6. Analysing dominant policy perspectives – the role of discourse analysis
David G. Ockwell and Yvonne Rydin

Introduction

The last decade has seen a 'linguistic turn' within policy analysis (Edelman, 1988; Rydin, 1998, 1999; Hastings, 1999) as it becomes increasingly accepted that language use and appeals to different discourses by various actors in the policy-making sphere have a direct influence on the nature of any policy. In this chapter we explore how to undertake a discursive policy analysis. Rather than focus on the theoretical debates on this approach, we address the practical problems and potential for undertaking discourse analysis of environmental policy through a case study of the policy governing anthropogenic fire in Cape York Peninsula, Queensland, Australia. We begin by exploring the rationale for and benefits of using discourse analysis. Then we emphasize the need to find an appropriate 'middle range' theory for application in any specific context. To illustrate our point, two alternative frameworks for undertaking such an analysis are outlined. We then apply these frameworks in detail to our case study and use them to understand why a particular policy perspective has dominated fire policy in Cape York. This demonstrates the nature of the insights that the two approaches facilitate and provides the opportunity for exploring the methodological difficulties and practicalities of such an analysis.

The arguments for a discursive approach to policy analysis

The term 'discourse' is both complex and contested. It has multiple roots in the social sciences and humanities (Hastings, 1999, 2000). Dryzek (1997, p. 8) defines a discourse as 'a shared way of apprehending the world. Embedded in language it enables subscribers to interpret bits of information and put them together into coherent stories or accounts. Each discourse rests on assumptions, judgements and contentions that provide the basic terms for analysis, debates, agreements and disagreements'.

The key point of attending to discourse within environmental policy analysis is to respond to the assumption that policy language is a neutral medium through which ideas and an objective world can be represented and discussed (Darcy, 1999). This assumption overlooks the extent to

168

which policy is contingent on social constructions of reality and the way the expression of policy issues will both be the result of power relations, ideological contestations and political conflict, and actively shape such relations, contestations and conflicts. Advocates of discourse analysis claim that it is crucial to examine and explain how language is used in such contexts in order to reveal aspects of social and political processes that were previously obscured or misunderstood. Furthermore, discourse analysis can serve to illuminate the way in which entrenched policy positions are to some extent sustained by the way in which policy problems are linguistically framed (Scrase and Ockwell, 2009).

More specifically, three distinct benefits of policy discourse analysis can be identified (Rydin, 2005). First, it enables one to understand different policy actors' perspectives and their self-presentation within the policy process. These will be expressed through the language that policy actors use and can help explain how different actors operate within policy contexts. An actor may use specific forms of language that are particularly appropriate and effective in a given policy context; by contrast, the weak situation of community representatives at formal hearings and inquiries is often at least partly due to their lack of command of the appropriate formal language. There are also strong links between the identity of actors and their use of language; identity is constructed through linguistic means. This has implications for how actors are categorized and treated in policy contexts; what it is to be actor X in a certain policy situation is discursively constructed. The argument here is that language is not just a medium of interaction but is also constitutive of actors, their identities and their values. Actors' values, therefore, cannot be seen in terms of their hard-wired preferences but rather as generated through debate, discussion and enunciation of those values (DeLuca, 1999). Furthermore, this is not an individual undertaking but is inherently social, occurring through interactions between actors.

Second, the attention to language allows consideration of how actors' power is at least in part discursive. Interaction between actors then becomes not just a series of encounters in which interests are balanced against or do battle with each other on the basis of their material resources. Rather it points to how the language that actors actively or unconsciously use in their communications with others is involved in persuasion and rationalization and influences the dynamics of policy debates. This is not just a matter of individual actors' capacity in using language. Linkages with prevailing societal discourses will also be important in supporting a particular actor's case. The reliance on various forms of economic rationality are a case in point, where the discursive reliance on a widely used and referenced argument about the importance of economic growth carries weight quite

independently from the material power of economic actors and their skill in persuasion (Rydin, 2003).

Another way of considering the inter-relationship between language and actors' interactions with one another is to see language as also constitutive of the incentives facing actors – the costs and benefits (monetary and otherwise) that they take into account in deciding on their behaviour. For example, researchers have suggested that reputation can be a key factor shaping behaviour (Ostrom, 1990; Chong, 1991). Actors may seek to promote and protect a good reputation and avoid behaviour that is going to expose them to public shame and blame. But reputation is a social variable constructed through social communicative interactions. The detailed language of interactions will be central to assessments (by the actor concerned and others) of whether a reputation is being damaged or enhanced.

And third, as well as understanding policy actors and the dynamics of policy processes more fully, the discursive dimension allows the possibility for devising new modes of communication to achieve normatively better policy outcomes. There has been a lot of emphasis on creating more inclusive and deliberative spaces for communication (Burgess et al., 1998; Hillier, 1998; Healey, 1999; Mason, 1999). Much of the literature on these policy innovations has arisen from an engagement with the notion of policy as an inherently discursive process. There has, however, been a tendency towards an overly procedural approach in devising new spaces for communication. Graham Smith is one of the most insightful writers on deliberation but in his discussion of institutional design and deliberation (2003), he concentrates on procedures and decision rules, specifically how to ensure equality of voice, defence of deliberation against strategic action and sensitivity to the scope, scale and complexity of environmental issues. But how do these procedures and decision rules change the communication within deliberation? This can only be understood through considering the detailed language of that communication. The lesson of the linguistic turn is that communication between actors is not just a matter of how that communication is arranged. The language of the interaction also needs to be considered.

Even more restrictively, deliberation is often equated with communication as if this not only characterizes deliberation but distinguishes it from other types of policy intervention. This fails to see the communicative dimension of all policy work (Majone, 1989) and, furthermore, the linguistically mediated nature of all social activity. Language does play a pivotal role in deliberation, but it is also implicated in many other institutional arenas. This can provide insights into how language expresses values and enables or disables agreement, including consensus.

The roots of this lack of attention to the details of language even within those analysts of policy who see policy as essentially communicative, derives from the Habermasian roots of most work on deliberative democracy and its planning applications (Dryzek, 1990, 2000; Healey, 1999). This identified a specific potential within communication between actors – that is, the potential to create consensus. Where actors engage in communication with a performative stance towards mutual understanding, then consensus between parties is immanent in the communication. The major constraint on achieving such a consensus is pinpointed as the absence of an ideal speech situation in which communicative rationality can hold sway. This has led to the emphasis being placed on the circumstances within which communication occurs rather than the nature of the communication in linguistic terms. This has been confirmed in Habermas's most recent work (1996). In our chapter we want instead to turn back towards the language of policy and the detailed analysis of that language in specific situations.

There is one particular problem within environmental policy that this approach seems particularly well suited to address. This concerns the mismatch between complex environmental problems and simple dominant policy responses. This simplicity is at odds with the inherent variability and complexity of the ecosystems whose healthy functioning such policy aims to sustain. It ignores the fact that environmental problems are characterized by a high degree of uncertainty. On one level, uncertainty exists as a result of scientists' incomplete understanding of ecosystem functioning. Additionally, however, environmental problems are invariably linked to issues of resource distribution. As a result, there are always economic, social and political implications of any environmental policy (see, for example, Wheeler and McDonald, 1986; Rees, 1990; see also, for example, Flournoy, 1993). As Dryzek (1997) highlights, when ecological systems interact with economic, social and political systems through the policy process, the level of uncertainty associated with environmental problems is greatly magnified. Hajer and Wagenar (2003) refer to this as policy-making under conditions of 'radical uncertainty'.

Increasing evidence suggests that such uncertainty is often reflected in inappropriate environmental policies due to the application of standardized management techniques that ignore the spatial, temporal, social, economic and political complexity of environmental problems. Leach and Mearns (1996) give the example of the woodfuel crisis in Africa, which is widely perceived as a classic example of a supply gap where demand for woodfuel exceeds supply. This has been met by a standardized response of mass tree planting by governments, NGOs and inter-governmental organizations. The basic assumptions that define the supply gap, however, ignore

more subtle issues such as the fact that most woodfuel comes from clearing wood for agriculture or from lopping branches valued for fruit and shade. From a broader perspective there is not one big problem of energy supply but many smaller problems of command over trees and their products to meet a wide range of basic needs. The range of policy solutions is therefore equally diverse. Why is it then that one policy outcome can emerge and be sustained in the face of conflicting evidence? Discourse analysis offers a valuable approach to answering this question.

