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Making Sense of Earth's Politics: A Discourse Approach

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The Changing Terms of Environmental Politics

In the last four decades, the politics of the Earth has featured a large and growing range of issues. The initial concerns were with pollution, wilderness preservation, population growth, and depletion of natural resources. Over time, these concerns have been supplemented by worries about energy supply, animal rights, species extinction, global climate change, depletion of the ozone layer in the upper atmosphere, toxic wastes, the protection of whole ecosystems, and environmental justice (the distribution of environmental damage across ethnic groups and social classes). All these issues are interlaced with a whole range of moral and aesthetic questions about human livelihood, human attitudes, and our proper relation to other entities on the planet (occasionally even off it). Thus the whole environmental area is home to some heated debates and disputes, ranging from the details of the implementation of policy choices in particular localities, to the arguments of philosophers debating the appropriate ethical position to apply to environmental affairs in general.

The terms of these debates have changed substantially over time. Consider the following illustrations:

- Once areas of marshy land were called swamps. The only sensible thing to do with swamps was to drain them, so the land could be put to some useful purpose. Governments subsidized landowners to drain swamps. Today, we call these same areas wetlands, and governments have enacted legislation to protect their recognized value in providing habitat for wildlife, stabilization of ecosystems, and absorption of pollutants.
- In the nineteenth century, European colonization moved gradually westwards in North America. The United States government provided all kinds

of incentives to tame the frontier. In the late twentieth century, the land at the edge of European settlement, which used to be called frontier and was there only to be subdued is now called wilderness, to be treasured and protected.

Meanwhile, in Australia and New Zealand, European colonization was followed by the establishment of "Acclimatisation Societies" to introduce European flora and fauna to the Antipodes. These societies approached their task in a spirit of altruism and concern for the public good. Today, governments and citizens in these two countries devote massive effort to the protection of native plants, animals, and ecosystems, and to the extermination of exotic imported species that threaten these ecosystems—imports that were once cultivated so lovingly by the Acclimatisation Societies.

What is a whale? Once whales were regarded as sources of food and other useful products such as oil and baleen. The idea that whales were sentient creatures with a right to exist and flourish free from human interference would have been laughable. Yet this view is now widely held, and indeed dominates the policies of many nations on the whaling issue.

What are people? The idea that there is such a thing as "population" is a development no more than 200 years old. Population as an aggregate is something to be controlled and managed: that is, it is more than just "people." Given that once there was no such thing as population, the idea of population as a problem, still less population explosion, could not be conceptualized. The Pope, Islamic fundamentalists, and contemporary anti-environmentalists in the United States still resist conceptualizing population in these terms.

What is the environment? The environment did not exist as a concept in politics and policy making in any country until the 1960s (though concern with particular aspects of what we now call the environment, such as open spaces, resource shortages, and pollution do of course pre-date the 1960s). Today, all countries have environmental legislation and government departments with environmental missions, and environmental problems are at the forefront of public attention.

What is nature? Some radical environmentalists believe that any area modified by human activity is no longer worth caring about. In Edward Abbey's novel *The Monkey Wrench Gang*, one of the environmental heroes measures road distances in terms of six packs of beer, and having finished a can throws it out of the window. The litter is irrelevant, as it ends up in places that have already been destroyed by the construction of a road. Such attitudes horrify more tender-minded environmentalists.

What, then, is wilderness? One widely held definition is that wilderness consists of land that remains untouched by human extractive activity. But what about the indigenous peoples who have long populated such areas, and in many cases shaped the landscape? And can there be such a thing as wilderness restoration in lands damaged by industrial and agricultural activity?

What is the Earth? We have long known that it is a planet, but the idea that it might be a finite planet with limited capacities to support human life has only really received widespread attention since the late 1960s. Not coincidentally, this was when the Earth was first photographed from space. Since the early 1980s, there has also been a sustained attack on the idea that the Earth is in any sense finite, especially in the United States.

The moral of these examples is that the way we think about basic concepts concerning the environment can change quite dramatically over time, and this has consequences for the politics and policies that occur in regard to environmental issues. The most basic consequence (to which the last example of the finite Earth points) is that we now have a politics of the Earth, whereas once we did not. If the environment itself were not conceptualized—and it was not, prior to the 1960s—then a book about environmental politics could not be written. Today, of course, we not only have an environment, but most of the important things that happen to it are the subject matter of politics, and occasionally the target of public policy.

