cutting out voluntary, I'm sorry the no carbon pricing and are we also
 80 willing to cut out the voluntary?
 81 Kate: The carbon pricing, if we're talking about a global carbon price, we're
 82 looking at the whole world. If we're just talking about Australia as a
 83 standalone carbon price, I think we can't do that at the moment
 84 because we have no idea what price we should be putting on carbon
 85 and if we put any price on it we will be on effectively downgrading our
 86 equity in the rest of the market.
 87 Kevin: So you're saying that there should be no carbon pricing on human
 88 activities? Is that what you're saying?
 89 Kate: I'm personally saying that, unless it's the global one.
 90 Nancy: I'm going with that too.
 91 Mike: It's a consideration.
 92 Nancy: I'm going with the last one too.
 93 Sarah: It could be hand in hand with that though, that if we're not going to put
 94 a price on carbon we can still have an environmental tax.
 95 Kate: Yes.
 96 Sarah: That's what I don't like about this little bit. It should say, but we will
 97 still give money for this global change in the form of, because this
 98 whole part of the world...
 99 Kate: Comes back to our pollution. Should we have a tax that goes
 100 towards that.
 101 Female: I don't know that that's what we're supposed to be talking about
 102 because that sort of isn't given an option here.

103 Facilitator: I think it's relevant.
104 Kate: I think it's relevant.
105 Mike: No carbon pricing doesn't mean no carbon emission. They're two of
106 the same thing really. We can still have a cap on emission without a
107 cost. You just say you won't do it that much.
108 Kevin: There's no way we're going to get a reduction of carbon without a cost.
109 There has to be a cost. The whole question in my mind is, I want to
110 know what I'm going to get from it. Because I was understanding
111 what he was talking about, the first one, the emission trading scheme,
112 you could set a target. You could say we want to, we'd get X result
113 and you could control that, it seems, according to this guy.
114 There has obvious problems with it but you know exactly what you're
115 going to get. As you went down the carbon tax was a little bit less so,
116 the voluntary market was less so and you have no idea what you're
117 going to end up with, as I understood it, with the no carbon pricing on
118 human activities. Nothing in my mind comes for free.
119 Mike: That's just because you assume that there must be a punishment for
120 the emission. Now, what we didn't discuss in there is that at this
121 relative stage in the industry, particularly power generation that we're
122 talking about, there's only a technological advance we can make.
123 We've virtually hit the valley. At this stage in time we don't have
124 better [unclear], but in general 90 per cent of the power that's
125 generated in Australia cannot be improved upon or made more
126 efficient.
127 Kate: Yes it can.
128 Kevin: I totally disagree with that. Totally disagree.
129 Mike: With umpteen billion...
130 Kevin: Not umpteen - well there's a number of ways you could do it. You
131 can do it with renewable sort of energy. Well you may discount that
132 but there's a lot of people that don't discount that. You can also do it
133 with carbon capturing sort of thing which CSIRO is actually working
134 on. There are, you have a lot of older sort of plants. You have the
135 brown coal sort of plants which are the worst emitters. You can
136 replace those with, and they are replacing them with gas fired power
137 stations. They're usually a combination of gas fired power stations
138 plus wind turbine renewable energies to provide the power.
139 Now, that's the line that New South Wales is going on. I'm not sure
140 what Victoria and the other states are going on. That's how they're
141 approaching. The whole thing is not to build anymore power plants,
142 anymore coal powered power plants.
143 Mike: That's totally agreed. But it's the percentage of alternative power
144 generation that's hitting the grid outside of coal which is negligible.
145 Florian: Yeah, because there are no incentives so far. Once we have these
146 incentives like they did in Germany. In Germany you have a fantastic
147 system.
148 Mike: Because what was happening was exactly what could happen out of
149 this emissions trading scheme. The people that bought the land to
150 put up and got the permission to put up the pylons started to sell it
151 again. It's been on sold back and forth. Now, the farmer who owns
152 the land got up and out of it, it's in the land initially.

153 Kevin: Well, that's a very poor farmer then. Because I know the farmers in
 154 my area and how they're dealing with it and they're making sure that
 155 they're getting good out of it. If there's some farmer over here that
 156 isn't equipped, those towers being there, he's a very bad business
 157 man.

158 Mike: What happened was, he gave the permission and sold out to the very
 159 first bidder. Now, what happened is the price kept on going up with
 160 the value of the wind farm. So he didn't cop the benefits.

161 Kevin: I mean, you may bring up some one person that didn't do well, but let
 162 me tell you that is not how it's happening.

163 Mike: But it's still going to be not enough power.

164 Kevin: One thing I should tell you too, we've actually got a community of
 165 farmers who are banding together to put up their own wind farm, right.
 166 Now in my mind these sorts of activities should be encouraged. But if
 167 there's no carbon pricing on human activities and it's just whatever we
 168 feel like doing, I don't think anything is going to happen. I have never
 169 seen people, human beings do something for the good without some
 170 sort of benefit for themselves. I think we're much too...

171 Kate: This is where we were like in Copenhagen.

172 Facilitator: Sorry, can I just hop in there while you're sort of following on about the
 173 point? Like, how do you feel about the current carbon trading policy?
 174 Like the ones that were proposed at Copenhagen, like the ones that
 175 were proposed ETS late last year? How do you actually rate or feel
 176 about what those particular...

177 Mike: Well, that methodology has got a pretty big downer for me because it's
 178 not controlled sufficiently by Government from what I can see. It falls
 179 out into the hands of the private markets and we lose control of our
 180 own sovereign rights.

181 Florian: They were planning to give away these free permits. That's what's
 182 really annoyed me, to the polluters. It's ridiculous.

183 Mike: It still pollutes but other people make a lot of money out of it.

184 Kevin: Actually, I'm a supporter of the ETS because I think at the end of the
 185 day people are going to, if they see a way of making a quid they're
 186 going to reduce their energy if that's what it's going to mean. It
 187 means if they're going to make money they're going to find a way to
 188 make money, they're going to reduce the energy that we need or
 189 whatever. These are the sort of goals that the Government wants us
 190 to meet. But if they don't have that incentive, it's like Communism as
 191 far as I'm concerned. The big problem with Communism is that the
 192 Government told them what to do and people didn't do it because they
 193 don't like being told. So that's why I don't think the carbon tax has a
 194 hope in hell of working from my personal opinion.

195 Mike: I don't think any one of these plans is the total plan. It's really a bit of
 196 a mixture of all of them. If you took away, as I say the private trader's
 197 availability to ETS then it becomes a possible logical thing. With the
 198 carbon tax, I'm not quite sure what the eventual meaning of that one
 199 is...

200 Kate: If you take away the trading scheme then you don't have that scheme.

201 Mike: That's right. You say to this site that you are emitting so much
 202 carbon tax, you should improve it...

203 Facilitator: Liana and Nancy, how do you guys feel about the different options?

204 Nancy: Well, I'm a bit inclined to carbon tax because you know, that would be
205 paid by the polluter but I can also see what it says here so [I agree
206 with these] two people that as long as Australia is a torn country,
207 wanting to do it there's not much point in the first place. You know,
208 we are not the biggest polluters on Earth anyway, are we? Even if
209 the export the coal in India actually polluting but not here actually you
210 know, we have to clean this air, I think.

211 Florian: We are the biggest per capita polluters in the world as well.

212 Nancy: We are the biggest per capita. I know what capita means but it
213 doesn't mean that the country as a whole, that's an awful lot of
214 pollution.

215 Florian: That's right. But still I mean, we have a responsibility. My personal
216 view is, I go with what you say, either a carbon tax or an emissions
217 trading scheme. If you read what's in the next sentence, the second
218 sentence, households will pay more on their next electricity bill, I
219 actually see this as an opportunity. Obviously in both systems we will
220 pay more for our electricity. However, if the Government provides an
221 incentive that we ourselves, as householders, can lower this electricity
222 bill by investing in the renewable energy, I think that is a real incentive
223 and obviously it hits double that because with this you're also lower
224 emissions. So I think that is extremely important.

225 Kate: Yes, but you're not going to do it. Certainly at the moment, we're not
226 up to 2050, are you going to actually lower your costs with renewable
227 energy?

228 Florian: Yeah, you do. You will, yeah. We have a system...

229 Kate: Sorry, in some places you can do it. But the Government is paying
230 for that. You're not actually creating the cheaper energy. What
231 you're getting is a pay off from the Government. We can't keep doing
232 that. It's like, as you were saying, it's like creating a false amount of
233 money that you can just swan around the country.

234 Kevin: What happens with the system that we're talking about here is people
235 put in solar panels and/or wind turbines. In a combination, what they
236 don't need they feed back into the grid and they sell back...

237 Kate: I know, I understand the concepts.

238 Kevin: Now, if you have that across the country right, you have a much less
239 need for power stations, full fire power stations. You can rely on gas
240 fired power stations and you can rely on renewable energy. Now, I
241 mean, if you get rid of using coal fire power stations or even if we cut
242 that down by 20 or 30 per cent, that's...

243 Kate: But you can't.

244 Kevin: Yes, you can. You do it.

245 Kate: Not at the present...

246 Florian: You can, yes.

247 Kevin: But they do it. They do it in Europe.

248 Facilitator: What do Liana and Sarah...

249 Liana: This trading scheme is too vulnerable to shonky dealing, shonky
250 offsets, weird sort of trading loopholes and it's not, I sort of favour a
251 straight carbon tax where everyone knows it's honest. Everyone is
252 hit.

253 Florian: That's right. I agree.

254 Liana: Well, it's a pollution tax isn't it, up front. There's no kind of...

255 Kate: If we can find a way to actually determine that tax.
 256 Liana: And put it into investments, whatever.
 257 Kevin: But the thing is, you don't know the results, you don't know what
 258 you're going to get. Like, one of the things you were saying, by going
 259 that way, you can't measure the results that you're going to use. It's
 260 a hit or miss sort of thing. You say that, like you were saying, you
 261 don't know how much, what level to put it in. Whatever price you put
 262 on that tax will impact on how much...
 263 Liana: You're going to be hurting people which it just seems it's going to be
 264 necessary to hurt people.
 265 Sarah: As Andrew's just pointed out, sorry Liana, I'm interrupting.
 266 Mike: I think if it was to be introduced at a level that was just too painful and
 267 drop it back to just an acceptable one and then creep it back up again.
 268 Kevin: But you're never going to be able to know exactly how much, how
 269 many you've actually reduced.
 270 Liana: I think there are ways of measuring that.
 271 Kevin: According to the [unclear] what he was saying, that is the problem, is
 272 that you can't measure it. Now, that's why I like the ETS.
 273 Mike: I agree with you about alternative energies. But they've got to be
 274 introduced in an economical fashion.
 275 Kevin: They are.
 276 Mike: If we're talking about 100 years, there's no sweat. If we're talking
 277 about the next election, three years or something, we're not going to
 278 get wind farms up, are we.
 279 Helen: But that's what I think, right now today we could start a Medicare levy
 280 for the environment and have it at a really low level, start off just
 281 getting it, and we want to call it a carbon tax or an environmental levy
 282 or something and it's really low percentage wise. We get the,
 283 everybody's you know, when the BAS came in, all the small
 284 businesses had a banana and it took like two or three years just for the
 285 mechanism of it all to get into place. We could start getting money in
 286 the coffers really soon. Okay, do it that way, say right, we're going to
 287 have this Medicare levy start, in three or five years when we've
 288 decided you know, what's the rest of the world doing
 289 I'm leaning on the carbon tax side of things, when we've got a better
 290 handle of how we're going to account for this then we can introduce
 291 that and either keep this environmental level or reduce it and follow
 292 through with the more sustainable carbon capturing message
 293 accounting.
 294 Facilitator: There's a real divide.
 295 Kevin: Yeah, well.
 296 Florian: Well, there's a very dangerous thing in this discussion, that we tend to
 297 follow what the fossil fuel industry is telling us, that renewable are not
 298 economical, that they are not ready, they are not, this is simply not
 299 true. This is simply not true. These days it's possible to run a
 300 system, and you'd know much more about this, I understand. It
 301 certainly is possible with the right incentives to generate, as a
 302 household, to generate at least part of the electricity you're using
 303 yourself. Either you use it directly or you feed it back into the grid and
 304 get paid for it.

305 That's clearly the case and it's a big, big success, particularly in
 306 Germany when it was introduced a few years back. In addition it has
 307 created enormous numbers of jobs, 300,000 jobs and it has created a
 308 new industry. By the way, this industry was the only one that was
 309 actually not affected by the recent recession in Germany, the
 310 renewable industry. So I definitely believe Australia is missing the
 311 boat here like there's no tomorrow.

312 Helen: That's why I want this environmental tax thing to start tomorrow.
 313 Start it tomorrow and the rest of it we feed into it and we grow from
 314 there.

315 Florian: Medicare for the environment.

316 Helen: It needs it.

317 Sarah: The administrators are already there. The department that governs it
 318 is already in place.

319 Helen: The structures are in place, we know how to do deal with it, okay
 320 everybody will have to pay a bit more. Immediately the Government
 321 will have money that can start putting in infrastructure to help
 322 renewable, if that has to go into communication, promotion, marketing,
 323 killing Alan Jones, I don't know what it means, it can start spending
 324 money now, not in three years, not in six years, not in 10 years.

325 Mike: [unclear] of the renewable energy. I had a friend who had a heated
 326 swimming pool, panicked. \$25,000. Now, how many people can
 327 throw that sort of money out? When you're living in a home unit
 328 you've got to contribute to power reduction that way. So what we're
 329 talking about renewable energy can only apply to a rather small
 330 segment of the economy unless it becomes then a governmental...

331 Facilitator: There's five minutes to go and this is really interesting because there
 332 is sort of different opinion. Maybe, are there some people that feel
 333 that they're closer aligned to others that maybe can summarise their
 334 version and would sort of like to show where the debate's at?
 335 Because like I don't think it's going to...

336 Sarah: There's the homicide faction over here.

337 Facilitator: I don't think it's going to get satisfactorily resolved.

338 Kevin: I'm against it but I would say that the carbon tax would be the prefer
 339 option of us all.

340 Mike: A form of carbon tax, I think.

341 Kevin: I disagree, you can say what's the ETS because I believe in a market.

342 Helen: You could split them into four.

343 Sarah: I was just thinking about that, I thought we could actually divide this up
 344 a bit because that's okay.

345 Mike: I don't trust the markets.

346 Kevin: Well, I do.

347 Mike: It's the traders that worry me.

348 Sarah: So we are split up, we have carbon tax.

349 Mike: You could almost use the word modified carbon tax because we don't
 350 agree fully with everything that's on the board.

351 Sarah: Alright, carbon tax concept. Because you know, I think methane's in
 352 there somewhere as well. I'm sure we're not just talking about
 353 carbon here.

354 Kate: Well, actually carbon is the start of life.

355 Sarah: Well, that's true. You're absolutely right, we're talking carbon.
 356 You're absolutely right. Okay, well let's just write a few points about
 357 the carbon tax approach and why we prefer this.
 358 Mike: Who's is going to be levied on it. We have a carbon tax, who? We
 359 can only then, at this early stage, major polluters.
 360 Sarah: Yes, okay.
 361 Mike: Later on we'll drag in everybody.
 362 Sarah: But you know, if it really came down to it, and I am running my dryer
 363 say, and I am running the heater because it's winter, and, and, and,
 364 and, I personally don't have a problem with paying a tax on those.
 365 Even though it's going to diminish my...
 366 Mike: You will be paying the tax so much and the cost will be going up. As
 367 soon as this carbon tax is initiated on say the power generators...
 368 Sarah: So when the actual supplier gets taxes those are passed on to me and
 369 if I decide to put my power back into the grid then okay.
 370 Mike: You'll run out and hang the clothes on the line.
 371 Sarah: Yes, which is what I could do.
 372 Florian: Okay. [unclear] produce and put into the grid.
 373 Helen: I'm doing that anyway.
 374 Sarah: Precisely.
 375 Helen: I know, some days.
 376 Mike: So all of these are a bit of a carrot...
 377 Sarah: Nappies are disposables, what do you do.
 378 Facilitator: There's a couple of minutes. What about, what's your counter or
 379 amendments.
 380 Kevin: Okay. My approach would be ETS basically because I believe that
 381 the market will come up with more creative ideas and I believe it's the
 382 most efficient way of going about it. You will know exactly how much
 383 carbon you're going to eliminate from the environment. Whereas
 384 with none of the others will you know. As far as I'm concerned that's
 385 important. Those two aren't.
 386 Sarah: You said it provides efficient...
 387 Kevin: It's the most efficient way of regulating the amount of carbon and you
 388 know exactly how much carbon you're going to be using or allowing to
 389 be used.
 390 Mike: Well, that's the cap.
 391 Kevin: Yes, that's the cap.
 392 Mike: We're putting a cap also, aren't we, on the carbon tax?
 393 Sarah: No, because you can't do it apparently. I don't understand why.
 394 Andrew tried to explain it and I'm sorry, I just don't quite understand it.
 395 Mike: This is why I thought it was a double level.
 396 Kate: Because it's an economic concept that it finds its own cap.
 397 Sarah: The market sets the cap. But if you don't, but I worry about that, I
 398 have concerns about the carbon tax from that point of view.
 399 Facilitator: Okay, are there any other major points that anyone thinks should be
 400 raised?
 401 Mike: Well, yes. There are many, many things in this life that you cannot
 402 minimise. That's it. You've got to eat, you've got to have food. So
 403 it's all very, all that talk of we'll minimise the usage of these things
 404 through increased costs. Well, most of us can't.

405 Sarah: But there are things that we can, I mean we don't have to eat beef
 406 seven days a week, you know we don't have to do that. We choose
 407 to, we like to, it's a luxury that we have in this country, but we don't
 408 have to eat like that.

409 Kate: Well, you could put a tax on it then it becomes very expensive.

410 Facilitator: So what would be the question, can you minimise it? Does it work,
 411 can you minimise it?

412 Mike: Well, yeah. Minimisation. A financial tax doesn't work. It's not
 413 acceptable.

414 Florian: I just want to repeat, it's really important, if we get this tax that
 415 increases our costs, let's say for electricity, if we have a tool to reduce
 416 our costs in the form of let's say, of renewable energy, that becomes
 417 an incentive, it's very important.

418 Helen: So you think reducing cause and reducing cost.

419 Florian: Yes, it's an incentive to reduce your, that's what I mean.

1 John: All right. So I guess we were working through the question of which
2 one we sort of prefer there. The group sort of was split down between
3 - really it was between the carbon tax and the emissions trading
4 scheme. We did a vote that was sort of if you had to go for one, which
5 would you go for? It was three and three between the two. In the end,
6 though, we decided that it wasn't a particularly great way to look at
7 the problem and a combination of the - well, there were three. We
8 sort of ruled out voluntary markets as a little bit fluffy.
9 But yeah, a combination where perhaps, you know, looking at it a little
10 more pragmatically, if it's politically more viable to put in a carbon tax,
11 if it's being more accepted by the public, then even if that wasn't the
12 ideal solution then a carbon tax is perhaps a great way to get people
13 in there and familiar with measuring their carbon outputs and that sort
14 of thing, really familiar with it. Say in the future, if it became apparent
15 that it would be more efficient to have a trading scheme then it would
16 have laid the groundwork to move into something like that.
17 Regulations we thought might have been a pretty important part of it
18 as well; regulating things like housing, especially for things like
19 energy efficiency, so things like double-glazing, insulation, designing
20 houses properly and that sort of thing would be great as well. Then,
21 as I said, it was a split between the ETS and the carbon tax. The ETS
22 did, as we were saying, have the advantage of almost guaranteed
23 reductions, if you will, but the carbon tax was perhaps something a
24 little more flexible, a little easier to understand, a little more simple so
25 in that sense it might have been more accepted politically.
26 Is there anything else I had to add in there?
27 Facilitator 1: Thanks John. We've got George now, is that right?
28 George: Yes.
29 Facilitator 1: George has some European experience to add to the flavour of our
30 discussions.
31 [Over speaking]
32 George: Okay.
33 [Laughter, over speaking]
34 George: I think our result was pretty similar, like some would want it just for the
35 carbon and some would want it just for the trading system and that
36 often depends on the industry. The general advantage of the carbon
37 tax was, for example, like certainty about price for the enterprises and
38 especially for consumers, it's easier to grasp and it's easier to
39 understand what is it about because even here we have sometimes
40 problems with understanding the trading system.
41 Whereas for the trading system, you have a guaranteed cap, as
42 [unclear] mentioned, that gives you better control about development
43 of the reductions. It is more flexible, of course, and on the other hand,
44 it was, of course, [inaudible] and the distribution is really hard to figure
45 out who gets the allowances.
46 As for the carbon tax, the money always goes to the government so
47 you could cut down on other taxes, but probably no government will
48 ever do. There's this third measure that is the regulation. What is
49 sometimes useful, for example, for the light bulbs or for some
50 efficiency, for example, the washing machines.