Theoretical perspectives on discourse analysis
Just as the term 'discourse' itself is a contested concept used in different ways, so are there a variety of different perspectives on discourse analysis, both methodologically and theoretically. One of the key distinctions that runs through the literature is between those approaches that are derived from a Foucauldian perspective and those derived from a Habermasian one. The two methodologies that we explore in this chapter derive from both sides of this distinction: Maarten Hajer, who developed his framework from an engagement with Foucault's work; and John Dryzek, whose interest in discourse derives from his earlier work on Habermas and normative theories of deliberative democracy. These 'middle-range' theorists are important because they have sought to develop and apply Foucault's and Habermas's broader ideas to environmental issues and specifically to environmental policy. They have done considerable work in qualifying and operationalizing Foucault's and Habermas's theories. In doing so, they have to some extent modified these original theories but retain the essentials of the Foucauldian and Habermasian perspectives. We will explore these two approaches next, before demonstrating how they can be applied to a specific case study.

Hajer
In the development of the study of discourse Foucault's work has been pivotal. Through the study of the history of sexuality, madness and the disciplinary basis of the academy, Foucault, referring to what he called power/knowledge, developed the idea that knowledge, and hence discourse, is a reflection of power within society. As such, language is seen as the operation of power (Foucault, 1980, 1984; Bevir, 1999; Rydin, 1999; Hastings, 2000; Watt and Jacobs, 2000). Hajer has sought to work within a Foucauldian framework, in terms of engaging with the combined concept of power/knowledge, while adjusting it to the problem of understanding environmental policy situations. Hajer's work focuses on the discursive nature of environmental policy-making (Hajer, 1995; Hajer and Wagenaar, 2003). Discourse is seen as constituting both text and practice

with a strong emphasis on social constructivism running throughout (Dryzek, 1995; Hajer, 1995; Bakker, 1999; Keeley and Scoones, 2000; Richardson and Jensen, 2000). In this view discourses are produced both through individual activities and institutional practices that reflect particular types of knowledge. Discourses are therefore actively produced through human agencies that undertake certain practices and describe the world in certain ways. Actors are not, however, seen as acting within a vacuum. Discourses simultaneously have structuring capabilities. They provide parameters within which people act and mould the way actors influence the world around them (Hajer, 1995; Keeley and Scoones, 2000).

In Hajer's view, politics is a struggle for discursive hegemony in which actors struggle to achieve 'discursive closure' by securing support for their definition of reality. There is a significant Foucauldian influence within Hajer's work in terms of the regulatory power of discourses as they act to select appropriate and meaningful utterances and actions within a struggle for hegemony in the policy-making process (Foucault, 1979, 1990; Buttel, 1997; Rydin, 1998; Richardson and Jensen, 2000). The notion of 'story-lines' is brought in to describe the common adoption of narratives through which elements from many different spheres are combined to provide actors with symbolic references that imply a common understanding (Hajer, 1995; Rydin, 1999). Essentially, the assumption is that actors don't draw on a comprehensive discursive system, instead this is evoked through story-lines. By uttering a specific word or phrase, for example, 'global warming', a whole story-line is in effect reinvoked. Story-lines can, in this way, therefore act to define policy problems.

The widespread adoption of a story-line results in the formation of 'discourse coalitions' where groups of actors are drawn to particular story-lines as they represent common interests (Hajer, 1995; Bakker, 1999; Rydin, 1999). These actors might not have ever met and might apply different meanings to a story-line, but in the struggle for discursive hegemony that is assumed to play out within the policy-making process, story-lines form the 'discursive cement' that keeps the discourse coalition together by producing 'discursive affinities'. Particularly strong discursive affinity is referred to as 'discursive contamination'. The Foucauldian basis of Hajer's approach views story-lines as playing an essential role in positioning actors. They add credence to the claims of certain groups and render those of other groups less credible. Story-lines therefore act to create social and moral order within a given domain by serving as devices through which actors are positioned and ideas of blame, responsibility and urgency are ascribed.

The social constructivist approach emphasizes the role of institutional

arrangements in structuring discourses, forming routine understandings where complex research is often reduced to visual reproduction or catchy one-liners that ignore uncertainty and entail significant loss of meaning. Routine forms of discourse therefore express a continuous power relationship that is particularly effective in that it avoids confrontation. The use of the term 'sustainable development' in contemporary British public policy arguably provides an example of this.

To shape policy, a new discourse must both dominate public discussion and policy rhetoric and penetrate the routines of policy practice through institutionalization within laws, regulations and routines (Hajer, 1993; Nossiff, 1998; Healey, 1999). In terms of policy change then, promoting a new story-line is a difficult task involving dismantling previous story-lines and confronting the interests of those who were able to achieve prominence for their claims and viewpoint originally (Rydin, 1999). Discourse analysis from Hajer's perspective is a method to shed light on the social and cognitive basis of the way in which policy problems are constructed (Hajer, 1995), with analysis focused on the socio-cognitive processes in which discourse coalitions are established. He puts emphasis on the constitutive role of discourse in political processes, but assigns a central role to discoursing subjects, although in the context of a duality of structure. Social action is seen as stemming from human agency, however, social structures of various sorts both enable and constrain their agency. It is therefore possible for agents to accomplish policy change through discursive interaction within the context of these structures, but this inherently requires deconstructing the discursive hegemony that existing dominant political interests have achieved.

Dryzek

John Dryzek is well known as a normative political theorist. He has sought to apply Habermas's concept of communicative rationality and deliberative democracy to the specific issue of the environment (Dryzek, 2000), a development that has been welcomed as a major advance in political theory. Here, though, the focus is on his work in analysing environmental discourse. In this work he explicitly counters the Foucauldian approach and instead adopts a more agency-centred model. Dryzek sees discourse and power as interconnected in all kinds of ways, whereas Foucault would deny such a distinction between power and discourse as discourse *is* the operation of power (Dryzek, 1997). Furthermore, Dryzek sees constraints on the power of discourse, as powerful actors may override developments at the discursive level by ignoring them in terms of policy. Alternatively, discourses may be absorbed to suit the interests of a firm or government (ecological modernization springs to mind). Another constraint may arise

from the need for capitalist governments to fulfil a number of basic functions irrespective of discourses that may have been captured by government officials, especially continued economic growth. Within his rejection of the Foucauldian discursive approach, Dryzek points to the very existence of authors such as Foucault as evidence that individuals subject to discourses are able step back and make comparative assessments and choices across different discourses. Dryzek also rejects the hegemonic terms used by Foucauldians to describe discourse. He asserts that variety is as likely as hegemony, with the disintegration of the previously hegemonic discourse of industrialism since the 1960s as evidence of just such variety.

Dryzek sets out his approach to discourse analysis with the aim of advancing 'analysis of environmental affairs by promoting critical comparative scrutiny of competing discourses of environmental concern' (Dryzek, 1997, p. 20). He is thus interested in explaining how environmental discourses inform political programmes. A four-fold typology is put forward where ways of thinking about environmentalism are characterized in terms of their departure from the discourse of industrialism (Elliott, 1999). These departures can be reformist or radical, prosaic or imaginative and result in the identification of four main categories of environmental thought. These four strands are categorized as follows. The discourse of environmental 'problem-solving' is prosaic and reformist. It takes the political-economic status quo as given but in need of adjustment to cope with environmental problems, especially via public policy. The discourse of 'survivalism', popularized by the Club of Rome (Meadows et al., 1972) is also prosaic, but radical. It is radical because it seeks wholesale redistribution of power within the industrial political economy and wholesale reorientation away from perpetual economic growth to avoid exhausting natural resources and the assimilative capacity of the environment. It is prosaic because it sees solutions in terms of options set by industrialism, especially greater control of existing systems by administrators, scientists and other responsible elites. The discourse of 'sustainability' is imaginative and reformist, beginning in the 1980s with imaginative attempts to dissolve the conflicts between environmental and economic values that are characteristic of the discourses of problem-solving and survivalism. Finally, the discourse of 'green radicalism' is also imaginative, but radical. It rejects the basic structure of industrial society and the way the environment is conceptualized therein. Due to such radicalization and imagination, it features deep intramural divisions.