Some of the examples I have adduced might seem to suggest that we have a clear trajectory pointing in the direction of environmental enlightenment; it is just a matter of humanity becoming more sensitive or aware as time goes on, and escaping from past misconceptions and ignorance. Now, I happen to believe in progress (which, sadly, sets me apart from many of my colleagues in the social sciences and humanities in contemporary universities). Still, it would be a mistake to think of the history of environmental affairs in these terms. What we see instead is that these matters are subject to continuing dispute between people who think about environmental affairs in sharply different ways. Some people deny that environmental issues matter at all (how else could President Ronald Reagan have once said that "ninety per cent of pollution is caused by trees"?). Consider the following examples of environmental conflicts:

Cairo in 1994 played host to the United Nations Conference on Population and Development. The basic numbers on global human population are clear enough and not in dispute: human numbers are increasing at a rapid rate. Whether or not these numbers mean anything is in sharp dispute. To some present, the whole reason for such a conference is to explore ways to

control populations in order to prevent the environmental collapse that excessive human pressure on the earth's ecosystems will cause, and in many cases is already causing. To others present, such as representatives of the Vatican, Islamic countries, ecofeminists, and US conservatives, matters look very different. To the Catholics and Islamists, population control means only birth control and is therefore intrinsically evil. To ecofeminists, population control means only the control of women's fertility by the male power structure. To some US conservatives, especially those with fond memories of the Reagan years, population growth is a good thing, as more people means more human problem-solvers, producing more benefits for humanity in many ways; population control looks like socialism. How can all these individuals look at the world in such different ways? Who is right? In the light of these competing viewpoints, how should we approach global population issues?

- The initial growth of the nuclear industry in the 1950s and 1960s took place in secret, away from public scrutiny and concern. By the 1980s, proposals for new nuclear installations were typically the subject of extensive public inquiries, at least in the developed liberal democracies. In Austria, Sweden, and the Netherlands broad national discussions took place in the late 1970s about the whole future of nuclear power, and the kind of society it helped construct. In Britain, inquiries presided over by judges used legalistic rules concerning the admissibility of evidence and argument. Inquiries were focused narrowly on safety issues. It was assumed that the economic benefits of any proposal were positive. Objectors were not allowed to introduce economic evidence against the proposal, still less arguments about whether nuclear power belongs in a free society, or is consistent with environmental values. The most notorious British nuclear plant is at Windscale/Sellafield on the Irish Sea. A pipeline carries nuclear waste material into the Irish Sea. In 1990 a team of Greenpeace divers placed a symbolic plug in the end of the pipeline. Greenpeace was fined £50,000, and admonished by the judge for being so arrogant as to put their special interests above the law. Why does Britain, in contrast to more progressive European countries, put "the law" on a pedestal above ecological concerns, rather than trying to integrate ecological principles into the law? Why does "the law" in Britain consistently serve the interests of the nuclear-industrial complex, and fail to accommodate the kinds of ecological concerns that motivate a group like Greenpeace?
- In the United States and Canada the last decade or more has seen intense conflict over the logging of remnant old growth forests, especially in the Pacific Northwest. In the United States, logging has been impeded, but by

no means halted, by the presence of the spotted owl, an endangered species whose only habitat is the old growth forest. Why is there legislation to protect a species such as the spotted owl (the Endangered Species Act), but no legislation to protect ecosystems such as the forest itself? The conflict between companies and logging communities on the one hand and environmentalists on the other is intense and intractable. Attempts to solve the conflict through the courts, through legislation, and through consensus-seeking exercises (such as the "timber summit" sponsored by and attended by President Clinton in 1993) have all failed. Why is the conflict so intractable? Why do timber workers support logging of old growth to exhaustion by the timber companies instead of sustainable forestry, which would guarantee their jobs and their incomes in the longer term? Can the simultaneous pursuit of environmental and economic values which sustainable forestry connotes actually be achieved in practice? Would this pursuit be secured, as some economists have suggested, by dividing the National Forests into chunks of land and selling each chunk to the highest bidder? Why are such proposals, even when their economic logic seems faultless, resisted so strenuously by both environmentalists and loggers?

In all these conflicts, the different sides seem to interpret the issues at hand in very different ways. At any particular time, the way the issue is dealt with depends largely (though not completely) on the balance of these competing perspectives. In this book I intend making sense of the last thirty years or so of environmental concern by mapping these perspectives. But why do these different perspectives exist? Why do debates between partisans of different perspectives sometimes seem so intractable, as some of the examples I have discussed indicate?

