4. Policy Frames, Policy Making and the Global Climate Change Discourse

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4.1 INTRODUCTION

Interpersonal and group communication is at the core of successful conflict management of all kinds (Drake and Donohue, 1996; Fisher and Ury, 1981; Hocker and Wilmot, 1991). Within the realm of public policy making, communication among issue stakeholders permits policy issues and conflicts to be collectively understood and defined, information to be exchanged and internalised, meanings to be shared and reconstructed, and arguments to be set forth, debated, and eventually institutionalised.

Under some circumstances communication among issue stakeholders is more likely to be tractable and policy consensus more likely. For instance, when empirical knowledge about the issue under debate is undisputed and when there is consensus among stakeholders about what future prospect is most desirable and who should have decision-making authority, consensus-building among policy stakeholders is tractable and the prospects for successful policy formation is enhanced. On the other hand, for novel public policy issues containing multiple and diverse interest groups and significant empirical, scientific, and procedural uncertainties, interactive communication, and hence policy making, may be problematic. Rather than starting from uncontested empirical consensus about where the issue comes from, how it is to be evaluated and addressed and what risks it poses, stakeholders instead start their discourse from contrasting and often incompatible models, metaphors, and stories about the issue under debate (Douglas and Wildavsky, 1982; Rochefort and Cobb, 1994; Stone, 1988). Policy making, under such conditions, resists rational problem solving because the beliefs, evidence and goals used by stakeholders to construct policy initiatives are themselves contested.

This chapter uses global climate change as a case study and Q methodology as a means, for studying difference of beliefs and understandings held by
issue stakeholders under conditions of uncertainty. In it I discuss:

- The importance of ‘policy framing’ to policy tractability.
- The specific policy frames which underlie the global climate change discourse.
- Ways that Q-based research can serve as an aid to policy making and conflict management.

### 4.2 POLICY FRAMES AND ENVIRONMENTAL DISCOURSE

Policy actors continually draw upon competing models of the world as they interact with information about public issues, as they tell stories about how political and social dynamics interact, and as they codify policy objectives into law. Whether addressing an outbreak of meningitis among schoolchildren, growing unemployment among blue-collar workers, or urban smog, models and stories about the world help policy actors reduce complex issues to manageable proportions by suggesting how to best view, understand and manage social and political phenomena.

Different people have called the models and scripts that people operate under/construct as they interpret and respond to the external world many different things. Kelly (1955), for instance, argues that all people have a ‘personal construct system’ that orders information and serves as a guide for behaviour. Similarly, Cantril (1950) describes one’s perceptual reality as an ‘assumptive world’. Many anthropologists have used the more collective lens of ‘culture’ to describe a shared collection of understandings and normative beliefs about the way the world operates and the way people act. Cognitive psychologists rely upon such terms as schema, scripts, or cognitive maps to describe the way that external information is internalised and ordered (Lachman et al., 1979; Jonsson, 1991). Finally, the concept of ‘framing’ has been widely used across several disciplines to characterise the way people subjectively understand and construct their world when negotiating specific issues (Bateson, 1972; Goffman, 1974; Putnam and Holmer, 1992; Tversky and Kahneman, 1974).

Consistent with this last tradition, this chapter refers to the sets of beliefs, values, models and stories about the world that political actors use to make sense out of specific social and political issues, as policy frames. The notion of policy frames adopted in this chapter is rooted in the issue development tradition (Putnam and Holmer, 1992) and follows on the work of Goffman (1974), Bateson (1972), and Schön and Rein (1994). From this perspective, policy frames are dynamic and ever-changing ‘scripts’ for organising and understanding the social and political world. They are not solid or observable structures, but rather partial and often incomplete social constructions of an issue, that give familiarity to otherwise ambiguous information, objects, and phenomena. As such, policy frames might be thought of as fluid processes of issue conceptualisation, which are transmitted via language and are constructed through social interaction, reaction, and adjustment (Putnam and Holmer, 1992).

Policy frames organise both values (criteria for guiding action and developing and maintaining attitudes) and beliefs (what things exist and are true, how they are related to each other and relatively valued) into personally meaningful and issue-specific patterns. In so doing, policy frames unconsciously direct us towards a central story line from which to connect an unfolding strip of policy events (Gamson and Modigliani, 1990). They provide a discourse of understanding which draws our attention to ‘a few salient features and relations for what would otherwise be an overwhelming and complex reality’ (Schön and Rein, 1994, p. 26). They provide us with a context of values and core underlying beliefs within our language, from which to interpret and respond to policy controversies (Zundel, 1995). Finally, they open up pathways to action. In essence, then, policy frames serve as a touchstone from which political actors recognise policy situations, interpret their meaning, and respond to them.

The policy frame perspective reminds us that policy decisions are never objective in the sense that they are made from an external point of view. Rather, policy decisions will always reflect the cultural, social, institutional and economic, and experiential context in which they arise (Rosenau, 1993). Historical factors, values, one’s socio-cultural and economic location, what we see and remember, dominant ideological perspectives, and a host of other variables, all influence the way in which policy problems are initially assessed and nested within particular narratives of understanding. In addition, policy outcomes will always reflect dominant perspectives about the way that people are and the way that the world works (Rochefort and Cobb, 1994). These dominant assumptions will constrain the range of options open to policy makers, or even eliminate a problem from the policy agenda if that problem cannot be solved using the conventional tools and techniques favoured in policy circles (Wildavsky, 1979). Finally, by studying policy frames, we can advance our understanding of, and response to, policy conflicts in a way that interest-based and material/data analysis alone cannot.

While there are a number of possible methodologies for the study of policy framing differences (surveys, narrative analysis, etc.) this study uses Q methodology as a tool for investigation. First widely introduced to the social science community by the psychologist William Stephenson (1953, 1974, 1978), Q methodology has more recently extended its reach beyond
psychology to fields as diverse as education, communication, and philosophy. The goal of Q methodology is to reveal patterns of beliefs about political and social issues within a given discourse domain; in effect, to typologise policy frames in a systematic way so as to render an individual's subjective constructions of the world observable.

Q technique typically proceeds in two phases. In the first phase researchers present individuals with a range of stimuli about social and political issues — culled from any number of sources such as texts, opinion pieces, interviews, cartoons, etc. — and ask them to sort these statements, pictures, or even sound recordings according to a specified condition of instruction (e.g., most like my point of view to most unlike my point of view). Statistical tools are then used to generate factors, which link similar perspectives — or Q sorts — together into common typologies. In the second phase these typologies, or in the case of this research, policy frames, are interpreted in order to give the researcher a window to the range, the content, the character, and the cleavages within the policy discourse of participants.

