



UNIVERSITY
OF WOLLONGONG
AUSTRALIA

University of Wollongong
Research Online

Faculty of Commerce - Papers (Archive)

Faculty of Business

2007

Strategic ambiguity as a discourse practice: the role of keywords in the discourse on 'sustainable' biotechnology

S. R. Leitch

University of Wollongong, sleitch@uow.edu.au

S. Davenport

Victoria University of Wellington

Publication Details

This article was originally published as Leitch, S & Davenport, S, Strategic ambiguity as a discourse practice: the role of keywords in the discourse on sustainable biotechnology, *Discourse Studies*, 9(1), 2007, 43-61.

Research Online is the open access institutional repository for the University of Wollongong. For further information contact the UOW Library:
research-pubs@uow.edu.au

Strategic ambiguity as a discourse practice: the role of keywords in the discourse on 'sustainable' biotechnology

Abstract

In this article we examined the ways in which strategic ambiguity (Eisenberg, 1984) in the use of keywords (Williams, 1976/1983) served an enabling function within a discourse marked by conflict and ideological divisions. Our analysis focused on the intertextual relationships between five documents intended by the Government to guide the development of biotechnology in New Zealand. Through our analysis we identified 'sustainability' as a keyword and three major roles for the deployment of the discourse strategy of strategic ambiguity in the use of this keyword. First, strategic ambiguity lent an internal and intertextual coherence to the texts (albeit superficial). Second, it allowed multiple perspectives and objectives to co-exist. Third, strategic ambiguity facilitated the participation of discourse actors who subscribed to ideologies that were more or less incommensurable.

Keywords

Keywords, sustainability, biotechnology, strategic ambiguity, New Zealand

Disciplines

Business | Business and Corporate Communications | Critical and Cultural Studies | Public Relations and Advertising | Science and Technology Studies | Social and Behavioral Sciences

Publication Details

This article was originally published as Leitch, S & Davenport, S, Strategic ambiguity as a discourse practice: the role of keywords in the discourse on sustainable biotechnology, *Discourse Studies*, 9(1), 2007, 43-61.

**Strategic ambiguity as a discourse practice: The role of keywords in the discourse
on ‘sustainable’ biotechnology**

Shirley Leitch and Sally Davenport

Contact details:

Shirley Leitch

Faculty of Commerce
The University of Wollongong
NSW 2522
Australia
Tel: (+61) 2 42215080
sleitch@uow.edu.au

Sally Davenport

Victoria Management School
Victoria University of Wellington
PO Box 600
Wellington
New Zealand
Tel: (644) 463 5144
Fax : (644) 463 5436
sally.davenport@vuw.ac.nz

Bios

Professor Shirley Leitch is Dean of the Faculty of Commerce at the University of Wollongong in Australia. Her research work has focused on public discourses and the discourse practices associated with change processes. She has published in a range of communication, marketing and management journals including *Human Relations*, *Organization Studies*, *Public Relations Review*, *European Journal of Marketing*, *Australian Journal of Communication*, and *International Studies of Management and Organization*. Over the past six years she has collaborated with Dr Davenport on two major projects, the first on the discourses of national science systems and the second on discourses of biotechnology.

Dr Sally Davemport is an Associate Professor in the Victoria University of Wellington Management School in New Zealand. Her research interests centre on organizational and stakeholder strategy surrounding the management of science and technology, with a particular focus on the interaction between public sector researchers and private sector companies. Her articles have mainly appeared in research & technology management journals.

Abstract

In this article we examined the ways in which strategic ambiguity (Eisenberg, 1984) in the use of keywords (Williams, 1976/1983) served an enabling function within a discourse marked by conflict and ideological divisions. Our analysis focused on the intertextual relationships between five documents intended by the Government to guide the development of biotechnology in New Zealand. Through our analysis we identified 'sustainability' as a keyword and three major roles for the deployment of the discourse strategy of strategic ambiguity in the use of this keyword. First, strategic ambiguity lent an internal and intertextual coherence to the texts (albeit superficial). Second, it allowed multiple perspectives and objectives to co-exist. Third, strategic ambiguity facilitated the participation of discourse actors who subscribed to ideologies that were more or less incommensurable.

Introduction

In this article we explore whether and in what ways strategic ambiguity in the use of keywords may serve an enabling function within discourses marked by conflict or ideological divisions. The broader context in which our analysis is situated was the debate in relation to the role that genetically modified (GM) organisms might play within agriculture and biotechnology more generally. In the early 2000s the New Zealand Government released five documents that set in place the national policy frameworks for the development of biotechnology and agriculture. We examine the intertextual relationships between these texts and identify keywords (Williams, 1976/1983) and instances of strategic ambiguity (Eisenberg, 1984) in the usage of these keywords within the texts.

The debate over GM was one that revealed deep ideological divisions between the discourse participants, which can be broadly classified as rooted in conflicting economic, environmental and cultural/spiritual beliefs. The economic division could be characterized as a split between those who saw economic growth as the primary goal for New Zealand and wanted to harness GM to assist this goal, and those who wanted economic concerns to be secondary to concerns about society and the environment. The environmental division was between those who saw the environment in economic terms as a set of natural resources to be managed and exploited, and those who saw the environment as a complex ecosystem to be cherished and protected. Finally, the spiritual/cultural division was between those who saw genes as proteins to be manipulated in order to make new organisms, and those who saw genes as part of a natural or god-given order with which humans should not interfere.

The impetus for this article arose from our observation that the deep ideological divisions within the discourse were seldom visible within official documents. Instead, texts such as the Government's economic strategy, which included biotechnology as a priority sector for development, were highly inclusive in style and tone. We also observed that the organic sector, which had strongly opposed GM, became a new focus of attention and resources for the Ministry of Agriculture and Fisheries. These observations led to our interest in the discourse strategies that were being deployed in related official documents. Before we move on to our analysis of these texts, however, we first outline the concept of strategic ambiguity, which we contend was the discourse strategy deployed in the various texts in relation to the keyword 'sustainability'.

Strategic Ambiguity as a Discourse Strategy

Eisenberg (1984: 230) asserted that clarity is only a measure of communicative competence when the communication 'goal is to be clear'. According to Eisenberg, there are many situations in which ambiguous communication can be more helpful than clear communication, particularly during periods of rapid change and uncertainty. He used the term 'strategic ambiguity' to describe instances in which language was intentionally deployed in ambiguous ways in order to accomplish organizational goals. Strategic ambiguity may be understood as a form of discourse strategy, which, according to Van Dijk (1997a: 31), constitutes the means by which actors achieve goals within discourse. The study of discourse is here understood to mean the analysis of interrelated sets of texts that 'systematically form the objects of which they speak' (Foucault, 1972: 49). The

study of discourse practices, then, is the analysis of the means by which such objects are formed.