In common with the roots of Habermas's work in argumentation theory, Dryzek also adopts a rhetorical method, marrying this with a more basic social constructivist perspective (see Rydin, 2003, ch. 2). This offers a fairly tightly controlled comparative analytical device for identifying the

elements through which discourses construct stories. First the basic entities whose existence is recognized or contrasted must be identified. Dryzek refers to this as the 'ontology' of a discourse. Second, assumptions held about natural relationships, such as Darwinian struggle or cooperation, should be explored. This includes hierarchies of gender, expertise, political power, intellect, race, and so on. Propositions about agency and motivation constitute the third area of investigation. Agents may, for example, be seen as benign, public-spirited administrators or selfish bureaucrats. They could include enlightened citizens, rational consumers, ignorant and short-sighted populations, and so on. Finally, the key metaphors and rhetorical devices that a discourse invokes should be scrutinized. This might include, for example, metaphors such as spaceships (Boulding, 1966) that may act as rhetorical devices to convince listeners or readers. It may also include other devices like an appeal to widely accepted institutions or practices such as established rights. A discourse could also accentuate negatives such as horror stories regarding government mistakes.

In order to demonstrate the nature of the insights that Hajer and Dryzek's approaches facilitate and to explore the methodological difficulties and practicalities of such analysis, we now apply them to a case study of environmental policy governing anthropogenic burning in Cape York Peninsula (Cape York), Queensland, Australia.

Discourse analysis in practice – a case study[1]

Cape York is situated at the north-eastern tip of Queensland, Australia (Figure 6.1). Covering an area roughly equivalent in size to England, Cape York has a low population density of just 18 000 people mostly concentrated in a few mining towns and Aboriginal reserves as well as scattered cattle stations. Northern Australia, including Cape York, is thought to have a long history of anthropogenic burning stretching back at least 40 000 years (some estimates date it as far back as 70 000 years), coinciding with the arrival of the first Aborigines (Stocking and Mott, 1981). The idea of 'fire-stick' farming was popularized by Rhys Jones (1969) to describe the practices of indigenous land users where low-intensity, early dry-season burning across small areas was used to drive game into hunting grounds and increase the productivity of resource-rich areas such as monsoon forests.[2]

There has been considerable controversy over the impact of Aboriginal use of fire on the ecology of Australia. Most prominent is the debate around whether, in tropical northern Australia, Aboriginal burning caused the recession of earlier rainforest in favour of savanna or whether the recession of the rainforest was in fact the result of climate change (Flannery, 1994; Rose, 1996; Bowman, 1998, 2000; Hill, 2003). Bowman
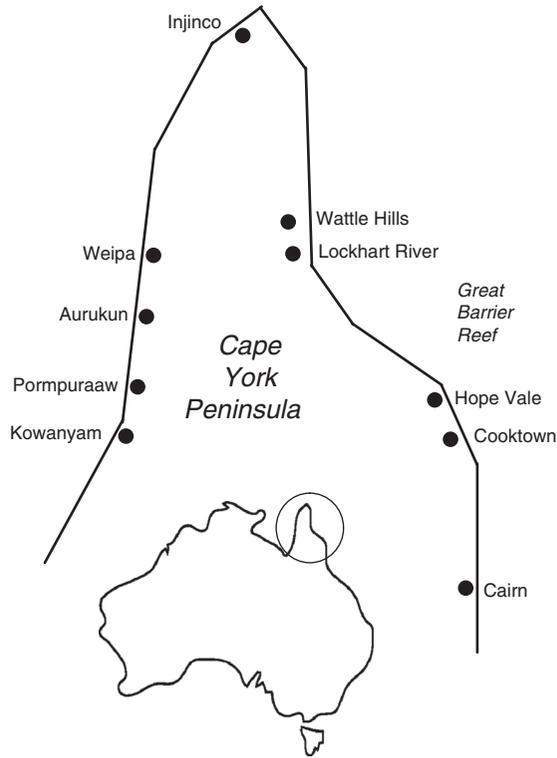
Figure 6.1   Map of Cape York Peninsula

(1998, p. 2) characterizes the lack of scientific consensus surrounding this debate as 'an inherent circular argument concerning the cause and effect of climate change, vegetation change, and burning through the late Quaternary'. It is, however, widely accepted that the pattern of burning in tropical northern Australia has changed in modern times, coinciding with the displacement of Aborigines by European settlers. Late dry-season, high-intensity burns now define anthropogenic burning with increased fuel loads over larger areas. This has reduced fire-sensitive vegetation in some areas. There has also been a lack of fire in other areas, which has enhanced fire-sensitive ecosystems (Gill et al., 1990; Bowman, 1998, 2000; Hill, 2003).

Anthropogenic burning in Cape York provides a typical example of such changes in burning practices. Overall, an estimated 80 per cent of the total area of Cape York currently burns each year (Cape York Peninsula Sustainable Fire Management Programme, personal communication,

2004). Fire-assisted pastoralism forms the dominant land use in Cape York. Pastoralists tend to burn land to promote the growth of green grass for their cattle to feed on. There are also extensive areas of Cape York (approximately 14.2 per cent of the total land area of Cape York in 2004 and increasing annually – Queensland Parks and Wildlife Service, personal communication, 2005) set aside as national park and wildlife reserves under the control of the Queensland Parks and Wildlife Service (QPWS) who also use fire as a significant part of their land management approach. They justify their use of fire through a number of reasons including hazard reduction where, it is argued, burning available ground fuel (dry leaf litter and so on) avoids the spread of wildfires later in the dry season, habitat management, including weed and pest management, and maintaining habitat diversity. There are also several Aboriginal reserves where indigenous communities are free to pursue their own traditional burning practices.

Despite the lack of consensus within the scientific literature regarding the environmental impacts of fire, environmental policy in Cape York tends to be unquestioningly pro the use of fire as a land management tool. This can be seen in both the policies of the Queensland Rural Fire Service who are responsible for policing the use of fire in Cape York (RFS, 2001) and the policies of those government departments with direct jurisdiction over the management of areas of land there (see, for example, Grice and Slatter, 1997; Gill et al., 1999; Marlow, 2000; QPWS, 2000; see also, for example, DNR, 2001, 2001; EPA, 2002).[3]

The Permit to Light Fire system operated by the Queensland Rural Fire Service (Queensland State Government, 1990) provides that landholders can, in theory, be prosecuted if they light a fire outside of the terms of a Permit. The problem, however, has always been in proving who lit a fire. Once a fire is lit on Cape York it has the potential, especially at dry times of year, to burn for weeks or even months across hundreds of thousands of hectares of land, therefore affecting areas nowhere near where it was first lit. The introduction of the Cape York Peninsula Sustainable Fire Management Project has had some success in addressing the issue of accountability. The project provides an online service[4] where fires on Cape York can be tracked by satellite and thus, when cloud cover does not interfere, the origin of fires can sometimes be identified. The attitude amongst most stakeholders, however, tends to be very much that if the fire is on your land, it's your problem whether you lit it or not. This is characterized by a traditional saying often used by landowners on Cape York; 'He who owns the fuel owns the fire' (Queensland State Government, 1990; RFS, 2001). The insinuation is that each landholder ought to engage in hazard reduction burning to ensure that there is insufficient ground-fuel build-up (dry leaf litter and so on) on their land to allow a fire to encroach.

As well as its role in coordinating the Permit to Light Fire system, the Rural Fire Service also works with Cape York landholders in implementing a series of 'controlled' burns at the beginning of each dry season. This is done via a series of workshops held across Cape York prior to each dry season where interested landholders can attend and request that the Rural Fire Service carry out burning on their land. The Rural Fire Service then flies a light aircraft along the boundaries of participating properties and drops incendiary bombs that are intended to burn a series of firebreaks between each property. The rationale for this practice is one of hazard reduction. As outlined above, the rationale is that by burning the available ground fuel on property perimeters, the spread of wildfires later in the dry season might be avoided. Some stakeholders, however, are critical of this practice as being too indiscriminate and not accounting for environmental considerations in terms of whether the various affected ecosystems are able to cope with regular, or indeed, any fire. Indeed, as Russell-Smith et al. (2003) highlight, as well as there being no consensus over what fire-oriented landscape management should aim for, neither is it clear whether humans have the tools or resources to implement particular regimes over a large spatial scale.

When applying for a Permit to Light Fire, a landholder is required to disclose to the local Fire Warden any arrangement they have with other government agencies that obliges them to protect some aspect of their property from fire for environmental reasons or otherwise. Such arrangements are rare but do include agreements between landholders and the Queensland Department of Natural Resources, Mines and Energy to undertake burning to kill back weeds such as rubber-vine (DNR, 2001), or, in a few examples, to maintain the habitat of the endangered golden shouldered parrot, *Psephotus chrysopterygius*, which relies on late dry-season fires to create necessary nesting conditions (Crowley et al., 2003). The only instance where such an agreement might limit burning is where a public road runs through a property. There is only one main, unsurfaced dirt road in Cape York so this is rarely an issue. Once a landholder has informed their Fire Warden of any such agreement, it is then up to the Warden to consider this when detailing the conditions of the Permit to Light Fire. Wardens are all local stakeholders themselves chosen by the Rural Fire Service on the basis of assumed local knowledge of their area of responsibility (areas of responsibility range from just the Warden's own land to including theirs and a few of their neighbours' properties). The Rural Fire Service states that 'the local volunteer Fire Warden should not be responsible for policing environmental issues' (RFS, 2001, 1-1) on the basis of them not possessing sufficient knowledge to do so.

