

THE ENVIRONMENTAL HIGH GROUND: AN ENVIRONMENTAL IDEAL TYPE FOR INFORMING DECISION MAKING

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SUMMARY

This thesis is intended to be a contribution to environmental pragmatism. It contributes to environmental practice by developing an analytical tool for assisting environmental decision making. Specifically, it helps with the problem of inefficiency in certain types of environmental decision making. I develop and refine an ideal type that is useful for looking at environment decision making, which I call the ‘environmental high ground’. The environmental high ground, inspired by ideal-types useful in military decision making, does not tell us what we should think or do. The environmental high ground gets its power from the widely-held and commonsense desire to do, know, or consider ‘what is best for the environment’ – at least at sometimes and in some situations. The environmental high ground is a one-sided accentuation of an environmental perspective to assist with thinking clearly about environmental decision making. I argue that there is promise for this desire to meaningfully inform decision making, despite its over simplistic appearance.

My overall argument is that my refined environmental high ground is a useful concept for informing environmental decision making. I first argue that ‘what is best for the environment’ is widely used in informing decision making. Throughout the thesis, I work to refine the concept of the environmental high ground. To show that the refined environmental high ground is useful, I use it to comment on several decision-making scenarios, to create tenets of the environmental high ground, and comment on current discussions. I use the refined environmental high ground to comment on such things as the convergence hypothesis, promoting environmentalism, and local environmentalism. I also discuss decision making scenarios such as the choice between equal things. The refined environmental high ground plays an essential role

in these contributions. These contributions are intended to act as evidence that the refine environmental high ground is useful. I utilize many different methods to extract this useful information. Derek Parfit's ideal types from *Reasons and Persons* have a major role. Predominantly, I do three things: 1) I examine possible interpretations of 'what is best for the environment' for consistency; 2) I look for inconsistency in general decision making scenarios; and 3) compare and contrast consistent and inconsistent decision making approaches to draw out important themes. I have done this with the hope that it could be duplicated, and that the environmental high ground can be used for informing decision making in many other ways.

DECLARATION

I certify that the work in this thesis entitled ‘THE ENVIRONMENTAL HIGH GROUND: AN ENVIRONMENTAL IDEAL TYPE FOR INFORMING DECISION MAKING’ has neither previously been submitted for a degree, nor has it been submitted as part of requirements for a degree to any other university or institution other than Macquarie University. I also certify that the thesis is an original piece of research, and it has been written by me. Any help and assistance that I have received in my research work and the preparation of the thesis itself have been appropriately acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis. The research presented in this thesis did not require approval from Macquarie University Ethics Review Committee.

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PREFACE

‘In most books, the *I*, or the person, is omitted; in this it will be retained; that, in respect to egotism, is the main difference. We commonly do not remember that it is, after all, always the first person that is speaking. I should not talk so much about myself if there were any body else whom I knew as well. Unfortunately, I am confined to this theme by the narrowness of my experience. Moreover, I, on my side, require of every writer, first or last, a simple and sincere account of his own life, and not merely what he has heard of other men’s lives; some such account as he would send to his kindred from a distant land; for if he has lived sincerely, it must have been in a distant land to me.’ – Henry David Thoreau (2004: 1-2)

About Me

Although personal information in a thesis is often irrelevant, I believe it is relevant in this case. I wish to assist environmental practitioners with decision making, and my own background plays a key role in my approach.

Being born and raised in rural Northern Minnesota in the US afforded me a highly uncommon amount of time in the outdoors. My youth was storybook rich with fort building, foraging, time at the cabin, and expeditions.

I enlisted in the Army at 17, which involved my first plane ride out of Minnesota, and a trip to the nether regions in Oklahoma, Texas, and Arkansas. I served for three years in an environmental health related occupation, and lectured on field sanitation (Erickson, 2001a, b, 2002a, b). I eventually returned to Minnesota and attended the University of Wisconsin-Superior. Subsequently, I was selected to become a

Commissioned Officer in the Infantry in Georgia. At 23 years old, I was put in command of an 85 man Infantry Reconnaissance and Security group and sent to Afghanistan. My unit served in isolated areas of South and West of the country Afghanistan. My time there has had a profound effect on me and how I view the world. While proud of my time there, I am haunted by how even minute errors in decision making, inefficiencies, or diversions from missions can – through a butterfly effect – have the gravest of consequences (see Strater et al., 2001).