Eisenberg and colleagues have described the attributes of the discourse practice of strategic ambiguity including the fact that it can promote ‘unified diversity’ by supporting multiple viewpoints and fostering agreement on abstractions without limiting specific interpretations (Eisenberg, and Goodall, 1997; Eisenberg and Witten, 1987). Strategic ambiguity in discourse thus allows divergent interpretations to coexist and enables diverse groups to pursue what may be conflicting goals. It is the potential of strategic ambiguity to serve an enabling function within discourse by allowing divergent objectives to coexist and ideologically diverse groups to, if not work together, then at least work in parallel, that is of interest to us here.

Eisenberg (1984) developed his concept of strategic ambiguity in relation to the internal discourse practices of organizations and this is the discourse context in which it has generally been applied (Allen and Caillouet, 1994; Paul and Strbiak, 1997; Sellnow and Ulmer; 1995; Weick, 1988). We contend, however, that the concept is equally applicable to discourse contexts in which multiple organizations and individuals interact. Indeed, we have argued elsewhere that such analyses may serve to reveal the ways in which circuits of power (Clegg, 1989) may work interorganizationally (and in this case intersectorally) as well as intraorganizationally (Davenport and Leitch, 2005a). In this article we apply the concept of strategic ambiguity to a discourse context quite unlike those of the organizations analyzed by Eisenberg and others in that it was marked by deep ideological divisions and much of the talk and text within the discourse occurred in public domains rather than in private.

The concept of ‘ambiguity’ has been used in a variety of ways by discourse scholars (e.g. Baxter, 2002; Flowerdew, 2004; Hodge and Louie, 1998; Hutchby, 2001; Menz, 1999; Sawchuk, 2003; Snejder and te Molder, 2005). Most often, it has been applied to examples of talk or text that lack clarity of meaning because they have been poorly constructed (Hutchby, 2001; Snejder and te Molder, 2005). Used in this way, ambiguity is framed as a potential problem within discourse to the extent that it impedes mutual action because it promotes misunderstandings between people. In contrast, Menz (1999) contended that organizations tolerated ambiguity in situations in which they wished to generate new ideas and keep their options open. Menz did not, however, go as far as Eisenberg in developing the notion that the intentional use of ambiguity (i.e. strategic ambiguity) might be a discourse practice in itself but instead portrayed tolerance of ambiguity as the discourse practice. We now outline our intertextual approach to the analysis of the deployment of the discourse practice of strategic ambiguity in the use of the keyword ‘sustainability’.

Intertextuality and Keywords

The concept of ‘intertextuality’ (Bakhtin, 1986; Kristeva, 1986) refers to the relations that exist between texts. Every text may be seen as a ‘link in a chain of texts, reacting to, drawing in and transforming other texts’ (Fairclough & Wodak, 1997: 262). The implication of this insight is that it is meaningless to analyze texts in isolation from one another (Grant, Hardy, Oswick and Putnam, 2004; Van Dijk, 1997a, b). Rather, textual analysis necessarily involves an examination of related links in the intertextual chain in order to understand how a particular text reproduces and/or transforms meaning.

Intertextual analysis can, therefore, contribute to our understanding of the processes by which social change occurs. In this study we analyzed the intertextual chain that linked five major policy documents released by the New Zealand Government between 2001 and 2003 that were intended to drive significant social change. These intertextual relationships were both constitutive and manifest (Fairclough, 1992: 104). Constitutive intertextuality occurs when texts draw upon the same discourse conventions. In the case analyzed, all of the texts were from the genre of official government reports, which are highly formulaic in structure, and so a high degree of constitutive intertextuality was to be expected. Of more interest, then, was the manifest intertextuality between the documents, which is the explicit reference to or inclusion of sections of other texts. It is through manifest intertextuality that texts explicitly draw support from or contest the arguments made in their predecessors.

A further way in which intertextual linkages may be traced is through the analysis of the lexicalization or word choices that are drawn on by chains of texts (van Dijk, 1995). Fairclough (1993: 129) contended that ‘discourses ‘word’ or ‘lexicalize the world in particular ways’. He further argued that ‘discourses may use the same words ... but they may use them differently, and again it is only through focusing upon semantic relations that one can identify these differences’ (Ibid: 130-131). The central focus of this study was on analyzing the strategically ambiguous ways in which the word ‘sustainability’ was used within a set of interrelated texts and the role that this word usage played in facilitating the coherent presentation of a change message.

We adopt Raymond Williams’ (1976/1983) term ‘keywords’ to describe words that express central concepts within particular texts and discourses. In explaining his choices

of keywords, Williams (1983:23) wrote, ‘The vocabulary I have selected is that which seems to me to contain the key words in which both continuity and discontinuity, and also deep conflicts of value and belief, are in this area engaged’. Williams selected the keywords for his eponymous book on the basis that each one had ‘at some time, in the course of some argument, virtually forced itself on my attention, because the problems of its meanings seemed to me inextricably bound up with the problems it was being used to discuss’ (Ibid: 15). Keywords are thus not only highly salient words within a discourse that are closely associated with the issues that are central to that discourse but are also words for which there are multiple meanings. These multiple meanings may be traced to the different ideological positions and/or sets of interests associated with the various discourse participants. Thus keyword analysis involves a linkage of the micro-level analysis of individual words to the macro-level analysis of major debates and conflicts within societies.

Fairclough (1992: 186) used Williams’ term ‘keywords’ to describe instances in which ‘words and meanings are implicated in processes of social or cultural contestation and change’. This definition highlighted the highly contextual nature of Williams’ keyword analysis, which is always historically situated in a particular society and culture. Our analysis is, therefore, situated within the context of the discourse in New Zealand on biotechnology, particularly as it related to GM. We identified a number of keywords in this discourse including ‘growth’, ‘co-existence’, ‘New Zealand’ and ‘community’. However, the most salient keyword, the one that virtually ‘forced itself’ upon our attention because the multiple meanings associated with it were so bound up with the ‘problems it was being used to discuss’, was ‘sustainability’. This keyword, which also

constituted a central and manifest intertextual linkage between the five texts, became the focus of this study. We now provide a brief overview of the discourse context within which our five subject texts were situated at the time of their production.