In addition to the Rural Fire Service, Queensland's Environmental

Protection Agency also supports the pro-burning policy discourse. This agency is responsible for achieving 'ecologically sustainable development' under the terms of the Environmental Protection Act 1994 (Queensland State Government, 1994). The Queensland National Parks and Wildlife Service is part of the Environmental Protection Agency with direct responsibility for the management of National Parks. As outlined above, the Environmental Protection Agency actively uses fire as a land management tool on National Park land as part of their land management policy. This is also in line with the rationale for the Department of Natural Resources, Mines and Energy's fire-relevant policies (Marlow, 2000; DNR, 2001).

The pro-burning policy stance in Cape York does not, however, have unanimous support from all stakeholders. Whilst many stakeholders are pro-burning, including Aboriginal communities, pastoralists and government scientists whose rationales for burning were summarized above, there are also two key stakeholder groups who are primarily anti-burning. These are the residents of Wattle Hills (a self-sufficiency community pursuing sustainable forestry practices on their 35 650 ha property), and several independent scientists who cite a growing body of scientific and anecdotal evidence that questions the environmental sustainability of the dominant pro-burning policy paradigm in Cape York (see, for example, Ockwell and Lovett, 2005). Cape York stakeholders can therefore be seen as polarized between two opposing discourses of 'pro-' and 'anti-' burning.

In order to demonstrate the value of discourse analysis in understanding the policy dominance of the pro-burning discourse in Cape York, we analyse primary data in the form of the transcript of a seminar hosted by the Cairns and Far North Environment Centre (CAFNEC) in 1992 entitled 'Tropics Under Fire. Fire Management On Cape York Peninsula' (CAFNEC, 1992). The seminar invited stakeholders to come together and give short, 20-minute presentations outlining their views on the use of fire in Cape York. Overall, ten presentations were made by the stakeholders that were present. This seminar was held some time ago and other seminars have been held since, however, this particular seminar has been chosen for analysis for two reasons. First, analysis of later conferences and extensive consultation with Cape York stakeholders has demonstrated that there has been little change in attitude since the 1992 seminar was held. Second, the 1992 seminar constituted the widest and most equally proportioned representation of the various stakeholder groups. The transcript thus provides a useful summary of both the pro- and anti-burning discourses from the perspectives of all the key stakeholders and interest groups.

Double close-reading of the transcript of the seminar by both authors forms the basis of the analysis presented here. Both Hajer's Foucauldian and Dryzek's Habermasian frameworks for undertaking discourse analysis

were then applied. As the analysis demonstrates, the discursive construction of the burning issue is more complex and nuanced than the two broadly opposing pro- and anti-burning positions imply. We begin our discourse analysis by applying Hajer's Foucauldian-inspired framework before moving on to examine what Dryzek's Habermasian framework can add to the analysis.

Applying Hajer's analytic framework[5]

In keeping with Foucault's own work, Hajer has applied his ideas in detailed case studies. This allows more extended engagement with the ideas he has developed than is possible here, in the context of a discourse analysis of a specific text. Hence, the emphasis of the analysis will be on the particular concept of story-lines. It must therefore be acknowledged that some aspects of the Foucauldian approach are underplayed. The idea that a discourse comprises a set of practices as well as a set of representations is not given full weight by a text-based methodology. The emphasis on practices within a Foucauldian approach should not, however, be taken to exclude a concern with the text and the words it comprises. The use of the Cape York seminar transcript provides an opportunity for considering the story-lines embedded in these words and the potential for discourse coalitions thereby created.

The main story-lines adopted by the key actors are set out in Table 6.1. There is the clear distinction between two opposing discourses, constructed as pro- and anti-burning. The strongly drawn distinction sets the context or frame for the policy discussion and, as such, it can support the argument for two discourse coalitions coalescing around these two opposition perspectives on the use of fire. In the 'pro' coalition are the Aborigines, the governmental scientists and the pastoralists, while the residents of Wattle Hills and the independent scientists make up the 'anti' coalition.

It might be argued that the anti-burning discourse is placed in the position of challenging the established pro discourse, a task that is bound to require additional discursive resources as the existing policy scenario is well established. Those stakeholders who are anti-burning have to promote a new story-line of 'fire is undesirable' and actively dismantle the 'fire is desirable' story-line. This suggestion of an embedded bias towards the established 'pro' story-line is, however, somewhat undermined by the framing of the seminar itself. The title of the seminar 'Tropics Under Fire' and the illustration on the front cover of the conference transcript of a bird and other iconic animals (such as kangaroos) fleeing smoke and flames lit by a giant, match-wielding human hand suggests that, at least within CAFNEC (the environment centre that set up the seminar) there might be a bias towards the 'fire is undesirable' story-line. Instead of relying on the

Table 6.1   Applying Hajer's story-lines

	Link to Dominant Oppositional Discourses	Story-lines
Aborigines	Pro-burning	Fire as a cultural practice of traditional owners & custodians of land, embodying local indigenous knowledge *Linked to* History of repression, suppression and removal of Aborigines leading to loss of knowledge
Government scientists	Pro-burning	Human intervention in natural systems needed to ensure conservation of habitats and ecosystems *Elaborated as* Burning as promoting habitat diversity; *and* Burning as 'fuel reduction' preventing larger-scale, 'natural' fires
Pastoralists	Pro-burning	Burning is environmentally beneficial (through stabilizing ecosystems) but also economically beneficial (through providing fodder, safe mustering of cattle and promoting tourism)
Wattle Hills	Anti-burning	Letting 'nature take its course' will promote environmental quality and economic benefits
Independent scientists	Anti-burning	Scientific knowledge does not support burning; too much uncertainty about impacts of burning *Linked to* Global stories of biodiversity maintenance, rainforest protection and endangered species

simple construction of the two opposition discourses, Hajer's approach highlights that any construction of a broad 'anti' or 'pro' discourse coalition depends on how much the individual story-lines being used by actors support or undermine each other. It is notable here, therefore, that the three pro-burning story-lines all represent to some extent a different take on the same underlying story about human engagement with nature.

There is a strong emphasis in the Aboriginal story-line on the historic

knowledge of how to use fire gained through millennia of active engage-
ment between Aborigines and their local environment. This is contextu-
alized with a moral claim that the Aborigines are the 'custodians' (p. 6)
of the land together with the anti-colonial discourse that emphasizes the
European repression of Aborigines. In this way, the Aboriginal story can
rely on strong affinities with the established cause of native title claims,
which has gained considerable political credibility since the early 1970s.
This reflects Hajer's idea of how moral orders are established through
discourse in that blame and responsibility are attributed to European
descendants in order to justify prioritizing the Aboriginal representatives'
views on land management. In terms of social practice, it is significant
that an Aboriginal representative was, out of respect, asked to open the
seminar. But in terms of the discourse coalition analysis, the important
point is the existence of this clear narrative thread about the need for
active human nature engagement; as such, this is available for connecting
with the other actors' discourses.

   Although couched in very different terminology, government scientists'
discourse follows the same narrative thread as that of the Aborigines.
Here, human engagement with ecosystems is promoted as necessary to
ensure conservation. Two subsidiary discourses are discernible: a story-
line of 'habitat diversity' (p. 36), preservation through burning and a
story-line of 'fuel reduction' (p. 37) where anthropogenic fire is endorsed
as a way of avoiding the catastrophic ecological consequences of naturally
occurring fires by reducing the volume of standing fuel. The basis for such
engagement is scientific knowledge as opposed to traditional knowledge
but the story is the same. By advocating 'patch' or 'mosaic burning' (p. 31),
which is thought to have been traditionally pursued by Aborigines (p. 27),
and claiming that this leads to ecologically desirable 'stable' vegetation
patterns, discursive affinity with the Aboriginal discourse is also exhibited.
The connection is also facilitated by constructing Aboriginal practices
in scientific terms, with reference to scientific papers on Aboriginal land
management and even the inclusion of one such paper in the transcripts
of the conference.