4.3 CASE STUDY: GLOBAL CLIMATE CHANGE

Over the past two decades increasing numbers of scientists have concluded that atmospheric concentrations of carbon dioxide (CO₂) and other 'greenhouse gases', such as methane (CH₄), nitrous oxide (N₂O) and chlorofluorocarbons (CFCs), have steadily accelerated since the industrial revolution. This acceleration is largely due to a range of human activities related to industrialisation and development, including the burning of fossil fuels, the clearing of forests, and the release of various industrial chemicals into the atmosphere (Houghton, 1997; Turekian, 1996; Watson et al., 1996). The majority of scientists investigating these trends have suggested that the build-up of these gases in the atmosphere will contribute to the so-called 'greenhouse effect', where heat from incoming solar radiation is absorbed by greenhouse gases and thus trapped from escaping back into outer space. Among the theoretical consequences of global warming are altered rainfall patterns, a rise in sea levels, disruption to marine ecosystems, extinction of plant and animal species, more frequent and severe tropical storms, and a surge of environmental refugees (Chichilnisky and Heal, 1993; Hampson, 1990; Leggett, 1990; Turekian, 1996).

Global climate change has recently emerged from an obscure and little attended issue within international affairs to a major locus of international activity involving ever-growing numbers of scientists, diplomats, nongovernmental actors, intergovernmental agencies, and treaty initiatives (Paterson, 1996). The most significant development in global climate politics to date is the signing of the Framework Convention on Climate Change (UNFCCC), negotiated at the Earth Summit in 1992, and follow-up agreements made at the Conferences of the Parties (COP 1–4) between 1992 and 1998. Collectively, these initiatives have sought to commit states to protecting 'the climate system for the benefit of present and future generations of humankind, on the basis of equality and in accordance with their common but differentiated responsibilities and respective capacities' (Article 111, UN Framework Convention on Global Climate Change).

However, despite tremendous diplomatic initiative over the past two decades, a relatively small amount of effort has actually gone into the implementation of agreements, and climate change policy making remains embroiled in controversy, pitting North against South, industry against environmentalist, believer against sceptic. As a consequence, no slow-down or reduction of greenhouse gas concentrations in the atmosphere has yet occurred, and even optimists admit little chance that even the most aggressive international action steps being debated will reduce the chances of global warming in the short term. Thus researchers within the field of global climate politics face the somewhat paradoxical situation. While international diplomatic efforts to address climate change are considered by many to represent a 'landmark achievement in the history of international environmental management' (Mintzer and Leonard, 1994), by some measures — in particular an actual slow-down or reduction in greenhouse gas production — very little has been actually accomplished. The question is, why has climate change proven so resistant to policy making efforts?

4.4 PROCEDURE

The majority of research on global climate policy difficulties focuses on the institutional and procedural, scientific, and interest-based barriers to policy making (Caldwell, 1996; Dale, 1994; Glantz, 1998; Grubb, 1989; Maul, 1993; Mintzer and Leonard, 1994; Nordhaus, 1994; Paterson, 1996; Richardson, 1992; Wood and McDonald, 1997; Young et al., 1996). The impact of policy framing differences on discourse intractability has received little or no attention. To fill this gap, the following Q method-based research procedure was followed. First, a Q sample was selected out of the written material about environmental beliefs and attitudes in general, and global climate politics in particular. Source materials included academic books and articles on global climate policy and global environmental affairs, Op-Ed articles, press releases from government agencies, NGO position papers, personal conversations with members of the global climate discourse community, and the texts of international agreements on climate change, including
that is, they did not all follow a pre-set grouping of questions. In general, however, questions focused on three areas:

1. further elaboration of the participants' Q sort;
2. the participants' concerns about and activities with global climate politics to date;
3. the participants' understanding of the state of the science of climate change, and needed next steps.

Finally, the resulting Q sorts were correlated and then factor-analysed. Centroid extraction with varimax rotation was performed through the PCQ software program (Stricklin, 1987–96). The standard error for a factor loading is calculated by the expression 1/√N where N equals the number of statements. For 60 statements, the SE = 1/√60 = 0.13. Loadings in excess of 2.58(SE) = 0.33 are significant at the 0.01 level.

4.5 RESULTS

Statistical analysis revealed three distinct and ideal-type ways of framing the global climate change issue within the discourse group studied. Table 4.2, a factor matrix table, indicates these three factors and provides a statistical picture of how each individual in the study 'loaded' on each of the three ideal-type factors generated.

Based on this analysis, the factor profiles in Table 4.3 name and summarise the characteristics of each factor type.

4.5.1 Factor A: Transcendentalists

Transcendentalists draw attention to the underlying values, ethics, and practices that fuel environmental problems and, in their view, falsely separate human beings from the natural world. To Transcendentalists the global warming issue is part of a more general crisis of human values and ethics at the end of the twentieth century. At its core this crisis artificially separates human beings from nature, non-human species, and the natural ecological limits which govern the earth's ecology. In the words of one of the participants in this study, 'We don't live in a box, we're part of this terrible experiment we've been conducting on the greenhouse, and on ourselves'.

Consistent with this interest in the big picture, Transcendentalists demonstrate only a limited interest in Q statements that were policy- or action-oriented. Instead, they seek to shift the climate change debate away from specific action steps and policy initiatives and towards a broader debate about
the values, ethics, and spirituality that underlie the climate discourse. This 'big picture mentality' is reflected by statements 4, 7, 12 and 1 (scores in parenthesis are for Factors A, B and C, respectively).