Discourse Context

The context for our keyword analysis was the New Zealand discourse on biotechnology at the time that a major debate was occurring over the future direction of biotechnology and the acceptability of GM organisms. The key participants within the debate were: the Labour Government; government agencies such as the Ministry of Agriculture and Forestry and the Foundation for Research, Science and Technology; ad hoc official groups set up in response to the GM issue such as the Royal Commission on Genetic Modification and the Biotechnology Taskforce; the Life Sciences Network, which represented a range of pro-GM research and industry organizations; the Sustainability Council, which was a coalition group opposed to GM; Federated Farmers, which represented the interests of mainstream farmers; various groups that represented the interests of organic farmers; environmental groups, such as Greenpeace; religious groups; ad hoc single-issue groups, such as Mothers Against Genetic Engineering (Madge); and organizations that represented the interests of Maori, the indigenous people of New Zealand. As noted above, these discourse participants were divided by a range of conflicting economic, environmental and cultural/spiritual beliefs. These divisions were well-documented in submissions to the Royal Commission on Genetic Modification (RCGM) held in 2000, the Report of which is the first of the five texts analyzed below.

The keyword status of the word ‘sustainability’ across the various submissions and in the RCGM Report itself was a feature that immediately stood out in our analysis, as did the degree of strategic ambiguity associated with this keyword. Sustainable development was defined by the World Commission on Environment and Development (1987: 8) as ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs’. While this definition remains in common usage, multiple meanings have come to be associated with the concept of sustainability. Indeed, ‘sustainability’ has become a widely invoked label attached to a great variety of theories, ethics and practices with environmental connotations (Gladwin et al., 1995; Pezzoli, 1997; Williams & Millington, 2004). In some contexts, the term has become synonymous with ‘green business’ and the ‘triple bottom line’ (Springiest, 2003) but it has also been used to simply mean ‘enduring’ when, for example, it has been linked to an organization’s ‘competitive advantage’ in the Resource-Based View of the firm (Barney, 1991). Some commentators have attempted to bring order to what they have perceived to be chaos through imposing a hierarchy of meaning (Marshall and Toffel, 2005). Others have perceived the diversity as simply indicative of the new and emerging status of the concept (Gladwin et al, 1995). Our purpose here is somewhat different. Rather than simply cataloguing the variations or seeking to impose discursive closure on ‘sustainability’, we are interested in mapping the way in which this keyword has been used in strategically ambiguous ways in order to support various and conflicting ideologies and goals.

Discourse Analysis – Sustainably Ambiguous Sustainability

As outlined above, we undertook an intertextual analysis of the lexicalization within a set of interrelated texts. Specifically we analysed the intertextual relationships between five major policy documents released by the New Zealand Government between 2001 and 2003. These texts were:

1. Report of the Royal Commission on Genetic Modification (RCGM, 2001)
2. Growing an Innovative New Zealand (OPM, 2002)
3. Sustainable Development for New Zealand Programme of Action (DPMC, 2003)
4. Organic Sector Strategy. A Real Opportunity for New Zealand: A Strategy to Unlock the Value in Organic Systems (OFANZ, 2003)
5. New Zealand Biotechnology Strategy: A Foundation for Development with Care (MORST, 2003)

The research process began with close reading of hard copies of the texts by both researchers and the identification of the keywords within the texts. There was a significant level of agreement as to what constituted keywords along with agreement that ‘sustainability’ had emerged as the keyword of most interest from an intertextual perspective. The other major keyword across the five texts was ‘growth’ and, while it was not possible to include a full analysis of both major keywords in this article, where it enhanced our understanding of ‘sustainability’ we also included our analysis of ‘growth’.

We obtained PDF files of the five texts which we converted into Word files. Once we had agreed on the ‘sustainability’ focus, we copied all paragraphs containing this keyword into a single Word file. We then moved between this Word file and the hard copies of the texts in order to identify and analyse the multiple and ambiguous ways in which ‘sustainability’ was used. In every instance we took account of the context within

which the keyword was situated including its placement in the text rather than simply analysing paragraphs in isolation.

The findings of our analysis of each text are outlined below. Each section commences with a brief explanation of the document's broader socio-political context and then moves on to a more detailed analysis of the document and its dialogical intertextual linkages with the other four documents, including instances of manifest intertextuality.

1. REPORT OF THE ROYAL COMMISSION ON GENETIC MODIFICATION

The genetic modification (GM) of organisms, particularly food-related organisms, was a highly contentious issue in New Zealand in the late 1990s and early 2000s. The Government therefore chose to seek policy guidance on this issue from a Royal Commission on Genetic Modification (RCGM), which was set up April 2000 with a Warrant to “receive representations upon, inquire into, investigate and report upon:

- (1) the strategic options available to New Zealand to address, now and in the future, genetic modification, genetically modified organisms and products;
and
- (2) Any changes considered desirable given the current legislative, regulatory, policy, or institutional arrangements for addressing, in New Zealand, genetic modification, genetically modified organisms, and products.”

(RCGM, 2001: 6)

The Warrant also ‘directed the commission to adopt procedures that would encourage people to express their views on the subject matter and to consult with the public in a way

that allowed people to express their views clearly' (RCGM, 2001: 7; Davenport and Leitch, 2005b).

The RCGM's Report set out 'seven values' which it had identified as 'pertinent' to the Report: the uniqueness of Aotearoa/New Zealand; the uniqueness of our cultural heritage; sustainability; being part of a global family; the well-being of all; freedom of choice; and participation (2001: 12). A detailed analysis of these 'values' or 'guiding principles' would constitute an interesting study in its own right, but for our purposes we will confine our analysis to the keyword 'sustainability', defined by the Report as:

Sustainability The need to sustain our unique but fragile environment for generations yet to come was often and passionately mentioned by many. Tangata whenua [Maori] use the word kaitiakitanga (stewardship) to describe the same concept. Any estimate of benefits and costs must include sustainability as a central criterion. An environment that is cherished and cared for is not just a survival mechanism; it is for many also a source of spiritual and cultural hope. (RCGM, 2001: 12).