A Discourse Approach

Environmental issues do not present themselves to us in well-defined boxes labelled radiation, national park, pandas, coral reefs, rainforest, heavy metal pollution, and the like. Instead, they are interconnected in all kinds of ways. For example, issues of global climate change due to buildup of carbon dioxide in the atmosphere from burning fossil fuels relate to air pollution in more local contexts, and so to issues of transportation policy.¹ These issues also

¹ For example, in my own city of Melbourne, the main obstacle to the construction of a freeway network proposed by the state government was the possibility that the Australian federal government would invoke its obligations resulting from signing international agreements relating to the control of greenhouse gases in order to require an environmental impact statement for the project.

relate to destruction of the ecosystems (such as tropical forests) which act as carbon sinks, absorbing carbon dioxide from the atmosphere; and to issues of fossil fuel reliance and exhaustion; and so to problems related to alternative sources of energy such as nuclear power. Thus environmental problems tend to be interconnected and multi-dimensional; they are, in a word, complex. Complexity refers to the number and variety of elements and interactions in the environment of a decision system. When human decision systems (be they individuals, or collective bodies such as governments) confront environmental problems, they are confronted with two orders of complexity. Ecosystems are complex, and our knowledge of them is limited, as the biological scientists who study them are the first to admit. Human social systems are complex too, which is why there is so much work for the ever-growing number of social scientists who study them. Environmental problems by definition are found at the intersection of ecosystems and human social systems, so one should expect them to be doubly complex.

The more complex a situation, the larger is the number of plausible perspectives upon it—because the harder it is to prove any one of them wrong in any simple terms. Thus the proliferation of perspectives on environmental problems that has accompanied the development and diversification of environmental concern since the 1960s should come as no surprise. It is my intention here to make sense of this proliferation. I shall do so by deploying the notion of "discourse."

A discourse is a shared way of apprehending the world. Embedded in language, it enables those who subscribe to it to interpret bits of information and put them together into coherent stories or accounts. Each discourse rests on assumptions, judgments, and contentions that provide the basic terms for analysis, debates, agreements, and disagreements, in the environmental area no less than elsewhere. Indeed, if such shared terms did not exist, it would be hard to imagine problem-solving in this area at all, as we would have to return to first principles continually. The way a discourse views the world is not always easily comprehended by those who subscribe to other discourses. However, as I will show, complete rupture or discontinuity across discourses is rare, such that interchange across discourse boundaries can occur, however difficult it may sometimes prove.

Now, trying to make sense of the Earth's politics through reference to discourses is not the only way of going about the task. Other analysts' treatments are organized differently. Some look at the institutions (markets, government bureaucracies, legal systems, etc.) that have been developed for handling environmental issues.² Some look at the policies that governments

have pursued. Some care little about the details of real-world practices, focusing instead on the political philosophies that can be applied in environmental affairs. Some look only at particular case studies of environmental issues. In fact, I shall have plenty to say about institutions, policies, political philosophies, and case studies, for all owe much to the discourses in their vicinity.

This inquiry rests on the contention that language matters, that the way we construct, interpret, discuss, and analyze environmental problems has all kinds of consequences. My intent is to lay out the basic structure of the discourses that have dominated recent environmental politics, and present their history, conflicts, and transformations. I intend to produce something more than just an account of environmentalism. Environmental discourse is broader than that, extending to those who do not consider themselves environmentalists, but either choose or find themselves in positions where they are handling environmental issues, be it as politicians, bureaucrats, corporate executives, lawyers, journalists, or citizens. Environmental discourse even extends to those who consider themselves hostile to environmentalism. My geographic coverage for the most part encompasses Europe, North America, Australasia, and the global arena; though sometimes it is appropriate to look elsewhere.

Some recent studies in this idiom examine discourse carefully in the context of a particular issue. That such an approach is productive is demonstrated in recent studies by Maarten Hajer of transformations in discourse on acid rain in Britain and the Netherlands in the late 1980s and early 1990s (Hajer, 1995), and by Karen Litfin of changing international discourse about global ozone-layer depletion in the 1980s (Litfin, 1994). However, there is room for breadth as well as depth in analysing environmental discourse, for looking at the big picture rather than the details. My own accounts will lack the richness of Hajer and Litfin inasmuch as I cannot always say exactly who said what and why behind which closed doors to whom else about a particular point, and how the other responded.

In offering a view of a much bigger territory, I will be guided by some analytical devices and distinctions (to be introduced shortly) that give me some confidence in taking very large cuts at large and complex discursive terrain. I seek vindication only in the plausibility of the stories I tell. These stories are backed by my own twenty years of working and teaching in the environmental field, but others might still carve up the territory somewhat differently. For example, Andrew Dobson (1990) makes a threefold distinction between old-fashioned conservationism, reform environmentalism, and radical ecologism. Robyn Eckersley (1992) thinks that the key difference is between anthropocentric (human-centered) and ecocentric perspectives.

² For my own contribution to this genre, see Dryzek, 1987.