51 So it is basically, yeah, need for some kind of combination of all three
52 measures, or if you take voluntary action as a measure, too, it comes
53 from information about, for example, how much fuel uses a car and
54 how is - the overall efficiency of a car or of the washing machine. So
55 that's something you sometimes cannot regulate but you have to
56 provide information that consumers then choose the right one. So
57 they're all pretty similar.
58 Anything else with that? No?

59 Helen: Well, pretty much like the others, I think that we had generally split
60 consensus. Most of us...

61 [Laughter, over speaking]

62 Helen: Split into two camps of consensus. These people consented...

63 [Laughter]

64 Helen: Okay, so this person consented...

65 [Laughter]

66 Helen: They're fairly - and the principles that we have formed - essentially we
67 have basic principles that we liked. One was that with the carbon tax
68 concept we liked that it was fairly simple, it was straightforward, we
69 could understand it, it was tangible. Who would we say to be taxed?
70 Well, we felt that the big polluters would be the people who would be
71 taxed. That would then be funnelled down through to the general
72 users. So the large power stations, for example, would be taxed. We,
73 then, the end user, would pay higher prices. So we'd all end up
74 paying a little more.

75 One of the key points that came out of that was that we felt that it
76 would provide incentives for reducing energy emissions. So in the
77 case of a power station again, there's great incentives there for
78 people to think about how to create their own renewable energy, you
79 know, at the home base. So we might put up our own wind-powered
80 generators or we might put up solar generators and then we might
81 cell that back into the grid. So the individual might, in fact, benefit
82 from a system such as carbon tax.

83 The emissions trading scheme concept was - you know, actually, we
84 kind of wanted a bit of both. We really wanted a little bit of each.

85 Some of us wanted to see carbon tax with a cap but then as Andrew
86 explained, that wasn't really going to work in a market place. So
87 maybe that might be something that we could find out a bit more
88 about because some of us did wonder about a cap on a carbon tax
89 and why that might not be a nice combination of the two principles,
90 but perhaps there won't be time for that description.

91 Do you want me to keep going or do you want to...

92 Andrew: ...thirty seconds. I guess, yeah, I mean the cap really is something
93 that [inaudible] the emissions trading rather than the tax. You don't
94 know in advance [inaudible] how much people are going to [inaudible]
95 so how much tax they're going to pay, so there couldn't be a flexible
96 cap with a fixed tax rather than lower price.

97 What we could do is still mix the two, perhaps have some of the
98 bigger companies, say power stations or say the biggest 200 polluters
99 in the emissions trading scheme where they have all these extra
100 benefits such as training and flexibility within the cap specific to them.
101 [Inaudible] the next one or two thousand polluters could put their tax

102 where it's simple, where there's no minimising transaction costs so
 103 you're not having to monitor - you know, several [inaudible] so there
 104 may be ways there to [inaudible]. Yeah, in many cases there are
 105 ways that they can be used...

106 Helen: Okay, thanks, Andrew. But also as a market-based approach that our
 107 ETS supporter felt that it was also a way for efficient strategies to
 108 regulate emissions to be built in. So the market place would in fact
 109 determine and come up with all sorts of creative ideas about how, in
 110 fact, emissions could be kept low.
 111 Now, would anyone else - Florian, did you want to say anything about
 112 the German experience you were describing? No?

113 Florian: Well, I can. Our point is that if - it's because if we have this tax, if we
 114 get a tax, whatever kind of tax, if households get the opportunity to
 115 reduce the increased cost by generating their own power, that's an
 116 incentive but obviously at the same time it again increases our
 117 dependency on fossil fuel power generation.

118 Facilitator 1: Yeah, there seemed, in our group as well, to still want the household
 119 involved and some incentive for people to be involved in all of this
 120 rather than it be an external tax thing or policy dumped on them. I
 121 think that's the general feeling that we've had in the room. It might be
 122 the converted here that people should be involved at some level in
 123 what's going on rather than appearing to be punitive, I'm guessing.
 124 Now, did anyone have any more questions of Andrew since after the
 125 discussions? You know, was there enough clarity in the options and
 126 the description of the emissions?

127 Male 2: Can I ask a sort of statement/question? If you have a tax-based
 128 system and you get it completely wrong you can change it. [Inaudible]
 129 you've got these intangibles that have some now artificial value and
 130 you've got to think about paying people out or something. Is that a
 131 real problem?

132 Andrew: Absolutely, yes. With an emissions trading scheme what we do when
 133 we're creating property rights, so [unclear] basically form a property
 134 and you know, even if we say we can take this back at any time we
 135 see fit. You know, the Supreme Court have a funny way of
 136 interpreting these things. In other - for example, with fishery quotas,
 137 where they've done a similar sort of thing, they've put a cap - they've
 138 put a quota on how many fish can be caught and handed that quota
 139 and then decided, oh, we want to take some of it back. [Inaudible] the
 140 court and they say, no, this is property, you can't trade it back without
 141 [consultation]. So yes.

142 Male 2: ...irrigators...

143 [Over speaking]

144 Andrew: Yeah, it's much more difficult to pull back those [inaudible] emissions
 145 trading scheme. Once you've started it, it's - yes, it is problematic.
 146 [Inaudible] I think you're right that it should be much more
 147 straightforward to change the level or the [unclear] of a tax.

148 Facilitator 1: But doesn't it depend on how, if it turned out successful, whether it
 149 was six months or twelve months and you could have a scheme
 150 where you had to get new ones annually, you'd have different
 151 implications to having ones that lasted forever.

152 Andrew: Yes, absolutely. Yeah, there could be ways like that that could
 153 minimise some of the legal problems. I think that's still the major - it'd
 154 still happen but at least you'd have [advice] on your hands politically,
 155 [inaudible] legally yeah, you know. The emissions trading scheme
 156 [inaudible] CPIs, for example, were that once it was in place it was
 157 going to be very difficult to change it down the track. So yeah ...
 158 because it's difficult to impossible to pull them back or to stop
 159 [inaudible]. So yes...

160 Male 3: If we use the word levy instead of the word tax...

161 [Laughter]

162 Male 3: ...change the actual structure of it? In other words, a levy can be
 163 applied, changed and removed at any time. The first initial period
 164 would be one in three [unclear]. You can appreciate our rate of gain
 165 or rate of loss, where we stand on the relationship. We're [inaudible]
 166 which is the thing that neither of these plans showed up in here; they
 167 seem to be inflexible. Our discussion was, look, we like some of the
 168 points here, we like some of the points there. Can't we pull this one
 169 out of here and tick it into there?

170 Andrew: I mean I guess you could have a system where the tax or the levy,
 171 whatever you call it, but yeah, the government could change it so that
 172 you could perhaps get an [inaudible] of what the carbon tax is going
 173 to be for the next six months or the next twelve months. I see no
 174 economic reason why you couldn't do that. It would be subject to,
 175 shall we say, the political cycle and whether the government would be
 176 able to do this in a way that's effective for reducing greenhouse gas
 177 emissions rather than [inaudible] newspaper headlines would be
 178 difficult.

179 But yes, certainly a tax can have some flexibility, albeit less in terms
 180 of price. So yeah, you can change it but it wouldn't change as much
 181 as you have a market price in a garden market, for example. So what
 182 you saw where there were carbon markets when the global recession
 183 started a couple of years ago was the oil price halved, the copper
 184 price halved, the carbon price also halved...

185 Carbon price, you know, you could ... reduction. It could be changed
 186 by government but it would be slow to respond. But yeah, certainly it
 187 could have flexibility. Yeah, [inaudible] for example, you could change
 188 it. Whether they would and whether that would be practical and
 189 whether it would ... I don't know. Yeah, certainly emissions, it would
 190 be a bit of a guessing game as to where we set the tax and the best
 191 tax [inaudible] emission. They'd probably start it conservatively,
 192 probably start it low and increase it upwards ... reducing emissions
 193 and whatever a rational target is ... for reductions. So yeah, I think...

194 Male 3: I guess it's early days for trying to come up with a definite ideal at the
 195 moment just because all three of them, and it should be on this, have
 196 some conceptual exact addendum ... came up with the ETS,
 197 reconsidered. It fell into the hands of merchandisers. [Inaudible]
 198 money, you're probably going to get back and we had hoped that
 199 you'd say research in renewable energy projects and things like this.
 200 It just ends up in the back pockets of the wrong sort of people.

201 Andrew: There's certainly a lot back to ... markets...

202 Facilitator 1: We just have one more question over here.

203 Male 4: Given that the US has committed to a cap and trade system and the
 204 Europeans have already got an emissions trading system like that,
 205 and we heard today that the Chinese have got an emissions trading
 206 scheme, how has that constrained Australia in its options on one of
 207 carbon tax versus an ETS?

208 Andrew: Yeah. It doesn't have to constrain Australia. There are different ways
 209 in which Australia could engage with international schemes, be it a
 210 sort of global UN scheme like Kyoto or be it other nations' schemes.
 211 If, say, Australia just had the carbon tax there'd be some uncertainty
 212 about whether our emissions would be higher or lower than an
 213 international target. Potentially, the Australian government could just
 214 trade surplus [permits] with other countries or buy additional permits if
 215 they're short.
 216 So I think having a carbon tax wouldn't stop Australia at the national
 217 level from engaging with the markets. But it would [inaudible] at the
 218 national level rather than the individual [unclear] themselves going
 219 forth and trading internationally. Yeah, so that could still be - that's
 220 what we've ... we have the energy in the heavy industry sectors ...
 221 emissions trading scheme in Australia, maybe that could interact
 222 directly with the national schemes. While smaller industries, smaller
 223 emitters, just pay a tax and again the government [inaudible] itself ...
 224 to get that flexibility so we know wherever our emissions happen to
 225 be that we can ensure...

226 Facilitator 1: Just one thing that struck me was that it's quite complex, it's very
 227 difficult to get the concepts across and that there's been an obvious
 228 need for the community to be more informed. Now, can you see that
 229 being a task that would be undertaken and could be undertaken, that
 230 would allow to bring the community along with...

231 Andrew: Certainly. I think so. Just what I've seen here today - obviously for me
 232 ... the conversations I've heard there's virtually nothing I disagree
 233 with. Yeah, I think people will need to have a better understanding of
 234 exactly what's being talked about, which doesn't come across through
 235 the media. The big problem is there's so many self-interested groups
 236 and so much ... people that were trying push their self-interest upon
 237 us. It's coming from companies who fear that their relative costs are
 238 going to rise [inaudible] go to great lengths to [unclear] influence our
 239 opinion in ways that suits them.

240 Facilitator 1: Is that any different to when they develop a new policy or do you see
 241 climate change being significantly different?

242 Andrew: Well, I mean, we've probably seen exactly the same thing with mining
 243 tax, haven't we? Which again was another a tax that in economic
 244 terms of - I'm no expert on that but the ... people were certainly very
 245 thorough and comprehensive in recommending it and ... There were
 246 newspaper polls saying that 70 per cent of people were opposed to
 247 the tax and some people saying ... That's what the next question
 248 should be: do you actually understand the tax?

249 [Over speaking]

250 Andrew: ... They still managed to oppose ... which is an interesting state of
 251 affairs. So yeah, I think they can only be the lateral ... people actually
 252 understand what the scheme talked about. There's definitely a
 253 chance to do that.

254 Male 4: So it's a way to talk about [inaudible]. I mean why not talk about it as
255 pollution harming us instead of this Catholic sort of system that
256 impacts on the whole environment? Don't you think that most people -
257 isn't there a simplified way of doing it?
258 [Over speaking]
259 Facilitator 1: Okay, we'll have a cup of tea and we're going to bring it back to our
260 tables so that we don't lose any time. So if you grab your tea, a brief
261 bathroom break and get those yummy cakes and come back to your
262 tables.

- 1 Facilitator: The development of low emission energy technology.
- 2 Brian: I think I'd better get into that.
- 3 Facilitator: Including carbon capture and storage and solar energy.
- 4 Male: Right up your alley, Brian.
- 5 Facilitator: The other interesting bit is it complements the government's
- 6 expanded renewable energy target. So that is by 2020, 20 per cent
- 7 of Australia's electricity supply will come from renewable sources.
- 8 Okay, so looking at the figures - \$5.1 billion equates to around \$35
- 9 per person per year - and this is only people who are working...
- 10 Male: That's Brian.
- 11 Male: Working aged population.
- 12 Facilitator: Yes.
- 13 Female: That's not a lot of cups of coffee really.
- 14 Facilitator: Okay, so you've got that as background and you've also got - it gives
- 15 you some idea of what else is being spent - how much money is
- 16 being spent in other areas on the other side. It also tells you over the
- 17 page what the renewable energy by country is. Look at Austria - 70
- 18 per cent of its electricity production is via renewable energy.
- 19 Australia's only 7.5 per cent at the moment.
- 20 Male: Austria's full of lakes up in mountains and stuff. It must be all...
- 21 Male: Austria's hydro-way. Germany - it would just be important for
- 22 electricity.
- 23 Facilitator: Spain's 21 per cent. Germany is expensive.
- 24 Male: Wind in Spain?
- 25 Male: Solar in Spain.
- 26 Male: They have windmills there with Don Quixote turning them round.
- 27 Facilitator: So we have a few questions here just to spark the discussion again.
- 28 Now, assume the required \$5.1 billion would be drawn from a new tax
- 29 to be imposed on individuals directly by the government. So do you
- 30 think that \$5.1 billion is enough? Therefore \$5.1 billion, which is \$35
- 31 per person per year - is that enough?
- 32 Male: No.
- 33 Male: No.
- 34 Male: Nowhere near enough.
- 35 Cynthia: Not if they're going to include carbon capture and storage, which is
- 36 such a waste. You take that out and there's not a lot left for the really,
- 37 really sensible research.
- 38 Male: Also, the amount is so small. \$1 a week would be \$52, which is 40
- 39 per cent more than that.
- 40 Male: They're spending about eight times that much on the broadband
- 41 rollout.
- 42 Male: I think Australia could afford a lot more than that.
- 43 Facilitator: So you think it should be more than \$5.1 billion, which would be
- 44 greater than 20 per cent renewable by 2020?
- 45 Cynthia: I reckon you could sell \$1 a week. That's simple, it doesn't sound like
- 46 much.
- 47 Male: That's only for research and development.
- 48 Cynthia: That's what we're talking about. We're talking about that research
- 49 money.
- 50 Facilitator: So would you all be willing to contribute more than...

51 Male: But imagine, Brian, the payoff could be enormous if we capture the
52 energy from the sun for \$1 a week - imagine what the payoff would -
53 the payoff would be forever.

54 Male: Imagine how easy that would be to sell - you were saying that. You
55 were saying that - that's easy to sell.

56 Cynthia: \$1 a week.

57 Male: This is \$1 a week for the government to do research.

58 Cynthia: Yes, that's true.

59 Male: Not to actually solve the problem - it's just for them to research how
60 they're going to resolve it.

61 Male: They'd be getting...

62 Male: But we're never going to get to a solution unless we do the research
63 together.

64 Male: Ah sure. I'm not opposed to it, I'm just saying...

65 Male: But then in relation to thermal solar, a lot of this research has been
66 done and a lot of it's been - like you said, in Spain, it's been proven in
67 Spain now. So maybe some of that could go - not just into research
68 but into...

69 Cynthia: Its implementation.

70 Male: Its production here. That's the best research.

71 Male: Of course, what no one's mentioned here yet is nuclear energy,
72 where the research is also being done.

73 Male: That's not renewable.

74 Cynthia: Uraniums.

75 Male: If uranium runs out...

76 Male: It's low emission.

77 Male: How long would it take for the uranium to run out?

78 Male: About as long as coal.

79 Male: Would it? Three hundred years? Three hundred years is the
80 estimate on coal. If we just kept using it...

81 Male: A hundred's probably a little more accurate with coal.

82 Male: Well that might tide us over until we got to Brian's solution. Capturing
83 energy from the sun.

84 Male: You see, the thing is, this question says would you financially support
85 the development of low emission technologies. Tick yes. But then
86 the box is actually not about supporting low emission technologies,
87 it's about doing research into developing low emission technologies.
88 Like Cynthia said, if half of that \$5 billion's going to go into
89 researching carbon capture and storage, it's kind of like - where is this
90 research money going to be spent?

91 Female: It says research and development. Does that mean building the
92 infrastructure as well?

93 Facilitator: Yes. Research and development...

94 Female: So that's the worrying thing.

95 Male: R&D usually means just doing the research, it doesn't usually mean...

96 Male: There is money going into a pilot project for the carbon capture and
97 storage...

98 Male: So part of that is going into this pilot project.

99 Male: Yes, but it is going into developing the technology.

100 Male: Building a pilot.

101 Male: Yes. To see...

102 Male: You know, \$5 billion is what they reckon it would cost the government
 103 to build a second airport in Sydney. Sydney airport, you know -
 104 they've been tossing around how much money would it cost to build a
 105 second airport - that's \$5 billion. That's the kind of money we're
 106 talking about now.

107 Claire: I think we should be - you know - multiplying it by ten.

108 Facilitator: Do you have any preference for how it should be collected? Should it
 109 be via the GST or should it just be like an income basic tax, or...

110 Male: Well the GST - that means people can't avoid it. Even Kerry Packer
 111 had to pay GST.

112 Ross: Or in the style of a Medicare levy.

113 Mark: Hang on. I reckon this amount of money is absolute chicken feed and
 114 once again nobody is saying what would you be prepared to - it's like
 115 the annual flu or whatever. I reckon this is just a basic thing that the
 116 government should do. It shouldn't be singled out as it'll be a
 117 separate levy. We should expect the government to spend this
 118 pathetic amount of money without it - there's all other worthy causes
 119 that are not - appear extra - you know, it's discretionary. I think they
 120 should just get on with this and I think [they'd object to that]. If we're
 121 going to have a special tax I think we should have the politicians' free
 122 air travel after they retire tax, which would appear...
 123 So I think making it a separate levy gives it a visibility which is unfair
 124 in comparison to all the other uses of money.

125 Male: But I think it does give it that visibility and it also provides a bit of
 126 accountability later on. Doesn't it?

127 Male: Where's our ... Where's our \$5.1 billion worth of research gone? It
 128 just doesn't go into consolidated revenue...

129 Male: Okay, but all we'd be forking out is 70 cents a week. There's two lots
 130 of things here. There's a figure that they're throwing out here, the \$5
 131 billion to do some research and a bit of development. I agree with
 132 him, they should just spend it. They just blew \$8 billion because they
 133 didn't deal with the miners, right? They could have just [inaudible] in
 134 the \$8 billion, right? That would have been easy. But where the
 135 really big money is needed, I think, you know like 10 times that, that's
 136 needed to actually do something rather than...
 137 There are some things that can be done immediately that they could
 138 do if they wanted to, they could spend lots of money if they wanted to.