   This narrative thread is reinforced again by the discourse of the pasto-
ralists. Here, everyday economic practices are portrayed as supporting the
practice of burning in both environmental and economic terms. Again,
active engagement between humanity and nature (through burning) is seen
as beneficial in the long term. The pastoralist representatives maintain
the story-line of fire being environmentally beneficial at the same time as
emphasizing its economic desirability. By describing pastures as 'botanical
communities' (p. 29) they claim that fire can maintain 'botanical stability'
(p. 32) and therefore preserve environmental 'integrity'. This provides a

clear example of discursive affinity with the government scientists, which is also evident in the pastoralists' adherence to the story-line of burning as desirable in terms of reducing wildfire risks. Discursive affinity with Aborigines is also achieved by asserting that the economic benefits derived by pastoralists from cattle fodder through post-fire new growth and safe mustering of their herds are the same as those traditionally derived by Aborigines. As well as the direct economic benefits from pastoralism, burning is also endorsed as economically desirable for encouraging tourism by clearing the ground for hiking and attracting charismatic species such as wallabies and kangaroos to the fresh new after-growth.

So the story-lines analysis provides some basis for understanding the strength of the pro-burning discourse coalition. It can also help understand the weakness of the anti-burning coalition. The story-lines of this coalition focus on opposing the dominant discourse instead of building links within the coalition. The aim of the proponents of the anti-fire discourse tends to focus chiefly on discrediting the government scientist story-line of fire being ecologically desirable. The national parks agency, the QPWS, tends to constitute the main focus for attack. The Wattle Hills representative promotes a story-line of 'fire as destructive to life', which is diametrically opposite to the government scientists' story-line. The government 'fire management' line is directly confronted and instead a non-interventionist, 'let nature take its course' line is promoted. Both independent scientists advance a story-line of fire as environmentally damaging. Again, a direct attempt is made to deconstruct the government scientists' story-line of fire as ecologically desirable by highlighting the degree of uncertainty surrounding current scientific knowledge of the impacts of fire. Policies that involve using fire are described as 'stabbing in the dark' (p. 43). The 'fuel reduction' story-line is also attacked on the basis of negative impacts on soil fertility as argued by the Wattle Hills representative. The argument is that without fire, dead matter has chance to decompose, resulting in increased soil fertility as opposed to being burnt and therefore losing biomass through combustion.

Little discursive connection is evident between the 'let nature take its own course' Wattle Hills discourse and the strong scientific rationality of the independent scientists, with their attempts to link the anti-burning story-line to other global environmental story-lines. While the Wattle Hills residents highlight their own credentials as self-sufficiency pioneers, the independent scientists have significant academic credentials and a strong professional involvement with Cape York including, in one case, having worked on television documentaries on bird life in the Cape. The rational, scientific tone of their representations reflects their scientific background with extensive intertextual reference made to scientific papers in support of

their arguments. Several popular global story-lines are invoked to support avoiding the use of fire, including 'biodiversity maintenance', protection of 'endangered species', expansion of 'valuable rainforests' and maintenance of 'sustainable populations' of wildlife. Little attempt is made to bridge the 'global' of the scientists with the 'local' of the Wattle Hills residents and yet, without this, the 'anti' discourse coalition remains discursively weak.

Applying Dryzek's analytic framework
The first part of the Dryzek framework concerns the identification of actors' discourses with his typology of four societal discourses on environmental issues. Table 6.2 represents an attempt to classify the discourses and sub-discourses present in the transcript in terms of Dryzek's categories. This displays some difficulties. It was not possible to assign actors' discourses to Dryzek's categories in a simple and non-contestable way.

For example, the Aboriginal discourse can be considered to fall into both the survivalism and green radicalism categories. There is a clear radical strand to their discourse; the emphasis on the colonial history of European settlement and repression marks it as such. While the status quo of the established political economy is not challenged directly, it is implied that Aboriginal rights should have priority over other concerns, including any economic imperative. There is a tension, however, between much of the tone of the Aboriginal presentations, which is distinctly prosaic, and the sub-text, which emphasizes the distinctive spiritual claims of the Aborigines. The latter is clearly imaginative not prosaic. The emphasis on the prosaic in this particular context may be a strategic discursive decision

Table 6.2   Applying Dryzek's discourses

	Prosaic	Imaginative
Reformist	Problem-solving discourse Government scientists Independent scientists (less critical discourse) Pastoralists	Sustainability discourse Pastoralists
Radical	Survivalism discourse Aborigines (everyday management discourse) Independent scientists (more critical discourse) Wattle Hills (everyday management discourse)	Green radicalism discourse Aborigines (underlying spiritual discourse) Wattle Hills (self-sufficiency discourse)

and/or may relate to the way that Aboriginal voices were largely represented by other semi-professionalized voices. In either case, it suggests that the categories are not very helpful in furthering the analysis where the Aboriginal discourse is concerned.

A similar point can be made about the discourses of the independent scientists and the residents of Wattle Hills. The independent scientists adopted a strong critique of contemporary industrialism. This very much put them on the borders between a reformist and a radical discourse. It certainly distanced them from the more firmly pro-status-quo stance of the government scientists. And while, like the government scientists, they remained prosaic rather than imaginative in their discourse, it did make it difficult to simply assign the independent scientists to either the problem-solving or survivalism category. The Wattle Hills story-line emphasized the need to 'let nature take its course'. Policies promoting fire were seen as misleading and neglectful of life, reverence for life being of primary importance. This suggests a radical, imaginative departure from industrialism that fits within Dryzek's definition of 'green radicalism' (Dryzek, 1997). In much of their more specific discussion of management practices, however, the discourse of the Wattle Hills residents is distinctly prosaic, suggesting a place in the survivalism category instead.

Indeed, only the government scientists (clearly a prosaic reformist discourse of problem-solving) and the pastoralists (an imaginative but reformist discourse of sustainability) fall clearly into one box of Dryzek's typology. This can be interpreted in two ways. Either the typology fails the 'ideal type' test and is not a useful analytic tool. Or the lack of discursive clarity of some of the actors' discourses may be a significant factor in explaining the pattern of discursive coalition formation and the success or failure of individual actors to achieve discursive influence. Before concluding on this, however, the second part of Dryzek's framework deserves consideration.

This concerns the detailed social constructivist/rhetorical analysis of the discourses. Some, but by no means all of this analysis is summarized in Table 6.3. What is immediately evident here is the wealth of detail that such an analysis offers. Furthermore, such an analysis is able to incorporate more of the emotional impact of the different discourses. The emphasis on story-lines, while couched in terms of narrative rather than logic, still privileges an account of connections and makes little reference to the language in which the narrative is delivered. Much of the impact of language is not just to be found in the plot of the story being told but in how that story is told. It is here that rhetorical analysis in particular demonstrates its strengths.

Starting with the Aboriginal discourse, the key entities here are

Table 6.3   Applying Dryzek's rhetorical analysis

	Basic Entities	Assumptions re Relationships	Agency and Motivation	Metaphors and Rhetorical Devices
Aborigines	Aborigines with moral responsibilities; 'nature'; Europeans	Aborigines in tune with nature; Europeans destructive of nature	Europeans in pursuit of profit; Aborigines seek to preserve land	Very flat as largely spoken for, that is, mediated voice
Government scientists	Responsible, knowledgeable and realistic scientists, ecosystems	Humans can work with nature within a management/ scientific framework; scientific justification of traditional practices	Ethos of scientific rationality or scientifically informed managers	Fire as 'management tool'; described as 'patch burning', a 'traditional' practice; 'rejuvenation' through burning; having an 'evolutionary' role; 'holocaust' references
Pastoralists	Pastures as 'botanical communities'; responsible and irresponsible individuals	Emphasis on win-win scenarios of sustainable development	Profit can promote environmental protection	'Stability', 'integrity'; religious and emotive imagery
Wattle Hills	Humans as part of nature	Nature knows best	Non-interventionist; self-sufficiency as route to sustainability; nature also has agency	Farmland as 'priceless resource'; emotional tone; use of Haiku poetry; some scientific rhetoric
Independent scientists	Humans and nature as separate	Scientific knowledge reveals relationships	Scientific rationality legitimately dominates; scientists as responsible; humanity could destroy nature	Scientific terminology *plus* emotional language

constructed as Aborigines with an innate set of responsibilities and rights in relation to the land, nature as a discrete entity, and Europeans, constructed as bearing guilt and blame. While Aborigines are viewed as being in tune with the 'natural rhythms of life' and intrinsically seeking to preserve the land, Europeans are constructed as destructive towards nature and operating in pursuit of economic profit. These constructions support the story-line gleaned from a Hajerian analysis of the text. The Dryzekian analysis adds little in this case largely because there is little use of metaphors or other rhetorical devices. This in turn is because the Aboriginal voices are largely reported or represented. Indeed, both the Aboriginal representations at the seminar were made by white academics. There is little active voice in this discourse and the resulting tone is rather 'flat'. The only discursive colour can be found in the references to caring for the land by referring to burning as 'cleaning up' land that would otherwise be 'neglected' (p. 23). Love for and care of the land is equated with burning it; a connection that is also made by the government scientists (p. 34).