Table 4.2 Factor Matrix Table, Respondents' Factor Loadings on Each Factor*

<table>
<thead>
<tr>
<th>Persons**</th>
<th>Factor A</th>
<th>Factor B</th>
<th>Factor C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grassroots Organiser</td>
<td>0.83</td>
<td>-0.12</td>
<td>-0.18</td>
</tr>
<tr>
<td>Environmental Researcher</td>
<td>0.80</td>
<td>-0.15</td>
<td>-0.14</td>
</tr>
<tr>
<td>Activist</td>
<td>0.74</td>
<td>0.12</td>
<td>0.01</td>
</tr>
<tr>
<td>Consultant</td>
<td>0.75</td>
<td>0.25</td>
<td>0.02</td>
</tr>
<tr>
<td>Law</td>
<td>0.70</td>
<td>0.20</td>
<td>-0.17</td>
</tr>
<tr>
<td>Lobbyist</td>
<td>0.69</td>
<td>0.21</td>
<td>-0.16</td>
</tr>
<tr>
<td>International Affairs Specialist</td>
<td>-0.08</td>
<td>0.79</td>
<td>0.22</td>
</tr>
<tr>
<td>Energy Consultant</td>
<td>0.22</td>
<td>0.75</td>
<td>0.12</td>
</tr>
<tr>
<td>Scientist/Researcher</td>
<td>-0.11</td>
<td>0.75</td>
<td>0.25</td>
</tr>
<tr>
<td>Small Business</td>
<td>0.07</td>
<td>0.68</td>
<td>0.18</td>
</tr>
<tr>
<td>Global Finance</td>
<td>0.02</td>
<td>0.66</td>
<td>0.13</td>
</tr>
<tr>
<td>Environmental Advocate</td>
<td>0.31</td>
<td>0.66</td>
<td>-0.31</td>
</tr>
<tr>
<td>Government</td>
<td>0.20</td>
<td>0.56</td>
<td>-0.02</td>
</tr>
<tr>
<td>Energy Specialist</td>
<td>0.01</td>
<td>0.54</td>
<td>0.15</td>
</tr>
<tr>
<td>Scientist/Researcher</td>
<td>0.32</td>
<td>0.35</td>
<td>0.07</td>
</tr>
<tr>
<td>Industry</td>
<td>-0.25</td>
<td>0.08</td>
<td>0.83</td>
</tr>
<tr>
<td>Trade Association</td>
<td>-0.37</td>
<td>0.17</td>
<td>0.81</td>
</tr>
<tr>
<td>Government</td>
<td>-0.04</td>
<td>0.11</td>
<td>0.72</td>
</tr>
<tr>
<td>Citizen's Group</td>
<td>0.01</td>
<td>-0.03</td>
<td>0.52</td>
</tr>
<tr>
<td>Labour</td>
<td>0.16</td>
<td>0.25</td>
<td>0.45</td>
</tr>
<tr>
<td>Environmental Activist</td>
<td>-0.33</td>
<td>0.56</td>
<td>-0.40</td>
</tr>
<tr>
<td>Government</td>
<td>0.30</td>
<td>0.51</td>
<td>0.73</td>
</tr>
<tr>
<td>Business</td>
<td>-0.39</td>
<td>0.15</td>
<td>0.73</td>
</tr>
<tr>
<td>Government</td>
<td>0.22</td>
<td>0.32</td>
<td>0.23</td>
</tr>
<tr>
<td>Environmental Activist</td>
<td>0.51</td>
<td>0.39</td>
<td>-0.31</td>
</tr>
<tr>
<td>Finance</td>
<td>0.37</td>
<td>0.51</td>
<td>-0.02</td>
</tr>
<tr>
<td>Legislative Specialist</td>
<td>0.39</td>
<td>0.45</td>
<td>0.00</td>
</tr>
<tr>
<td>Government</td>
<td>0.06</td>
<td>0.50</td>
<td>0.55</td>
</tr>
<tr>
<td>Religious NGO</td>
<td>0.67</td>
<td>0.36</td>
<td>-0.01</td>
</tr>
</tbody>
</table>

Notes: * Bold numbers denote a loading significant at .33.
** Self-affiliations have been generalised and are included as a matter of interest.

4. The universe is one being, all its parts are different expressions of the same energy, and they are all in communication with each other, therefore parts of one organic whole. (+5, -1, +1)

7. All life and its environment are subject to limits inherent in the cosmos. Not all things that people wish to do are possible and nothing that people do is done without cost. (+4, 0, +1)

12. The major problems in the world are the result of the difference between the way nature works and the way man thinks. (+3, -1, -2)

1. People are fundamentally different from all other creatures on the earth, over which they have dominion. (-5, +1, +2)

Table 4.3 Factor Profiles

<table>
<thead>
<tr>
<th>Factor</th>
<th>Factor A</th>
<th>Factor B</th>
<th>Factor C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Transcendentalists</td>
<td>Policy Activists</td>
<td>Cautious Incrementalists</td>
</tr>
<tr>
<td>Emphasis</td>
<td>Human values and environmental ethics</td>
<td>Technological and economic management</td>
<td>Status quo</td>
</tr>
<tr>
<td>Scientific assessment of global warming</td>
<td>Real and dire</td>
<td>Real but manageable</td>
<td>Suspect and overblown</td>
</tr>
<tr>
<td>Management tools</td>
<td>Decentralized decision making</td>
<td>Market reform and technological innovation</td>
<td>Cost–benefit analysis and dispassionate deliberation</td>
</tr>
<tr>
<td>Decision-making strategy</td>
<td>Root</td>
<td>Branch</td>
<td>Root</td>
</tr>
<tr>
<td>Equity/fairness concerns</td>
<td>Non-human species and future generations</td>
<td>Developing countries</td>
<td>Working people and industrialised countries</td>
</tr>
<tr>
<td>Causes/blame</td>
<td>Capitalism, corrupt values, technology</td>
<td>Market failure, institutional and procedural caution</td>
<td>Shril politics</td>
</tr>
<tr>
<td>Assessment of future</td>
<td>Bleak without fundamental change</td>
<td>Optimistic with necessary adjustments</td>
<td>Optimistic without reservation</td>
</tr>
</tbody>
</table>

Transcendentalists adhere to a model of the natural world that is fundamentally interconnected, fragile, and severely at risk. Humans live in a closed ecological system whose carrying capacity has been, or is about to be, exceeded, and which must be defended from the worst impulses of the human race. Indeed, the human species and human developmental priorities are the real threat to environmental security.

27. Ecological limits and environmental scarcity have made unbridled human industrial growth and expansion a thing of the past. (+3, -1, 0)

2. The world is vast and provides unlimited opportunities for humans. Only our imagination can contain us. (-5, +1, +2)
56. Sustainable societies must be small in scale and modest in technology. (+2, -2, -2)

Climate change – a scientific fact to Transcendentalists – is the latest evidence that this model of the world is correct. One interview participant, for instance, said that ‘the science now solidly shows that global warming is happening, there is simply overwhelming agreement on this point’. Another claimed that those who dispute the ‘scientific evidence’ are now ‘few and far between’, and that their ‘smoke screen doesn’t intimidate anyone anymore.’ In addition, statement 30 suggests that Transcendentalists believe that the time for debate over whether or not climate change is real or not is long over.