139 James: ...For instance - and I think Claire said it - increase that amount by 10
 140 times that, so that's \$350 a year for research, development and
 141 implementation. Now that covers the lot and it gets it out there so it
 142 just doesn't sit on the shelf - but we get it out there. I agree with Ross
 143 about a levy.

144 John: The Medicare levy is \$1000, you know.

145 Cynthia: But to take up the accountability - I'd like to know what that's going to
 146 be spent on, so...

147 Male: It goes into a levy where the money is dedicated to that purpose...

148 Cynthia: Australia's got all these resources, like geothermal, solar - that's
 149 where it goes.

150 Ian: You have a commission of some sort that is responsible for running
 151 some sort of...

152 Female: We set up a jury or something.

153 John: Constructed in a way that - the ACT solar power plant was one of the
 154 proposals last year. We go and lobby the government and said hey,
 155 can we have some of this \$5.1 billion or whatever was decided on for
 156 this project and they say have a million dollars. You've got that
 157 system that federal funding, the community based projects or even
 158 state government projects.

159 Facilitator: So it sounds like you're all saying - see if there's agreement - that
 160 you'd prefer to pay more than \$35 per working person per year.

161 Male: A lot more.

162 Male: But I think there is a bit of fine print...

163 Facilitator: But talking about what it's going to achieve if you're going to do that.

164 Ian: So we'd have to have goals. So what we're going to do in - this is
 165 what you're going to pay and this is what you're going to get in 10
 166 years' time.

167 Cynthia: Yes, and they're measured on those targets.

168 Ian: Yes, and every five years someone has to report to the parliament on
 169 how close we are to achieving those goals.

170 James: All the money is dedicated to establishing a low carbon economy.

171 Facilitator: Okay. Would you - say you wanted to pay more than that - I don't
 172 know how much more because that comes in the survey - if you
 173 wanted to pay more would you still be prepared to do that if there was
 174 say a global financial crisis or something like that? Should it be
 175 changed if we go into recession?

176 Brian: We all had to pay the Medicare levy last year didn't we? Whether
 177 there was a financial crisis or not, everybody still had to fork out for
 178 the Medicare levy.

179 Cynthia: Unless they're in a private health fund.

180 Brian: Everybody still had to fork out that, so why not?

181 Claire: Really there will be an environmental crisis if we don't act urgently
 182 and then there will be no economy to worry about.

183 Brian: There'll be no Medicare levy to worry about either.

184 Facilitator: So someone mentioned \$350 per person a year. Would you still be
 185 prepared to pay that if, say, only 30 per cent of Australians would be
 186 required to pay [inaudible] taxes? Would that still be okay?

187 Male: You mean low income earners? I think it would be fair to exempt
 188 some people from it.

189 Male: Well, the Medicare levy works on a percentage and you could work it
 190 out such that it works out as an average of \$350 per person across
 191 Australia, but through the Medicare levy arrangement where it's a
 192 percentage of your income, so the lower income people would pay
 193 less and the higher income people would pay more.

194 Male: So link it into incoming earnings.

195 Facilitator: Okay, so the government's saying ... tax, yes, I believe that was what
 196 was planned. So the government's saying by 2020 20 per cent of
 197 Australia's electricity supply would come from renewable sources if
 198 we pay this amount.

199 Male: They're not saying that are they?

200 Facilitator: This apparently is part of their standard renewable energy target.

201 Male: So this is the target, yes.

202 Facilitator: So would you still be prepared to pay that amount if only 15 per cent
 203 of our electricity supply came from...

204 Male: Well I think - isn't what we've told here is that \$35 per person is
205 enough to get Australia to 20 per cent.
206 Female: So if we're going to do 10 times the amount...
207 Male: Ten times the amount - I'd expect it's a bit more.
208 Female: A bit more bang for the buck.
209 Mark: I'd make it conditional that if we're going to be investing in research it
210 should be genuinely research, you know - the patent should end up
211 being owned by the Australian people so we can get a payback on
212 our research. There should be a bit of accountability and it should not
213 be about propping up an existing industry sector like coal - because I
214 think they can do that, they've got a financial stake in it.
215 Female: The 20 per cent is just a target, they may not reach that. But we have
216 to start somewhere. I'd be happier if it was a higher target.
217 Female: It doesn't seem huge, does it, by 2020?
218 Male: Well, look at Spain already at 21 per cent.
219 Male: No ... it's already doing seven per cent ... of the hydro power down
220 here and in Tasmania. We're already at seven per cent because of
221 the hydro power.
222 Female: We haven't done much more
223 Male: No, we've done stuff all since then. So we're already getting seven
224 per cent and we've been getting seven per cent for the last 20 or 30
225 years.
226 Male: No, it's probably been 40 in fact.
227 Male: Yes, so in fact - 20 per cent of that looks big but in fact it's only 13 per
228 cent on top of what we've been doing for 20 or 30 years.
229 Female: So it's pretty small.
230 Male: So it's not exactly a huge leap.
231 Male: But the problem you run into though is you still have to have the
232 baseload power, and that baseload power is going to be provided by
233 gas and coal and nuclear.
234 Male: No, you can do it other ways.
235 Male: In what way?
236 [Over speaking]
237 Male: A hell of a lot more than \$5.1 billion.
238 [Over speaking]
239 Male: ...R&D funding. Construction funding is a different issue. I think
240 maybe it's worthwhile reminding ourselves that we've got either a
241 carbon tax or emission trading scheme which is ... to move to ...
242 economy. So that already motivates them to think about...
243 Male: Are you going to use some of that money from the carbon tax to fund
244 this research and development?
245 Male: Why not?
246 Male: Well, if you're making money from a carbon tax this is a question of...
247 Male: Well we've got to do something with it. If it's going to go into
248 consolidated revenue it might as well go into this.
249 Male: If we're going to have a carbon tax I think it all should be dedicated to
250 this.
251 Male: It's a lot easier ... to sell.
252 Male: To dedicate ... So you don't have to have a levy then.
253 Facilitator: As it's no longer new technology, the prices will come down for things
254 like...

255 Male: I mean we hadn't even had any of this [unclear] stuff four years ago.
 256 Male: No.
 257 Male: Three years ago. Now they're starting to ... and do baseload with
 258 solar. They're trying one in California. Arnie over there has said
 259 we're going to do this folks, we're not going to talk about it, we're not
 260 going to discuss it, we're not going to have focus groups - we're just
 261 going to do it. He's like the Chinese. He says we're going to have
 262 this and they do it.
 263 Male: Spain's currently [willing] aren't they?
 264 Male: They voted for the guy, you know? He said well you voted for me
 265 because I said I'm going to do something about carbon.
 266 Male: California has sunshine. We're different here.
 267 Male: Arnie is from Austria.
 268 Facilitator: How has Austria done that?
 269 Male: Hydro.
 270 Male: It's hydro, yes. A lot of hydro.
 271 Male: It is impressive though, isn't it?
 272 Male: They might have water. We have sun and [salt]...
 273 Facilitator: Okay, I have some more questions here, just to get some discussion
 274 out of you, some ideas. Assume that the required funds would be
 275 collected by energy companies through increased energy prices. The
 276 energy companies would be required to meet the 20 per cent target
 277 but could use the raised funds at their discretion. How much are you
 278 willing to contribute - more or less than the \$35.
 279 Male: Could you read that again please Facilitator.
 280 Facilitator: Assume that the required funds would be collected by energy
 281 companies and not the government.
 282 Male: Is this for R&D?
 283 Male: Is the \$35 per person per year?
 284 Facilitator: Yes. So the energy companies would be required to meet the 20 per
 285 cent target. So the 20 per cent target is still there, it's going to be -
 286 Australia's electricity supply comes from regular resources. But they
 287 could use the raised funds at their discretion.
 288 Mark: In other words, would we trust the electricity generators?
 289 Ian: So instead of the CSIRO instead of the government...
 290 Facilitator: Nobody trusts the electricity companies?
 291 Ian: I have my doubts.
 292 Mark: Enron was an energy company wasn't it?
 293 John: I mean, they do have a vested interest in providing electricity...
 294 Ian: At the highest price.
 295 John: I mean, that's a good point as well. They're also competing with each
 296 other. In some ways competition can produce that sort of thing.
 297 Especially - private research and development can be very, very
 298 focused and can produce outstanding results, especially by way of
 299 electric cars. They've done a great deal of research in terms of that
 300 sort of thing. The problem you get is that they then.....Well, I
 301 probably wouldn't be willing to pay as much, but perhaps...
 302 Brian: The thing is, at their own discretion could mean that they decide that
 303 they're going to invest that money in some company in Brazil. You
 304 know, it's got nothing to do with generation at all. I mean, if an
 305 electricity generating company can't ... to invest in electricity. If

306 they've got their 20 per cent up and running and they think oh well, I
307 like profits - let's go and invest in some profits because we're going to
308 make money out of them, or whatever - they could just invest the
309 money wherever they wanted to. If you say no strings attached - well,
310 cigarette companies...

311 Mark: The thing that bothers me about - we're paying all this money for
312 goodies in the future - one of the reasons people often don't introduce
313 energy efficiency measures in their own house is that it's going to cost
314 them four grand now that they don't have - for a little bit of savings in
315 the future. So I think part of the mix should be for your schemes
316 where the power company says to save us having to build a new
317 power plant for \$4 million, we would rather give you \$4000 to have
318 double glazing and you can pay us back out of your utility bills.
319 So - while we're talking money, I think there's lots of money things
320 that are around reducing our need for energy rather than trying to
321 invent ways to do energy more cheaply, which I think ought to be part
322 of the money [unclear]. Nobody wants to do double glazing for four
323 grand this year when it saves you \$50...

324 Female: Does that introduce conflict of interest for the energy company
325 because they will sell this energy?

326 Male: Sorry, maybe they wouldn't provide it but that issue will - can you
327 encourage people to spend a bit of capital now to save money in the
328 future.

329 Male: But you know I said the difficulty with getting power companies to do
330 that - it's in their interest to sell more, not less.

331 Male: Well yes and no. But they don't like having to spend \$6 million to
332 build a power plant to cope with two hours of air conditioning every
333 fortnight, when they'd be giving some people a bit of solar shade
334 panels...

335 Facilitator: Okay, well, the background of all these questions is because the next
336 stage is to give you all a questionnaire about how much you're willing
337 to pay. I think we should get actually a ... we need to ask about that -
338 I think that's a good question, though, is it just R&D or whether -
339 because they're talking here about actually reducing the emissions -
340 the target is 20 per cent. It doesn't sound like it's just R&D.

341 Male: They've used the word complements though, so it sounds like there's
342 two separate proposals and this one's just complementing that one.

343 Facilitator: Yes, it's a good question.

344 Male: I think with the shift to the higher renewables target of 20 per cent.

345 Facilitator: It sounds like the issue - what it actually is that you're paying for is
346 very critical - you want to know what you're going to get.

347 Male: I think that is.

348 Facilitator: So one of the questions here is if no initial target is enforced, would
349 you still be willing to contribute the same amount annually to private
350 carbon offsetting agencies, that is in terms of voluntary...

351 Claire: No.

352 Ian: No, no target no deal. It could wander anywhere.

353 Mark: I've lost faith in how people account for all of these little offsets. I
354 think I'll give my money to a ... baby.

355 Cynthia: Just feel a bit better.

356 Mark: So I can ... whatever the money was going to. So for me that trust
357 issue is really ... I would pay a lot of money if I trusted but if I thought
358 some horrible deluded was just getting off scot-free and flying around
359 the world with his jet on my money - I'd be saying no, not a bean.

360 Facilitator: I guess the detail in the scheme as well...
361 Okay, so would you change your willingness to pay decision if the US
362 and China did not intend to achieve 20 per cent?

363 Male: No.

364 Female: Not if we had good targets, good accountabilities here - that would be
365 enough.

366 Mark: I personally, I can afford it, and I'd be thinking we have to set an
367 example at least to China...

368 James: There are a lot of long-term benefits in doing this to the country,
369 whether other countries do it or not.

370 Facilitator: You're paying for this and you're in Australia reducing our emissions,
371 but other countries are putting out more. So globally it's not making...

372 John: Yes, I'd still do it because I think in the end - if there were certain
373 countries setting an example and doing it - and actually getting results
374 - it's worth doing. What ... it's like that cartoon he had up there - you
375 know, it's going to be for the country anyhow.

376 Mark: What ... make the world better for no good reason?

377 James: The other countries are eventually going to have to do it anyway. It's
378 inevitable. It's just us getting in first and ... the others can follow.

379 Ross: Certainly this idea that we should wait until the US does something or
380 China does something - not interested.

381 Claire: I personally despair that there will ever be international agreement
382 and I think we can be the leaders, you know? Then we can actually
383 sell our technology around the world and help other countries.

384 James: Look at what would do for national pride as well. National pride is a
385 valuable thing, if we are a flagship for doing this stuff.

386 Male: We are already behind our peers in the United Nations. We vote with
387 the bloc we compare ourselves with called WEOG - Western
388 European and Others. The European Union already has an emission
389 strategy scheme - we don't. So we're not going to lead, we're trying
390 to catch up with the people we consider our peers - internationally.

391 Male: They don't wait around to see whether China's going to do this or
392 India's going to do this.

393 Male: They didn't do too well for three years but then they changed it and
394 now it's better. We haven't done anything.

395 Facilitator: Okay, well this brings me to the last question we've got here. Should
396 Australia officially outsource emissions mitigation to developing
397 countries as currently under the Clean Development Mechanism
398 [unclear] so that the developed no longer have to cut emissions
399 drastically? So we're paying other countries actually to cut their
400 emissions so as we don't have to.

401 Male: I don't think it's a bad scheme if it's...

402 Female: In addition to...

403 Male: In addition to...

404 Female: But the question is instead of...

405 Male: No, if it was just an alternative I wouldn't do it.

406 John: There is something to be said for sustainably developing countries
 407 that are ... to the stage where they might be putting on ... maybe that
 408 does make more sense in the short term, to invest in developing
 409 countries, because it's going to cost us a lot of money to switch. In
 410 the long term - I'm not proposing that we just do it there and then we
 411 just don't do anything. It's going to take a huge change of culture for
 412 us to switch over, whereas if we can sustainably develop countries
 413 that are about to switch ... a lot of technologies that we do already
 414 have, where we rely on - I mean maybe then that's not such a bad
 415 idea.

416 Mark: I worry about this exporting thing. It's really saying if you're in
 417 Australia and you're currently driving a big station wagon, it's okay to
 418 upgrade to an SUV because some poor peasant can put off having a
 419 life. I think we're just sort of putting off the day when we are saying
 420 driving giant cars.

421 Brian: It also isn't all that good for the person in India because they're
 422 thinking well I don't actually have to do anything because someone
 423 else is going to do it for me.

424 Male: I'd be happier if we said let's fund solar cookers for India so they don't
 425 need to cut down the forests for firewood. Just do that as an aid
 426 measure.

427 Male: In addition to...

428 Male: In addition to [inaudible]. I reckon we are rich enough.

429 Male: In a way we have already committed ourselves to do that under the
 430 Copenhagen Accord. We're ... to that Accord that came out that
 431 we're going to...

432 Male: Fork out some money.

433 Male: Yes. So at least in a way we're...

434 Male: If that is actually implemented that's still got a question mark, you
 435 know.

436 Male: If I could make an analogy, it's like Homer Simpson saying he doesn't
 437 need to go on a diet because some person in India is not eating
 438 doughnuts on his behalf. It's absurd that Australia...

439 Facilitator: So I think we've answered the question here. Would you financially
 440 support the development of low emission technology? It's just a
 441 question really of how much you should pay. The discussion has led
 442 into the survey - that comes up next. We've still got five minutes.

443 Male: I've got a personal ... that I'm not going to spend more money
 444 because I'll do some things less - you know, I'll go the shops five
 445 times in the car - a lot of these things are about cost increases. A lot
 446 of it's discretionary - are you going to have a 10 minute shower or a
 447 five minute shower.

448 Male: Are you going to walk instead of drive?

449 Male: It's a change in behaviour, but for many people it's driven by
 450 economic reasons.

451 Male: But I think most people aren't going to change their shower length
 452 because it's costing them three cents. You actually need to
 453 popularise that having a shorter shower is better.

454 Male: I don't know whether enough people are so convinced.

455 Male: ...Unless you have a coin-in-the-slot shower - most people will say
 456 I've enjoyed this, I'll put another dollar in.

457 [Laughter]

458 Claire: The problem is, we might well be prepared to pay - but the average

459 Joe on the street probably won't be, and how do we sell it to them?

460 Cynthia: It's like the GST or anything else.

461 Brian: It's like the cigarette tax. Just whack the tax up - everybody moans

462 but they stop smoking so much.

463 Claire: That party won't be elected because the opposition will sell it as a

464 great big new tax.

465 Male: That's right. You've got to have bipartisan support for this kind of stuff

466 before a cyclone devastates half of Europe or something like that and

467 everybody wakes up to themselves. I can't see any other way. The

468 thing is, what Rudd should have done is he should have slapped all

469 this stuff on five minutes after he got elected, like when Whitlam...

470 Female: Before everyone blinks.

471 Male: The first two weeks. They didn't even have a parliament sitting and

472 they just whacked the whole stuff through and then - it didn't all work

473 necessarily but they got into it, they did it early enough rather than

474 waiting for three months before another election - you know,

475 announcing a tax on ... A real smart move.

476 Male: Some of this is going to take a long time because some of our cities

477 in Australia are designed in a way that consumes huge amounts of

478 energy...

479 Male: Or aren't designed in a way that consumes - it does take a while to

480 say well now we're in a position that you can actually do your grocery

481 shopping without needing to drive and...

482 Male: I remember that [Canberra] was designed specifically with the car in

483 mind.

484 Male: So it's going to take a while to...

485 Male: ...timeline for what we do early and what we [unclear] for later -

486 bridges and suburbs or whether it's what the farmer's going to grow -

487 which crops.

488 Male: The penny will drop for people when we have three hot summers in a

489 row, when there are electricity brownouts at a time that they really

490 wanted their air conditioning to work. Then people will say maybe I

491 need to spend money on that awning so...

492 Male: I don't know. I think that's the boiling frog syndrome. I think it's too

493 late by the time it gets to that stage.

494 Male: They had that big fire in Victoria 18 months ago - and that was a

495 hellishly hot summer and the result was this huge fire. I don't know

496 what's happening down there, whether people have sort of thought

497 oh, this is a bit...

498 Male: We had one here just seven years ago.

499 Male: Is anybody thinking oh, you know - we talked about the increasing

500 frequency of...

501 Female: Extreme weather events

502 Male: These sorts of things happening but it hasn't twigged with most

503 people

504 Male: Certainly not the politicians.

505 Male: I actually don't think that's true. I still reckon more than 50 per cent of

506 the politicians in the House of Representatives know what we know.