Shortly after returning from Afghanistan, I left for Australia to complete a Masters degree in which I focused heavily on environmental ethics. After completion, I was offered a PhD scholarship. I was officially discharged from the Army six months into my candidature. I have also been influenced by teaching and marking in such postgraduate courses as Environmental Measurement and Analysis, Environmental Decision-Making, and Sustainable Urban Regions as well as an undergraduate course of Environment and Sustainability. I have also assisted in the design and development of questionnaires for environmental research projects (e.g. Wang et al., 2012).

About Why I am Doing This Topic

I frequently get asked about why I chose to transition from Infantry Officer to environmental philosopher. In Afghanistan, almost all of my missions could be summarized as going to establish security in an unsecure area. The type of role I had is known for difficult decision making with conflicting goals (Strater et al., 2001). My job was to mitigate risk while doing something risky. I mitigated risk by establishing the ideal of perfect security, and implementing what we could to move

towards this ideal. Whether we were delivering humanitarian aid or confiscating illegal weapons, I generally could not change the mission. I could only mitigate the risk while completing the mission.

During the slow transition to civilian life, I viewed the civilian world in the same military way. The risk to humanity I saw was not terrorism or war, but the erosion of our life-support system coupled with our ever increasing demands on it. I thought we grossly underestimated the importance of the natural world (see Murdy, 1975, Norton, 1987). During my Masters program, I was puzzled by how decisions were made. With a biology background, I had some knowledge of the lengths that scientists went to achieve precision in their methods, and it seemed strange to see the lack of precision with which decisions were made based on such precise data. This sparked an interest in environmental philosophy, and half of my Masters was devoted to the subject.

During the Masters Program and early part of my PhD candidature, my views changed significantly. I found I had overestimated how precise the scientific method was, and I did not fully appreciate just how pragmatically necessary it was to make such decisions without all of the precise details (see Reckhow, 1994). It was not the decision makers that were underutilizing scientific data. It was that scientific data painted a picture with grossly uneven resolution, which required decision makers to often apply significant weight to things they did not have much or any information on. Previously critical of environmental decision making, I have grown more sympathetic to those who have the often difficult task as environmental decision makers. As I care about humanity (see Erickson, 2008), and believe the health of our life support system

is the greatest threat, I find situations where we intend to do good for the environment, but lose much of the potential benefit due to inefficiency, especially frustrating. I consider that there is much work for the environmental philosopher who wishes to conceptually analyze environmental decision making.

CHAPTER 1: Introduction – Pragmatic Questions and Contribution, Ideal Types, and the ‘Environmental High ground’

In this chapter, I discuss environmental pragmatism and some of its approach to philosophical inquiry. From this, I discuss how ideal types can be effectively used in environmental pragmatism. I then discuss a couple of ideal types that – through experience – I have found useful. I suggest that a concept relationally similar to these ideal types can be created and refined to improve some types of environmental decision making. Finally, I present the aims and outline of the thesis.

To understand my thesis, it is best if I begin by writing about the sub-field in which I would like to make a contribution to knowledge. I see this thesis as being firmly planted within environmental pragmatism. It is not normative, but it does build tools for disciplined normative thinking.

1.1 Environmental Pragmatism: Purpose and Ideals

To understand why I would like to make a contribution to environmental pragmatism, it is important first to understand the purpose and ideals of the sub-field. Andrew Light and Eric Katz (1996: 1) write that:

‘As environmental ethics approaches its third decade it is faced with a curious problem. On one hand, the discipline has made significant progress in the analysis of the moral relationship between humanity and the non-human natural world. The field has produced a wide variety of positions and theories in an

attempt to derive morally justifiable and adequate environmental policies. On the other hand, it is difficult to see what practical effect the field of environmental ethics has had on the formation of environmental policy. The intramural debates of environmental philosophers, although interesting, provocative and complex, seem to have no real impact on the deliberations of environmental scientists, activists and policy-makers.’