30. More time is needed to study the science of global warming before specific action steps to reduce greenhouse gases are developed. (-4, -5, 0)

Two premises characterise the Transcendentalists’ preferred solutions to environmental problems such as climate change. The first, as statements 46, 40 and 37 illustrate, is that decentralised groups of organised citizens are better able to manage climate policy decisions than experts, government elites or international organisations.

46. Expert bodies or individuals are best suited to determine how, where and under what circumstances resources should be allocated and used. (-5, +1, -4)

40. Local and communally devised and initiated programmes to counteract global warming will be much more effective in the long term than internationally devised and administered programmes. (+3, -1, +2)

37. The best hope for improving the process of global governance lies with people. International policy making increasingly must consider an organised and influential international citizenry. (+3, 0, +1)

The second premise is that policy success will only be realised if we transform the underlying causes of climate change, rather than simply manage its various manifestations. As such, Transcendentalists demonstrate a commitment to the development of policy by ‘root’ rather than by ‘branch’ (Lindblom, 1990). That is, they are committed to transforming the political, economic and social landscape from the bottom up, through fundamental changes to our value systems, to the way we think and behave, and to the models of development that characterise Western industrialised countries (statements 22, 16, 5 and 21 below). As one participant argued, ‘it is our moral obligation to address climate change . . . [but] first we have to learn

9. We should think about how to shift our values, and to reform our entire worldview. Only these kinds of fundamental transformations will empower citizens of all countries to, as another participant in the study told me, ‘save the planet from ourselves’.

22. Extending the lifestyle of high consumption societies to the rest of the world would hasten the ruin of the biosphere. (+5, +1, -2)

16. The battle for survival is waged in the minds of men. The motivation of greed and power that commercial enterprise brings is at the heart of the dilemma and our response to the effects of climate change. (+4, -2, 0)

5. The biosphere is endowed with an intrinsic value far superior to that of the human species. Accordingly, we must defend the cosmos from the destructive impulses of humans. (+2, -2, -4)

21. The larger the human economy becomes, the more nature suffers. (+2, -1, -3)

Interestingly enough, however, Transcendentalists do not seem to have much faith that worldview or value shifts will or can take place in the near future. As one participant noted during our interview, ‘our ability to make progress on climate change is dubious at best given the forces aligned against us’. Another interview subject laughed when I asked him about the prospect for meaningful international action to confront climate change saying: ‘It’s almost impossible to change the status quo. Have you ever tried to push against the centre of the beast?’. Part of the reason for this pessimism perhaps rests with the cynical view Transcendentalists take towards mainstream environmental management practices. Transcendentalists suggest that the process of environmental management favoured by many policy makers – rational and scientific management through cost–benefit analysis – is a flawed system that neglects intangible spiritual, moral, and non-human considerations (statements 33, 43 and 39).

33. Ultimately climate change cannot be understood or addressed via scientific or economic mechanisms. It is a problem of human values requiring fundamental shifts in the way we think and behave. (+4, -3, -1)

43. The wise use of nature is best achieved through rational, efficient, scientific, technological management for the benefit of the greatest number of people. (-3, +2, +3)

39. Approaches to climate change must be based on sound policies that are economically justified in their own right. (-4, -1, +4)

For Transcendentalists, then, values and ethics, not scientific or economic rationality, should inform environmental policy making. In the words of one
4.5.2 Factor B: Policy Activists

The central characteristic of Policy Activists is their dedication to strong and immediate action on climate change using available technologies, institutions and methods. Policy Activists, unlike Transcendentalists, have little interest in discussing macro-ethical and value-based issues surrounding the climate change issue, but great interest in talking about discrete and realistic policy initiatives. As one interview participant told me in frustration: ‘We simply have to get down to business. Too much time is spent arguing about the points we’re not sure about and not enough time is spent taking action to address the points we agree on’. Or, in the words of another participant: ‘The problem with value and lifestyle changes is that they simply take too long. We don’t have twenty-five to thirty years. We need to focus on realistic policies now’.

Policy Activists believe that a human-induced warming of the planet is under way and poses a critical problem (statements 35 and 30). One participant told me that ‘it’s now indisputable that surface temperatures are rising. Opponents to immediate action throw out [evidence that the earth is not warming] that has a grain of truth, but the rest is lies. Their goal is to slow down policy and confuse people’.

35. The time for debate over the question ‘is global warming real?’ is long over. The question now is ‘what are we going to do about it?’ (+1, +4, −5)
30. More time is needed to study the science of global warming before specific action steps to reduce greenhouse gases are developed. (−4, −5, 0)

The tools to manage global climate policy making favoured by Policy Activists centre around five beliefs. First, Policy Activists have strong faith that technology, in particular energy efficiency technologies, can be harnessed to effectively mitigate global warming (statements 15, 56, 51 and 58).

15. We cannot continue mindless growth in technology with widespread negligence about the consequences of technology. Technology exacerbates environmental degradation; it does not help to overcome it. (+1, −5, −1)
56. Sustainable societies must be small in scale and modest in technology. (+2, −2, −2)
51. Energy efficiency offers the safest and most economical near-term strategy for slowing carbon dioxide build-up while industrialised countries lay the foundations for a renewable energy future. (0, +4, +2)
58. Technological advancements in power generation and transportation systems offer the best hope for protecting the atmosphere from climate change. (0, +5, +4)

Second, Policy Activists believe that market mechanisms, particularly those that internalise the greenhouse gas externality, will ultimately solve the global warming problem (statements 25, 48 and 60). Indeed, Policy Activists stand alone among the three factors uncovered in this study, in believing that the primary blame for and solution to global warming lies with market forces. One participant went so far as to say, ‘Look, the bottom line is this, environmental progress is only possible where people stand to make a profit’.

25. Global warming is essentially a problem of market failure. Because the atmosphere is a common property resource, the cost of its degradation is not born by the producers of CO₂ nor reflected in market prices. (−1, +4, −1)
48. The best approach to global climate policy is the ‘optimal’ policy scenario in which greenhouse gas controls are set so as to internalise the greenhouse externality. (0, +4, −3)
60. The marketplace and its pricing system is the most appropriate mode of decision making when it comes to addressing a human-induced warming of the planet. (−2, +2, +1)

Third, Policy Activists strongly support the use of rational scientific management techniques, such as cost–benefit analysis, to study and respond to global warming (statements 28, 26, 43 and 33).