Relatedly, in histories of US environmentalism, it is standard practice to distinguish between two traditions, heirs respectively to the anthropocentric rational resource management advocated by the US Forest Service's first chief forester Gifford Pinchot and the deeper respect for nature propounded by Sierra Club founder John Muir (see, for example, Taylor, 1992). To Martin Lewis (1992), the only distinction that makes sense is between moderates and extremists, or "Promethean" and "Arcadian" environmentalists as he styles them (I will use the term "Promethean" somewhat differently than Lewis). Less worthy of serious attention, former US Secretary of the Interior James Watt distinguished between environmentalists and Americans. I have already noted that environmental issues are complex, and so afford plenty of scope for alternative perspectives on them.

Discourse is important, and conditions the way we define, interpret, and address environmental affairs. This should not be taken to mean that there is only discourse when it comes to environmental problems. Many post-modernists might believe that. Indeed, the idea that people look at the world in fragmented and radically different ways pretty much defines postmodernism. Certainly it is fashionable in these circles to point to the arbitrary and specific ways we apprehend the world (for an application to environmental affairs, see Bennett and Chaloupka, 1993). Yet just because something is socially interpreted does not mean it is unreal. Pollution does cause illness, species do become extinct, ecosystems cannot absorb stress indefinitely, tropical forests are disappearing. But people can make very different things of these phenomena and—especially—their interconnections, providing plenty of grist for political dispute. Sometimes particular constructions can be exposed as thoroughly misguided—as, for example, when automobile company executives in the 1950s dismissed the possibility of smog in cities such as Los Angeles by claiming that car exhaust emissions were simply "absorbed" by the atmosphere. More often, it is hard to prove these constructions right or wrong in any straightforward way. But one might say the same about scientific worldviews, political ideologies, or governmental constitutions. In the analysis of environmental discourse no less than in these other cases, it is still possible to engage in rational, critical, comparative judgment, to apply evidence and argument, and to hope that in so doing we can correct some errors, and so move toward a better overall understanding of environmental issues and problems.³

Aside from the reality of ecological problems, there is another dimension which a one-sided emphasis on discourse can miss: this is the dimension of

³ As Litfin puts it, it is possible to subscribe to both a hermeneutic epistemology (i.e. an interpretive philosophy of inquiry) and a realist ontology (i.e. a commitment to the actual existence of problems) (1994: 26–7, 50).

interest and power. Again, discourse is not all that matters, and powerful actors who see established or emerging discourses as threatening their vital interests can attempt to override developments at the level of discourse. For example, Hajer (1995) argues that in the Netherlands, the discourse of ecological modernization achieved dominance in the late 1980s. The basic idea of ecological modernization is that environmental conservation is good for business profitability; I will discuss it at length in Chapter 8. However, the ascendancy of ecological modernization was not always easily translated into Dutch policy practice, in part because established state and corporate actors resisted. These actors may have conceded at the level of discourse, but their particular interests subsequently led them to stick to more established policy practices.

Perhaps more often than simply resisting environmental values, recalcitrant actors will try to cloak themselves in the language of environmentalism. The public relations departments of multinational corporations are especially good at this. According to *O'Dwyers PR Services*, a major public relations journal, the environment is "the life and death PR battle of the 1990s" (*The Guardian*, London, 18 Sept. 1996). In the United States, the Weyerhaeuser Corporation advertises itself as "the tree growing company." At one level this is true enough: Weyerhaeuser plants and grows a lot of trees. But the trees it plants are in the form of single-species plantations, managed with the use of herbicides and pesticides. Many of the trees it cuts down are in complex, multi-species old growth forests, which take hundreds of years to mature. Corporate front groups often have names that connote environmental concern. But the real intent of the Global Climate Coalition, for example, is to put a spin on climate issues that is conducive to the short-term interests of oil companies (see Rowell, 1996).

Alternatively, such recalcitrant actors can sponsor other discourses of environmental concern more conducive to their own interests. Perhaps this is why so many of them find the idea of "sustainable development" and its potential commitment to continued economic growth so attractive (as we will see in Chapter 7). Discourse and power can be interconnected in all kinds of ways, which I will attempt to bring out.⁴

Beyond the simple exercise of political power by interested parties, another constraint acts to limit the influence of discourse. Governments in capitalist economies have to perform a number of basic functions whether they want to or not, irrespective of any discourses which may have captivated government officials (see Dryzek, 1992a). These imperatives include, first

⁴ Michel Foucault, among others, would deny that this distinction between power and discourse makes sense, on the grounds that discourse is the operation of power. See, for example, Foucault (1980).