By contrast, the analysis of the government scientists' discourse from this perspective is very revealing. The main constructed entities are scientists – constructed as responsible, knowledgeable but also realistic – and ecosystems, which are a scientific category. This combination of constructions gives considerable authority to the government scientists. They constitute the main means of accessing knowledge about ecosystems. 'Experience of over 50 years of research' (p. 37) is referenced to support government pro-burning policy. It is stated by one representative that the government position on the use of fire is 'so clearly established factually' that anyone disputing it should 'go and read literature' (p. 35).

But the government scientists also present themselves in a range of moral terms: they are responsible: they recognize the limitations of scientific knowledge in terms of uncertainty – 'we are never going to have perfect knowledge' (pp. 12 and 14). They also refer to the importance of local knowledge and of cultural heritage, therefore enabling the link between their discourse and that of the Aborigines. This is taken further in how the key relationships are constructed. Scientific knowledge is seen as justifying the kind of traditional practices undertaken by Aborigines. Intertextual reference is made to carbon dating evidence that suggests a 40 000-year history of the use of fire in Australia to justify an accusation of 'supreme arrogance' on behalf of those opposed to burning as they are 'denying the ancient order' (p. 34). Science can work with tradition within the context of an overall assumption of the possibility of positive human engagement with nature that enables management. Furthermore, such human management is inevitable and has always happened: 'There is no

such thing as natural management' (p. 13). This places modern scientific management on a par with traditional Aboriginal management. The ethos of scientific rationality that is relied on here, therefore, does not undermine the potential for an alliance with the Aboriginal discourse.

As well as adding such detail to the workings of a discourse coalition between the government scientists and the Aborigines, the rhetorical analysis provides an insight into the emotional appeal of such a discourse. The government scientists' discourse is a rhetorically rich discourse. In particular, there is very active rhetorical engagement with the key term of 'fire'. As they say, colloquially, 'Fire ain't fire' (p. 13). Instead the discourse describes fire in terms of a 'management tool', a 'traditional practice', a form of 'rejuvenation' (p. 12), and as having an 'evolutionary' role (p. 15). Fire is not a negative thing when discussed in such language. It makes it possible to combine positive reference to 'fire' in a discourse that also talks of having 'love' for the land (p. 34).

And yet the negative effects of using fire are acknowledged. There is reference to individual birds and animals killed by fire. This is, however, set against a synecdochical account of how burning can save the habitat of two key species – the malleefowl and ground parrots (pp. 12–13). The extent of the intended burning is also firmly set in context by invoking the extremely emotive term 'the holocaust'. What the government scientists are doing is making 'choices' (p. 14) or 'playing God' (p. 16) in order to avoid 'policies of inaction' that would result in a 'holocaust of extinction' (p. 38). The fire of government scientists prevents the fire of complete annihilation.

The third party to the dominant discourse coalition, the pastoralists, has a similar discourse in the sense of mixing scientific and emotive rhetoric. The pastoralists' discourse again constructs the key entities in terms of, on the one hand, nature described in scientific terms – botanical communities with scientific names for species – and, on the other hand, humans as individuals who are able to act responsibly (although this is acknowledged as an individual choice, not as inevitable). The relationship assumed between nature and humans is seen in terms of the kind of win-win scenarios that are typical of the broader sustainability discourse. The value that this discourse adds over the scientific/traditional management discourses of the government scientists and the Aborigines is its suggestion that economic profit can also be harnessed to the goal of conservation. As a result, the combination of the three discourses is rhetorically very strong indeed.

Similar to the government scientists' discourse, there is also a rich use of emotive rhetoric within the pastoralists' discourse, combining scientific terminology with moral imagery. Pastures are portrayed as biotic communities with 'stability' and 'integrity', both moral and eco-scientific terms.

There is also use of quasi-religious rhetoric with reference to fire. A more primal type of religiosity is invoked:

> we are always going to have trouble with fire, as long as some of us feel a thrill, a quickening of the pulse, as we light up the edge of a road, or feel a grim satisfaction as we watch the flames leap up the hillside, because since mankind first learned to use it, everyone loves a fire. (p. 42)

In these terms, the pastoralists also see fire as a strong cultural reference point to support the management claims for their burning practices: 'mankind has held fire in both a revered and feared position . . . Fire has been given God qualities and worshipped' (p. 29). The symbolism of fire is related to scientific claims for fire as rejuvenating habitats with 'old trees sacrificed for new seedlings' (p. 12).

Conversion, another religious theme, features too. The representative from the Cape York Peninsula Development Association (CYPDA) employs a persuasive rhetorical technique, emphasised by Dryzek, in stating his original affinity with the anti-burning discourse, which changed over time as he realized that his views were factually misguided (pp. 39–42). Fire is portrayed as an 'emotional issue clouded by folklore', which contrasts to the rational scientific reality of it being merely 'a fast form of oxidation'. The 'community disharmony' that exists over the use of fire is put down to a simple 'lack of understanding' on behalf of those opposed to burning. This establishes further discursive affinities with the government scientists' argument.

Turning to the Wattle Hills residents, this is the only discourse to construct humans and nature as part of the same entity; effectively this places humans as part of nature. This undermines the notion of human agency. Instead, the appropriate role becomes one of non-intervention and self-sufficiency. By contrast, nature is credited with substantial agency as well as superior knowledge: 'nature knows best'. This detailed construction of the residents' discourse puts them discursively at odds with the previous three discourses; it therefore reinforces the structure of the discourse coalitions discussed above. In addition, the Wattle Hills discourse is the most emotive of the five presented in the workshop. It uses Haiku poetry and highly charged language. It refers to Australia as a 'fire-shaped continent' (p. 10) and anthropomorphizes the larger animals, referring also to the 'tender growth' where birds nest (p. 9). Reference is made to 'QPWS arsonists' alongside 'pyromaniacs' and 'vandalism' (pp. 9 and 17). The QPWS policy, which implies 'nature can no longer take its course', is dismissed as being 'spawned' by some 'dark philosophy' (p. 9). A strong line is taken in establishing the destructiveness of fire through the use of emotive phrases such as 'bushfires kill and destroy', they bring 'death and destruction'

(p. 8) resulting in a 'smoking, blackened landscape' (p. 10). The impact of 'The Almighty Match' (CAFNEC, 1992) on wildlife, especially birds, provides the main focus for their arguments with reference made at one point to one of the representatives having observed 'young birds' being 'burnt alive' and 'totally cooked' (p. 44).

The following closing statement is typical of the non-conformist nature of the representation: 'Let us aim for perfection in all things but please, now, stop diminishing our reservoirs of nature and spirit.' The failure to engage with the conventions of non-emotional presentation is explicitly recognized by the representative himself who makes 'no apology for introducing some emotion to the debate'. Such non-conformity, however, may well be interpreted as making it difficult to gain credibility for the argument by positioning it outside the institutional conventions of the other representatives. The Wattle Hills discourse does use a limited amount of scientific rhetoric (p. 9) but has no rhetorical means of combining the scientific and the emotive and this leaves the discourse as predominantly emotional, a position that is bound to reduce its standing in any policy debate.

It does, however, play a role in constituting the identity of Wattle Hills. The residents of Wattle Hills pursue a very different environmental management policy from most other landholders in the Cape and are well known for their alternative lifestyle centred on self-sufficiency and natural regeneration. This is reflected in their presentation's overall departure from the rational, scientific approach adopted by the rest of the representatives at the seminar. Here, the discourse constitutes Wattle Hills as a distinctive community. This, however, undermines their attempt to take a central place within the policy debates. There is an attempt at an appeal to the 'economic advantage' to Cape York landholders of a fire-free management regime, which, they claim, will 'halt the decline in soil fertility', healthy farmland being a 'priceless resource' (p. 11). This could be interpreted as attempting discursive affinity by engaging with those for whom economic gain is a priority. This is not, however, going to be a winning trope in a debate framed around environmental protection and where scientific rationality plays such a key role.