28. Science, not emotional or political reactions, must serve as the foundation for global climate policy decisions. (−1, +3, +4)
26. As with evaluating other environmental risks, cost–benefit analysis offers policy makers a way to assess the most objective and efficient means to respond to the challenge of global warming. (−2, +2, +2)
43. The wise use of nature is best achieved through rational, efficient, scientific and technological management for the benefit of the greatest number of people. (−3, +2, +3)
33. Ultimately climate change cannot be understood or addressed via scientific or economic mechanisms. It is a problem of human values requiring fundamental shifts in the way we think and behave. (+4, −3, −1)

Fourth, relative to Factors A and C, Policy Activists tend to favour centrally engineered efforts to deal with climate change over localised or decentralised efforts (statements 23, 46 and 40). In the words of an interview subject: ‘We need a combination of international generated and implemented market incentives as well as good old fashion regulation if we’re going to counteract the value of exploitation and turn traditional economics on its head’.

23. In the name of environmental protection governments tend to regulate where they should not, and spend more than they should. (−3, −3, 0)
46. Expert bodies or individuals are best suited to determine how, where and under what circumstances resources should be allocated and used. (−5, +1, −4)
40. Local and communally devised and initiated programs to counteract global warming will be much more effective in the long-term than internationally devised and administered programmes. (+3, −1, +2)

Finally, Policy Activists, unlike Transcendentalists, believe that economic prosperity walks hand-in-hand with environmental protection (statements 57 and 56). This is not to say that economic and industrial growth of all kinds helps to protect the natural environment; rather, that carefully managed growth with appropriate technologies and centralised planning techniques is our best hope for a sustainable future.

57. The more economically prosperous a society, the more likely it is to invest in and effectively protect the natural environment. (−2, +3, +5)
56. Sustainable societies must be small in scale and modest in technology. (+2, −2, −2)

Each of these management beliefs suggests that Policy Activists favor policy making by ‘branch’. That is, Policy Activists argue that the means to successfully manage global warming are at hand, that these means do not require any fundamental reorientation of values or beliefs, and that they can be carried out using existing channels of policy making, bureaucratic structures, and natural market forces. ‘Government has the money, the institutions and the know-how’, one participant forcefully argued: ‘All that’s lacking now is the will’. Or, in the words of another participant: ‘A country is always going to do two kinds of things first: what’s available, and what’s cheapest. It’s only right and it’s only realistic’.

8. The future prospect for humankind is bleak. Resource shortages, human suffering and violent environmental conflicts will increasingly characterise our existence. (0, −4, −5)
3. Any man-made change in a natural system is likely to be detrimental to that system. (+1, −2, −4)
44. If enough people have accurate information on environmental problems they will assert themselves through voluntary organisations to demand better policies and practices from government. (0, +2, +1)
32. Greenhouse gas warming will have at most modest economic impacts in industrialised countries while programmes to impose deep cuts in greenhouse gas emissions will exact substantial costs. (−2, −3, +5)
52. Joint implementation would eliminate any incentive for industrialised countries to develop innovative technologies or strategies to reduce greenhouse gas emissions. (−1, −4, −2)

Support for these statements suggests a world view where progress will never cease, where the rights of non-human life deserves attention but where addressing human needs always comes first, where there is great faith in our capacity to change, to adapt, and to meet challenges, and where there is strong faith that governments, experts, and institutions can help us all achieve a more perfect world.

4.5.3 Factor C: Cautious Incrementalists

Cautious Incrementalists direct most of their attention to the process of decision making that characterises the global climate discourse. In particular they are interested in pointing out the flaws in the policy making process which tend to couch climate change in alarmist language, dramatic gestures, and oversimplified solutions. According to Cautious Incrementalists, the problem with the decision making process, as it currently stands, is that it is based on emotions and fear. As an individual who loaded on this factor argued, ‘We’re not dealing with facts anymore, only thirty-second sound-bites that shift the debate away from facts and to salesmanship’. Or, in the words of another participant, ‘Instantaneous and sensationalised news is now the driver of [climate change] policy. It’s hard to have a substantive debate within two
minutes, so what ends up happening is the debate is cast in simplified black and white terms.

Three concerns appear to be behind the belief of Cautious Incrementalists that emotion and not facts are driving the climate change debate. First, Cautious Incrementalists are not convinced that global climate change is occurring in the first place (statements 35 and 34) and believe that ‘international policy has already gotten too far ahead of what we know’.

35. The time for debate over the question ‘is global warming real’ is long over. The question now is what are we going to do about it? (+1, +4, -5)

34. The momentum of past greenhouse gas emissions is leading us to an inevitable rendezvous with massive climate change, even with stringent steps to reduce emissions. Mitigate we might, adapt we must. (0, 0, -4)

Even if global warming is occurring, Cautious Incrementalists argue that the impacts and scope of any planetary warming are far from certain. Given this uncertainty, prudence and additional research should take precedence over action. As one participant in the study argued: ‘The science only says there is a discernible change. It doesn’t say that any specific catastrophe is imminent’. Or, in the words of another: ‘Look, we think something is happening, but we don’t know what. The theory is that the Intergovernmental Panel on Climate Change has answered the question. They haven’t’.

Second, Cautious Incrementalists believe that the kinds of actions being considered in the international community to mitigate global warming will have tremendously high economic and societal costs, and very uncertain benefits (statements 32 and 39).

32. Greenhouse gas warming will have at most modest economic impacts on industrialised countries while programmes to impose deep cuts in greenhouse gas emissions will exact substantial costs. (-2, -3, +5)

39. Approaches to climate change must be based on sound policies that are justified in their own right. (-4, -1, +4)

Indeed, Cautious Incrementalists believe that decision making has rapidly moved beyond the kind of reasoned and measured deliberations that in their view should form the backbone of international environmental policy. ‘If you take a hammer and punch a hole in the wall that’s fine’, one interview subject told me, ‘But something then has to be available to plug the hole up or there will be one hell of a mess’.

Finally, Cautious Incrementalists feel that the process of decision making around climate change has been unfair and biased towards a radical environ-

mental agenda. Moreover, they feel victimised by the aggressive actions on climate change taken by European governments and by the Clinton administration, which were termed by one participant as ‘green-activist governments’. At the same time, Cautious Incrementalists believe that the environmental community has hijacked the climate change debate, and have, according to one participant in this study, ‘done a great job at scaring the American people’. ‘Environmentalists don’t care about the environment’, another contended, ‘their ultimate objective is to change the political system. They claim that Americans consume too much, but what Americans are they talking about? They speak for elites, not for working people’.