and foremost, ensuring continued economic growth. If governments pursue environmental policies that corporations do not like, then corporations can stop investing. The increasing mobility of capital and finance across national boundaries intensifies this pressure, because businesses can easily threaten to transfer their operations to other countries with less stringent environmental policies and practices. Just South of the United States-Mexico border is a zone of *maquiladora* industries, producing for US markets, but without having to worry about US anti-pollution laws, still less about Mexican laws that look good on paper but are never enforced. Thus the first task of governments, in environmental policy and everything else, is to keep actual and potential corporate investors happy. If governments make investors unhappy—for example, through enacting tough anti-pollution policy—then they are punished by disinvestment, which in turn means recession, unpopularity in the eyes of voters, and falling tax revenues. Again, the relative influence of discourse and this kind of economic constraint on government policies merits investigation in particular cases.

Classifying the Main Environmental Discourses

Environmental discourse begins in industrial society, and so has to position itself in the context of the long-dominant discourse of industrial society, which we can call industrialism. Industrialism may be characterized in terms of its overarching commitment to growth in the quantity of goods and services produced and to the material well-being which that growth brings. Industrial societies have of course featured many competing ideologies, such as liberalism, conservatism, socialism, Marxism, and fascism. But whatever their differences, all these ideologies are committed to industrialism. Indeed, from an environmental perspective they can all look like variations on the theme of industrialism. This commonality might surprise their adherents, who are far more conscious of their ideological differences than of their industrialist commonalities. But all these ideologies long ignored or suppressed environmental concern. If what we now call environmental issues were thought about at all, it was often in terms of inputs to industrial processes. For example, rational use of such inputs was the main concern of the Conservation Movement founded at the beginning of the twentieth century in the United States, whose key figure was Gifford Pinchot.⁵ This movement did not want to preserve the environment for aesthetic reasons, or for

⁵ True, a few romantics such as John Muir extolled wilderness—but they did so in rejection of industrial society.

the sake of human health. Instead, the Conservation Movement sought only to ensure that resources such as minerals, timber, and fish were used wisely and not squandered, so that there would always be plenty of them to support a growing industrial economy.

Environmental discourse cannot therefore simply take the terms of industrialism as given, but must depart from these terms. This departure can be reformist or it can be radical; and this distinction forms one dimension for categorizing environmental discourses.

A second dimension would take note of the fact that departures from industrialism can be either prosaic or imaginative. Prosaic departures take the political-economic chessboard set by industrial society as pretty much given. On that chessboard, environmental problems are seen mainly in terms of troubles encountered by the established industrial political economy. They require action, but they do not point to a new kind of society. The action in question can be quite dramatic and radical. As we will see, there are those who believe that economic growth must be reined in, if not brought to a halt entirely, in order to respond effectively to environmental problems. But the measures endorsed or proposed by these people are essentially those which have been defined by and in industrialism. For example, those who would curb economic growth normally propose that this be done by strong central administration informed by scientific expertise—a quintessentially industrialist instrument.

In contrast, imaginative departures seek to redefine the chessboard. Notably, environmental problems are seen as opportunities rather than troubles. Imaginative redefinition of the chessboard may dissolve old dilemmas, treating environmental concerns not in opposition to economic ones, but potentially in harmony. The environment is brought into the heart of society and its cultural, moral, and economic systems, rather than being seen as a source of difficulties standing outside these systems. The thinking is imaginative, but the degree of change sought can be small and reformist, or large and radical. As we shall see, imaginative reformist ways of rendering the basic political-economic structure bequeathed by industrial society capable of coping with environmental issues may be found. On the other hand, imaginative radical changes can also be envisaged, requiring wholesale transformation of this political-economic structure. Combining these two dimensions—reformist versus radical and prosaic versus imaginative—produces four cells, as indicated in Box 1.1.

Environmental Problem Solving is defined by taking the political-economic *status quo* as given but in need of adjustment to cope with environmental problems, especially via public policy. Such adjustment might take the form of extension of the pragmatic problem-solving capacities of liberal

BOX 1.1. CLASSIFYING ENVIRONMENTAL DISCOURSES

	Reformist	Radical
Prosaic	Problem Solving	Survivalism
Imaginative	Sustainability	Green Radicalism

democratic governments by facilitating a variety of environmentalist inputs to them; or of markets, by putting price tags on environmental harms and benefits; or of the administrative state, by institutionalizing environmental concern and expertise in its operating procedures. Within the overall discourse of environmental problem solving there may be substantial disagreement as to which of these forms is appropriate. So, for example, a debate between proponents of administrative regulation and market-type incentive mechanisms for pollution control has been under way since the 1970s, and shows few signs of letting up.