The lexicalization within this definition was both poetic (e.g. 'generations yet to come') and emotive (e.g. 'passionately', 'spiritual and cultural hope'). It was also oblique: for example, the Report stated that sustainability must be a 'central criterion' for estimates of 'benefits and costs' but omitted to say what it was that was being estimated, by whom or for what purpose. The word 'economic' was implied but absent from this sentence and from the definition as a whole. Instead, the sustainability value was given an environmental orientation. The environment was represented as something that was so 'unique' that it must be 'cherished' and so 'fragile' that it must be cared for'. The

environment was linked to ‘survival’, although whether this was of humans or other species or the planet itself was not stated, but this rationale for environmental sustainability was given less importance (‘not just a survival mechanism’) than was the ‘spiritual and cultural hope’ the environment provided for ‘many’. The spiritual and cultural dimensions of environmental sustainability were, however, stripped out of the concept on the following page, which grouped the seven values into three ‘spheres’ or sets of criteria: cultural, ethical, spiritual; health, environment; and strategic, economic. Sustainability was placed within the ‘health, environment’ sphere and there were no further mentions of either the cultural or spiritual components of sustainability in the Report. Thus, one of the seven key values that guided the RCGM’s recommendations was, from the outset, expressed in ambiguous terms.

This ambiguity was continued in the main body of the Report, which consisted of quotes selected to represent the views of the various submitters along with the RCGM’s summary of and commentary on these views. The word ‘sustainability’ was, then, able to be used by submitters who subscribed to conflicting ideological positions to lend support to their often opposing arguments. For example, submitters who were committed to the view that the environment was to be cherished and protected, argued that the sustainability of ‘natural ecosystems’ could be threatened by GM:

The forest is one of our living ecosystems which has successfully adapted and developed to a complex self-maintained diverse community, which has sustained its integrity over eons. Yes, there has been genetic change as adaptation applies, but this has not been engineered by humans in haste. (RCGM, 2001: 60)

Other submitters took the view that GM research could be used to enhance environmental sustainability (Ibid). Some submitters saw sustainability primarily in economic terms. For example, forestry companies argued that GM could make forestry more sustainable by ‘improving profitability and environmental performance and enhancing international competitiveness’ (Ibid: 78).

Some submitters adopted both environmental and economic arguments in order to support their opposition to GM. For example the submissions of the organic sector argued that sustainable in agriculture meant organic farming (RCGM, 2001: 87). However, when the Foundation for Research, Science and Technology, which is New Zealand’s largest public sector research funder, was asked how much funding it gave to GM and organic farming research respectively, it responded that ‘Clear differentiations are not possible because much research underpins more than one production system. Research in sustainable management, for example, benefits conventional as well as organic farmers’ (Ibid: 131). This statement supported the view that sustainability was not the preserve of any particular approach to agricultural production – a view that was ultimately accepted by the RCGM. Indeed the RCGM Report concluded that the four approaches to agricultural production that had been identified in submissions might all co-exist in New Zealand (Ibid: 335).

The Government accepted most of the RCGM’s recommendations, deciding that New Zealand would ‘proceed with caution’ with GM while also supporting the continued co-existence of the four approaches to agricultural production. This decision was manifest in *Growing An Innovative New Zealand* which was released seven months after the RCGM’s Report and which is analyzed in the following section.

2. GROWING AN INNOVATIVE NEW ZEALAND (GrowthNZ)

GrowthNZ outlined the Government's goals for its term of office, with the primary goal set out in the executive summary as being 'To return New Zealand's per capita income to the top half of the OECD rankings and maintain that standing' (OPM, 2002: 6). A belief in the inherent goodness of economic growth was the taken-for-granted starting and end point of the document. This ideology of growth functioned as the central presupposition (Fairclough, 1992: 120) that explicitly underpinned GrowthNZ and had more implicitly guided the conclusions of the RCGM. Moreover, as it was in the RCGM's Report, the lexicalization within GrowthNZ was sufficiently ambiguous to enable it to be inclusive – at least at a superficial level – of a range of potentially conflicting ideologies and goals.

The growth goal was immediately followed in GrowthNZ by a statement of the Government's approach to governing:

Enhancing the role of government

Government will be proactive in supporting growth, will work co-operatively with other sectors to achieve that, and will emphasise the importance of sustainability. (OPM, 2002: 6)

Taken together these two statements laid out the major themes within GrowthNZ: the pursuit of economic growth; active and interventionist Government; a corporatist approach involving 'all sectors' working co-operatively; and a commitment to 'sustainability'. Just what this commitment to 'sustainability' meant to the Government was outlined at the end of the section entitled 'the economic objective':

This government does not believe we can put on hold social and environmental progress, and concentrate solely on economic growth. Implicit in the quality of the growth we are seeking will be integration of the economic, environmental and social pillars of **sustainable** development. **Sustaining** a high quality environment, managing the risks to it and implementing efficient resource use policies underpin our competitive advantages as a nation. Managing the environmental pressures from economic growth, while continuing to satisfy human needs will require an integrated effort.

Not only will social and environmental policy continue to be given high priority in their own right, but the choice of economic policy instruments will be influenced by their interaction with social and environmental factors. **Sustainability** will be paramount.’ (emphasis added, OPM, 2002: 12)

Sustainable development was thus closely linked with the notion of active government.

This linkage was made more explicit in the section ‘Enhancing the role of Government’:

The government sees three key elements to its role in the economy. Government itself will be proactive in supporting growth, it will work co-operatively with other sectors to achieve it, and it will emphasise the importance of **sustainable growth** and development.

PROACTIVE POLICY

Between 1984 and 1999 government economic policy was largely ‘passive’, aiming to provide an environment in which the private sector could make investment decisions. This approach did not generate **sustained growth**. (emphasis added, OPM, 2002: 19)

Note here and in the previous quote, the shift from ‘sustainable’, with its broader social and environmental connotations, to ‘sustained’ or ‘long-term’. Economic development that can be sustained is not necessarily environmentally sustainable, particularly if the timeframe for ‘long-term’ is not set. This slippage between the two meanings, which we would contend constituted strategic ambiguity that served to justify the unquestioned commitment to growth, occurred throughout the document. The underlying purpose of justifying economic growth was made clear in the following passages:

Work continues on developing social and environmental indicators to go alongside traditional economic indicators to measure the overall progress we are making. It is clear however that internationally our economic performance has **not kept pace** with our social and environmental performance. The challenge for New Zealand now is to **catch up** in economic terms while ensuring that both this generation and future generations can benefit. (emphasis added, OPM, 2002, p. 23)

The social and environmental aspects of Government policy, which had previously been included as core to the Government’s definition of ‘sustainability’, were here explicitly positioned as secondary considerations to economic growth. New Zealand was portrayed as socially and environmentally progressive but a laggard -‘not kept pace’- in economic terms. The imperative now was to focus on the economy in order to ‘catch up’.