So what does a Cautious Incrementalist believe the international community should do about climate change? There are five principles that would appear to follow from the Cautious Incrementalist policy frame on climate change. Taken together they suggest that Cautious Incrementalists, like Transcendentalists, support policy making by root rather than by branch; that is, theories, principles and goals should drive policy, not pragmatism. The first principle expressed by Cautious Incrementalists is that rational scientific data must serve as the foundation for decision making on climate change (statements 28, 23, 43 and 36).

28. Science, not emotional or political reactions, must serve as the foundation for global climate policy decisions. (-1, +3, +4)

23. As with evaluating other environmental risks, cost–benefit analysis offers policy makers a way to assess the most objective and efficient means to respond to the challenge of global warming. (-2, +2, +2)

43. The wise use of nature is best achieved through rational, efficient, scientific and technological management for the benefit of the greatest number of people. (-3, +3, +3)

36. Trying to put economic values on environmental effects which are inherently non-quantifiable merely devalues the debate. Certain things have an absolute value, which makes them essentially non-quantifiable. (+1, 0, -3)

Second, the interests of ordinary people need to figure prominently into any decisions made on climate change (statement 43). ‘No one is saying what the goal is’, one interview subject told me, ‘but I’ll tell you what it should be, it should be to figure out this mess without drastically impacting the lives of regular people’. Or in the words of another: ‘The US economy is 90 per cent fossil-based. You can’t change that kind of system overnight without major disruptions to the day-to-day lives of millions of people’.
43. The wise use of nature is best achieved through rational, efficient, scientific and technological management for the benefit of the greatest number of people. \((-3, +3, +3)\)

Third, Cautious Incrementalists suggest that economic prosperity is the linchpin to environmental protection (statements 21, 22, 57 and 56). Where there is poverty and economic stagnation, there can be no protection of the environment. Where there is sound economic planning and vigorous economic growth, environmental protection follows.

21. The larger the human economy becomes the more nature suffers. \((+2, -1, -3)\)

22. Extending the lifestyle of high-consumption societies to the rest of the world would hasten the ruin of the biosphere. \((+5, +1, -2)\)

57. The more economically prosperous a society the more likely it is to invest in and effectively protect the natural environment. \((0, +5, +4)\)

56. Sustainable societies must be small in scale and modest in technology. \((+2, -2, -2)\)

Fourth, Cautious Incrementalists are anti-interventionists; that is, they believe that any actions taken by governments to manage greenhouse gases should revolve around voluntary initiatives or support for technological improvements, not command and control regulations (statement 50). As one participant told me, ‘market based mechanisms do in fact work’. Or as another put it in stronger terms: ‘I’m afraid industry is becoming the sacrificial lamb. [The policy making community] just wants to regulate in order to put industry out of business’.

50. We should tax every ton of fossil fuel consumed in developed countries. From these proceeds an international fund could be created for developing countries to introduce resource and energy saving technologies. \((+1, +1, -5)\)

Finally, Cautious Incrementalists support decision making that, in the words of an participant, ‘takes place at the local level, not the macro level’ (statements 46, 40 and 45). Indeed, one subject in this study suggested that ‘real’ examples of progress on climate-related projects could only be found within ‘local case-studies where pockets of real compromise and progress based on careful analysis were developed’.

46. Expert bodies or individuals are best suited to determine how, where, and under what circumstances resources should be allocated and used. \((-5, +1, -4)\)

40. Local and community-devised programmes to counteract global warming will be much more effective in the long term than internationally devised and administered programmes. \((+3, -1, +2)\)

45. There has been a globalisation of the commons. Solutions to commons problems must entail a division of labour between governments, international organisations, and non-governmental organisations. \((+2, 0, +2)\)

Outside of their concern over the mishandling of global climate policy, however, Cautious Incrementalists express the strongest degree of optimism in the future prospect of the human species of all three of the factors reported in this study (statements 8, 6 and 42).

8. The future prospect for humankind is bleak. Resource shortages, human suffering and violent environmental conflicts will increasingly characterise our existence. \((0, -4, -5)\)

6. The future for humankind is a future of progress, of steady growth, and of continuing improvement to the conditions of life for everyone. \((-4, 0, +4)\)

42. The history of humanity is one of progress, for every problem there is a solution, and thus progress need never cease. \((-3, +1, +2)\)

Along a different line of thought, Cautious Incrementalists are supportive of the proposition that developing countries have little ability to address climate change given their tenuous economic position, poverty and debt (statements 11 and 13).

11. For developing countries climate change is less pressing than the immediate problems of poverty, hunger and external debt. \((+2, +2, +5)\)

13. Attaining a more equitable financial balance between rich and poor countries is critical for the successful resolution of global environmental problems such as climate change. \((0, +1, +3)\)

On the issue of climate change specifically, however, Cautious Incrementalists, unlike Policy Activists, see no reason why the developed world should feel any sense of obligation to assume leadership (financial or otherwise) on the issue. Indeed, Cautious Incrementalists go so far as to suggest that industrialised countries are being unfairly charged with the responsibility for addressing global warming unilaterally when the bulk of greenhouse gases
will be emitted from the developing world in the future (statements 9 and 18).

9. Despite the significantly higher contributions to greenhouse gas emissions by the developing countries in the future, their share of the burdens towards future reductions is grossly inequitable. (−1, −2, +2)

18. While all countries will be affected by global warming not all countries are equally at fault. As the primary global warming polluters, industrialised countries should take the lead in reducing emissions. (+2, +5, −3)

This suggests that Cautious Incrementalists support a general programme of global economic growth and development with the hopes that accompanying affluence in the developing world will be used to protect the environment.

4.5.4 Cross-factor Comparisons: Areas of Consensus

Table 4.4 presents an overview of the areas of consensus that unify each policy frame and is followed by a detailed discussion of the specific policy-frame elements that cross-cut each policy frame.