507 But they got these marginal seats with swinging voters and that's
508 [unclear] because they want to stay in...
509 Male: It wouldn't surprise me to find that the electricity system will not cope
510 with hot summers. Because we're not building any new electricity
511 plants.
512 [Over speaking]
513 Male: ...in Canberra.
514 Male: There was a brownout.
515 Male: Yes, absolutely. I mean it's a huge issue because everyone thinks...
516 Male: What are they going to say? Are they going to say let's build another
517 power plant?
518 Male: Well that's what John [Sutton] wanted to do.
519 Male: They don't suddenly think oh hang on, those sort of signals people
520 were talking about 10 years ago and five years ago and one year ago
521 are starting to happen...
522 The frog gets a bit warmer and he says oh, I can cope with it, you
523 know.
524 Male: ...the oil all over the ocean, when the act of putting that pump into
525 your car is what means that they're there. People don't make the
526 connection - that's something to...
527 Male: I still think we've got to have Arnies, you know - they've got...
528 Male: Brian, on really hot days you could turn the electricity off from 10:00
529 o'clock till five and people would realise that they got hot because of
530 the sun shining on the glass and they couldn't put their air cons on,
531 therefore they had to do something about it.
532 Male: Maybe the best thing that you can do is just turn your air conditioning
533 right up and black out the whole of Canberra, brownout the
534 politicians. Then maybe people would realise...
535 Male: Or pay someone in a power station to just flick the switch off - see
536 what happens.
537 Facilitator: Okay, well that's all. We've got another minute till we come back ...
538 survey.
539 Ian: How much we're going to pay depends very much on how confident
540 we are about what is to do
541 Cynthia: It is a trust issue.
542 Ross: The government should just spend \$5 billion a year as part of the
543 consolidated revenue to do this sort of stuff - but it's not going to
544 happen because of this trust thing.
545 Male: It's happening now because most of it is going into carbon capture
546 and the money that was allocated for solar has now been put into
547 cash for clunkers.
548 Female: So everyone's buying up old cars...
549 Male: That's basically ... policy ... everyone's buying clunkers so...
550 Male: It's nothing to do with the environment...
551 Male: Although the figure that was quoted - costing \$10,000 a ton.
552 Male: I mean, she's just looking around for somewhere where there's spare
553 cash - oh I know, we can pull it out of there and whack it in here and
554 that will get our votes, you know. In some ways it will serve her right
555 if it doesn't work - even though I...
556 Male: Well the definition of work is winning votes.
557 Male: That's right ...seats.

558 Male: That's actually how politics works - focus groups and...
559 Male: Your comment earlier about cups of coffee ... All the money we're
560 talking about is...
561 Female: A few cups of coffee.
562 Male: I mean, we're having this giant debate about ... go to the movies...
563 Male: That's the tragedy of it.
564 Male: People don't even think about it. They just go okay, if that's the price
565 of going to the movies and getting popcorn.
566 Male: \$8? I wish. \$20?
567 Male: No, for the popcorn.
568 Male: If you want to see movies check the ... it's only seven bucks there.
569 Interviewee: ...six bucks for students on a Tuesday.

1 Facilitator: So I guess looking at the flags, that's the percentage of electricity
2 produced by renewable energy. So it looks like we're commonly
3 amongst the developed countries, aren't we - and some other nations,
4 largely in Europe, are making a greater effort for renewables.
5 Male 1: Austria gets 70 per cent. That's got to be nuclear is it?
6 Male 2: North Korea, though, is 100 per cent.
7 Interviewee: Austria would have a lot of private...
8 Male 2: A couple of Honda JetRangers out the back.
9 Facilitator: Okay, so we're going to start discussion three and it's would you
10 financially support the development of low emission technologies?
11 So the scenario is the Australian government is expanding its clean
12 energy initiative and so that's an additional \$5.1 billion. What does
13 that mean to anyone here? Is it difficult to sort of imagine what that
14 is?
15 Stephanie: I like the notes, the notes made it easy.
16 Facilitator: The notes? Okay. So we've cut that down and that's over 10 years.
17 So this complements the target, the energy target of 20 per cent of
18 Australia's electricity supplies. So that translates to \$35 per year. I
19 think most of us could probably afford that.
20 Alan: A dollar now in 10 years' time will be worth 50 cents, if that. So taking
21 into account inflation, this is actually a very miserly amount of money.
22 Dan: Yes, \$35 is nothing.
23 Facilitator: So when you have a look in terms of the Australian government,
24 we're looking at - well what would 0.2 per cent of the whole budget be
25 in relation to what they spend at the moment? The majority is spent
26 on social security and welfare. It would be more similar to - the
27 smallest amount is community services and culture. So we're not
28 looking at a large amount of money, are we, comparatively to what's
29 being spent now?
30 Male 2: I'd probably have no problems with the amount, only that they're
31 spending a great bulk of it on inventing another low emission motor
32 vehicle or something when everyone else is doing it it's a waste of
33 money.
34 Alan: It's called clean coal.
35 The other thing as well is - just because this is a little bee in my
36 bonnet - if you also put in here NBN - in probably less than five years
37 they've only spent \$43 billion on NBN with no justification.
38 Facilitator: NBN? The National Broadband Network.
39 Alan: So you look at that. I mean that money would keep health going for
40 almost a year. It would keep CSIRO going for 50 years. So when
41 you look at that money, where there's no attempt to quantify or
42 measure or report back on positive outcomes of that expense, this is
43 an incredibly miserly amount of money, given you've got to be able to
44 very clearly see the outcome of this...
45 Facilitator: Given now, from the presentation today, the enormity of what might
46 be ahead of us, then you were trying to put it into a perspective. So
47 the first question is, is it enough?
48 Male 2: I'm not sure, because this is only the government's contribution to it.
49 There's a lot of commercial money going into this very same question,
50 probably even more than that. Because there is a commercial
51 advantage for anyone who develops the low emission technology. I

52 mean if you can invent the technology that ... low emission coal, you
 53 know [unclear] coal - you'd be worth billions.
 54 Dan: [Unclear]?
 55 Facilitator: Yes, I assume that the \$5.1 billion, which becomes \$35 per person
 56 per year, will be drawn from a new tax to be imposed on individuals
 57 directly by the government. So if this is an individual's tax of \$35 per
 58 year for the next 10 years, do you think that's enough?
 59 Elaine: It depends on what else is happening at the time. If you've also got
 60 an emissions trading scheme or a carbon tax, then it probably is. If
 61 this is all that's going on it probably isn't.
 62 Dan: Twenty per cent is not enough I think. In countries like Spain and
 63 Germany, they're already there. So 20 per cent we are looking at
 64 2020.
 65 Elaine: Oh, the target.
 66 Dan: Yes, the target is 20 per cent, it's not good enough.
 67 Facilitator: So that means that perhaps we might need to crank it up a bit?
 68 Dan: Yes, another \$50 per year and then we...
 69 Facilitator: So is there anyone else with an opinion on that?
 70 Male 2: Well, I wonder whether the question is better put by saying is it
 71 enough, could - would - people be prepared to spend more? I think
 72 that people would be prepared to spend more than - what have we
 73 got - \$35 per person per year. So I think if you put it that way you
 74 could say you could increase the \$5.1 billion.
 75 Male 1: Could I come at it from another way though? You've got to spend this
 76 on something, you've got to give it to people, you've got to give it to
 77 researchers or developers, and it's an awful lot of money for a small
 78 select group of developers and researchers.
 79 Dan: Is it?
 80 Male 1: I would think so.
 81 Facilitator: Well it would go into infrastructure wouldn't it, in terms of...
 82 Alan: It says here on research and development...
 83 Male 1: That's a lot of money.
 84 Dan: Half of \$500 million a year.
 85 Male 1: What do you reckon Stephanie? You're in that field.
 86 Stephanie: CRCs commonly get between \$20 million and \$40 million of
 87 Commonwealth money over seven to 10 years. That's just a
 88 research grant.
 89 Male 1: So half a billion dollars would be...
 90 Alan: Commercialisation is at least 10 times the cost of research.
 91 So for every dollar you put in to R&D to actually get it to a usable
 92 product, it's at least 10 times that.
 93 Male 1: Yes, you've got to look at - it's not a lot of money because - you're
 94 putting development in this as well as...
 95 Alan: If you take the \$5 billion and use my rule of thumb, so you divide that
 96 by 10 - so that's about half a billion dollars going into research over
 97 10 years because the rest of it's going to be spent on actually getting
 98 ... to market as a working thing... So given CSIRO was about a
 99 billion dollars a year last time I looked, it's actually not a big - certainly
 100 upfront it's a crap investment and I don't think it will pay for
 101 commercialisation ... gut feel. You CSIRO people know how difficult
 102 it is to get something to market.

103 Facilitator: Yes well, I guess we've got patent systems and things like that ... it's
 104 very hard to get new innovations into the market, it's very expensive.
 105 Male 2: Do CRCs do much development or are they...
 106 Stephanie: It depends on the CRC but it would go between more esoteric type
 107 stuff like climate and weather risk, that's an application in this current
 108 round - so they're looking at that sort of the stuff - to the ones that do
 109 widgets, like the CRC for Polymers does widget and has done
 110 ceramic stuff for around cables. So when a fire hits it just turns into a
 111 ceramic.
 112 Alan: So if the government put in \$5.1 billion, how much would you get from
 113 industry for the CRCs and not just...
 114 Stephanie: You'd at least match it, and to be competitive in the CRCs these days
 115 in the selection round you need to be putting in at least three times
 116 that.
 117 Alan: Industry?
 118 Stephanie: Industry.
 119 Alan: So the \$5.1 billion would be multiplied to probably get a total of about
 120 \$20 billion.
 121 Male 2: But that's assuming the industries...
 122 Male 1: If you get serious about it, industry ... income out of. They're already
 123 into it, you know.
 124 Alan: If the ... wants to reduce their carbon taxes...
 125 Male 1: No, I was meaning the industries that produce the ... gear, like the
 126 solar panels.
 127 Alan: There's two players. Those who want to turn it into services of
 128 products for them to make money, but also the people that...
 129 Male 1: You've got to have both, yes.
 130 Alan: So there's a couple of people in the value chain.
 131 Male 2: There's probably [unclear], though, in the system isn't there, if you've
 132 got this 20 per cent target for renewables for instance, plus the
 133 prospect of some sort of carbon tax or carbon trading - I think there's
 134 an incentive for industry to put money into this type of research.
 135 Alan: Guess where that would come from? So you know, whether you
 136 would pay \$70 directly or \$35 directly and \$35 indirectly...
 137 Male 1: You've got to remember that part of the question was that it would be
 138 an additional tax, when in fact the government would have no trouble
 139 finding \$500 million out of the current...
 140 Facilitator: I know that in previous discussions we've had, people were keen to
 141 be involved in the whole scheme and thought it was important and
 142 that climate change should be mitigated or that there should be some
 143 adaptation.
 144 I'm guessing this would allow some strategies to create mitigation or
 145 some adaptation, but when it comes down to willingness to pay and
 146 an actual amount for each individual it's much harder then isn't it to
 147 understand. Are you completely prepared to pay anything that the
 148 government asks you to in order for that to occur or would you...
 149 Alan: Can we rephrase that?
 150 Elaine: It depends on what they're going to do with the money.
 151 Alan: I believe we have no choice - I wouldn't argue with \$35. If that was it
 152 was and it achieved 20 per cent I'd be buying some French
 153 champagne. So I would very happily pay \$35. Now if you then asked

154 me a supplementary question, at what level would you start
 155 complaining? In my case, I'm being honest, it would probably be
 156 more like \$1000. The point is, that figure I think could be higher. So
 157 if the question is would you pay 35 bucks? Everybody would say yes.
 158 Male 1: Not necessarily for this. I would quite happily pay \$100 extra a year
 159 to go on my electricity bill for more research into how to power
 160 electricity rather than what could be esoteric nonsense floating
 161 around.
 162 Alan: Isn't that just how - you have more confidence in that getting results.
 163 Male 1: I know what research the money's going to.
 164 Alan: That's a separate question. So would it be true to say on the table -
 165 aside from those who genuinely can't afford it - 35 bucks is no sweat
 166 at all and easy ... times that before anyone would complain. But
 167 there are concerns about the mechanism. There's more concern
 168 about the mechanism of a direct tax administered by the government
 169 than there is about ... tax or levy or...
 170 Elaine: Is it just for R&D or is it really about getting systems out there? Are
 171 we looking at 20 per cent when we might get there by other means
 172 anyway, or is it - if we're going to be taxed extra we want it to be a
 173 higher target? Like you, I'm happy for \$1000 a year, but not for 20
 174 per cent target. I want a much higher target for that amount of
 175 money.
 176 Alan: Wow, you're a tough voter.
 177 Male 1: I don't think the two are necessarily linked, though, because...
 178 Elaine: No. But that's what I'm saying, that the amount of money depends on
 179 what it's being used for. If it's R&D over a 10 year programme I'm
 180 going to see - and if that's just for getting concept demonstrators out
 181 there and there's no change to our emissions for 10 years because
 182 we've got this great initiative to do more R&D - I'm sorry, I don't want
 183 ... because I don't think it's a good initiative. If it's actually about
 184 getting more renewables out there within that 10 year period, then
 185 yes, I'm willing to pay for it. So it depends on the details.
 186 Alan: Probably a lot would be spent through CRCs and similar
 187 organisations like that because they're really our main research and
 188 development organisations.
 189 Male 1: They've already put money into research for the hybrid motor vehicle.
 190 Alan: They will, but if you're going to attract industry money, and as
 191 Stephanie said it's typically three to one - industry won't invest in R&D
 192 unless they can see some real practical applications and a return on
 193 their investment in the long run. I think that's your guarantee that you
 194 are spending the money as efficiently as you can.
 195 Dan: I've been doing research on solar panels for the past six months...
 196 Facilitator: Hang on a sec guys - one conversation.
 197 Dan: I've been doing research on solar panels for the past six months.
 198 What I've noticed is nothing made in Australia is available.
 199 Everything is either made in China, Germany or Japan. So where the
 200 money's going to doing research and development? Where the
 201 money is going? Are they going to just buy things from outside and
 202 then sell them to us again? Is this what they're going to do?

203 Alan: Probably, because that's what happens is - the R&D - particularly
 204 when there's industry money - gets to a point and then somebody
 205 takes the IP and manufactures it in other cities.

206 Dan: Yes, that's what ... they will set up a factory in China or somewhere
 207 and then...

208 Facilitator: We're outsourcing a lot of manufacturing. It doesn't mean that...

209 Dan: Outsourcing is okay. These are things made in China, Japan and
 210 Germany - I can't find anything made in Australia.

211 Female: Does it matter?

212 Alan: We had a solar panel industry - people were making solar panels,
 213 you'll remember, a few years ago. Then they closed their plant down
 214 because they just couldn't...

215 Dan: Yes, they couldn't afford it...

216 Alan: But if we do the R&D and we own the IP and then ... licensing of that
 217 IP - that's just with Australia being a clever country isn't it, that we
 218 have the IPs and low cost manufacturers don't underplay...

219 Male 2: So we have it manufactured in the country with an excellent record of
 220 respecting IPs.

221 [Laughter]

222 Elaine: That's why CSIRO took everyone to court about the wifi.

223 Facilitator: At the beginning we said that we wanted to reduce emissions
 224 because it was the right thing to do. So the issue of where it's
 225 manufactured and the economic benefits and whatever is a different
 226 question to...

227 Do we want to invest in getting better methods to solve the problem
 228 or are we only willing to do it if it's manufactured and all the benefits
 229 go to Australia?

230 Dan: I'm talking about the research. They're spending money on
 231 research...

232 Stephanie: Just to give an example, with CRCs part of their remit is that they
 233 have to maximise benefit to Australia. It doesn't say it has to be
 234 manufactured in Australia, just maximise benefit to Australia.

235 Male 2: That's pretty vague.

236 Facilitator: They have been [unclear] a few times.

237 Alan: Can I chuck a spanner in the works and say well, you know, let's
 238 assume that all our developed nation colleagues are thinking along
 239 the same lines as us. Our paltry \$5 billion is a drop in the ocean.
 240 Why don't we let them develop the technologies? What we will do is
 241 focus on adaption technology ... in other words accept the fact that
 242 the world is unlikely to meet these targets, but there will be useful
 243 products coming through. Let someone else develop those and we
 244 put our money into basically coping with the fact that we're not going
 245 to reach 20 per cent.

246 Male 2: I think that's a bit negative.

247 Alan: Sure it is.

248 Male 2: Because I think you're underestimating Australia's R&D potential
 249 here. We do have some really unique advantages in solar technology,
 250 for instance - and opportunities there, which other countries - northern
 251 hemisphere countries - probably don't have. So we've got the
 252 opportunity to be world leaders.

253 Already there are some breakthroughs - this technology being used in
 254 California at the moment, which is solar thermal technology
 255 developed in Australia. They couldn't get a backer in Australia and
 256 moved offshore. But it is Australian technology. Geothermal's
 257 another one which is very, very much - it has to be local and that is to
 258 be developed here. There's a lot of research and development
 259 needed there.

260 Alan: So is the caveat in this then that - in developing this IP - because this
 261 is research and development, not commercialisation - I'm reading into
 262 it. The caveat is that you know that's got to be - something can be
 263 commercialised, preferably in Australia and well within this timeframe
 264 of 10 years.

265 Male 2: Well, I guess that that would be up to whoever's administering the
 266 funds, and CRCs have been looking into this - and if the funds fly to
 267 CSIRO I would imagine they'd be doing the same, wouldn't they, in
 268 terms of prioritising the research and development?

269 Facilitator: Yes, well you can only get people thinking about some cash.
 270 [Laughter]

271 So as you were saying, have we got sufficient brains trust in Australia
 272 to get bang for your buck, I guess. Was that it as well?

273 Alan: Well, it's just that what we've got could be applied to a problem that
 274 other people are not going to be thinking about. Other people are
 275 going to be thinking about low emission and energy production. Let
 276 them do that and we'll have another niche that we focus on. I'm not
 277 pushing it, I...

278 Male 2: There's plenty of niches, I'm saying, in solar energy especially where
 279 Australia could be a world leader.

280 Male 3: I'd like to see Australia be a solar world leader, that's for sure.

281 Dan: A lot of sunshine.

282 Interviewee: Sunshine? That's right, yes.

283 Facilitator: Those guys are in the dark for six months aren't they, over in northern
 284 Europe?

285 Male 2: Could I come back to the amount that people are prepared to spend?
 286 Because I think that's an interesting one. You've got your figures of
 287 \$35 per person per year and in responding to that questionnaire that
 288 was sent out before today's session, I responded like you did - around
 289 about \$100 a month. It wasn't clear to me in the questionnaire
 290 whether you were talking about per person or per household. A lot of
 291 bills come in - like an electricity bill is per household and not per
 292 person. So I've tended to answer it on a per household basis.

293 Dan: I think it was more about ... money because this is only for the
 294 working people.

295 Alan: Yes, you should put this in lay terms. It should say two packets of
 296 ciggies or a slab of beer.

297 Facilitator: You're right, one of the questions is would you prefer it to be GST or
 298 income based - if you did want to collect that amount of money, which
 299 might be more than \$35, up to \$1000 a year, is that right?

300 Male 1: Just do whatever the normal taxation we pay now.

301 Male 2: I don't think it is, but...

302 Facilitator: So that would be income based, so that would be fairer?

303 Male 2: What about a levy on electricity bills?

304 Male 1: Yes, I don't mind that.

305 Alan: I've got a bit of a concern about all these special levies. A good

306 example is air travel. There's all these uplifts - you don't know what

307 they are and where they're going. We should trust the government -

308 they raise revenue and then it's their job to appropriate it sensibly.

309 They reckon this is the right number - let them find it out of the

310 general revenue and if that's not enough make some cuts, change

311 some services or change the tax rate.

312 Male 1: But not a special one.

313 Alan: Because then there's an administrative overhead. I mean the ATO is

314 struggling to cope with tax ... I mean Henry said let's simplify it and

315 the government said oh, uh.

316 Elaine: Well it's too scary. We want those votes.

317 Male 2: Yes, I agree with you. I think that it's much simpler to just draw it out

318 of consolidated revenue and - just like the other programmes.

319 Male 1: We're talking about a minor amount, really, from the consolidated

320 revenue.

321 Facilitator: Did you want the R&D to ensure mitigation occurred? You were

322 mentioning that it had to be targeted but would you be happier if you

323 felt that you contributed that amount of money and you knew where it

324 was going and it led towards litigation rather than going in a big fund

325 of taxation? Is that important to you?

326 Alan: No, because we don't make those judgements about all this stuff

327 here. I think everyone said earlier on, things like education - in many

328 people's minds - are as important if not more important than climate

329 change, but we don't say I want to see that \$10 per child goes in the

330 ... there has to be some level of trust.

331 Facilitator: So you'd just accept yet another tax, is that what you're saying? But

332 in your mind you knew what was going...