GrowthNZ set out three areas of economic activity on which the Government would focus in order to ‘catch up’: biotechnology, information and communication technology and creative industries. The RCGM’s Report was cited in order to justify the biotechnology emphasis:

The Royal Commission on Genetic Modification noted that the 21st century has already been dubbed the biotechnology century and that New Zealanders have a history of quickly adopting and adapting new technologies. They advised that it would be wise to establish a Bioethics Council and develop a biotechnology strategy for New Zealand which would take into account factors such as, scientific, environmental, economic, cultural, consumer preference and the interplay between them..... We must identify the potential strengths within the New Zealand industry along with the potential market opportunities internationally and we must develop those in ways which are **sustainable**. (emphasis added, OPM, 2002: 54)

Again, it was not clear whether ‘sustainable’ implied a commitment to considering a broader range of ‘factors’ beyond the economic when making decisions about biotechnology or whether it simply meant ‘long-term’. The final section of GrowthNZ set the brief for the Advisory Board that was to be set up to assist with the implementation of the growth strategy. The only reference to sustainability in this section was of ‘sustaining growth rates’ (Ibid: 61).

3. SUSTAINABLE DEVELOPMENT FOR NEW ZEALAND PROGRAMME OF ACTION (SusDev)

SusDev was released by the Government one year after GrowthNZ and was positioned as its partner document:

[GrowthNZ], released in February 2002, sets out an approach for New Zealand to achieve higher levels of sustainable growth. This objective is part of the sustainable development approach set out in this document. The focus is on sustainability and

positive outcomes over the longer term – not only in economic terms but also for social, environmental and cultural issues. (DPMC, 2003: 10)

While GrowthNZ outlined the goals the Government intended to pursue and the areas on which it would focus, SusDev was, then intended to outline the approach - ‘sustainable development’ - that the Government would take to achieving these goals. Once again there was considerable strategic ambiguity in the usage of the keyword ‘sustainability’, which was further amplified by the definition of sustainable development laid out in the introduction:

Sustainable development is “*development which meets the needs of the present without compromising the ability of future generations to meet their own needs*”.

Achieving sustainable development involves a different way of thinking and working.

It requires:

- looking after people
- taking the long-term view
- taking account of the social, economic, environmental and cultural effects of our decisions
- encouraging participation and partnerships. (DPMC, 2003: 6)

Throughout SusDev the implied meaning of ‘sustainability’ slipped seamlessly and without explanation between these four ‘requirements’.

SusDev also adopted the GrowthNZ presupposition that growth was a taken-for-granted good: the purpose of sustainable development was to support growth:

The government’s Growth and Innovation Framework says that New Zealand’s development path needs to achieve a higher level of economic growth. This needs

to be a sustainable path and one that adequately protects **natural capital**. The programme of action outlined here aims to ensure that the **quality and durability of economic growth improves the wellbeing of all New Zealanders and the environment**, now and for the future. (emphasis added, DPMC, 2003: 6)

The primacy of economic goals was reinforced in this passage by the framing of the environment (and perhaps ‘New Zealanders’ too as the intended meaning is unclear), in economic terms as ‘natural capital’.

The inherent difficulty of achieving the kind of economic growth identified as a national priority in GrowthNZ without incurring negative environmental consequences was not acknowledged in SusDev. Instead, it was simply asserted that these negative consequences might be avoided by ‘decoupling economic growth from pressures on the environment’ (p. 10). This statement was never explained and so remained as mysterious as the one included in the passage cited in the previous paragraph that, through SusDev, the ‘quality and durability’ of economic growth would improve ‘the wellbeing of all New Zealanders and the environment’.

Despite the fact that the stated purpose of SusDev was to support GrowthNZ, the document made no mention of the three areas focused on in GrowthNZ. Instead, SusDev outlined a programme of action that was focused on four new areas:

1. Quality and allocation of freshwater
2. Energy
3. Sustainable cities
4. Investing in child and youth development (DPMC, 2003: 12)

However, the link back to GrowthNZ was made in the following paragraph entitled ‘Innovation’:

The government is committed to **sustainable growth** based on innovation and a high-performance economy. This requires making the most of our people and talents as well as getting much better value from resources like energy and water. It also involves **removing the barriers to growth**. (emphasis added, DPMC, 2003: 12)

The use of the phrase ‘removing the barriers to growth’ reinforced the position laid out in GrowthNZ and cited above, that social and environmental factors were to be secondary to economic growth. Once again, ‘sustainable growth’ here appeared to simply mean ‘long-term’.

4. ORGANIC SECTOR STRATEGY (OSS)

One of the most contentious issues with which the RCGM had had to contend was the relationship between organic agriculture and GM agriculture. Many of the organic sector’s submissions to the RCGM asserted that co-existence was not possible, particularly co-existence between GM and organic crops because of the danger of cross-pollination. As noted, above, the RCGM chose to override these concerns, opting instead to recommend co-existence between what it identified as the four approaches to agriculture. In the spirit of co-existence, however, the RCGM also recommended that more resources and Government assistance be given to the organic sector and it fell to the Ministry of Agriculture and Fisheries (MAF) to lead the provision of this assistance.

The first initiative taken by MAF in order to enact the RCGM's recommendation was to bring the various disparate elements of the organic sector together to draft the first organic sector strategy (OSS). The creation of OSS would enable government ministries such as MAF to make decisions about where to put resources and which industry initiatives to support. Thus, a major incentive for organic sector participants to engage with the OSS process was the hitherto denied access to government resources and support. The process that led to the release of the strategy in March 2003 constituted an interesting case study in its own right (Davenport and Leitch, 2005c). Of particular relevance here, however, was that the process involved the drafting of a document that gave primacy to the economic dimension of organic farming, a position that was an anathema to many organic farmers whose deep philosophical, spiritual and ecological beliefs had drawn them to organics. Indeed, the subtitle for OSS was 'A Real Opportunity for New Zealand: A Strategy to Unlock the Value in Organic Systems'. That the 'value' in question was purely economic was revealed in the target set for the OSS, which was '\$1 billion total sector sales by 2013' (OFANZ, 2003: i). Thus, harnessing the organic sector to support the GrowthNZ goal of economic growth was the central purpose of OSS. Indeed, the only mention of alternative viewpoints in OSS was in the opening paragraph of the introductory section, which stated:

The organic sector is characterised by a diversity of views, many held with a strong passion. The task of developing a strategy for this sector used an inclusive approach that enabled all views to be heard, recognised and developed. (OFANZ, 2003: 1)

This ‘diversity’ and ‘passion’ was, then, suppressed in the remainder of the document in favour of an inclusive approach which laid out a unified structure, strategy and goals for organics.