<table>
<thead>
<tr>
<th>Transcendentalists, policy activists and cautious incrementalists</th>
<th>Transcendentalists and cautious incrementalists</th>
<th>Policy activists and cautious incrementalists</th>
</tr>
</thead>
<tbody>
<tr>
<td>The sustainability credo is an important ethical upon which to base environmental decision making</td>
<td>Human-induced global warming is occurring and represents fundamental threat to the future</td>
<td>Locally devised solutions are preferable to centralised solutions</td>
</tr>
<tr>
<td>Issues of governance lack salience vis-à-vis other more immediate concerns</td>
<td>The costs of reducing GHG will be marginal compared to the gains</td>
<td>Decision making should be democratised</td>
</tr>
<tr>
<td>Information availability is not a barrier to policy making</td>
<td>Supportive of active government</td>
<td>Climate change is not predominantly an issue of market failure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Economic prosperity leads to environmental protection</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Compromise is possible</td>
</tr>
<tr>
<td></td>
<td>Optimistic, human-centered perspective</td>
<td>Supportive of rational/cost-benefit analysis approach</td>
</tr>
</tbody>
</table>

4.5.5 Transcendentalists, Policy Activists and Cautious Incrementalists

Statement scores for each policy frame uncovered in this study suggest that there are relatively few shared views, ideas, and/or values that cross-cut all frames. Moreover, with the exception of only one statement (statement 59), all of the statements that do cross-cut all policy frames fall into the neutral/no salience range of opinion. That is, the policy frames identified in this study tend to agree about which statements are unimportant or tangential to the climate change debate, but disagree about which statements are central to it. Indeed, the only statement that was sorted in a similar fashion by all three policy frames was statement 59. This statement is the well-known definition of sustainable development adopted by the United Nation’s Commission on Sustainable Development in the early 1990s.

59. Each generation should meet its own needs without jeopardising the prospect for future generations to meet their own needs. (+5, +5, +3)

That all factors strongly agreed with this statement is also somewhat of a surprising result given the wide disparities in their viewpoints on most other issues. It is perhaps understandable, however, if we accept the possibility that while all three policy frames find this statement to be both important and true, it nonetheless carries a different meaning for each of them. Put differently, while individuals in each of the three policy frames are strong supporters of the sustainability credo in the abstract, they disagree strongly about what sustainable societies ‘look like’ and how sustainable societies should be constructed.

4.5.6 Transcendentalists and Policy Activists

Transcendentalists and Policy Activists tend to share a similar perspective about things they do not like, but a dissimilar perspective about things that they do like. This is demonstrated by the fact that factor scores for all of the consensus statements that unify these two policy frames (statements 9, 23, 30, 32 and 47) correlate only on the negative side of the ‘most like my point of view/most unlike my point of view’ Q sort continuum.

9. Despite the significantly higher contributions to greenhouse gas emissions by the developing countries in the future, their share of the burdens towards future reductions is grossly inequitable. (−1, −2, 2)

23. In the name of environmental protection, governments tend to regulate where they should not, and spend more than they should. (−3, −3, 0)

30. More time is needed to study the science of global warming before specific action steps to reduce greenhouse gases are developed. (−4, −5, 0)

32. Greenhouse gas warming will have at most modest economic impacts in industrialised countries, while programmes to impose deep cuts in
greenhouse gas emissions will exact substantial costs. \(( -2, -3, 5 )\)

47. The best approach to global climate policy is a 'laissez-faire' approach in which no controls are placed on greenhouse gases and where individuals would adapt to changing climate should it occur. \(( -5, -5, 0 )\)

Out of these statements two general themes can be observed. The first is that both Transcendentalists and Policy Activists strongly believe that climate change is real and is occurring (statement 30) and that the threat of global warming is significant enough that aggressive steps to mitigate it, rather than adapt to it, are called for (statement 47). Moreover, Transcendentalists and Policy Activists also agree that steps to respond to global warming will cost relatively little compared to the costs on human society if we sit back and do nothing (statement 32).

There are, however, caveats to this point of consensus. Policy Activists go on to express strong agreement with statement 35, also on whether or not global warming is happening, whereas Transcendentalists did not.

35. The time for debate over the question 'is global warming real?' is long over. The question now is 'what are we going to do about it?' \(( +1, +4, -5 )\)

This suggests that Policy Activists have internalised this aspect of the discourse (is global warming real or not?) as a core locus of debate, while Transcendentalists seek to shift the debate to the underlying values and beliefs which make problems like global warming possible in the first place. Accordingly, what 'doing something about climate change' means to Transcendentalists and what it means to Policy Activists are very likely different things. Policy Activists support centrally engineered energy efficiency projects, market reforms and economic stimulus policies. Transcendentalists support decentralised efforts towards value and lifestyle transformations, the dismantling of the market mentality and sustainable societies that are 'small in scale and modest in technology'. Both agree that global warming is happening and must be responded to, but they fundamentally disagree on the form that response should take.

Second, both Transcendentalists and Policy Activists are in agreement that government regulation remains an effective tool to combat environmental problems such as climate change (statement 23).

23. In the name of environmental protection, governments tend to regulate where they should not, and spend more than they should. \(( -3, -3, 0 )\)

But again, this is not to say that both policy frames would be in agreement over what kind of regulations are necessary to mitigate global warming.

4.5.7 Policy Activists and Cautious Incrementalists

The greatest number of cross-factor consensus items can be found between Policy Activists and Cautious Incrementalists. In particular, there are three main points of agreement which unify these perspectives. The first is their approach to decision making and problem solving. Both Policy Activists and Cautious Incrementalists stress a rational/scientific approach to global climate policy making as opposed to emotionally based, value-based, or spiritually/ethically based decision making (statements 28 and 43). They also share in particular a liking for technological solutions to climate change, such as energy efficiency (statement 58).

28. Science, not emotional or political reactions, must serve as the foundation for global climate policy decisions. \(( -1, +3, +4 )\)

43. The wise use of nature is best achieved through rational, efficient, scientific and technological management for the benefit of the greatest number of people. \(( -2, +2, +3 )\)

58. Technological advancements in power generation and transportation systems offer the best hope for protecting the atmosphere from climate change. \(( 0, +5, +4 )\)

Second, Policy Activists and Cautious Incrementalists are optimistic about the future of humanity and the capacity of our species to overcome environmental and other challenges (statements 8 and 3).

8. The future prospect for humankind is bleak. Resource shortages, human suffering and violent environmental conflicts will increasingly characterise our existence. \(( 0, -4, -5 )\)

3. Any man-made change in a natural system is likely to be detrimental to that system. \(( +1, -2, -4 )\)

Viewed in the context of other statements, however, it is clear that the optimism of Policy Activists is optimism born of a vision of 'what can be' as one participant put it, while the optimism of Cautious Incrementalists is born of a faith in 'what is'. Policy Activists are optimistic about the future only to the extent that we can harness such tools to combat global warming. Cautious Incrementalists, on the other hand, are optimistic about the future simply because it represents a continuation of the past. For Cautious Incrementalists, human ingenuity, creativity and drive are all that is needed to secure a prosperous future. Indeed, the kinds of aggressive policy actions that are favoured
by Policy Activists (such as internalising the greenhouse gas externality) are only likely to make matters worse.