Finally, there is the discourse of the independent scientists. As might be expected this has parallels with the government scientists' discourse in terms of the pattern of social construction and rhetoric. Humans and nature are viewed as distinct with scientific knowledge legitimizing certain practices, through revealing the key relationships affecting natural systems. Scientists are again seen as responsible and scientific terminology is again combined with emotional language. The difference here, however, is the mainly negative ethos and loose use of apocalyptic rhetoric: 'destroyed',

'disaster' and 'catastrophe'. There is also the use of tropes that imply nature would be better off unmanaged. Burning is equated to a violation (p. 17), suggesting a virgin state would be preferable. And wilderness, presented as unmanaged land, is compared favourably with managed landscapes (p. 20), in particular as wilderness is seen as the source of sublime romantic encounters: 'a place where we can stand with our senses steeped in nature' (p. 20).

The rhetoric used drives the independent scientists' argument towards the conclusion that humans will inherently destroy rather than conserve nature and that management conflicts with the natural state of the land. The government scientists, by contrast, managed the ethos to imply a more positive message. In policy debates this may well carry greater weight than a purely negative and oppositional discourse. While negative rhetoric such as this is highly influential within environmentalism and can assist in building coalitions among environmentalist groups, it is less effective within governmental policy settings.

Concluding on discourse analysis of a dominant policy perspective

What we hope to have shown in this application of two discourse analysis approaches to a specific environmental policy case study is the kind of insights that can be achieved through an attention to language and discourse. For example, throughout the analysis, Hajer's story-line concept provided a powerful heuristic device enabling the conflicting claims of the pro- and anti- burning discourses to be clearly illustrated. Two separate discourse coalitions are discernible throughout, subscribing either to a story-line of 'fire is desirable' or 'fire is undesirable'. Precisely as Hajer posits, the members of these coalitions subscribe to the same story-line but tend to apply different meanings to it. For example, the Aboriginal representatives subscribe to the 'fire is desirable' story-line on the grounds of cultural tradition, whereas the government scientists subscribe on the grounds of ecological desirability.

Discursive affinities are easily discernible within representations of members of the same discourse coalition, such as the promotion of the fuel reduction story-line by both government scientists and pastoralists. Obvious attempts to discredit the storylines of opposite discourses are also observed throughout the representations. From the perspective of Dryzek's work, his typology of societal discourses on the environment proves a rough-and-ready tool for analysing the construction of the discourses. By describing basic entities, assumptions and motivations within different representatives' story-lines, Dryzek's approach is useful in enabling differentiation between those subscribing to the same overall story-line. It also provides an access point for the emotive use of language, which plays

a central role in the effectiveness of discourses. This is further enriched by the detailed analysis that rhetoric affords. From the perspective of the two approaches, the sustained dominance of the pro-burning discourse within government policy can be explained by a combination of the failure of the anti-burning discourse to achieve sufficient discursive affinity to effectively challenge the dominant pro discourse and the rhetorical strength of the various proponents of the pro discourse.

But it should be recognized that these are just two possible perspectives on discourse analysis. For example, they ignore the issue of 'pervasive power' accounts of dominant policy perspectives more commonly found in mainstream Foucauldian approaches that do not make the adjustments that Hajer considers necessary. This emphasizes the necessity of making theoretical choices (with methodological implications) in undertaking any discourse analysis. An emphasis on discourse is not sufficient; the analyst needs to adopt a specific take on how discourse operates socially and within policy contexts. Dryzek and Hajer offer two such possibilities. They are able to expose the ontological and epistemological assumptions and constructions that underlie the dominant policy perspective on anthropogenic burning in Cape York as well as challenging the stance of objectivity that is often assumed by policy-makers in the face of conflicting discourses. As environmental decision-making inherently takes place under conditions of radical uncertainty, the significance of attending to such exposure should not be underestimated.

We end with some reflection on the experience of undertaking discourse analysis as a methodological approach. First of all, we would endorse Lees' point that any discourse analysis must be undertaken with rigour, just as with any methodological approach (Lees, 2004). In our view this involves having a clear theoretical framework that ties in closely to the form of attention to discourse that is adopted. There is a need to specify the concept and terms that will be used to analyse the discourse and even to collect the data that constitutes evidence of the discourse. We have found Hajer and Dryzek's approaches helpful here in identifying such 'middle-range' concepts and terms. A detailed attention to the words and language of texts has been invaluable in providing a rigorous form of discourse analysis that is transparent and justifiable. Collaborative work at the level of close-reading has proved an essential element of maintaining rigour while also introducing the creativity needed for achieving insightful discourse analysis. We would see such analysis as inevitably a creative process. It is also a reflective process, drawing on the everyday skills and knowledge that any researcher has as a language user but in a way that builds a link between theoretical understanding and linguistic practice (Myerson and Rydin, 1996). These links between theory, careful empirical

work and a balance between creativity and reflection on the part of the researcher are all elements that make for successful and effective discourse analysis.

Finally, however, a note of caution must be raised in the context of the pervasive power accounts of the influence of discourse discussed above. These arguably suggest an implicit responsibility for us as analysts to be aware of our own ontological and epistemological beliefs and understandings. This implies a need to adopt a critical and fundamentally reflexive approach where we explicitly consider how our own interests may wittingly, or unwittingly, be reflected in the production of knowledge that might be inherently perspective-bound (Hastings, 2000; Heller, 2001). This is of particular importance given the degree of legitimacy afforded to academic perspectives (Hastings, 2000). The question must always be asked: would another author analysing the same text reach the same conclusions? Discourse analysis carried out in the spirit of such critical and reflexive enquiry can then fulfil its potential as a heuristically powerful and potentially emancipatory tool for policy analysis.

Notes

1. For further detailed explorations of this case study see Ockwell and Rydin (2006) and Ockwell (2008).
2. This euro-anthropocentric interpretation of Aboriginal burning is contested by contemporary anthropologists and many Aboriginals – this is outlined further below.
3. See Ockwell and Rydin (2006) for a more in depth discussion of the dominant pro-burning policy paradigm in Cape York.
4. See www.firenorth.org.au/nafi2, accessed 19 August 2009.
5. Note: page references in parentheses from hereon refer to the 'Tropics Under Fire' seminar transcript under analysis.

References

Bakker, K. (1999), 'Deconstructing discourses of drought', *Transactions Institute of British Geographers*, **24**(3), 367–78.
Bevir, M. (1999), 'Foucault, power, and institutions', *Political Studies*, **47**(2), 345–59.
Boulding, K.R. (1966), *The Economics of the Coming Spaceship Earth*, Baltimore, MD: Johns Hopkins University Press.
Bowman, D.M.J.S. (1998), 'Tansley Review No. 101 – The impact of Aboriginal landscape burning on the Australian biota', *New Phytologist*, **140**, 385–410.
Bowman, D.M.J.S. (2000), *Australian Rainforests: Islands of Green in a Land of Fire*, Cambridge, UK and New York: Cambridge University Press.
Burgess, J., C.M. Harrison and P. Filius (1998), 'Environmental communication and the cultural politics of environmental citizenship', *Environment and Planning A*, **30**(8), 1445–60.
Buttel, F.H. (1997), 'The politics of environmental discourse: ecological modernization and the policy process', *Social Forces*, **75**(3), 1138–40.
CAFNEC (1992), 'Tropics under fire: fire management on Cape York Peninsula', Public Seminar, Cairns and Far North Environment Centre, Australia.
Chong, D. (1991), *Collective Action and the Civil Rights Movement*, Chicago: The University of Chicago Press.
Crowley, G.M., S. Garnett and S. Shephard (2003), 'Management guidelines for golden-

shouldered parrot conservation', Brisbane: Queesnland Environmental Protection Agency.

Darcy, M. (1999), 'The discourse of "community" and the reinvention of social housing policy in Australia', *Urban Studies*, **36**(1), 13–26.

DeLuca, K. (1999), *Image Politics: the new rhetoric of environmental activism*, London: The Guildford Press.

DNR (2001), *2000/01 Technical Highlight*, Queensland: Queensland Department of Natural Resources, Mines and Energy.

DNR (2004), *Vegetation Management Code for Ongoing Clearances. Cape York Peninsula Bioregion*, Queensland: Queensland Department of Natural Resources, Mines and Energy.

Dryzek, J.S. (1990), *Discursive Democracy: Politics, Policy and Political Science*, New York: Cambridge University Press.

Dryzek, J.S. (1995), 'Review of "Risk Society – Towards a New Modernity" – Beck, U.', *Policy Sciences*, **28**(1), 231–42.

Dryzek, J.S. (1997), *The Politics of the Earth. Environmental Discourses*, Oxford, UK: Oxford University Press.