333 Male 2: Well it's included in the...

334 Male 1: In the normal consolidated revenue.

335 Facilitator: So you don't think the general community needs that linkage, that

336 they're actually contributing directly? Because some of our

337 discussions earlier meant that you wanted people more involved?

338 Alan: No, but I'll tell you why - it's because then when there are optional

339 schemes you'll say well no, I've done my \$35, I'm not going to tick the

340 box ... If the government's doing its bit on our behalf, then there's

341 more that we can do. But the moment government makes us do

342 something, that reduces our discretionary - in our minds - our

343 discretionary spending on...

344 Facilitator: So you'd like it brought up like a Medicare levy?

345 Stephanie: No.

346 Facilitator: No? Just some magical calculation and you got less tax back?

347 Stephanie: If they want to increase the tax rate or whatever else, but they just do

348 it as funding this, this and this initiative, and this is to happen...

349 Elaine: Because we don't know which fraction of our income goes to

350 education or health or anything.

351 Male 2: No. I mean apart from...

352 Facilitator: Would you be willing to contribute the same amount of money if only

353 15 per cent of the energy target was achieved through the

354 contribution that you made rather than 20 per cent?

355 Male 2: That's a bit of a silly question...

356 Facilitator: But it's to complement - the R&D will complement the electricity
357 supply, so I'm guessing it might be something like solar panels or
358 whatever, which would contribute to the grid or something. So that
359 would be alternative energy into the grid and the target is 20 per cent.
360 So if it dropped down to 15 per cent do you think that's still - you know
361 - or should it go up to 25 per cent?

362 Alan: Unfortunately, if it's only one per cent difference it makes, so be it.
363 Then we have to do our utmost.

364 Male 1: Yes, it's all a punt but we've got to do it.

365 Male 2: Yes, we've got to do our utmost.

366 Dan: ...how much? 15, 16, 17, 18, 25 - if it goes up to 50 I'll be very
367 happy.

368 Facilitator: So you need the momentum and...
369 What would happen if the global financial crisis returned and people
370 found a lot of pressure again about...

371 Elaine: It's not going to return? It's always going to happen.

372 Dan: ...to get the stimulus package.

373 Elaine: The whole cash for schools and all of this sort of stuff - the
374 government spending stimulates the economy and this is just another
375 way of stimulating the economy, which has got future benefits. This
376 and infrastructure investment is what I think the government should
377 be doing in the event of a global financial crisis because it's creating
378 jobs and ensuring future prosperity by investing today, so...

379 Alan: Yes, I think the potential impact of climate change if we do nothing
380 makes GFC look like a walk in the park. You know, my mate who lost
381 \$200,000 on the stock market with GFC - well, when his beachfront
382 house worth \$2 million falls into the sea I kind of think economically
383 that's going to hit him harder.

384 Male 1: If he's that rich I won't feel sorry for him.

385 Elaine: I was going to say he probably loses - you know if he loses his
386 waterfront property he probably only owns half of it and the bank
387 owns the other half, so that he goes to being that much in debt rather
388 than...

389 Male 2: ...big insurance payout.

390 Alan: I got the sense today - and I have to say it sort of enlivened me in a
391 sense - that there's such a positive feeling here that doing something
392 is not optional. You have to do it and you have to do it now. Nobody
393 is arguing against that.

394 Elaine: It really doesn't matter what we do and if we get it wrong - like it's not
395 an optimal solution - it's still got to be better than doing nothing.

396 Facilitator: What if only 30 per cent of Australians contributed because the others
397 were tax exempt, if you wanted to go the income based ... Would
398 that...

399 Male 1: That happens anyway. It's just like any other government
400 expenditure or programme, isn't it? Why single out the research on
401 this particular area because the government's spending a huge
402 amount on other research and development and this is just the same
403 - it's just a question of the priority...

404 Facilitator: Do you think all Australians should be asked to pay?

405 Male 1: Good heavens, no - not pensioners.

406 Male 2: It's no different to research into, say...

407 Elaine: I think with this sort of stuff - it's like saying well we're not going to

408 educate poor kids. You don't say I'm sorry, you can't have an

409 education - your parents don't earn enough. Everybody puts in for

410 the good of the country and everything else.

411 Alan: What I would be in favour of is nationalising poker machines and

412 doubling the tax on ciggies.

413 That goes straight to a CRC. There's a CRC called Casinos

414 Australia.

415 Male 2: I take it you're not a smoker or a gambler?

416 Alan: How did you guess?

417 Facilitator: What about the alcohol tax? You didn't mention that.

418 Alan: That would hurt too many people.

419 Facilitator: Okay, so part B here. Assume that the required funds will be

420 collected by energy companies through increased energy prices.

421 Okay? So you're already contributing. The energy companies would

422 be required to meet the 20 per cent target but could use the raised

423 funds at their discretion. How much are you willing to contribute?

424 Alan: Nothing.

425 Facilitator: So is that lack of trust in the - it's a private company. Basically

426 instead of the money going to the government in taxes it would go to

427 the...

428 Male 1: The company would ... money any way they liked.

429 Stephanie: Yes, but they've still got to meet a particular target.

430 Elaine: So they could use it to invest in infrastructure or whatever else...

431 Alan: If you had a trading scheme they'd just use the money to buy offsets.

432 Male 2: Or pay higher profits.

433 Male 1: No, it's [not going to increase to the 20 per cent].

434 Male 2: But what happens if they could do that without incurring a huge extra

435 cost and we were contributing more through higher energy prices in

436 the expectation that they would invest in R&D for a very significant

437 long-term benefit, and they're not doing it?

438 Male 1: It's not a concept that anyone would seriously consider. If we're

439 going to pay them the extra money it's got to go to - there's no

440 discretion...

441 Elaine: I think it should have discretion in terms of do they use it for R&D, do

442 they use it for infrastructure, do they use it for that - but it has to be

443 targeted towards renewable energy in some way or form.

444 Facilitator: So you'd have trust in private companies? Is that it? Or...

445 Male 2: It's still dodgy because they'd use that money to buy a new generator,

446 which they were going to buy anyway, which means they pay a higher

447 dividend to the shareholders - because they didn't have to buy the

448 generator. When people complained they'd say oh, energy efficient

449 generator.

450 Male 1: I think the thing we've got to realise is that the company is there for

451 the benefit of shareholders. The result is that their decisions rightfully

452 have got to be made for the benefit of the shareholders - as well as

453 being a good citizen - they've still got to be a good corporate citizen.

454 Elaine: It must be invested rather than returned to the shareholders.

455 Male 2: That actually does raise the very important issue that hasn't come up

456 - is the European model, particularly the multiple bottom line model,

457 where you're not just accountable to your shareholders as the bottom
 458 line but others - so that is now - so there is [inaudible] there. Then
 459 this sort of thing can conceivably be rolled into...
 460 Facilitator: So you'd like more accountability if you were to give...
 461 Male 2: The difficulty I have is that if a utility charges higher energy prices and
 462 then that goes into their revenue, there's no mechanism for the
 463 government to then stipulate how they spend that money unless the
 464 government introduces special legislation or something. But at the
 465 moment governments can't tell companies how they spend their
 466 dollars on R&D, they do that themselves.
 467 Elaine: I think it depends on whether it's a levy which is collected by the
 468 organisations or whether it's just they say - well in order to meet these
 469 targets we need to put up the rates this much. There's a difference in
 470 there. So if they said well to meet these targets we have to put it up
 471 by \$35 and they make the argument, people then go and pay it
 472 because they don't have a choice really - but that's okay. Whereas if
 473 it's a levy which is a fixed amount that they are collecting which
 474 doesn't have anything to do with their bottom line, I think that's a
 475 different...
 476 Facilitator: The question is are you prepared to spend the \$35 or up to \$1000
 477 that you were prepared to contribute to the government? Are you as
 478 prepared to contribute that to the electricity company?
 479 Male 2: No I'm not.
 480 Male 1: Hold on, if they put it in my bill what choice have I got?
 481 Facilitator: Because it's not related to how much electricity you use - it's just
 482 which group - do you think an electricity company would be more able
 483 to use the funds to become more efficient in its own industry, or
 484 should it go through the government and R&Ds and you know -
 485 where's the efficiency, I guess is the question.
 486 Male 1: I think that would be more a research organisation, not...
 487 Alan: Also, as well, a direct levy raises the issue of well, I can't afford to pay
 488 - sometimes rightly so, sometimes not. So then the administration of
 489 it becomes problematic - and getting them to account for it. There's
 490 too many holes in it.
 491 Facilitator: The electricity company?
 492 Elaine: Yes. I think as a levy - if electricity prices went up \$35 because
 493 everybody decided that that's what you needed, I'd pay it. If it was
 494 more to reach a 50 per cent target, I'd pay that too.
 495 Alan: The reason is because there may be alternative suppliers - if they're
 496 all getting the \$35 where's the...
 497 Facilitator: So you're not at all prepared to invest through one of the...
 498 Elaine: Not as a levy. If it is an increased cost and they said we're going to
 499 increase your electricity cost to this much, and for that money we're
 500 doing this - I'd be happy to pay it.
 501 Male 1: I've still got the choice to go to another supplier.
 502 Elaine: But I've still got the choice to go to another supplier who may not
 503 charge that extra amount and may not be using renewables...
 504 Facilitator: So would you be prepared to give the \$35 to the government and pay
 505 more to your electricity as well to try and...
 506 Elaine: I'm happy to do that.
 507 Facilitator: Have a couple of options, is that...

508 Male 2: Well the electricity companies - AGL and I think others do have this
 509 green energy program where subscribers can choose to pay a higher
 510 rate on the understanding that that amount of electricity is...
 511 Alan: I do.
 512 Male 2: I do too. I pay a little bit more and there are other benefits in terms of
 513 [bundling] and so on, but the idea is that you can choose to buy green
 514 energy.
 515 Dan: How do you know you're getting green energy?
 516 Male 2: Well I hope it's ... green energy.
 517 Alan: You watch it as it's coming in on the wire.
 518 [Over speaking]
 519 In this are you considering [inaudible] things - like one of the things
 520 that I've no idea ... CO2 - food marts for example. I mean what we've
 521 got now is - the food system is based on a hub and spoke model and
 522 getting it from the cheapest market. What about there are levies in
 523 supermarkets where stuff that's produced within 500 kilometres ends
 524 up being cheaper than something that's produced...
 525 Male 1: There already is a levy on it - it's called the transport costs. Often it's
 526 not because they get it where it's cheapest, they get it where it's
 527 growing - at this particular season.
 528 Facilitator: I think this question was more linked with electricity - because we've
 529 been in other areas of discussions of this today. Did you want to say
 530 something?
 531 Dan: I've got a disagreement actually. How do we know we are getting the
 532 green energy at home when we sign up?
 533 Facilitator: You said you are?
 534 Dan: [Unclear].
 535 Male 2: Well they don't necessarily guarantee that the electricity that's arriving
 536 in your house is the green electricity, but what they say is if 50 per
 537 cent of Australians went 10 per cent green energy then they'll work
 538 out exactly what percentage that should be out of the total electricity
 539 mix. Then they'll guarantee that that percentage of green electricity
 540 that's being bought by the Australian people will actually be produced
 541 by renewable...
 542 Elaine: Like actual accounts of their stuff - so okay, this is how many people
 543 we had and this is how much green energy we had to produce. This
 544 is how much green energy we actually produced.
 545 Alan: If you believe that, I've got some watches and rings you might be
 546 interested in.
 547 Elaine: It's like free range eggs. There's more free range eggs sold in
 548 Australia than there are actually free range chickens.
 549 Male 2: The thing is, these are the best ... we've got at the moment, so if
 550 you're not going to trust them then don't trust anything.
 551 Male 1: Good advice.
 552 Facilitator: So we're just about to get some forms, again just to complete that
 553 questionnaire, and then you're free. So thank you so much for your...

1 Facilitator: We've got about 40 minutes for discussion for the next section. We'll
2 break it into three parts. The first part is the Australian government is
3 expanding its clean energy initiative.
4 Female: Is it really or is this just a scenario?
5 Facilitator: No, it really is - \$5.1 billion will be spent over 10 years in research
6 and development for low emission energy technologies, including
7 carbon capture, storage and solar energy. That was announced May
8 2010. It complements the government's expanded renewable energy
9 target - by 2020, 20 per cent of Australia's electricity supplies will
10 come from renewable sources.
11 So the question is, assume that the required \$5.1 billion will be drawn
12 from a new tax to be imposed upon individuals directly by the
13 government. Is \$5.1 billion enough? That accounts to about \$35 per
14 person, so how about more or less or - what's the opinion?
15 Kevin: How would you possibly know?
16 Female: Exactly. I'd like to know what it's going to cost to get us lower than
17 that amount, but if that's...
18 Kevin: What does that \$5.1 billion then give us? What does it actually do?
19 Facilitator: Well it's research and development.
20 Kevin: In these different areas, is that it?
21 Facilitator: It's in...
22 Female: Carbon capture...
23 Facilitator: Carbon capture, storage and solar.
24 Female: Apparently geothermal's in there as well and [unclear] hydro.
25 Facilitator: So there will be probably others as well...
26 Female: Does this \$5.1 billion guarantee a 20 per cent reduction in...
27 Facilitator: Well, I don't think they can guarantee...
28 Kevin: Is that its goal?
29 Florian: They think they do something with this carbon capture crap, you
30 know...
31 Facilitator: I guess the question is, maybe going around, how much would each
32 person be willing to contribute to research and development on these
33 type of schemes?
34 Female: This is only \$35 a person?
35 Facilitator: Yes.
36 Female: Much more than that.
37 Female: That's a pittance isn't it? Nothing - it's ridiculous.
38 Mike: I'd have to look at this on a monthly income basis.
39 Kevin: Well, \$35 is like \$2...
40 Female: \$1 a day.
41 Kevin: It's less than that.
42 Female: It would have to be - people on pensions - my mum would struggle
43 sometimes finding \$35 to pay.
44 Kate: We were talking earlier about the equivalent of a Medicare levy,
45 which I think isn't a bad way - when I was thinking about it before I
46 came, I sort of thought about what people pay for private health
47 insurance - and that's quite a bit more than that. It's more than you
48 pay for your Medicare. Medicare is - like a percentage of your
49 income, so...
50 Facilitator: So maybe the discussion should turn to how much and how? The
51 individual, who pays...

52 Florian? Shall we go around?

53 Facilitator: Yes, or however you feel...

54 Kevin: Well I like the Medicare. I think if you set it at one per cent or

55 whatever and everybody pays and at the end of the year it goes in ...

56 then they can deal with it. So that's my [inaudible]. It's got to be able

57 to be flexible enough to not slam the poor and not let the rich get off

58 with not paying.

59 So I think that an annual sort of one per cent or two per cent or

60 whatever - probably one per cent I would think. It wouldn't bother me

61 but it will impact on others.

62 Female: It will also create jobs - you know, that kind of money is...

63 Kevin: Well, that's what it should do.

64 Female: I'm not sure how much of the Medicare levy actually goes towards ...

65 One would want the levy or whatever we call it - looking that it is

66 actually ... levy but that it does go actually to the R&D...

67 Mike: I see that the government says they're going to appoint overseers to

68 ensure the money is actually being spent in the right direction. What

69 you just mentioned makes sense. This levy - is levied on the

70 individuals - can we be sure that all of those levies do go towards this

71 R&D and assistance in construction of wind farms or whatever it

72 might be. Not disappear back into consolidated revenue.

73 Female: Yes. Can I ask a question about the levy? If you are on a very, very

74 low income, chances are you're reducing your emissions anyway just

75 because you're probably not using your clothes dryer and other

76 things. You may not have a vehicle, you might be on public transport.

77 So a levy - a 1.5 per cent levy, which is what we all currently pay on

78 Medicare - the chances are most of us are going to use at some point

79 or another the health care system in some way or another. If you're

80 on a very low income is it fair to expect people on very, very low

81 incomes who perhaps already are reducing their emissions...

82 Mike: We can exempt them.

83 Female: So do we have a...

84 Female: Medicare has an exemption for low income earners, so I would

85 assume one could talk about it being levied in exactly the same way.

86 Facilitator: I have a stat here which is only 30 per cent of Australians would be

87 required to pay tax after tax exemptions. So if it's done through

88 that...

89 Female: Okay, so do we say something as per Medicare provision, Medicare

90 rules or regulations, that kind of thing?

91 Kevin: I'm sorry, could you clarify that again? You said 30 per cent what?

92 Facilitator: Thirty per cent of Australians are required to pay tax after tax

93 exemptions.

94 Kevin: Oh, I see what you're saying. But that's income tax, that's not

95 necessarily Medicare levy.

96 Female: ...pay a Medicare levy although they don't pay the other tax.

97 Facilitator: So this \$35 assumes only 67.5 per cent of Australians would have to

98 pay.

99 Kevin: I think it should be more like a 1.5 per cent Medicare levy where

100 there's a cut-off - if you don't earn above a certain amount you don't

101 pay anything.

102 Mike: That's sensible - I mean, obviously cut out pensions and things like
 103 that - there's no point in...
 104 Kevin: If you're on pensions? Yes, I think that's a good idea.
 105 Female: Now we're talking about this as opposed to a carbon tax or anything
 106 else - this is a separate thing?
 107 Facilitator: Well, if it was to be drawn from a new tax, that's right.
 108 Mike: It's just a tax by another name, isn't it? But we quarantine this one so
 109 that...
 110 Female: But it has nothing to do whether we have a carbon...
 111 Kevin: This only goes for renewable energy.
 112 Florian: I just wanted to say - the question is how it's spent - if it goes into
 113 things like carbon capture, which has already been proven to be very,
 114 very difficult to achieve, if ever. Certainly in Canberra it's such a
 115 showcase - they start it here to silence the critics of the coal industry.
 116 But if it really goes into - prove me wrong - but anyway that's not the
 117 issue. If it really goes into renewable energy and the development of
 118 new technologies, like it did in Germany - as you can see here - 60
 119 per cent, which I think is a rather conservative number, very
 120 conservative - but it's already two years old, or three years old. So if
 121 it's...
 122 Female: The Australian one ... forestry...
 123 Facilitator: On that point, they say it's for 20 per cent - is the target to reduce
 124 electricity supply. With the uncertainty how would you feel if it was 15
 125 per cent - you know, if they said 20 per cent is what you're paying for
 126 but you only actually get 15 per cent reductions?
 127 Mike: Well, what worries me is the actual figure, where you arrive at a
 128 percentage. To me it could be anywhere between five per cent and
 129 15 per cent or 20 per cent - but I'd need further information to assess
 130 [unclear] and I'm not getting it, I'm just getting people banding
 131 numbers at me without any true validity as to...
 132 Female: Well we talked earlier, it wasn't - yes, okay. Why 20 per cent? Why
 133 has the government set this 20 per cent figure? Do you know the
 134 answer to that? No.
 135 Kevin: I think when they're talking about renewable energy a lot of the
 136 European countries believe that it's capable of bringing their systems
 137 up because there's the power lines involved, there's all the generators
 138 or the things that transmit the power. They reckon that 20 per cent is
 139 a reasonable sort of target to reach - just because that's what their
 140 systems can deal with. Because you have the infrastructure - where
 141 you put in a wind farm - you've got to have that tied into the grid. So
 142 there's all these sorts of restrictions on how that's done. I don't know
 143 all the technicalities of it.
 144 Female: It's very arbitrary. Your question's a very good one because it is an
 145 arbitrary number. This is a problem [with everything]...
 146 Kevin: I'm not sure it's that arbitrary though. I think pretty much what - they
 147 figure that the infrastructure that they have in place that deals with
 148 giving us our power are capable of dealing with it. Now there's
 149 probably pluses and minuses depending on how much you upgrade
 150 the infrastructure. Like your power lines. What they're aiming at now
 151 is a lot of locally produced energy that goes into small sort of areas.
 152 Instead of sending your electricity down power lines all across the

153 state or all across the country, which loses a lot of power, they're
 154 thinking now in terms of having local...
 155 Female: But that's initially very expensive.
 156 Female: The thing of expense - we've got this little graph underneath saying
 157 defence is going to spend \$21 thousand million in one year - this is a
 158 budget for one year. We're deciding is \$5.1 billion over 10 years
 159 good enough for - like I don't see it's a big problem that we're a little
 160 bit hazy on is it going to reduce it by 20 or 10 per cent. We're only
 161 asking for \$5.1 billion. All of these other things - in one year nothing
 162 even comes close to just that piddly little amount. We're quite happy
 163 to spend...
 164 Florian: It shows the priority this country has.
 165 Female: Yes. So is it going to be 20 per cent or is it going to reduce it by only
 166 15 per cent - just get on with it, let's try and do it - we're fighting
 167 around the edges at the moment.
 168 Facilitator: What about Liana? What do you think?
 169 Liana: Yes, I do agree with you, get on with it. A 20 per cent figure - well. Is
 170 there a particular question you want me to answer? I'm sort of
 171 listening and agreeing.
 172 Facilitator: Nancy? Do you have any opinions?
 173 Nancy: No, nothing particular.
 174 Female: So the question is would we financially support the development of
 175 low emission technologies? We've said yes we would. We like the
 176 idea of a levy that would perhaps be on top of the carbon tax, is that
 177 right?
 178 Mike: I thought it was substituting it...
 179 Female: Yes, that's what I'm wondering. Is this a substitute or is this on top of
 180 - is this a levy that we as the citizens of Australia pay on top of the
 181 carbon tax that presumably the biggest polluters pay?
 182 Mike? What was the initial estimation of the carbon tax ... what was the
 183 calculation?
 184 Facilitator: Well it's raising \$5.1 billion - where's that money coming from? If it's
 185 paid through a tax who pays? Just say there's another financial crisis
 186 and more people are being pushed to the edge and this extra
 187 money's - you know - how would you feel about that?
 188 Mike: Well you've got to suspend things at some time...
 189 Female: Take it from developments...
 190 Kevin: Again you would have it on how much people were earning. If there
 191 was another financial downturn a lot of people would be earning less
 192 than possibly the level that you set it at. So they wouldn't be paying
 193 this levy. Maybe the levy of 1.5 per cent is a bit excessive, actually,
 194 thinking about that - in my mind it should just be for renewable energy
 195 to get that up to 20 per cent. Say maybe a half a per cent or
 196 something like that. But enough to do the job properly. I mean \$5.1
 197 billion...
 198 Facilitator: How much is enough? How much would...
 199 Kevin: How would we possibly know? I'd be willing to spend \$100 a month,
 200 but that's me.
 201 Female: This is what I was saying, you know - I'd be prepared to pay what I'm
 202 paying now for private health insurance.
 203 Facilitator: What would be your expectation for others?