The executive summary of the OSS opened with the following paragraph:

This strategy sees real opportunities for New Zealand to develop organics as an emerging sector within the broader context of New Zealand agriculture. Organics **has to be at the forefront** as agriculture moves to address the global concerns about the **environmental sustainability** of food production systems, consumer health, community well being and food safety. (emphasis added, OFANZ, 2003: i)

This statement positioned organics as taking a leadership role – ‘has to be at the forefront’ – of addressing ‘global concerns’ such as ‘the environmental sustainability of food production systems’. ‘Sustainability’ was thus initially linked with the environment, which is the meaning one might expect in a document related to organic farming. However, the OSS rapidly moved to separate out the two concepts, using ‘sustainability’ simply as a synonym for ‘enduring’. This definition was summed up in the question, ‘*can we continue to do what was done in the past?*’ (OFANZ, 2003: 13). For example, the OSS called for ‘methodology to assess the impact of organic systems on the environment in order to back-up claims that these systems are sustainable **and** more environmentally friendly than conventional food and fibre production systems’ (emphasis added, OFANZ, 2003: 26). Here sustainability as a synonym for ‘enduring’ was separated from ‘environmentally friendly’. Similarly, the ‘Vision for the Organic Sector’ included the statement that the sector would seek ‘Community recognition that organic productive ecosystems are sustainable **and** environmentally friendly’ (emphasis added, OFANZ,

2003: 29). Thus, unlike the previous documents analyzed, there was a high level of consistency within the OSS and an absence of strategic ambiguity in the use of ‘sustainability’. Perhaps, organic sector participants were attuned to the way in which this keyword had been used in submissions to the RCGM by those with opposing agendas and ideological positions to support these agendas and ideologies.

5. NEW ZEALAND BIOTECHNOLOGY STRATEGY: A FOUNDATION FOR DEVELOPMENT WITH CARE (BioStrat)

The ‘Ministerial Foreword’ to the New Zealand biotechnology Strategy (BioStrat) laid out the strategy’s genesis and relationship with previous official documents:

The Royal Commission on Genetic Modification pointed to the 21st century as “the biotechnology century” and recommended that New Zealand develop a biotechnology strategy. The Growth and Innovation Framework [GrowthNZ], launched by the Prime Minister in February 2002, also recognises the importance of biotechnology to New Zealand’s future. (MORST, 2003: 1)

BioStrat was, then, the second industry sector strategy to emerge from the RCGM’s recommendations. Given the absence of an established biotechnology ‘sector’, however, the process leading to the production of this report was quite different. The preamble to the OSS contained a page with facsimiles of the signatures of the leaders of the major organic sector organizations and the statement that ‘This Organic Strategy is endorsed by the undersigned leaders within the Organics Sector of Aotearoa New Zealand’ (MORST, 2003: vii). There was no such section in BioStrat. Instead, BioStrat included a ‘Ministerial Foreword’ from the Minister of Research, Science and Technology which

stated: ‘On behalf of my Cabinet colleagues, I am pleased to present the New Zealand Biotechnology Strategy, which outlines the Government’s vision and direction for the development of biotechnology in New Zealand’ (MORST, 2003: 1). BioStrat was, then, a government strategy for the biotechnology sector. In contrast, OSS was produced by a government ministry but its content was negotiated with and endorsed by participants in the organic sector.

BioStrat also differed from OSS in that it contained a set of ‘Guiding Principles’ for the strategy. There was a clear constitutive intertextual link here to the RCGM’s ‘Values’, which were also described as ‘guiding principles’. The second of these guiding principles was:

Sustainable development – Meet present needs without compromising future generations, through integrating economic growth, social equity and environmental and cultural well-being. (MORST, 2003: 4)

In this principle, there was also a manifest intertextual linkage to both the RCGM Report and to SusDev. Moreover, BioStrat adopted the same multiplicity in its usage of ‘sustainability’, as that used in SusDev. For example, the following passage used ‘sustainability’ in the sense of ‘encouraging participation and partnerships’:

At the core of the strategy is a commitment to ongoing dialogue between the community, the sector and the Government, so New Zealand can achieve a growing sector that the public trusts. Constructive community engagement and effective regulation are goals that underpin biotechnology growth and development. Achieving **community involvement and confidence** in regulation should not be regarded as a brake on biotechnology. They are a crucial part of the road ahead if

biotechnology is to advance in a **sustainable** way. (emphasis added; MORST, 2003: 9)

The sustainable development of biotechnology was here framed as something that required ‘community involvement and confidence’. The unstated reason for this was, arguably, to avoid social conflict. Thus, in this instance, the keyword ‘sustainability’ referred to political sustainability.

The usage of ‘sustainability’ as a synonym for ‘enduring’, which was evident in the four previous documents analyzed also featured in BioStrat. For example, the section on ‘Applying biotechnology in New Zealand industries’ stated: ‘it is important to promote speedy and widespread diffusion of biotechnology into the broader industrial community, while maintaining responsible and sustainable use’ (MORST, 2003: 21). The pairing of ‘responsible and sustainable’ here was interesting in that it implicitly – but perhaps inadvertently - acknowledged that sustainable use might not necessarily be responsible use.

The next mention of ‘sustainability’ in the BioStrat occurred in the section heading ‘Biotechnology research to address sustainability and biosecurity, and protect biodiversity’ (MORST, 2003: 25). In this section, the meaning of ‘sustainability’ was defined in the first paragraph as being ‘environmental sustainability’ but the word was subsequently used on its own (e.g. ‘Fund specific sustainability and bioprotection projects’ (MORST, 2003: 25)). Thus, in this section, ‘sustainability’ became a shortened version of ‘environmental sustainability’. The final mention of ‘sustainability’ occurred in the concluding section on ‘Leadership and Co-ordination’ (MORST, 2003: 33). This section emphasized the need to integrate the implementation of BioStrat with the

implementation of GrowthNZ and SusDev. Thus, the same underlying ideology of growth found in the previous four documents was also evident in BioStrat.