Dryzek, J.S. (2000), *Deliberative Democracy and Beyond: Liberals, Critics, Contestations*, Oxford, UK: Oxford University Press.

Edelman, M. (1988), *Constructing the Political Spectacle*, Chicago: University of Chicago Press.

Elliott, L. (1999), 'Review of "The politics of the earth: environmental discourses"', *Australian Journal of Political Science*, **34**(1), 130–31.

EPA (2002), *Fire Management*, Queensland: Queensland Environmental Protection Agency and Queensland National Parks and Wildlife.

Flannery, T. (1994), *The Future Eaters*, Sydney: New Holland Publishers.

Flournoy, A.C. (1993), 'Beyond the spotted owl problem – learning from the old-growth controversy', *Harvard Environmental Law Review*, **17**(2), 261–332.

Foucault, M. (1979), *Discipline and Punish: the Birth of the Prison*, New York: Vintage.

Foucault, M. (1980), *Power/Knowledge. Selected Interviews and Other Writings 1972–1977*, Brighton: Harvester.

Foucault, M. (1984), *The Care of the Self: The History of Sexuality Volume 3*, Harmondsworth: Penguin.

Foucault, M. (1990), *The History of Sexuality Volume 1: An Introduction*, London: Penguin.

Gill, A.M., J.R.L. Hoare and N.P. Cheny (1990), 'Fires and their effects in the wet-dry tropics of Australia', in J.G. Goldammer (ed.), *Fire in the Tropical Biota*, Berlin: Springer-Verlag, pp. 159–78.

Gill, A.M., J.C.Z. Woinarski and A. York (1999), *Australia's Biodiversity – Responses to Fire. Plants, Birds and Invertebrates*, Department of the Environment and Heritage, Canberra ACT.

Grice, T.C. and S.M. Slatter (eds) (1997), *Fire in the Management of Northern Australian Pastoral Lands*, St Lucia, Queensland: The Tropical Grassland Society of Australia, St Lucia.

Habermas, J. (1996), *Between Facts and Norms: Contributions to a Discourse Theory of Law and Democracy*, Cambridge, UK: Polity Press.

Hajer, M.A. (1993), 'Discourse coalitions and the institutionalization of practice', in F. Fischer and J. Forester (eds), *The Argumentative Turn in Policy Analysis and Planning*, Durham, NC: Duke University Press, pp. 43–71.

Hajer, M.A. (1995), *The Politics of Environmental Discourse. Ecological Modernization and the Policy Process*, Oxford, UK: Oxford University Press.

Hajer, M.A. and H. Wagenaar (2003), *Deliberative Policy Analysis. Understanding Governance in the Network Society*, Cambridge, UK: Cambridge University Press.

Hastings, A. (1999), 'Discourse and urban change: introduction to the special issue', *Urban Studies*, **36**(1), 7–12.

Hastings, A. (2000), 'Discourse analysis: what does it offer housing studies?', *Housing Theory and Society*, **17**(3), 131–9.

Healey, P. (1999), 'Sites, jobs and portfolios: economic development discourses in the planning system', *Urban Studies*, **36**(1), 27–42.

Heller, M. (2001), 'Critique and sociolinguistic analysis of discourse', *Critique of Anthropology*, **21**(2), 117–41.

Hill, R. (2003), 'Frameworks to support indigenous managers: the key to fire futures', in G. Cary, D. Lindenmayer and S. Dovers (eds), *Australia Burning: fire ecology, policy and management issues*, Collingwood: CSIRO Publishing, pp. 175–86.

Hillier, J. (1998), 'Beyond confused noise: ideas towards communicative procedural justice', *Journal of Planning Education and Research*, **18**(1), 14–24.

Jones, R. (1969), 'Fire-stick farming', *Australian Natural History*, **16**(7), 224–8.

Keeley, J. and I. Scoones (2000), 'Knowledge, power and politics: the environmental policy-making process in Ethiopia', *Journal of Modern African Studies*, **38**(1), 89–120.

Leach, M. and R. Mearns (1996), *The Lie of the Land. Challenging Received Wisdom on the African Environment*, Oxford, UK: James Currey.

Lees, L. (2004), 'Urban geography: discourse analysis and urban research', *Progress in Human Geography*, **28**(1), 101–7.

Majone, G. (1989), *Evidence, Argument and Persuasion in the Policy Process*, New Haven, NJ: Yale University Press.

Marlow, D. (2000), *A Guide to Fire Management in Queensland (incorporating fire management theory and departmental practice)*, Queensland: Queensland Department of Natural Resources, Mines and Energy.

Mason, M. (1999), *Environmental Democracy*, London: Earthscan.

Meadows, D.H., D.L. Meadows, J. Randers and W.W. Behrens (1972), *The Limits to Growth* (a report for the Club of Rome's project on the predicament of mankind), New York: Universal.

Myerson, G. and Y. Rydin (1996), *The Language of Environment: A New Rhetoric*, London: UCL Press.

Nossiff, R. (1998), 'Discourse, party, and policy: the case of abortion, 1965–1972', *Policy Studies Journal*, **26**(2), 244–56.

Ockwell, D. (2008), '"Opening up" policy to reflexive appraisal: a role for Q Methodology? A case study of fire management in Cape York, Australia', *Policy Sciences*, **41**(4), 263–92.

Ockwell, D. and J.C. Lovett (2005), 'Fire assisted pastoralism vs. sustainable forestry – the implications of missing markets for carbon in determining optimal land use in the wet-dry tropics of Australia', *Journal of Environmental Management*, **75**(1), 1–9.

Ockwell, D. and Y. Rydin (2006), 'Conflicting discourses of knowledge: understanding the policy adoption of pro-burning knowledge claims in Cape York Peninsula, Australia', *Environmental Politics*, **15**(3), 379–98.

Ostrom, E. (1990), *Governing the Commons: the evolution of institutions for collective action*, New York: Cambridge University Press.

QPWS (2000), *Fire Management System*, Brisbane: Queensland Parks and Wildlife Service.

Queensland State Government (1990), *Fire and Rescue Service Act 1990*.

Queensland State Government (1994), *Environmental Protection Act*.

Rees, J. (1990), *Natural Resources. Allocation, Economics and Policy*, London: Routledge.

RFS (2001), *Fire in the Landscape and Beyond 2000*, Queensland: Rural Fire Service.

Richardson, T. and O.B. Jensen (2000), 'Discourses of mobility and polycentric development: a contested view of European spatial planning', *European Planning Studies*, **8**(4), 503–20.

Rose, D.B. (1996), *Nourishing Terrains: Australian Aboriginal Views of Landscape and Wilderness*, Canberra: Australian Heritage Commission.

Russell-Smith, J., P.J. Whitehead, R.J. Williams and M. Flannigan (2003), 'Fire and savanna landscapes in northern Australia: regional lessons and global challenges – preface', *International Journal of Wildland Fire*, **12**(3/4), v–ix.

Rydin, Y. (1998), 'The enabling local state and urban development: resources, rhetoric and planning in East London', *Urban Studies*, **35**(2), 175–91.

Rydin, Y. (1999), 'Can we talk ourselves into sustainability? The role of discourse in the environmental policy process', *Environmental Values*, **8**(4), 467–84.

Rydin, Y. (2003), *Conflict, Consensus and Rationality in Environmental Planning: an institutional discourse approach*, Oxford, UK: Oxford University Press.

Rydin, Y. (2005), 'Geographical knowledge and policy: the positive contribution of discourse studies', *Area*, **37**(1), 73–8.

Scrase, I. and D. Ockwell (2009), 'Energy issues: framing and policy change', in Ivan Scrase and Gordon MacKerron (eds) *Energy for the Future, A New Agenda*, Basingstoke: Palgrave Macmillan.

Smith, G. (2003), *Deliberative Democracy and the Environment*, London: Routledge.

Stocking, G.C. and J.J. Mott (1981), 'Fire in the tropical forests and woodlands of northern Australia', in A.M. Gill, R.H. Groves and I.R. Noble (eds), *Fire and the Australian Biota*, Canberra: Australian Academy of Science.

Watt, P. and K. Jacobs (2000), 'Discourses of social exclusion – an analysis of "Bringing Britain Together: A National Strategy for Neighbourhood Renewal"', *Housing Theory and Society*, **17**(1), 14–26.

Wheeler, W.B. and M.J. McDonald (1986), *TVA and the Tellico Dam 1936–1979. A bureaucratic crisis in post-industrial America*, Knoxville: University of Tennessee Press.