204 Female: Well, you see, this is where it becomes very difficult because ... it's
 205 alright for me because I can afford to pay it, which is why something
 206 along the lines of the Medicare levy, which actually then takes into
 207 account incomes and things like that, is to me a more sensible way to
 208 go about it.

209 Mike: A levy can be placed on business as well as individual people, so ...
 210 1.5 per cent to ourselves - but what about we start to think of the levy
 211 more towards ... that are causing the greatest pollution? We may
 212 well be making them ... technologically to improve themselves ... The
 213 technology may not be there to actually improve themselves. A levy
 214 gathered from all around - it makes an awful lot of money for the
 215 CSIRO and the ANU and organisations that can start to make a
 216 definite benefit.

217 Helen: You know, from a policy perspective, if you're a huge polluter and
 218 you're a guy that has a business that only deals in green energy -
 219 he's going to be really pissed off that you're paying 1.5 per cent when
 220 BHP down the road that's burning brown coal or whoever it is - is
 221 paying 1.5 per cent as well. Just to complicate things further, is the
 222 concept of rewarding - or increasing for big polluters, and rewarding
 223 for low ... I know this is really complicated but these are exactly the
 224 policies...

225 Female: We're only talking about \$5.1 billion is only \$35 a year per person.

226 Female: We are, but I think we've all decided - haven't we all decided that yes,
 227 this is just a - like frankly - a piece of piss and anybody - we can do
 228 this, we agree with this.

229 Female: I don't know whether we need to, like, for this one...

230 Female: The question is, would you financially support - they're asking what...

231 Kevin: That's the question, yes.

232 Female: We've said yes and we've taken this into a whole new level of
 233 conversation where now what we're doing is - we're creating an
 234 entirely different policy space to work in, where we're talking about...

235 Female: Having said we're prepared to pay this amount of money, which I
 236 personally have said is like health insurance - what if on top of that
 237 you're also paying a fairly large increase because of some carbon tax
 238 that's been imposed as well? So are you happy to go with both of
 239 those?

240 Female: Would we have to? There's just not enough information here.

241 Facilitator: Well, just say for example there was the energy company's ...What
 242 would that do to prices? Increase them. So if the energy companies
 243 are required to meet the 20 per cent target and they can use funds
 244 through increased prices to do that, do you trust the energy
 245 companies to make those changes?

246 Mike: No. You can't trust business to actually take the place of government.
 247 There are certain things that government has a total responsibility for
 248 and one of them is the mechanism - a control of price ... Now if
 249 government is going to give industry monies in the form of rebates
 250 and all these things that we're talking about ... then they've got to be
 251 certain that the monies that they're giving are getting some
 252 economical benefit in this country.

253 Kevin: I thought the whole point of both the carbon tax and the ETS was not
 254 only to price the carbon but also the ... to raise money to possibly

255 compensate those that will be impacted by the increase of prices.
 256 Well, that's as I understood - that it was part of that whole thing.
 257 That's what the money was going to be used for. Those that didn't
 258 have the dosh to pay for extra electricity - they were going to be given
 259 a certain amount. Now is that accurate or is that...
 260 Female: Well, that was one of the things that...
 261 Kevin: Yes, that's what I thought.
 262 Female: I mean, we don't have a policy...
 263 Kevin: Well, when they raise the ETS and when they raise the carbon tax,
 264 part of the money that was going to be raised was going to be used to
 265 compensate people. But they don't have it.
 266 Female: But the ETS is no longer on the books.
 267 Kevin: Well nothing is on the books and we're trying to come up with ideas
 268 that could be on the books. So I think people are going to be
 269 compensated by the increase in prices if they have a carbon tax or if
 270 they have an ETS - the government's going to raise some money. As
 271 I understood it, they were going to compensate.
 272 Mike: But one of these things was meant to be income neutral, in other
 273 words they took from Peter and they gave to Paul.
 274 Kevin: That's what I'm saying.
 275 Mike: So nothing changed around really in the cost of everything. You paid
 276 more for your power but ... I don't understand how that's working.
 277 Kevin: Well, if you earn \$100,000 a year you pay X number of dollars in tax.
 278 Now, if I'm on a wage of \$20,000 a year I don't pay any tax. But you
 279 compensate me to go to Medicare, you compensate me to drive the
 280 roads, you compensate me to use the other government sort of
 281 facilities that the government develops with your tax dollars. Or you
 282 even pay me welfare...
 283 That's the same thing, as I see it, with the carbon tax or the ETS - is
 284 that the government is going to compensate you like welfare to make
 285 up for the increased costs.
 286 Facilitator: So is the consensus that something like an individual tax like a
 287 Medicare levy would be better than taxing the polluters?
 288 Kevin: What we're saying with the Medicare levy is, if you want to get some
 289 money for renewable energy specifically for that - and the money has
 290 to go for that - you give a levy depending on - certain people would be
 291 - because their wages weren't enough - would not have to pay it. But
 292 everybody else would have to pay say five per cent or a half a per
 293 cent. That would go into this - to raise this \$5.1 billion.
 294 Florian: I just have to remind my friends here that we really have to be very
 295 careful what we spend the money for. Carbon capture and storage is
 296 not a renewable energy. It's basically to bury the dirt that the coal
 297 powered - coal fires - you know what I mean - produce, and it's a
 298 totally unproven technology. This is really - I'm more than happy to
 299 pay much more than \$35 if I know it really goes towards the
 300 development of renewable energy.
 301 Mike: Didn't we have an R&D program on clean coal or something?
 302 Florian: Yes, that's exactly that one.
 303 Facilitator: To say you can't be sure where the money goes - you want to...
 304 Florian: That's my problem. I want to know that this money really goes
 305 towards...

306 Facilitator: So it's got to go somewhere but then you've got to raise the money -
 307 so the difference between taxing mining companies versus personal
 308 income tax if you're not sure - does that make a difference to who
 309 should pay, if there is that uncertainty? Also uncertainties of global
 310 financial crises, other things within the system that can happen - like
 311 where do we get the money from?

312 Female: That's right. I mean I thought the question was asking us whether we
 313 were prepared to pay something personally.

314 Facilitator: Everyone seems to, but then the next part of the question is how?
 315 Through higher prices, through...

316 Female: Well, it will be an extra cost to the individual as I understand it,
 317 something that the government is not taking out of the present
 318 revenue to do the R&D that we think possibly needs to be done.

319 Kevin: There are a certain number of us that would really like to exclude
 320 things like carbon capture and storage because we don't see that -
 321 that is not renewable energy. That is doing something with the coal.

322 Nancy: They should do that themselves.

323 Florian: That's exactly it. They should finance that.

324 Kevin: If we're talking about renewable energy then it's got to be renewable
 325 energy.

326 Female: I think we should be saying development for anything that actually
 327 can improve the efficiency of energy. Maybe all sorts of things.

328 Florian: Yes, but there's a lot of questions about carbon capture.

329 Female: They haven't listed everything. I've got a lot more renewable
 330 energies than could be listed here.

331 Kevin: So if we're talking renewable, yes. But you've got to be specific what
 332 it's going to be for. Exactly what it's going to be for. There can't be
 333 wriggle room where you can put another...

334 Facilitator: Well maybe we should start breaking that down a bit.

335 Nancy: What is the Medicare levy used for? Is it very straightforward - we
 336 pay it and the government gets it and spends it only on Medicare
 337 purposes. Because if that's the same then one could agree with that.
 338 That they could then be equally safe, you know. The money - \$35 or
 339 whatever - if that could be only used like the Medicare levy. Does
 340 anyone know how the Medicare money - does that go in general
 341 revenue or...

342 Female: The Medicare levy is used for Medicare purposes.

343 Nancy: Only for Medicare. Then we have a blueprint for it, you know. So
 344 that could be done and could be safe.

345 Female: Medicare could administer it. Medicare is set up to do it. It's already
 346 there. Medicare administers a whole range of programs, not just
 347 Medicare programs - as does Centrelink.

348 Mike: ...I believe they're already there. Earlier on they had a gentleman on
 349 stage who left a job this afternoon, or yesterday afternoon or
 350 something, and starts the new one on Monday. He's from the
 351 Department of Climatology. They do have a structure. It's got to be
 352 enlarged of course if we do all this, but only people...

353 Kevin: I think the other issue that you raised, what companies pay - I mean,
 354 that has to go - in my mind that has to go onto mechanisms that
 355 reduce the energy...

356 The majority of people here feel that a carbon tax - if you put a carbon
 357 tax on an industry - I assume what you're hoping is that that industry
 358 then will find ways of reducing the carbon that it produces so that it
 359 can lower its tax. My feeling is that an ETS would do it better
 360 because it's more - there is a ... setup. So we're talking two different
 361 things. The carbon tax goes for industry to encourage them to cut
 362 down the use of carbon and to help pay for those that are impacted
 363 by the increase in prices. Now is that how you guys would like it to
 364 work? I mean how we'd like it to work and what's going to work are
 365 two different things.

366 Female: I think so.

367 Kevin: I mean in a nutshell - I'm sure that it's more complicated.

368 Female: ...carbon tax than people who are in business to make money. So
 369 they are going to be very keen on reducing that cost as much as they
 370 can. Maybe they have their own R&D.

371 Female: Yes, and they also have a legal requirement to ensure that they raise
 372 enough profits to pay dividends to shareholders. They have to work
 373 within those legal parameters so they will be reducing their costs
 374 wherever they can.

375 Female: I assume that that...

376 Female: Well, just in terms of incentives, it's definitely a key incentive.

377 Kevin: Does everybody agree with that - is that the right sort of premise?
 378 How about you Nancy, do you agree with that? Is it the right
 379 premise?

380 Nancy: Yes.

381 Kevin: We could maybe make a note of that.

382 Female: Is this the levy that you are proposing to - this is the carbon tax that
 383 goes...

384 Kevin: This is the levy that we're going to pay that would go directly for
 385 renewable energy. Like you suggested, it seems to make sense to
 386 me that Medicare possibly would be a branch of government that
 387 would handle that. Or whatever's appropriate. The carbon tax
 388 compensates the less fortunate especially, plus it encourages the
 389 businesses to cut down on their use or production of carbon.

390 Female: I need to know the first half of that carbon tax statement - it
 391 compensates the less fortunate.

392 Kevin: Well prices are going to increase with the carbon tax.

393 Female: I see. So you think that might get fed into the welfare system.

394 Kevin: In some way. To compensate those that are going to be most
 395 disadvantaged, is how it see it.

396 Mike: Even in industry most disadvantaged because as I said they've
 397 reached their technological barrier, they can't improve themselves
 398 any more. Are we going to put a cap on them that's beyond their
 399 achievement and then fine them for not...

400 Kevin: So then the business is closed down and they you've got...

401 Female: Are we only talking here about this \$35 per person per year figure?

402 Facilitator: How much you'd be willing to pay. But it's towards this 20 per cent
 403 target - which you don't believe - it should go all parts of what's being
 404 funded. But just say the target wasn't being officially enforced. So
 405 they've got this figure - 20 per cent ... Would that affect your
 406 willingness to pay?

407 Mike: If it wasn't being enforced...

408 Female: The caveats are enormous I think here. We're talking about caveats

409 really - this whole conversation isn't about caveats - but a lot of what

410 we're saying is that well yes, we'd do it but only under these

411 circumstances, and we'd do it only those circumstances, and we're

412 not going to do it if this is happening. So we're creating really closed

413 parameters around what we would be prepared to pay and how. Is

414 this something that we want to write down on here? Do we want to

415 put these things down? Do we want to put those parameters in?

416 Florian: Yes, I do, because I don't trust the government to - I don't want it to

417 go into a general fund and they feel like they can spend it on carbon

418 capture, which I don't believe in.

419 Nancy: ...going to achieve 20 per cent. We don't know now ... in 2020 will

420 they refund our money because they haven't achieved...

421 Female: That's right. There's some poor scientist trying to make this new

422 battery cell work and it's 2019 and he can't get it to work. But in 2020

423 he finally gets it and all the problems of the world are solved. I think

424 there's a little bit of give in this.

425 Female: I think you're ... telling them to get on with it or you're not.

426 Florian: I think our concern is not just about ... in science. Of course some

427 technologies will be successful, others will not. But they are all

428 renewable energy. This one is not one. It's something completely

429 different.

430 Female: So I guess you say define renewable energy.

431 Florian: That's extremely important. So people really know their money is

432 going towards development of real solutions. Even if some of these

433 solutions are not really solutions.

434 Female: If they want to do carbon capture then they get it from somewhere

435 else - they get the money from somewhere else.

436 Kevin: Well, like the carbon tax.

437 Female: Why do you pick on poor old carbon capture because I mean - you

438 know, everybody's going off looking for new technology.

439 Kevin: Because that's one of things they've got listed.

440 Female: But you don't call it renewable energy. You don't get energy from

441 carbon capture. It's not renewable.

442 Kevin: No, it's a storage system.

443 Female: Regardless of if it works or not, it's not a renewable energy.

444 Facilitator: This was spoken about before and a lot of you raised this as a

445 potential issue - but just say the US and China are not pulling their

446 weight. Does that affect your willingness to pay?

447 Female: No.

448 Florian: Sorry?

449 Facilitator: If the US and China aren't pulling their weight...

450 Florian: They're actually pulling their weight - China does. The US probably

451 don't.

452 Facilitator: Are you willing to pay more - \$100, \$200, whatever - so it doesn't

453 affect...

454 Female: No.

455 Kevin: For me it doesn't affect because what I see it - as improving my

456 quality of life here. This is where I'm living - here. Okay, it may not

457 save the globe - - probably won't if Australia is 100 per cent green

458 and China and the United states aren't - but at least my immediate
 459 vicinity is as safe as I can make it for my family and myself.

460 Facilitator: How do you feel about offsetting - using the money to offset...

461 Mike: No.

462 Facilitator: In developing countries.

463 Mike: Not this \$5.1 billion we're talking about. We're only talking about - we
 464 in Australia are prepared to allocate it for levies towards R&D - within
 465 the emerging low emission technology.

466 Kevin: I don't know. It depends again on how it's going to be handled. I
 467 mean, you've raised a general sort of question. Would I be willing to
 468 give this lady \$100 if I knew it was going to improve her life? Well
 469 probably I would because I kind of know her. But would you just want
 470 me to throw out \$100 - probably not. So it depends on how it's being
 471 used and how you can show me that it's really been of benefit to this
 472 country - to these other poor countries. That's a big problem with
 473 foreign aid - you don't have a clue on what's happening.

474 Female: As a principle, though ... responsibility to ... developing countries who
 475 don't have - whose people don't have the comforts that we do.

476 Florian: I think all these things we're discussing today, the matter of trust
 477 seems really important. We all do not really seem to trust
 478 governments. Some of us don't trust the markets and - I mean, if the
 479 government can get a solution that's very clearly outlined - where
 480 does the money go, how much it is, who will pay how much and who
 481 will not have to pay because they don't have the income - then this
 482 could really be a good thing. But if they don't explain it properly
 483 people will probably say no - as long as we don't know where the
 484 money goes to, then we're not part of it.

485 Facilitator: Have they explained it properly so far? Do you feel that they have?

486 Florian: No.

487 Facilitator: So how do you feel about being asked to pay without it being
 488 explained?

489 Female: It's the same as the rest of our taxes.

490 Female: It is. No different, yes.

491 Female: ...what happens to them? You know, it gets paid out for very peculiar
 492 things at times.

493 Facilitator: So how much more would you be willing to pay if you actually knew -
 494 like some of the caveats that you're speaking about - how much
 495 would that fluctuate depending on...

496 Mike: ...five per cent Medicare fee.

497 Kevin: The more transparent it is, the more I'd be willing to pay. You've got
 498 to damn well make it transparent, not just pull my leg.

499 Female: The easier it is to pay - if you're making it hard to pay then it just
 500 doesn't happen. The thing is, too, you have to know where it's...

501 Female: Yes, it's the key difference isn't it, between this and say Medicare -
 502 that when you go to the doctor and you get a prescription for some
 503 antibiotics because you're got a terrible flu, you can see your
 504 Medicare dollars at work.

505 With this, what are we measuring here? We live in Canberra - there's
 506 no pollution here, we can't tell what's going on. We know that the
 507 summers are a bit hotter - big whoop. We are completely - I'm being
 508 facetious of course, but we don't see the tangible results of our dollars

509 if they go into an R&D. But as soon as we all get solar panels on our
 510 ceilings and wind turbines in our back yards and we're paying less for
 511 our electricity - then maybe people will start thinking ah, okay. It will
 512 take time for those dollars to start coming back, if they do, and that's
 513 when people will be more prepared to - because they'll see the
 514 tangible benefits.

515 Mike: ...to start with is the way to go, to get ... it's convincing the people
 516 again where it's coming from. Just little bits at a time, thank you.
 517 Given them a big lump of \$5.1 billion over 10 years - you've got to be
 518 joking.

519 Female: But what do we want to see? If we get up there in front of those
 520 people in this room and we say yes, we'd be prepared to pay, and
 521 then they'll say okay what are you prepared to pay?

522 Facilitator: I'll give you a hint, you don't need to get up at the end. It's a good
 523 way to sort of get ideas.

524 Female: But if we were and if we - what are we actually prepared to pay for
 525 here? Seriously - because Alex is going to write this stuff up and
 526 he'll...