Others have expressed similar frustration (Varner et al., 1996: 266-268, Callicott, 2005: 194). Examples of this frustration are found widely in varying degrees (e.g. Passmore, 1974, Norton, 1991, Thompson, 1995b: 10-12 & 143, Light, 1996: 170, Norton, 1996, Thompson, 1996: 206, Robert, 2000, Norton, 2005: 180-181). Though, some have disagreed arguing that environmental ethics has had a greater effect on environmental policy than pragmatist environmental philosophers have given credit (e.g. Callicott, 2005). Both Light and Katz (1996: 1) argue that there is an additional role for environmental ethicists:

‘Despite the problematic (and, heretofore, ineffectual) status of environmental ethics as a practical discipline, the field has much to offer. But the fruits of this philosophical enterprise must be directed towards the practical resolution of environmental problems...’

Bryan Norton (1996: 107) discusses these different roles for environmental ethicists ‘by drawing a distinction between “applied” and “practical” philosophy...in the process of developing and implementing environmental policy’. I find this distinction useful for describing the type of contribution I would like to make within environmental philosophy.

Firstly, Norton (1996: 107) discusses ‘applied’ philosophy.

‘Applied philosophy refers to the application of general philosophical principles in adjudications among policy goals and options. Applied philosophy’s method is usually to develop very general and abstract principles and then to illustrate their use by discussing a few, carefully circumscribed hypothetical cases. This conception of the role of environmental ethicists has encouraged the confinement of philosophers, in their day-to-day work, within their traditional academic roles of teaching and writing. The actual applications of these principles is usually left to others such as environmental managers or environmental groups.’

Secondly, Norton (1996: 108) explains how he defines ‘practical’ philosophy.

‘Practical philosophy, as I am defining it here in contrast to applied philosophy, is more problem-oriented; its chief characteristic is an emphasis on theories as tools of the understanding, tools that are developed to resolve specific policy controversies. It shares with applied philosophy the goal of contributing to problem solution; but practical philosophy does not assume that useful theoretical principles will be developed and established independent of the policy process and then applied within that process. It works towards theoretical principles by struggling with real cases, appealing to less sweeping rules of thumb that can be argued to be appropriate in a particular context, rather than establishing a universal theory and “applying” it to real cases. Practice is prior to theory in the sense that principles are ultimately generated from practice, not vice versa.’

Applied and Practical environmental ethics have a distinct difference in approach. I see my contribution to knowledge coming purely from the practical side of environmental ethics (environmental pragmatism) – not the applied.

There are, further, two different types of environmental pragmatism first discussed by Light (1996) called ‘philosophical pragmatism’ and ‘metaphilosophical pragmatism’ (see Katz, 1999, Callanan, 2010). Katz (1999: 382-383) explains these terms:

In philosophical pragmatism one adopts the substantive content of pragmatic thought – such as value plurality, the pragmatic theory of truth, the validation of beliefs by community, the centrality of human experience – while in metaphilosophical pragmatism one adopts merely the pragmatic method.

Light (2004: 121) now calls ‘metaphilosophical pragmatism’ ‘methodological pragmatism’. This thesis will be methodologically pragmatic. However, philosophically pragmatic views (e.g. Hickman, 1996, Parker, 1996, Rosenthal and Buchholz, 1996, Santas, 1996, Robert, 2000, McDonald, 2002, Santas, 2003, Norton, 2005: 77, Stephens, 2009) and methodological pragmatic views (e.g. Light, 2004) have much more in common than what makes them distinct. I have made efforts to have my thesis have relevance with many of the philosophically pragmatic views, and hopefully well beyond.

In this section, I have emphasized the commitment to moving from practice to theory within environmental pragmatism. In the next section, I will discuss some of the important practical questions that I believe environmental pragmatists could meaningfully contribute to.

1.2 Some of the ‘Big’ Pragmatic Questions

Since I would like to make a contribution within environmental pragmatism, I will move from practice to theory. As such, there is no normative argument to be found.

Norton (1999b: 465) explains that:

‘The tradition of pragmatism...articulates a set of questions sufficiently comprehensive to encompass *both* the epistemological *and* the value questions that are essential for charting a course toward sustainable living, and for justifying environmentalists' goals to the broader population.’