Survivalism is the discourse popularized in the early 1970s by the efforts of the Club of Rome (which I will discuss in the next chapter) and others, still retaining many believers. The basic idea is that continued economic and population growth will eventually hit limits set by the Earth's stock of natural resources and the capacity of its ecosystems to support human agricultural and industrial activity. The limits discourse is radical because it seeks a wholesale redistribution of power within the industrial political economy, and a wholesale reorientation away from perpetual economic growth. It is prosaic because it can see solutions only in terms of the options set by industrialism, notably, greater control of existing systems by administrators, scientists, and other responsible elites.

Sustainability begins in earnest in the 1980s, and is defined by imaginative attempts to dissolve the conflicts between environmental and economic values that energize the discourses of problem solving and limits. The concepts of growth and development are redefined in ways which render obsolete the simple projections of the limits discourse. There is still no consensus on the exact meaning of sustainability; but sustainability is the axis around which discussion occurs, and limits are nowhere to be seen. Without the imagery of apocalypse that defines the limits discourse, there is no inbuilt radicalism to the discourse. The era of sustainability begins in earnest with the publication of the Brundtland Report in 1987 (World Commission on Environment and Development, 1987). More recently, ideas about ecologi-

cal modernization, seeing economic growth and environmental protection as essentially complementary, have arisen in Europe.

Green Radicalism is both radical and imaginative. Its adherents reject the basic structure of industrial society and the way the environment is conceptualized therein in favor of a variety of quite different alternative interpretations of humans, their society, and their place in the world. Given its radicalism and imagination, it is not surprising that green radicalism features deep intramural divisions—to which I shall attend. In the United States, social ecologists with a pastoral vision and a concern for social justice debate with deep ecologists, who prefer landscapes without humans. In Germany, Green *Fundis* eventually lost a struggle with Green *Realos* over tactical questions about action in the streets versus action in parliament. Everywhere, green romantics disagree with green rationalists, proponents of the rights of individual creatures disagree with more holistic thinkers, and advocates of green lifestyles disagree with those who prefer to stress green politics. These debates are lively and persistent; but the disputants have far more in common with each other in terms of basic dispositions, assumptions, and capabilities than they do with either industrialism or with the three competing discourses of environmental concern just introduced.

These, then, are the four basic environmental discourses, and I will organize the chapters that follow according to how they fit with these four categories. All four reject industrialism; but all four engage with the discourse of industrialism—if only to distance themselves from it. And this is why their engagement with industrialism and its defenders is often more pronounced than their engagement with each other.

Questions to Ask about Discourses

So far I have identified the four basic discourses in fairly general terms. But in order to see why and how these discourses have developed, and to what effect, it is necessary to pin down their content more precisely. This I shall do in the chapters that follow. To this end, let me now develop a set of questions for the analysis of discourses.⁶

Discourses enable stories to be told; in fact, the title of a discourse can be an abbreviated story line (the concept of environmental story lines is employed by Hajer, 1995). To refer back to the four discourses just enumerated, limits or survivalism connotes a story about the need to curb ever-

⁶ This checklist extends and modifies a scheme I developed in Dryzek (1988) in a non-environmental context.

growing human demands on the life-support capacities of natural systems. Problem solving connotes a different story—indeed, can subsume a number of different stories—about the unpleasant side-effects of particular economic activities requiring piecemeal remedies. Each discourse constructs stories from the following elements:

1. BASIC ENTITIES WHOSE EXISTENCE IS RECOGNIZED OR CONSTRUCTED

Technically, this is what is meant by the “ontology” of a discourse. Different discourses see different things in the world. Some discourses recognize the existence of ecosystems, others have no concept of natural systems at all, seeing nature only in terms of brute matter. At least one other entertains the idea that the global ecosystem is a self-correcting entity with something like intelligence. This is the idea of Gaia, which I will address in my analysis of Green radicalism. Some discourses organize their analyses around rational, egoistic human beings; others deal with a variety of human motivations; others still recognize human beings only in their aggregates such as states and populations. Most believe it is fruitful to deal with “humans” as a category, a few that it is necessary to break down on the basis of gender. Some assume governments and their actions matter; others believe it is the human spirit that is crucial.

2. ASSUMPTIONS ABOUT NATURAL RELATIONSHIPS

All discourses embody notions of what is natural in the relationships between different entities. Some see competition, be it between human beings in markets or between creatures locked in Darwinian struggle, as natural. Others see cooperation as the essence of both human social systems and natural systems. Hierarchies based on gender, expertise, political power, species, ecological sensibility, intellect, legal status, race, and wealth are variously assumed in different discourses; as are their corresponding equalities.