527 Kevin: I expect them to meet the goal of 20 per cent renewable energy. I
 528 want to see...

529 Female: By 2020 - or earlier?

530 Kevin: No - 2020 or earlier. I want to see them producing evidence that they
 531 are proceeding that way. I don't want them just to hide it. I want to
 532 know on a regular basis, on an audited basis, what they're using the
 533 money for, where it's going and what's happening.

534 Female: So if it costs 10 times \$5.1 billion and it means we have to pay a 1.5
 535 per cent levy, we are prepared to do that to see 20 per cent reduction
 536 by 2020 - is that what we're saying here?

537 Female: Yes, but do we know what the renewable energy actually is?

538 Female: Well these are the caveats.

539 Kevin: Right now there's a variety of renewable energies on the sideboard
 540 that haven't really taken hold because they don't have the sort of
 541 money to invest in the sort of R&D that they'd need to do for it. Wave
 542 technology, using gas from waste dumps and all these sorts of things
 543 - there's a whole slew of things out there but they need money for
 544 R&D to get a...

545 Mike: So would they be private enterprise or would they be government?

546 Kevin: Well, that's a big question. I mean, the Commonwealth Bank - that
 547 was government to begin with but then got handed over to the private
 548 section. Now to my mind that's a reasonable sort of - as I understood
 549 the Commonwealth Bank - that's a reasonable sort of way to
 550 approach it. What is it - there's a betting - wasn't there - New South
 551 Wales had a betting sort of thing that the state started and then they
 552 flogged it off to the private market. That's how I see it.

553 Mike: Don't forget the New South Wales state lottery was originally set up
 554 purely for the customers...

555 Kevin: that's like the Sydney Harbour Bridge. I used to work as a controller at
 556 Sydney Harbour Bridge and we were collecting that toll for a long time
 557 and paid off the bridge a lot sooner than they took off the toll.

558 Facilitator: I'd like to thank everyone for the three discussions, and now I think
 559 there's a questionnaire that Alex wants people to do.

1 *(Identifiable information removed by the author*

2 ----- Original Message -----

3 From: "[name]" <[name]@bigpond.com>

4 To: "Alex Lo" <alex.lo@anu.edu.au>

5 Sent: Tuesday, July 13, 2010 10:54 AM

6 Subject: Re: Australian Climate Policy Forum

7
8 Dear Alex

9 I submit an attached virus free document in reply to the questionnaire, I think you will
10 realise that I could not possibly answer the questions directly as per selections.

11 My personal details are;

12
13 This has become a polarised argument amongst two distinct camps; those who believe
14 that recordable global warming is not a result of human activity and those who believe
15 that the emission of industrial carbon gases is directly the cause of irregular weather
16 patterns.

17
18 My views are more directly associated with the first camp. Whilst I certainly consider
19 that unmitigated expulsion of enormous quantities of co2 into the atmosphere as a
20 result of industrialisation can have a negative effect on atmospheric composition,
21 there is as yet little credible scientific evidence of this phenomenon. I believe that
22 climate and associated change is cyclic and can only be considered in relation to a
23 million years or more. There must be global warming to have ended the ice age and
24 man had nil effect on a transition from cold to warm and vice versa.

25
26 Having stated my views, how can I approve of any form of financial taxation as
27 having the slightest effect on climate? Given that there is a significant proportion of
28 cause and effect attributed to carbon emissions, how does taxing such emissions
29 reduce their output.? A form of taxation that goes back directly into research and
30 development of clean burning coal technology, thermal efficiency, nuclear power
31 generation, wind farm technology, tidal generation and solar energy may have some
32 credence. A substantial cost increase of power to the population does not.

33
34 Increased costs will not deter mankind from economic, cultural, industrial and social
35 usage and production of energy. All energy produces heat, heat is dissipated in the
36 atmosphere, the ground and the seas; likewise co2. Carbon in it's many forms
37 eventually returns to the soil and sea. Foliage absorbs carbon so does water, both
38 impart carbon back into vegetation, animals and creatures of the waters. That included
39 man. The most alarming aspect of world wide reduction in co2 absorbing vegetation
40 has been the wide spread destruction of tropical forest without a re planting program.
41 Almost without exception this has been and is being carried out in tropical regions for

42 grazing pasture or low density agriculture. Western world clearing of forests for
43 agriculture occurred many hundreds of years ago, little has been cleared in several life
44 times.

45
46 Australia has no impact nor authority beyond it's shores, an international joke in fact.
47 What! 22 million inhabitants! Cairo has more as well as many other cities. Should one
48 perform the ridiculous exercise of dividing land mass by population, Australia has
49 virtually no polluting effect on the globe. All co2 emission originating from Australia
50 are carried south east by the westerly air flow into the antarctic oceans to be absorbed.
51 The localised concentration of any gaseous output is indeed more serious, Australia's
52 population live largely in just 5 cities and a few large towns, 22 million divided by 5
53 is a far more dense number than an entire empty country divided by 22 million.
54 So to be fair I cannot endorse either A,B, C or any reason to tax the population. As
55 for paying to plant trees! Where, in what quantity, who will dedicate valuable
56 agricultural land? Bush fires annually burn down much native forest suited to an
57 infertile, drought stricken interior. Scrubby low branched narrow leaved shrubs only
58 grow along the sand dunes or swampy coastal strip. There is no tree growing space
59 left to plant this dream other than the already established conifer plantations located
60 on mountain slopes.

61
62 The Federal Government has just announced a delay of some years for the
63 introduction of a Carbon trading scheme. The reasoning is why pay some and punish
64 others who are in fact moving with industrial science to improve performance? A
65 polluter does get fined if caught and Industrial Australia is under the strictest
66 observation. Apart from accidental discharge, there is no preventable pollution
67 occurring. Emissions from motor vehicles are constantly reduced by law and
68 technology, coal burning power stations are at this time in technology unable to
69 greatly reduce co2 emission. There cannot be and there is not any consideration to
70 reduce our way of life and dependence on electric power generation. The ALP is
71 adamant in refusing any acceptance or discussion of nuclear power.

72
73 The whole economic argument is a dead duck, no form of economic punishment is
74 acceptable to the Australian electorate. No one will pay a cent more for an already
75 expensive product, most quite simply cannot. Substantial inflation would be the result,
76 all Government pensions, grants, benefits, and otherwise payments would need be
77 increased to meet living costs. Financial curtailment of university placement and
78 elimination of pHd research funding perhaps. Cost of living increases will escalate
79 union demands for increased pay, the entire economic system would be thrown into
80 chaos with not a single benefit to anyone and not one iota less generation of so called
81 greenhouse gases. This is the simple reason why no other country on earth has
82 adopted such a policy, nor will they ever, certainly not India, China, USA and

83 Europe. All will gradually improve efficiency and reduce co2 emission as much as is
84 technically possible. So will Australia.

85

86 My views are not locked onto the improbable, I am always open to enlightenment and
87 will defer to the scientifically technical possible. I am an aged pensioner, how could I
88 be expected to shoulder any increase in costs? No! I am not prepared to pay a cent
89 more for power, nor will I get rid of the car and ride a bike, detest from meat, lie
90 rugged in bed sheltering from the Canberra cold winters, denied of heaters. The
91 whole episode is becoming more impractical daily. There is no identifiable single
92 cause towards global warming, Australia is the least polluting nation on earth, the
93 third world does not count, they produce nothing, consume nothing and cause very
94 little else relevant to the discussion.

95

96 The outcome of an economic argument lies in the political sphere, delay! That is the
97 message. Wait and see what the rest of the developed world do, if and when. The
98 electoral poll suggests that no carbon tax is acceptable, no offset tax, no carbon
99 trading scheme, none of the above mentioned. Perhaps a levy towards research into
100 technical solutions that can only go towards minimising, not eradicating carbon
101 emissions.

102

103 ----- Original Message -----

104 From: "[name]" <[name]@bigpond.com>

105 To: "Alex Lo" <alex.lo@anu.edu.au>

106 Sent: Friday, July 23, 2010 1:40 PM

107 Subject: Re: Australian Climate Policy Workshop - Map and Programme

108

109 Alex

110 The PM has upstaged you on this forum with today's announcement of a "peoples
111 forum" from the Uni of Qld. Keep up the faith and hard work and do not allow the
112 politics to discourage or hijack your efforts. My views are in line with what now
113 seems to be a majority position, I look forward to hearing real disclosure and skilled
114 opinion on the whole subject. It is a pity that the electorate cannot view a televised
115 edition from such eminent academics. I think it may well come down to that
116 eventually as millions are pushed into the ANU/CSIRO think tank.

117

118 ----- Original Message -----

119 From: "[name]" <[name]@bigpond.com>

120 To: "Alex Lo" <alex.lo@anu.edu.au>

121 Sent: Monday, August 02, 2010 10:07 AM

122 Subject: Re: Australian Climate Policy Workshop

123

Dear Alex

In reply to your query I offer the following:

The discussion group to which I was attached further regarded the comment I had made to the assembled forum in including a form of levy as an alternative to a form of taxation.

One member immediately suggested that a well understood levy already existed at Federal level, the Medicare levy. Further discussion arrived as a group consensus that agreed in this form of financing as being appropriate towards R&D funding. Two factors emerged in that there was already an established system to manage a levy as all infrastructure was in place and a means of collection existed. The figure of 1.5% was based upon the Medicare levy. It does not by any means indicate the eventual levy obligation¹. A levy, as does the Medicare levy, would cut out at a certain minimum income. Pensioners and low income recipients would not be affected. It was stressed that any levy so collected from the taxable public was to be quarantined as a sole payment towards GHE R&D. Consolidated revenue was not to be considered as was future interference by alternative government. Enshrined in legislation in all probability.

My group considered both proposals of ETS and a carbon tax as well as no action. The ETS was unilaterally rejected due to questionable benefit, risk of fraud, no real reduction influence and a seemingly abjection by government of responsibility. Some aspects were considered of value but the overall package was deficient. The carbon tax whilst not by any means the ideal solution at least targeted the major emissions, identified them and disallowed market manipulation and profiteering. Both schemes were in serious need of further research. It was a case of the stick and the carrot or the best of two incomplete ideals. So it was agreed that a carbon tax, albeit a reduced financial obligation be placed upon the major business emitters, say organisations with gross profits above \$20 million or so, who knows, that is for economists to figure. Under this scheme business or to put it accurately, commerce in all it's forms will make a contribution towards a GHE taxed at a lower level than previously indicated, and the public as a whole would contribute towards the development costs of technical innovation. This model includes producers and users of energy to equally contribute towards a longer term solution. The actual charges to both groups is in the realms of Treasury. Due to the lack of a technical aspect during the forum, actual possibility and probability scenarios were absent from conclusive evidence. There is no point in establishing time frames, established quantities, or targeted industries if it is in fact, at this stage, technically impossible. I feel this last factor weighs heavily upon industrial concepts, the concern of being pilloried and punished for factors outside their control. The idea of a public levy quarantined towards R&D will alleviate this discord greatly. No one had any real concepts of the composition of global GHE, where they originated, from what sources, geophysical distribution,

¹ This participant was a pensioner exempted from the Medicare levy.

164 climatic intolerance or in fact, apart from coal fired generation, what makes GHE. A
165 considered technical response was impossible, that is also the opinion of the media
166 and public. What was possible and did occur was that a group of non technical people
167 did establish a frame work of cooperation and submitted opinions worthy of
168 professional consideration. If any outcome was more apparent it is for a government
169 funded and controlled public information scheme, what is a few years in a millennium?
170 Big report on the forum being written by myself, your copy in a few days.

171

172

173 ----- Original Message -----

174 **From:** "[name]" <[name]@bigpond.com>

175 **To:** <kim.alexander@csiro.au>

176 **Cc:** <alex.lo@anu.edu.au>

177 **Sent:** Monday, August 02, 2010 12:09 PM

178 **Subject:** Australian Climate Policy Forum

179

180 Dear Kim

181 A resounding success! Pleas feel free to distribute my comments to all involved at

182 CSIRO and ANU. I will email Alex direct, he has already requested certain

183 enlargements on date presented. One could write far more on the forum but it is

184 enough to state that a model for an enlarged symposium has been established.

185 Dr Ken Alexander PhD Bsc(Hon's)

186 Social Scientist

187 CC; Please distribute to all ANU/CSIRO participants. Alex has his own copy.

188 Dear Ken

189 The Climate Policy Forum was a success in as much as the professional presentations

190 were quality and delivered at a level consistent with a non academia or scientifically

191 trained audience. To attempt such explanations of a multi discipline subject matter in a

192 restricted time frame and expressing only major salient points is nigh on impossible.

193 There was of course two distinct agenda intended, some of us were quick to recognize

194 this at the very beginning when a trained social scientist introduced a group

195 participation game. Behavioral science as expressed as human psychology was the

196 purpose, as this defined group attitudes, problem solving technique, self expression,

197 leadership, ingenuity and much of the cognitive outcome that could be expected from

198 a similar wider group of the population. There were no definitive attitudes present, the

199 group as a whole accepted the most plausible solution, each adding or confirming an

200 individual attitude. The eventual sum of the whole was a general consensus towards

201 the most efficient outcome.

202

203 Bravo Oh!, that is exactly what was the Objective of the exercise; viz: To make

204 recommendations to the Australian Government on emission reduction policy. It was

anticipated that the response to this vexing dilemma would in fact indicate a parallel opinion across the electorate. In that direction anyway.

In one way it was unfortunate that this ideal was not reinforced by presenters, though Steve Hatfield-Dodds and Andrew Reeson did go to lengths to explain that they would not introduce a political opinion. However in the real world there is always a political opinion, but academically that does not mean an opinion restricted to either of the Australian political parties. Such suggestions are the realm of the sensational press. A political opinion is the opinion of the electorate.

Mark Stafford Smith certainly awakened my ignorance of reality, private discussion with Mark assured me for the first time that statistical data gleaned from an international input and diagnosed or interpreted by Australia's leading scientific minds (a group encompassing all allied associates and culminating in a CSIRO expressed opinion) is justified and independently verified. There is now no doubt in my mind that global warming is occurring. However! Mark did not state categorically that this was totally due to GHE but was an as yet unqualified major contributor. I respect the analogies that comprise computer modeling but the available data and the authenticity of mathematically extended outcomes as per illustrated graphs used by Mark Stafford Smith and Steve Hatfield-Dodds leaves me feeling somewhat mistrustful. This will also be the impressions of the public at large. Problem number one! Give credence to computer modelling.

The rate of change is as yet unproven but again is a computer generated worst case scenario, alter the algorithms and a differing result is generated. It seems .005 makes a whole world of difference to an outcome. Quite simply we cannot accurately predict outcomes because change creates change in itself, this is called evolution.

The evolutionary changes, minute as they may seem have the capacity to render advance computer modelling obsolescent well before the suggested outcome.

Retrograde computer modelling if it could be performed would quickly show up the inaccuracy of many long held concepts. Still one must run with the ball you have, not the ball in the next oval. So like the public out there, the electorate to be precise, I am not convinced or hold much belief in the ultimate global disaster the computer dictates. It is the shorter term calculations that hold credibility, measurable quantities of GHE already established as being produced over the next twenty years or so will have a detrimental effect on global climate. How large an impact? Neither I nor any one else has a clue. Too many media calamities are localised. Fire flood, famine, earthquake, volcanic activity have always occurred in the same localities. Discount earthquake and volcanic eruption, that can and only will occur at catastrophic scale along known fault lines. The frequency and intensity of the climate generated disasters has been the moot point with climate change philosophy, Again there are too

246 many contributing factors to the seriousness of calamity and calamity is only calamity
247 when loss of life occurs. Flooding in China and Pakistan is only causing calamity due
248 to improper land usage. Building and living in a known flood zone is hardly
249 conducive to disaster avoidance. This is simply overpopulation. Like wise in
250 Australia's recent history, fire ravaged regions is due to misguided land occupation,
251 building and living in what was always seen as a high fire risk area. The heat waves
252 that caused bush fires have occurred many time before, 1939 was as bad,
253 unaccustomed persistent high temperatures in SE Australia are a result of stronger
254 than usual high pressure troughs lingering over the Tasman and inducing strong
255 heated northerly winds down the eastern mountain barrier. I cannot see a correlation
256 between GHE and seasonal high and low pressure systems generated in antarctic
257 regions. Avoid the media driven tripe that allocates all phenomenon to associated
258 GHE. Pity BOM was not invited.

259 Steve Hatfield-Dodds had access to Treasury generated data presented in graphical
260 form. The economics of presumed outcomes is again a product of the computer. A
261 computer lacks intellect, emotion, sense or the capacity to reason. A computer can
262 only generate an intended outcome. The old saying! rubbish in, rubbish out. There are
263 degrees of rubbish, much is quite correct and accurate but it only takes one little
264 fragment of inaccuracy to misinterpret the whole analogy. Steve's presentation was on
265 the whole enlightening and does show an economic national likely outcome, but the
266 graphical conclusions reach too far into the future. A cut-off point around 2020 might
267 have had more authenticity. Again, a print out handed around would have been of value,
268 time to assimilate the content was too brief. I did query the probability of offshore
269 relocation of Australian manufacturing given repressive economic disadvantages due
270 to forms of GHE taxing. Concessions and advantages would be awarded to Australian
271 corporations who relocated to non compliance nations. Thailand, Indonesia, Malaysia,
272 Philippines and Fiji are all candidates for Australian investment. Economically
273 speaking introduction of any form of corporate carbon taxing will most certainly have
274 a detrimental effect on employment and investment. On that basis alone it is almost
275 enough to sound the death knell. The failed point to be established from the
276 economists, was the rate and extent of any proposed economic sanctions. Far too
277 much emphasis was given to achieving a non achievable dream in a ridiculous short
278 time frame. 5%? reduction! Who in industry has admitted that the technology and
279 economics exists to achieve this result? No one was invited from the technology prone
280 industries to explain how a carbon reduction can be performed. I have no idea how
281 industry will remove GHE from the production cycle.

282 The only analogy bandied around the forum was of the obvious and well published
283 deficiency in the use of brown coal to minimise GHE. The only brown coal fired
284 power generators are located in Gippsland, Vic. Neither can be eliminated, neither can
285 switch to any other form of heat generation unless a natural gas pipeline is provided.
286 The proposed NBN \$47 billion can certainly provide for that eventuality. In about ten

287 years. Whilst conversion to gas fired generation would reduce GHE, by how much
288 and at what cost? Would this also make a worthwhile impact on overall Australian
289 GHE? Bit like the farting cows and pigs syndrome, it is nature, no one cares nor wants
290 to curtail cow farting. We like to eat them too much to tax them or reduce their
291 numbers. That stupid concept really did put the public offside. Steve Hatfield-Dodds
292 contribution was educational but reliance on Treasury concepts smelled of
293 manipulated outcomes.