Since I have chosen an environmentally pragmatic approach, I will justify my thesis in terms of its practicality or usefulness. The potential future of this sub-field is quite exciting (Norton, 1999b: 460). Given that the environment pragmatists’ approach brings us into new territory (Parker, 1996), coupled with the enormity of environmental issues that we face, and the surge in environmental concern, there are many important research questions to be answered.

1.2.1 Practical Questions in Environmental Ethics

There is no shortage of practical questions for the environmental philosopher. Many of the theoretical questions that were previously asked have several practical questions to go with them. For example, where we have previously discussed our duties in regard to future generations (see Norton, 1982, Parfit, 1984, Norton, 1989, Weiss, 1990, Beckerman, 1999, Norton, 1999a, 2001, O'Neill, 2002, Johnson, 2003, Vernon, 2009), we also have scores of practical questions such as: 1) ‘What will happen if we do not act as though we have duties to future generations?’; 2) ‘How could previous generations have provided us with a better environment?’; 3) ‘What is the best world we can hand to future generations?’. These questions might help us answer – respectively – 1) ‘What is the worst situation we could hand future generations?’; 2) ‘What can we learn from the cards we were dealt?’; 3) ‘Even if we did things perfectly for future generations, how much difference would it make?’; 4) ‘Is it all too late to save earth?’ (see Weston, 1999).

Where the theoretical questions had the practical problem of always being mired in deliberation over questions of ontology (see Norton, 1991, Light, 1996: 170, Norton, 1996, Thompson, 1996: 206, Varner et al., 1996: 266-268, Callicott, 2005: 194, Norton, 2005: 180-181), the practical questions within environmental pragmatism are not without similar sorts of problems. Many of the practical questions, such as the ones above, avoid issues of ontology, but are conceptual behemoths and empirical nightmares. We could just as easily find ourselves mired in speculation cured only by oversimplification. In a way, we cure problems of ontology and make some additional empirical problems. Nevertheless, cracking the seal on some of these questions philosophically – thereby giving them *some* grounding – opens them up to more empirical research – no less than empirical research creates philosophical questions. Regardless of what type of impact applied environmental ethics has, it seems to me that it is a valid contribution to knowledge to work *towards* answering some of these larger pragmatic questions.

Much of the work that has been done in environmental philosophy has been related to questions of theory rather than practice (Light and Katz, 1996). Just as philosophers may summarize the central question within moral philosophy as: ‘what sort of life should I strive to live? (Shaw, 1996: 497)’, we could also summarize the theoretical questions of environmental ethics. Cochrane (2007) summarized the general theoretical questions that have dominated environmental ethics as: ‘[W]hat duties do humans have with respect to the environment, and why?’. If we were to individualize this theoretical question, we might word it as ‘How should I act in regard to the environment?’ Like the theoretical question about what we owe future generations,

we have a slew of practical questions relating to these major theoretical questions. Some of the more general related questions are: 1) What is good for the environment?; 2) What is adequate for the environment?; 3) What is best for the environment?; and 4) What is worst for the environment?. These questions epitomize the sense in which I meant that practical questions can also leave us mired. However, we should not let the difficulty of answering these questions interfere with evaluating the usefulness of these questions. This is because the usefulness of answers to questions is independent of the ease with which we can meaningfully discover the answers. Because these questions are so difficult to address empirically, or even define, I believe environmental philosophers are well equipped for the task.

1.2.2 Good, Adequate, or Best for the Environment?

Ironically, answers to practical questions like those above have been used as though they carry some weight in theoretical arguments in environmental philosophy. Some have discussed whether religion has been ‘good or bad’ for the environment (e.g. White, 1967, Thomas, 1996, Massanari, 1998). We have discussed whether anthropocentrism is ‘adequate’ for the environment (see Murdy, 1975, Norton, 1984, Fox, 1995, Hayward, 1997, Davion, 2002, McShane, 2007, Erickson, 2008, McShane, 2008, Norton, 2008). We have argued about what ethic is ‘better’ and which is ‘worse’ for the environment (e.g. Fox, 1995, Rolston, 2009). All these discussions presume *some* knowledge of the answers to the related question(s) above, and seem to apply some weight to pragmatic arguments. At the very least, they seem to understand that others give weight to such pragmatic considerations. The utility of the answers to these questions to applied environmental philosophy is clear from the

examples given. However, I think this utility pales in comparison to the utility in environmental argument and environmental decision making. This is because – as I will attempt to show – environmental argument and environmental decision making utilize an understanding of what is good, bad, adequate, and best for the environment.