3. AGENTS AND THEIR MOTIVES

Story lines require actors, or agents. These actors can be individuals or collectivities. They are mostly human, but can be nonhuman. In one discourse we may find benign and public-spirited expert administrators. Another discourse might portray the same people as selfish bureaucrats. Still others

might ignore the presence of government officials altogether. Many other kinds of agents and motives put in appearances. They include enlightened élites, rational consumers, ignorant and short-sighted populations, virtuous ordinary citizens, a Gaia that may be tough and forgiving or fragile and punishing, among others.

4. KEY METAPHORS AND OTHER RHETORICAL DEVICES

Most story lines, in the environmental arena no less than elsewhere, depend crucially on metaphor. Key metaphors that have figured in environmental discourse include:

- spaceships (the idea of “spaceship earth”);
- the grazing commons of a medieval village (“the tragedy of the commons”);
- machines (nature is like a machine that can be reassembled to better meet human needs);
- organisms (nature is a complex organism that grows and develops);
- human intelligence (ascribed to non-human entities such as ecosystems);
- war (against nature);
- goddesses (treating nature in benign female form, and not just as Mother Nature).

Metaphors are rhetorical devices, deployed to convince listeners or readers by putting a situation in a particular light. Many other devices are available to perform the same tasks. These include appeal to widely accepted practices or institutions, such as established rights, freedoms, constitutions, and cultural traditions. For example, the rights of species, animals, or natural objects can be justified through reference to the long-established array of individual human rights in liberal societies. Appeals can be made to deeper pasts, such as pastoral or even primeval idylls, as a way to criticize the industrial present. The negative and discredited can be accentuated as well as the positive and treasured. For example, it is possible to collect horror stories about government mistakes on environmental issues, and sprinkle these horror stories into arguments. On the other hand, some discourses collect and accentuate success stories.

This completes my checklist of items for the scrutiny and analysis of discourses. The items are summarized in Box 1.2. If my discussion of each element has been brief, matters should become clearer when I deploy this checklist in subsequent chapters in order to capture the various discourses

Box 1.2. CHECKLIST OF ELEMENTS FOR THE ANALYSIS OF DISCOURSES

1. Basic entities recognized or constructed
2. Assumptions about natural relationships
3. Agents and their motives
4. Key metaphors and other rhetorical devices

more precisely. Beyond capturing the essence of the various discourses and their subdivisions, it is of course important to determine what difference each of them makes. I have already asserted that the language we use in addressing environmental affairs does make a difference, but this needs to be demonstrated for particular discourses, rather than just asserted as a general point.

The Differences that Discourses Make

With this need to demonstrate the implications of different discourses in mind, I will take a look at the history as well as the content of each discourse. As I noted earlier, this history can generally be traced back to some aspect of industrialism—if only as a rejection of that aspect. With time, environmental discourses develop, crystallize, bifurcate, and (perhaps someday) dissolve. A crucial part of this history consists of the kind of politics surrounding, shaping, and shaped by the discourse. In some cases the politics might be that of a social movement or political party; in other cases, that of governmental commissions and intergovernmental negotiations; in others, that of administrative control; in others, elite bargaining; in others, rationalistic policy design. Sometimes there will be little in the way of politics at all, as, for example, in the case of “lifestyle” greens. Sometimes the politics may be local, sometimes national, sometimes transnational, sometimes global.

The impact of a discourse can often be felt in the policies of governments or intergovernmental bodies, and in institutional structure. For example, the flurry of environmental legislation enacted in many industrialized countries around 1970 mostly reflected a discourse of administrative rationalism (a sub-category of what I have defined as problem solving). Since 1970,

problem-solving discourse has also been embodied in a number of institutional innovations that extend the openness and reach of liberal democratic control of environmental affairs (in the form of devices such as public inquiries and various procedures for consensual dispute resolution). Beyond affecting institutions, discourses can become embodied in institutions. When this happens, discourses constitute the informal understandings that provide the context for social interaction, on a par with formal institutional rules. Or to put it slightly differently, discourses can constitute institutional software while formal rules constitute institutional hardware. Sometimes, though, discourses do not have direct effects on the policies or institutions of governments, but take effect elsewhere. For example, green radicalism has helped some individuals and communities to distance themselves from both government and corporate capitalism in putative attempts to create an alternative political economy relying on self-sufficiency.