Third, both Policy Activists and Cautious Incrementalists believe that economic prosperity can promote environmental protection (statement 57).

57. The more economically prosperous a society, the more likely it is to invest in and effectively protect the natural environment. (0, +5, +4)

This notion fits in nicely with their shared view that economic growth and development are very consistent with environmental protection because wealthy countries, individuals and communities spend more to protect the environment.

4.5.8 Transcendentalists and Cautious Incrementalists

There are only two areas of consensus that unify the perspectives of Transcendentalists and Cautious Incrementalists. First, both have a decentralised 'people-oriented' approach to policy making, as indicated by consensus statements 46, 40 and 45.

46. Expert bodies or individuals are best suited to determine how, where and under what circumstances resources should be allocated and used. (−5, 1, −4)

40. Local and communally devised and initiated programmes to counteract global warming will be much more effective in the long term than internationally devised and administered programmes. (3, −1, 2)

45. There has been a globalisation of the commons. Solutions to commons problems must entail a division of labour between governments, international organisations and non-governmental organisations. (2, 0, 2)

This suggests that both policy frames share a distrust of policy making by unaccountable bureaucrats and elites. Decision making arrangements that either share authority among non-governmental interest groups, interested international organisations and national governments (statement 45) or are local and community-based (statement 40) are preferred.

Second, both Transcendentalists and Cautious Incrementalists mildly disagree with the notion that market failure is the core cause (and solution) to the problem of global warming (statement 25).

25. Global warming is essentially a problem of market failure. Because the atmosphere is a common property resource, the cost of its degradation is not born by the producers of CO₂ nor reflected in market prices. (−1, 4, −1)

In reality, this overlap in perspective hardly qualifies as an area of core consensus. All it suggests is that of the dozens of potential underlying causes of global warming that have been identified by various stakeholders, both Transcendentalists and Cautious Incrementalists agree that market failure is a relatively unimportant one. Indeed, a close look at the discourse of each policy frame shows that Cautious Incrementalists are not even ready to say that global warming is real, and claim the issue is being held hostage by emotion and media sensationalism. For their part, Transcendentalists do believe global warming is real and suggest it is ultimately caused by a failure of values and the artificial and false notion that human beings are somehow exempt from ecological laws and constraints.

4.6 CONCLUSION

This study supports the premise that the subjective policy frames that issue stakeholders construct as they conceptualise and respond to specific environmental issues can be given form through systematic study. In the previous pages I have demonstrated – through Q methodology – that the global climate discourse (at least at one point in time) consists of at least three distinct and discordant composite policy frames, that are representative of the viewpoints of a cross-section of climate stakeholders. Such frame discordance appears to contribute to global climate policy discourse intractability in several ways. First, frame discordance allows different stakeholders to enter the debate at different intellectual locations, thereby allowing them to ‘talk past’ one another. Second, frames discordance diversifies the way that key terms and concepts are understood and contextualised within the policy discourse. Finally, frame discordance partially accounts for the multiple and sometimes incompatible goals and decision making methods favoured by issue stakeholders.

4.6.1 Applied Implications: Recommendations for Practice

a. Reframing the dialogue

Since policy framing essentially involves the construction of shared meaning through language, the transformation of policy controversies from an intractable to a tractable state can be achieved, in part, through a process of reframing the controversy within our language. In this sense we should understand that policy conflicts are not in and of themselves stable entities
that are tractable or intractable, but rather conflicts over the contested and ever-shifting stories that policy actors tell about their world. It is our descriptions or understandings of a policy conflict that are tractable or intractable not specific issues in and of themselves (Thorson, 1989). As such, moving a policy issue from an intractable to a tractable state involves, in part, changing the way we understand that issue.

This view should be of some comfort to global climate policy makers because it suggests that every time climate stakeholders interact with each other — no matter how incompatible their perspectives may seem — their policy frames are in some small way transformed. In this sense we can never read the same sentence in the same way twice, or have the same argument with the same person twice. Interaction by its nature is always a dialectical process, involving both reaction and adjustment by all parties. Accordingly, when two conflicting stakeholders engage in a dialogue about any issue of joint concern, a different ‘field of vision’ will be produced for both (Manson and Mitroff, 1981). Repeated interactions, it follows, have the potential for getting each side ‘into one field of vision’ (Follett, 1942).

b. Pre-negotiation dialogues

Pre-negotiation policy dialogues among polarised stakeholders, facilitated by a skilled third party, are an excellent way to start and maintain the reframing process, even as formal diplomacy, aggressive basic research, and institutional-building continues. Policy dialogues as a form of pre-negotiation have been shown to be effective in assisting stakeholders with conflicting ideologies to reach agreement (Druckman, 1968). In particular, over the past few decades ‘interactive conflict resolution’ (Fisher, 1997) has been developed as a form of third party conflict resolution, in which impartial practitioners, skilled in inter-group communication methodologies, organise and facilitate small-group problem-solving discussions among representatives of conflicting stakeholders who are separated by fundamental ideological beliefs and historical perspectives. The objective of these ongoing discussions vary from increased awareness and attitude change, to new realisations about the sources and nature of the conflict, to the development of creative solutions to common problems. Proponents conceptualise negotiation as a process in a context of developing relationships, beginning before the actual formal bargaining and ending long after an agreement is reached (Trigeorgis and Trigeorgis, 1993). Their goal is not the resolution of conflicts, as much as it is the construction of a stable discourse platform from which more specific settlement/resolution strategies can be launched.

c. Q methodology as an aid to policy dialogues

Q methodology can be a valuable tool to initiate dialogue among polarised stakeholder groups in a dialogue setting, because it helps to give form and structure to specific typologies of beliefs that underlie intractable environmental conflicts. When utilised by third party intermediaries, Q studies offer participants a refied ‘strawman’ about a particular approach to an issue from which disagreement, debate, and eventually reformulation can proceed. Moreover, Q-generated factors help to depersonalise a policy debate by presenting ideal-types of attitudes and understandings that are unattached to one particular person or interest group. Finally, Q generated typologies can reveal unimagined ways of interpreting environmental issues in cases where nuances in the debate are overshadowed by popular generalisations. We may tend to believe, for instance, that ‘environmentalists’ are a homogeneous group, sharing similar goals and strategies, or that members of the ‘business community’ all share the same disdain for regulatory policies and support for unrestricted free enterprise. Q method helps to bring to light the very real differences that separate viewpoints within groups as well as between them. Where additional complexity is revealed, so too are new options for progress.

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