Discussion

The underlying presupposition of all five texts was an unquestioned belief in the ideology of economic growth (Fairclough, 1992). However, the contentious issue of GM had caused a range of other concerns – environmental, cultural and spiritual – to be raised in New Zealand which presented potential challenges to this ideology. When examining the ideological dimension of texts Van Dijk (1995:18) suggested that:

We need to attend primarily to those properties of discourse that express or signal the opinions, perspective, position, interests or other properties of groups. This is specifically the case when there is a conflict of interest, that is, when events may be seen, interpreted or evaluated in different, possibly opposed, ways.

In this instance, our analysis suggested that the deep ideological divisions between discourse participants, who evaluated GM in very different and opposing ways, were suppressed or minimised in the texts. This suppression and minimisation had the effect of lending the appearance of internal coherence and consistency to these texts.

The first text analyzed was the Report of the RCGM, which recommended that New Zealand accept GM technologies for economic reasons but do so in a cautious way that took account of the myriad concerns of those opposed to GM. This compromise position entailed adopting an inclusive approach: GM would be allowed but only on terms that allowed it to co-exist with other approaches to agricultural production. Inclusivity was, thus, a central theme within the RCGM Report and, we contend, strategic ambiguity in

the use of the keyword ‘sustainability’ was a central discourse strategy for achieving inclusivity.

‘Sustainability’ is a word that has overwhelmingly positive connotations but it has been used in many ways in many different contexts to mean many different things. The semantic openness of ‘sustainability’ made it an interesting choice for inclusion in the RCGM’s list of ‘values’ that were to serve as ‘guiding principles’ for the Report. As discussed above, the RCGM’s ambiguous definition enabled submitters to invoke the concept of ‘sustainability’ in their submissions in support of a broad range of ideological positions. At the same time, the constant usage of the word ‘sustainability’ lent a superficial appearance of internal coherence to the RCGM’s Report.

GrowthNZ, which was intended to set out the Labour Government’s goals for its term of office, shared the characteristics of the RCGM Report described above. First, GrowthNZ was committed to an ideology of economic growth, which it gave primacy over other considerations. Second, GrowthNZ was framed in an inclusive way that suppressed or minimized possible ideological and other differences between New Zealanders, calling for everyone to ‘work co-operatively’ in support of the GrowthNZ growth goal. Third, ‘sustainability’ was a keyword in the document that at one level appeared to serve as a moderator to the unbridled pursuit of economic growth. However, the primacy of the growth goal over environmental or social goals was explicitly asserted in GrowthNZ.

The importance of the keyword ‘sustainability’ within the discourse was amplified when the Government chose to produce SusDev and position it as the partner document to GrowthNZ. In this text, the Labour Government gave a clear message that it intended

to pursue economic growth in an inclusive and sustainable way. However, the Government was less than clear as to what ‘sustainability’ meant. Thus, SusDev shared the three characteristics described above that were common to the RCGM’s Report and GrowthNZ, of commitment to economic growth, inclusivity, and strategic ambiguity in the use of the keyword ‘sustainability’.

The last two texts analyzed, OSS and BioStrat, were born out of the conflict that had led to the RCGM. They were, however, quite different kinds of documents arguably because of differences in the processes that had led to their production. BioStrat was the Labour Government’s strategy for the biotechnology sector. In contrast, OSS was produced by a government ministry but the strategy was explicitly owned by the major organizations within the organic sector. BioStrat contained the three characteristics described above (commitment to economic growth, inclusivity, and strategic ambiguity in the use of the keyword ‘sustainability’) that linked it intertextually with its predecessors, the RCGM Report, GrowthNZ and SusDev. OSS contained only one of these characteristics – the central commitment to the growth goal. While OSS was inclusive of the organic sector, the text stopped short of the kinds of all-embracing statements found in the other texts. OSS also used ‘sustainable’ consistently as a synonym for ‘enduring’.

The absence of national inclusivity in the OSS may be explained by the fact that such inclusivity was unnecessary. The organic sector was not seeking to win broad or even majority electoral support, which is always a goal of elected governments. Moreover, unlike the GM technologies which were the most prominent face of modern biotechnology, organics had not roused widespread community opposition. The benefits

of farming organically might not have been universally accepted but doubters had not organized a protest movement to ban organics.

The absence of strategic ambiguity in the use of the keyword ‘sustainability’ in OSS may be explained with reference to Eisenberg (1984). As cited above, Eisenberg asserted that clarity in communication was desirable when the goal was to be clear and, in this case, the goal was to be clear. No identifiable purpose would have been served by obfuscating the meaning of ‘sustainability’. Moreover, the ideological differences between organic sector participants were suppressed within OSS in order to facilitate agreement and, arguably, this agreement was best reached by keeping the text as simple as possible. Opening the text up to the other multiple possible definitions of ‘sustainability’ would have also opened up debate about these definitions and potentially created intractable divisions between sector participants. Thus while strategic ambiguity in relation to ‘sustainability’ had served an inclusive function within the other four texts, here it had the opposite potential – of jeopardizing the whole purpose of OSS which was to unite participants around the common cause of pursuing economic growth for the organic sector.

Conclusion

In this article we explored the research question of whether and in what ways strategic ambiguity in the use of keywords might serve an enabling function within discourses marked by conflict or ideological divisions. Our exploration involved the original combination of two different perspectives on text analysis – keywords (Williams, 1976/1983) and strategic ambiguity (Eisenberg, 1984). We would contend that this

combination of perspectives has proven to be a useful lens on the intertextual relationships between the five texts reviewed.

We have argued that the deployment of the discourse strategy of strategic ambiguity around the term 'sustainability' served an enabling function in the following ways. First, the commitment to sustainability lent the texts an internal and intertextual coherence. Second, strategic ambiguity in the use of the keyword 'sustainability' served to facilitate the use of an inclusive voice within these four texts. Third, strategic ambiguity facilitated the ongoing co-existence of discourse participants who subscribed to ideological perspectives that were more or less incommensurable.

In summary we propose that the discourse strategy of strategic ambiguity played a vital role in enabling the Government to portray a seemingly inclusive 'sustainable' future that captured most if not all of the multiple and possibly competing perspectives. We suggest that our research has shown that, far from being simply a problem to be clarified or tolerated, ambiguity, when strategically deployed within discourse, constitutes a complex practice worthy of further attention by discourse scholars.

REFERENCES

Allen, M., and Caillouet, R. (1994) 'Legitimation Endeavours: Impression Management Strategies Used by an Organization in Crisis', *Communication Monographs* 61: 44-62.