To assess more fully the worth and impact of a discourse requires attention to its critics as well as its adherents. Sometimes adherents of different discourses will ignore and dismiss rather than engage one another. Nevertheless, some dispute does indeed occur across the boundaries of different discourses. Most frequently, this occurs between the environmental discourse in question and the older discourse of industrialism. Given that each of the four categories of discourse I have identified has its roots in either modification or conscious rejection of industrialism, this is not too surprising. Occasionally, debate is engaged between the problem solving, limits, sustainability, and green radical discourses. If such engagement is infrequent, that is mostly a matter of these four discourses viewing issues and problems in such different ways that little interchange across their boundaries can occur. One goal of this book is to promote such interchange.

Attention to the arguments of critics will facilitate identification of flaws in the discourse. Such identification will also be helped by attention to experience of the practical implications of the discourse, in politics, policies, institutions, and beyond. The tools of discourse analysis which I have enumerated enable further critical analysis of the promise and peril attached to each discourse in its contribution to environmental debate, analysis, and action. It may even turn out that there are some complementarities between different discourses, rather than simple rivalry.

The set of questions I will ask in order to assess the impact, plausibility, and attractiveness of each discourse is summarized in Box 1.3.

**BOX 1.3. CHECKLIST OF ITEMS FOR
ASSESSING THE EFFECTS OF DISCOURSES**

1. Politics associated with the discourse
2. Effect on policies of governments
3. Effect on institutions
4. Arguments of critics
5. Flaws revealed by evidence and argument

The Uses of Discourse Analysis

As should be clear by now, my intent is to advance analysis in environmental affairs by promoting critical comparative scrutiny of competing discourses of environmental concern. This intent distances me from some others who have developed and deployed discourse analysis.

The concept of discourse in the sense I am using it owes much to the efforts of Michel Foucault (for example, 1980), who revealed the content and history of discourses about illness, sex, madness, criminality, government, and so forth. Foucauldians are generally committed to the idea that individuals are for the most part subject to the discourses in which they move, and so seldom able to step back and make comparative assessments and choices across different discourses. It should be evident that I disagree. Discourses are powerful, but they are not impenetrable (as Foucault and his readers have themselves inadvertently demonstrated in their own exposé of the history of various discourses; they at least have escaped from the prison of particular discourses!). Foucault and his followers also often portray discourses in hegemonic terms, meaning that one single discourse is typically dominant in any time and place, conditioning not just agreement but also the terms of dispute. In contrast, I believe that variety is as likely as hegemony. The environmental arena reveals that for long the discourse of industrialism was indeed hegemonic, to the extent that "the environment" was hardly conceptualized prior to the 1960s. However, this hegemony eventually began to disintegrate, yielding the range of environmental discourses now observable. While in its totality environmentalism does challenge industrialism, it does not constitute a unified counter discourse to industrialism. Rather, environmentalism is composed of a variety of discourses, sometimes complementing one another, but often competing. With the necessary preliminaries over, it is to a mapping of these discourses and their consequences that I now turn.

PART II

GLOBAL LIMITS AND THEIR DENIAL

Environmental issues can be as local as the dog droppings on the grass in front of my house, or as global as the greenhouse effect. When environmental issues made their first dramatic leap to the top of the political agenda in so many countries in the late 1960s, it was the global issue which really captured the public attention. Not coincidentally, this was also the first time the Earth was photographed from space, and a beautiful, fragile place it looked. For the first time in human history the Earth could be conceptualized readily as a finite planet; and for the first time a true politics of planet Earth became conceivable. Environmental problems were soon cast in terms of threats to the capacity of this planet to support life—especially human life.

The threats in question involved degradation of the global environment through pollution, and exhaustion of the Earth's natural resources (fossil fuels, minerals, fisheries, forests, and croplands). Urgency came from population explosion and economic growth. Exponential growth in both human numbers and their level of economic activity meant that there was no time to lose, for humanity seemed to be heading for the limits at an ever-increasing pace. Hitting these limits would mean global environmental disaster, accompanied by a crash in human populations.

This discourse of limits and survival was given a major boost by the Club of Rome, an international organization composed of industrialists, politicians, and academics. The Club's most famous product was a set of computer-generated projections of the global future published in 1972 in the international best seller *The Limits to Growth*. These projections showed in quite precise graphical terms that if humanity continued on its profligate course then it had at the very most a century before disaster would strike on a scale unparalleled in human history. Not surprisingly, there were many calls for radical action to stop this headlong rush to destruction; though the survivalists' political repertoire turned out to consist mainly of some tried-and-tested practices, especially strong governmental control.

Survivalism met with an immediate counterattack from defenders of the established industrial economy, whose taken-for-granted order of things survivalism had challenged. These defenders argued that humans are characterized by unlimited ingenuity, symbolized in Greek mythology by the progress made possible by the theft of fire from the gods by Prometheus. Prometheans asserted that the Earth was in truth unlimited; that as soon