294 Hayley Stevenson is a good and informative presenter of her discipline in the
295 International forum. Hayley revealed a positive body language , she sent the message
296 out clearly and concisely. Speech delivery was rapid and kept one in a catch-up mode.
297 Hayley led one into an insider camp, we heard revelations and positions being taken
298 in the international arena, sociopolitical stuff, kept from the public by the media. So I
299 learned that in reality no other country is doing much more than what they have
300 already been doing, no surge or expanse of projects, no hair tearing or breast beating
301 and little popular demand for increased actions from their governments. In other
302 words most of the western world is satisfied with their ongoing efforts towards GHE
303 targets. However most of the countries involved are geographically much smaller than
304 Australia, have vastly different transport, and infrastructure in place and with
305 concentrated populations. It is easier to achieve an outcome if much of the work has
306 been done. Industry is much newer, more efficient and selective. Nuclear power
307 generation also removes coal as a major emitter. Petro-chemical industries are
308 predominant but are mainly provided with power from nuclear generators. Replace
309 coal fired power stations in Australia with nuclear energy and the GHE would achieve
310 a 20% reduction in the allocated time frame. How can we win if the games rigged and
311 the goal posts are shifted for convenience? Ok so Hayley virtually conceded the
312 Liberal Party position of wait and see what they do. Not exactly that concept but a
313 more sedate and achievable goal. Scale of production is also a driving force, it
314 provides an economic base to draw down needed capital. Every other industrialised
315 nation on earth has more capital to drive a program and is better positioned than
316 Australia to introduce a GHE policy. Stop being so pessimistic, Australia has little
317 true avoidable GHE, none by wanton disrespect for the clean air act, inspectors are
318 forever watchful. The matter of coal fired power stations has a 100 year history and it
319 may take half of that time frame to eliminate them. Care more about industries that
320 can introduce technologies to trap and reduce formations of GHE. But! And I reiterate,
321 But! Give due credence to the practicability and availability of such technology. GHE
322 will not cease because you want it to do so, nor because there are evil polluters out
323 there, but only because it can be done. Copenhagen, Mexico, South Africa! I haven't
324 a clue what they did, said, promised, denied or pretended at these forums, I do not
325 care and am not interested and what's more I have no impact on any outcomes.
326 Neither does the rest of the world, that has been demonstrated. Australia just does
327 what it reasonably can for it's own satisfaction and benefit. Australia will make no

328 impact on GGHE, we emit so little but as one member said, our health may improve.
329 Enough said!

330 Andrew Reeson introduced the political aspects of choice or evaluation of the two
331 projected schemes. The ill fated ETS or the disputed Carbon tax. Herein lies the
332 political tiger. Labor backs the ETS path and Liberal reluctantly pursues a carbon tax
333 scenario. Both parties would be quite happy for the whole pressure can to go away
334 and die a death of disinterest. For the first time I actually became aware of the
335 composition, methodology and shortfalls of both schemes. At this point I became
336 acutely aware of the value of the forum. This is the whole crux of the matter, few if
337 any, including the members of parliament have a clue as to what either scheme really
338 means. The public are totally disinterested apart from the Greens. The media cannot
339 adequately describe the content of these schemes, leaving the public confused,
340 ignorant and finally unconcerned.

341 The debate amongst my group was more direct and heated with this topic than any of
342 the previous subject matter. A consensus was rapidly reached with only the one
343 distrainer, that the proposed ETS was a dud and a fraud. The carbon tax scenario was
344 selected as the better of two inadequate schemes. At this point a third alternative was
345 introduced, a levy imposed on all taxpayers to create an R&D project. The terms and
346 conditions of this levy are now with Alex Lo. Due to my loss of hearing and Andrews
347 softly spoken voice I admit to missing much of his commentary. I had to rely upon the
348 power point outlines. Andrew was more direct than previous speakers in admitting to
349 doubts within submitted policy. I began to see a convergence of opinion bordering
350 upon my own and the electorate in general. Wait a minute I thought! This whole
351 shebang is going off too fast, far more involvement needs be done by either party in
352 government before anything is locked down. Andrew put up a good case for jumping
353 in deep water now, probing around with sticks to test the depth or doing little until the
354 others goes in the deep water first. Andrew wisely left it up to the individual to decide
355 upon the best course of action, he only indicates the depth.

356 There it is, my impression of the Australian Climate Policy Forum convened jointly
357 by the ANU and CSIRO in aid of Alex Lo's PhD project. Let's not be shy about this,
358 the forum was in fact a preview and litmus test of the proposed Julia Gillard citizens
359 committee. If so, it would work!. Twenty randomly selected citizens representing a
360 cross section of the electorate did arrive at a considered consensus. Well not quite, but
361 close enough to form a probable electoral poll outcome. The catalyst was information.
362 People can make rational decisions once informed. Political parties and the media
363 presume the mushroom philosophy , kept in the dark and fed bullshit! The enormous
364 dissent towards a citizens committee is in the title, the supposed aims, and the
365 prejudicial outcome. In other words the truth is lacking and if Danielle Cronnin from
366 the Canberra Times had been present or had a comprehensive press release from the
367 CSIRO/ANU Forum, perhaps, if it is now politically relevant, the media may at last
368 explain the advantages of a public debate. Sorry to disturb you at CSIRO and ANU

but if this did occur then all of you are the only logical candidates and have a grueling twelve months ahead. Polish up the convention a little, include technologies, authenticate computer modelling and a science caravan is on the road. Move over Questicom!

----- Original Message -----

From: "[name]" <[name]@bigpond.com>

To: "Alex Lo" <alex.lo@anu.edu.au>

Sent: Monday, August 02, 2010 1:38 PM

Subject: Re: Australian Climate Policy Workshop

Alex

As an aged pensioner the 1.5% allocated figure does not apply to me but if it did, it approximates \$5 per week. The aged pension, inclusive of added amounts equals \$701 per fortnight. All deductions are based on the base rate of pension which is around \$670 per fortnight. The pension is aimed at 25% of the adult award minimum pay so a taxable income level at 4 times pension or roughly \$1300 a week applies. However, the proposal is only for a levy to be introduced at a cut off rate equivalent to incomes in the annual \$50,000 and upwards bracket. I am not sure but this is somewhere near the Medicare levy bracket. Find out for sure how Medicare works and you have the answer to the GHE levy. Again a definitive figure of 1.5% was only a throw in to establish an initial level. It may be that a levy of less or more is required. Also the CPI adjustments will alter the fiscal amount. As an economist, you know that national salary and wage levels are available, it is easy to calculate how much a levy could generate by adding or subtracting from a starting point of 1.5% net, not gross, income. A gross income allocation seems unfair and excessive to me however I am not an economist. If so, then for a start, make it 0.5% of gross income. The levy is transparent, deducted along with PAYE at place of employment and paid in to government much as sales tax was. Annual tax loggements simply increase the gross amount payable by the allocated levy. It happens automatically with Medibank. A levy involves everyone in contribution other than those whose incomes are below the cut off income. To expect commerce to shoulder the entire load will never succeed. A levy is in no way to be construed as a tax or an assistance package to industry, a levy is to be quarantined and only available for R&D. Temporary levies have been used by government in the past, an introduced 3 year levy may at least start the ball rolling. Extend it or scrap it as conditions dictate in the future.

----- Original Message -----

From: "[name]" <[name]@bigpond.com>

To: "Alex Lo" <alex.lo@anu.edu.au>

410 **Sent: Wednesday, August 11, 2010 8:42 AM**

411 **Subject: Re: Australian Climate Policy Workshop**

412

413 Dear Alex

414 When one changes one's view it is generally due to additional data influencing the
415 cognitive process. The major consideration in my case was the Mark Stafford Smith
416 lecture, creating an entirely believable scenario. In other words media generated
417 decisions were irrelevant, distorting and somewhat fraudulent. Factual information
418 straight from the scientists mouth in the first person, beats panicky sensationalism
419 generated by the press. Andrew Reeson virtually cemented my change in attitude by a
420 balanced, factual and objective appreciation of the problems ahead.

421 Lesson one for government; create and manage a factual and non hysterical
422 communication campaign. Only then will the public come on board for a positive
423 outcome. (Alex! this is what I meant by Australianised assistance in dismembering
424 journalistic articles. There is always a deeply entrenched unique national
425 psychological mood involved, a deep river of discontent that only an observant
426 Australian detects. It is our way, same as you are able to discern a Gungzhou element
427 of reaction). I changed my mind because I learned truth.

428 The second element of variance with nominated question response is more in line with
429 review thought. One day is inadequate to assimilate and positively decide a position
430 on these elements. Regard what I have written and communicated since the forum as
431 being my considered opinion. Will probably learn even more of the reality eventually
432 and firm opinions on enhanced information. I am not skilled or informed sufficiently
433 to become involved in the causes, effects or responses to GHE, I am not a scientist,
434 have absolutely no political convictions on this subject, fail dismally as an economist
435 but poses the shrewd insight into electoral outcomes of rash economic decisions.
436 Apart from a vocal minority, mostly of the Green variety, few Australian really care
437 about GHE, the hyped up consequences, whether the world drowns, ice bergs collapse,
438 polar bears roam far and wide and any other issue that does not actually hit the wallet
439 pocket nerve (An Australianism!) The electoral, voting population is disinterested in
440 GHE warming, they have been exposed to too much sensational rubbish from the
441 media. Labor backed off an ETS because it will not be electorally supported. Liberal's
442 carbon tax is an inadequate, poorly explained scheme and economic elements are
443 misconstrued. I do not have the written eloquence of a PhD in literature so my
444 ramblings are often incoherent, thanks for listening anyway. I can't spell either and
445 coin words to suit, quite incorrect, but it suits; Australianism is such a non existent
446 word.

447

448 ----- Original Message -----

449 **From:** "[name]" <[name]@bigpond.com>

450 **To:** <kim.alexander@csiro.au>

Cc: <alex.lo@anu.edu.au>

Sent: Saturday, August 07, 2010 8:53 AM

Subject: Victoria's brown coal

Dear Kim

Alex gets a direct copy although I feel he may need Australian originating economic, political and commercial input to ascertain the gist of this article in the Age. This subject is right down Andrew Reeson's alley. Most of my contentions expressed in the forum and at the group discussion and also in private with yourself, Andrew and Alex stipulated the same problems. The economics of change and rectification, not the need to apply change to environmental reform. Who pays when the producer cannot possibly meet rectification costs ? Providing the cost of supply to the market does not increase due to GHE rectification, then the public are not concerned. Both political parties are agreeing to a \$300 million per year gradual coal to gas changeover plan. This is to be funded from consolidated revenue with consequent subtraction from other environmental programs. My theory of a taxpayer funded levy goes some way towards assisting this imbalance. There is now no escaping the fact that billions will have to be provided towards GHE rectification over the next decade. This can come from increased taxation, a levy or manipulation of company tax rate in these industries, a bail out subsidy or straight out nationalisation of power generation. Ownership of generation to revert back to the Crown. Price will have to increase but can also be subsidised by taxation revenue. In all scenarios it is impossible for the market to be excluded from cost recovery. A taxpayer levy now seems appropriate and will generate the income required to achieve a changeover. Of course rectification must be in line with national affordability and any levy must be acceptable by the payee. The producers simply cannot shoulder the burden of transfer of fuel input, there is not the income generation to allow commercial decisions. Read the article, consider the economic and political ramifications, introduce the levy argument and determine the best course of action.

----- Original Message -----

From: "[name]" <[\[name\]@bigpond.com](mailto:[name]@bigpond.com)>

To: <alex.lo@anu.edu.au>

Sent: Thursday, August 12, 2010 10:39 AM

Subject: Media hype

Dear Alex

This is a typical example of ignorant media scare mongering. Dr Church of CSIRO should have known better than to be associated with an article penned by a commentator from the Guardian. The Guardian is a major left wing, radical

492 newspaper established over 100 years ago in the midlands region of England. Workers
493 of Manchester, Birmingham, Leeds etc are the main readers. It is in all probability a
494 stooge paper of the Murdoch empire by now.

495 The Greenland glaciers have been collapsing into the Arctic sea, Naires Straight to be
496 exact, for millenniums. Recorded sea levels have not risen to a discernable degree. Ice
497 in the sea, as is an ice berg, has already displaced it's volume in seawater. Ice that has
498 been totally land bound and hence has no displacement value, will upon entering the
499 sea, displace it's own weight in sea water. Only land bound ice can contribute towards
500 rising sea levels. Glaciers are not static, to be static is an ice cap, not a glacier. To
501 even suggest that Greenland will or can entirely melt is fantasy of the most absurd
502 kind. The glaciated ice of Greenland will continue to erode into the sea, just as in the
503 past hundreds of thousand years. A modest rise in sea level can be expected over the
504 next thousand years. Big deal! The current panic driven descriptions of the Manhattan
505 size ice berg are crap! This berg, will like all others, be broken into smaller and
506 smaller relics until fetched up shore bound as gradually melting ice shelves. Several
507 hundred years perhaps. Little berg ice will traverse the Baffin basin to enter or even
508 endanger shipping, far to the south off New Foundland The ice berg that caused the
509 sinking of the Titanic originated from pack ice flowing south from the Icelandic sea
510 within Denmark Straight. All glaciers must disintegrate once the ice mass, or portion
511 of, slides over the fulcrum point of elevated land mass into lower level sea mass.
512 Weight of ice breaks off the mother glacier in the method shown by satellite image as
513 a long continues crack. The length depends on the outlet width. The outlet width
514 depends upon the terrain form. Narrow glaciated valleys produce frequent smaller ice
515 calving. A wide plain such as the Petermann forms expansive shelving.

516 I have almost returned to my original position of complete disregard for scientific
517 evaluation after reading this rubbish article. See what I mean! How do you expect to
518 get a public on side with this sort of hysterical nonsense. Even the blue collar workers
519 of Sydney's western marginal electorates are not that dumb. CSIRO should have
520 censored input from an employee, claiming CSIRO backing. If so why was he not an
521 invited speaker? All these overseas senate committee revelations are just that,
522 offerings of fools in an effort to sway congress. The congress is not that stupid either,
523 just hypotheses, possibilities if unlikely scenarios occurred. Little factual evidence.
524 Ask the CSIRO sea level experts why the tide tables for Sydney Harbor have not
525 changed in 100 years! Neither have the Admiralty charts that the entire worlds
526 shipping depends upon for safe passageway.

527
528 (below is a news article attached to this email)

529 **Huge rise in sea levels forecast if global warming ignored**

530 BEN CUBBY

531 August 12, 2010

532

533 Sea levels could rise by up to seven metres (23') if greenhouse gas emissions were not
534 scaled back, a panel of leading geoscientists has told the US Congress.
535 The warning came as a vast ice shelf, about 260 square kilometres in size, continued
536 to fall away from Greenland's Petermann glacier, the largest iceberg shed by the island
537 in half a century.
538 The geoscientists told Congress Greenland might cease to exist, with the island
539 rapidly approaching a tipping point that would see much larger masses of ice melting,
540 pushing up the average level of oceans around the world. Temperature rises of
541 between two and seven degrees Celsius - which are considered likely by the end of the
542 century due to human-induced carbon emissions - would force the change, they said.
543 A leading Australian sea level rise researcher, Dr John Church, broadly agreed with
544 the US assessment. "We are seeing something significant, and it's something our
545 coastal cities have not experienced before," said Dr Church, a lead author of the most
546 recent global assessment by the Intergovernmental Panel on Climate Change. "We're
547 beginning to move outside the range of what we have become used to seeing as
548 normal variability, and see an acceleration of both greenhouse gas levels and sea level
549 rise."
550 But there was still a great deal of uncertainty about the timing and extent of the
551 disintegration of Greenland's ice sheets, Dr Church said.
552 "We are looking at a process that will be going on for centuries," he said. "It may be
553 that we do cross that threshold relatively soon, but there is a lot of uncertainty around
554 it, in my view."
555 Professor Richard Alley, a geoscientist at Pennsylvania State University, told the US
556 House of Representatives committee on energy independence and global warming a
557 sea level rise of seven metres was a realistic possibility.
558 "Some time in the next decade we may pass that tipping point, which would put us
559 warmer than temperatures that Greenland can survive," Professor Alley said.
560 The current threshold at which Greenland would melt is a temperature rise of between
561 two and four degrees, according to the UN's current estimate.
562 The Australian government is currently planning for a sea level rise of 90 centimetres
563 by the end of the century.
564 Dr Ryan McAllister, a scientist from the CSIRO's climate adaptation division, said
565 planning for sea level rises needed to become more flexible to take uncertainty into
566 account.
567 "We also need to broaden our perspective on planning so we can adapt to different
568 stages of climate change as they emerge," Dr McAllister said.

Coding Scheme with Reference

Coding Category		Line Number			
	S1G1	S1G2	S1G3	S2G1	S2G2
1. Initial Confrontation					
1.1 Perceived dichotomy	23-6		247-72		
1.2 Enthusiasm					
1.2.1 Moral responsibility	19-20; 36-7	57-9			
1.2.2 International demonstration		30-4; 95-8; 104-15			
1.2.3 Economic benefits		49-53; 234-8	332-35		
1.3 Scepticism					
1.3.1 Incomplete evidence			101-22; 147-52; 171-7;		
1.3.2 Minimal contribution		175-9			
2 Experiencing Conflict and Difficulty					
2.1 Disagreement on key issues			101-22; 147-52; 224-37	44-56	33-55; 253-62
2.2 Sense of powerlessness or incompetence	38-48; 367-71	67-9; 86-8; 102-3; 301-3	36-40; 204-5	106-12	
3 Problem Characterization					
3.1 Limitations of market mechanisms				84-90; 98-105; 198-202; 225-31	240-7

A.3.2

Coding Category		Line Number			
	S1G1	S1G2	S1G3	S2G1	S2G2
3.2 Lack of political commitment	74-7; 182-6; 193-206; 209-12; 328-35; 337-53		212-23	309-16	124-9; 339-44
3.3 Collective action problems	269-76; 337-53				308-11
4 Criteria Articulation					
4.1 Policy dimension					
4.1.1 Certainty or guarantee of purpose				57-61; 169-70	62-70; 85-7
4.1.2 Trust		325-7		156-61	
4.1.3 Simplicity or flexibility				44-53; 76-83; 113-5; 123; 127-34	124-9
4.1.4 Distributional fairness					78-83
4.2 Willingness to pay					
5 Consensus Formation					
5.1 Medicare levy parallel					
5.2 Recognition from opponents					

Notes:

- 1) 'S' refers to Session, 'G' Group, 'LG' large group presentation in Session 2;
- 2) italic form denotes counter examples or arguments;
- 3) 'EC' is the electronic conversation between one of the participants (Mike) and the author.

Coding Category	Line Number					
	S2G3	S2LG	S3G1	S3G2	S3G3	EC
1 Initial Confrontation						
1.1	Perceived dichotomy					13-8
1.2	Enthusiasm					
1.2.1	Moral responsibility	212-15		387-92		
1.2.2	International demonstration		366-7; 370-5; 381-5			
1.2.3	Economic benefits					
1.3	Scepticism					
1.3.1	Incomplete evidence					18-24; 91-2
1.3.2	Minimal contribution	207-14				46-9; 92
2 Experiencing Conflict and Difficulty						
2.1	Disagreement on key issues	66-92; 105-9; 119-32; 148-70; 172-94; 225-47; 289-95; 338-46			277-85	
2.2	Sense of powerlessness or incompetence	392-4	36-40			
3 Problem Characterization						
3.1	Limitations of market mechanisms	30-4; 177-80; 249-53; 338-46; 380-2				
3.2	Lack of political	177-80	458-69; 499-504; 505-8			

Coding Category		Line Number				
		S2G3	S2LG	S3G1	S3G2	S3G3
commitment						
3.3	Collective action problems	168-70		311-5; 443-54; 458-9; 488-91; 499-504		
4 Criteria Articulation						
4.1 Policy dimension						
4.1.1	Certainty or guarantee of purpose	108-10; 257-62; 382-5	21-3; 36-40	145-6; 164-70; 212-4; 249-50; 348-54	143-9; 157-62; 176-7;	67-71; 298-305; 465- 72; 477-83; 496-7; 500-13
4.1.2	Trust	30-2; 177-80; 249-53; 312-20; 338-46; 380-2		212-4; 284-310; 324-30; 356-9; 539- 44	415-29; 437-40; 441-9	246-8; 415-7; 475-7
4.1.3	Simplicity or flexibility		23-5; 36-40; 66-9			
4.1.4	Distributional fairness			184-8; 406-23		73-81; 217-24
4.2	Willingness to pay				176-7	465-72; 477-83; 496-7
5 Consensus Formation						
5.1	Medicare levy parallel	279-88; 312-24		108-12; 139-47; 176-83; 184-93	302-9; 336-43;	44-9; 54-8; 73-85; 335-344; 381-6
5.2	Recognition from opponents	338-9				335-344 130-8; 200-1; 215-20; 359-61; 516-7