Bakhtin, M. (1986) *Speech Genres and Other Late Essays*. Edited and trans. by C. Emerson & M. Holquist. Austin, Texas: University of Texas Press.

Barney, J. (1991) 'Firm Resources and Sustained Competitive Advantage', *Journal of Management*, 17(1): 99-120.

Baxter, J. (2002) 'Is PDA really an Alternative? A Reply to West', *Discourse and Society* 13(6): 853-859.

Clegg, S. (1989) *Frameworks of Power*. London: Sage.

Davenport, S. and Leitch S. (2005a) 'Circuits of Power in Practice: Strategic Ambiguity as Delegation of Authority', *Organization Studies*, 26(11): 1603-1623.

Davenport, S. and Leitch S. (2005b) 'Agoras, Ancient and Modern, and a Framework for Science-Society Debate', *Science and Public Policy* 32(2): 137-154.

Davenport, S. and Leitch S. (2005c) 'Articulating Past Glories: Discursive Struggle for New Zealand's Agricultural Future', paper presented at the *European Group for Organizational Studies Conference*, Berlin.

Department of Prime Minister and Cabinet (DPMC). (2003) *Sustainable Development for New Zealand Programme of Action*. Wellington, New Zealand.

Eisenberg, E. (1984) 'Ambiguity as Strategy in Organizational Communication', *Communication Monographs* 51: 227-242.

Eisenberg, E. and Goodall H. (1997) *Organizational Communication: Balancing Creativity and Constraint*. New York: St. Martin's Press.

Eisenberg, E. and Witten, M. (1987) 'Reconsidering Openness in Organizational Communication', *Academy of Management Review* 12: 418-426.

Fairclough, N. (1992) *Discourse and Social Change*. Cambridge: Polity.

Fairclough, N. (1993) *Analysing Discourse: Textual Analysis for Social Research*. London: Routledge.

Fairclough, N., and Wodak, R. (1997) 'Critical Discourse Analysis', in T. A. Van Dijk (ed.), *Discourse as Social Interaction: Discourse Studies vol. 2 – A Multi-Disciplinary Introduction*, pp. 258-284. London: Sage:

Flowerdew, J. (2004) 'The Discursive Construction of a World-Class City', *Discourse and Society* 15(5): 579-605.

Foucault, M. (1972) *The Archaeology of Knowledge*. London: Tavistock.

Gladwin, T., Kennelly, J., and Karuase, T-S. (1995) 'Shifting Paradigms for Sustainable Development: Implications for Management Theory and Research', *Academy of Management Review* 20(4): 874-908.

Grant, D., Hardy, C., Oswick, C., and Putnam, L. (2004) 'Introduction', In Grant, D., Hardy, C., Oswick, C. & Putnam, L., *The Sage Handbook of Organizational Discourse*, pp. 1-36. London: Sage.

Hodge, B., and Louie, K. (1998) *The Politics of Chinese Culture and Language: The Art of Reading Dragons*. London: Routledge.

Hutchby, I. (2001) '“Oh”, Irony and Sequential Ambiguity in Arguments', *Discourse and Society* 12(2): 123-141.

Kristeva, J. (1986) *The Kristeva Reader*. Oxford: Blackwell.

Marshall, J.D., and Toffel, M.W. (2005) 'Framing the Elusive Concept of Sustainability: A Sustainability Hierarchy', *Environmental Science and Technology* 39(2): 673-682.

Menz, F. (1999) 'Who am I Gonna do this With?': Self-organization, Ambiguity and Decision-making in Business Enterprise', *Discourse and Society* 10(1): 101-128.

Ministry of Research, Science and Technology (MORST). (2003) *New Zealand Biotechnology Strategy: A Foundation for Development with Care*. Wellington, New Zealand.

Office of the Prime Minister (OPM). (2002) *Growing an Innovative New Zealand*. Wellington, New Zealand.

Organic Federation of Aoteroa New Zealand (OFANZ). (2003). *Organic Sector Strategy. A Real Opportunity for New Zealand: A Strategy to Unlock the Value in Organic Systems*. Auckland, New Zealand: Martech Consulting Group.

Paul, J., and Strbiak, C. (1997) 'The Ethics of Strategic Ambiguity', *Journal of Business Communication* 34: 149-159.

Pezzoli, K. (1997) 'Sustainable Development: A Transdisciplinary Overview of the Literature', *Journal of Environmental Planning and Management* 40(5): 549-574.

Royal Commission on Genetic Modification (RCGM). (2001) *Report of the Royal Commission on Genetic Modification*. Wellington, New Zealand.

Sawchuk, P.H. (2003) 'Informal Learning as a Speech-exchange System: Implications for Knowledge Production, Power and Social Transformation', *Discourse and Society* 14(3): 291-307.

Sellnow, T., and Ulmer, R. (1995) 'Ambiguous Argument as Advocacy in Organizational Crisis Communication', *Argumentation and Advocacy* 31: 138-150.

Sneijder, P., and Te Molder, H.F.M. (2005) 'Moral Logic and Logical Morality: Attributions of Responsibility and Blame in Online Discourse on Veganism', *Discourse and Society* 16(5): 675-696.

Springett, D. (2003) 'Business Conceptions of Sustainable Development: A Perspective from Critical Theory', *Business Strategy and the Environment* 12(2): 71-86.

Van Dijk, T. (1995) 'Discourse Analysis as Ideology Analysis', in C. Schäffner & A. Wenden (Eds.), *Language and Peace*, pp. 17-33. Aldershot: Dartmouth Publishing.

Van Dijk, T.A. (1997a) 'The Study of Discourse', in T. Van Dijk (ed) *Discourse as Structure and Process*, pp. 1-34. London: Sage.

Van Dijk, T.A. (1997b) 'Discourse as Interaction in Society', in T.A. Van Dijk (ed.), *Discourse as Social Interaction: Discourse Studies vol. 2 – A Multi-Disciplinary Introduction*, pp 1-38. London: Sage.

Weick, K. (1988) 'Enacted Sensemaking in Crisis Situations'. *Journal of Management Studies* 25: 305-317.

Williams, R. (1976/1983) *Keywords*. London: Fontana.

Williams, C., and Millington A. (2004) 'The Diverse and Contested Meanings of Sustainable Development', *The Geographical Journal* 170(2): 99-104.

World Commission on Environment and Development (1987) *Our Common Future*.
Oxford: Oxford University Press.