Many of the forms of sustainability imply at least some understanding of measurable aspects of the environment. Sustainability often implies that we know something about what is; 1) good for the environment; 2) adequate for the environment; and 3) best for the environment. For the decision maker that cares about the environment or sustainability, these would likely be important concepts for informing and judging decision making.

Though the answers to these questions are useful, they are probably not equally useful. Knowing what is good for the environment, though frequently used (e.g. Arrow et al., 1995, Martinez-Alier, 1995, Barrett and Graddy, 2000, Neumayer, 2003, Rangel, 2003, Winslow, 2005, Bloom et al., 2010), does not seem all that useful in decision making. Having knowledge of what is good or bad for the environment can often be impotent. If I know that my actions are good or bad for the environment, it does not tell me whether my actions are *good enough* for the cause or *bad enough* to matter. Knowing whether or not something is *good enough* – or ‘adequate’ – seems much more important (see Figure 1a).

This might make us hold knowledge of environmental adequacy as potentially more useful. Certainly, I believe ‘adequacy’ warrants being taken more seriously.

Some philosophers are concerned with developing an adequate environmental ethic (Katz, 2009: 443). Discussions on the adequacy of different environmental ethics are common in literature (e.g. Callicott, 1984, Norton, 1984, Rolston, 1988: xi, Callicott, 1989: 11, King, 1991, Johnson, 1993: 231, Katz, 1996: 313, Light and Katz, 1996, Keulartz, 1998, Massanari, 1998, Sandler, 2004, Law Reform Commission of Canada, 2009: 81, Warren, 2009: 109-110, Taylor, 2011: 53 & 65). Even more abundant is the use of ‘adequate environmental policy’ (e.g. Ciriacy-Wantrup, 1971, Galceran et al., 1993, Lioubimtseva and Defourny, 1999: 63, Lewis, 2000, Janet, 2001: 124, Taplin, 2004, Björnberg, 2007, Csathó et al., 2007: 39). Given the wide use of ‘environmentally adequate’, a greater philosophical understanding of the concept seems useful. Though it would be useful, I think there are *prima facie* reasons why this adequacy would not be as conceptually useful as we might think.

Adequacy is useful in many situations – far more than ‘good’ or ‘best’. For example, imagine I was blindfolded at the edge of a small stream and told I have to cross the stream. If my goal were to cross this stream without getting wet, what would I most like to know? Would it be: 1) What a good jump is?; 2) What my best jump is?; and 3) What an adequate jump is? A good jump might not be good enough, and may leave me with wet boots. My best jump might be excessive or unnecessary. An adequate jump is, well, just right. In this regard, adequacy seems most appropriate. However, I believe adequacy is inappropriate when a series of decisions are made based only on the knowledge of whether something is adequate. If I am only informed of whether my decision is adequate for the environment or not, and this is a useful distinction, it must mean that I decide based on this information. Cliffs are

often used analogously in environmental decision making. If I am blindfolded near the edge of a cliff and I am only informed as to whether the next step I wish to take is *adequately* safe, I will only be informed when my very next step is perilously unsafe. I will only be informed how to avoid the cliff at the last minute. If I make choices only based on this, it is tantamount to a measured procrastination (see Figure 1b).

My intent in this section is not to convince anyone of why looking at what is best for the environment is best and – strictly speaking – I do not need to. My intent is to show why *I* was convinced that looking at what is best for the environment is important pragmatically and – eventually – show that there is good reason to believe it *is* important pragmatically. Thus far, I have given some general reasons why I looked away from other big pragmatic questions. Now I would like to look at why I think what is best for the environment is an important question pragmatically. This reasoning is predominantly centred on the concept of efficiency. I will explain that I believe efficiency in decision making towards what is best for the environment is important.

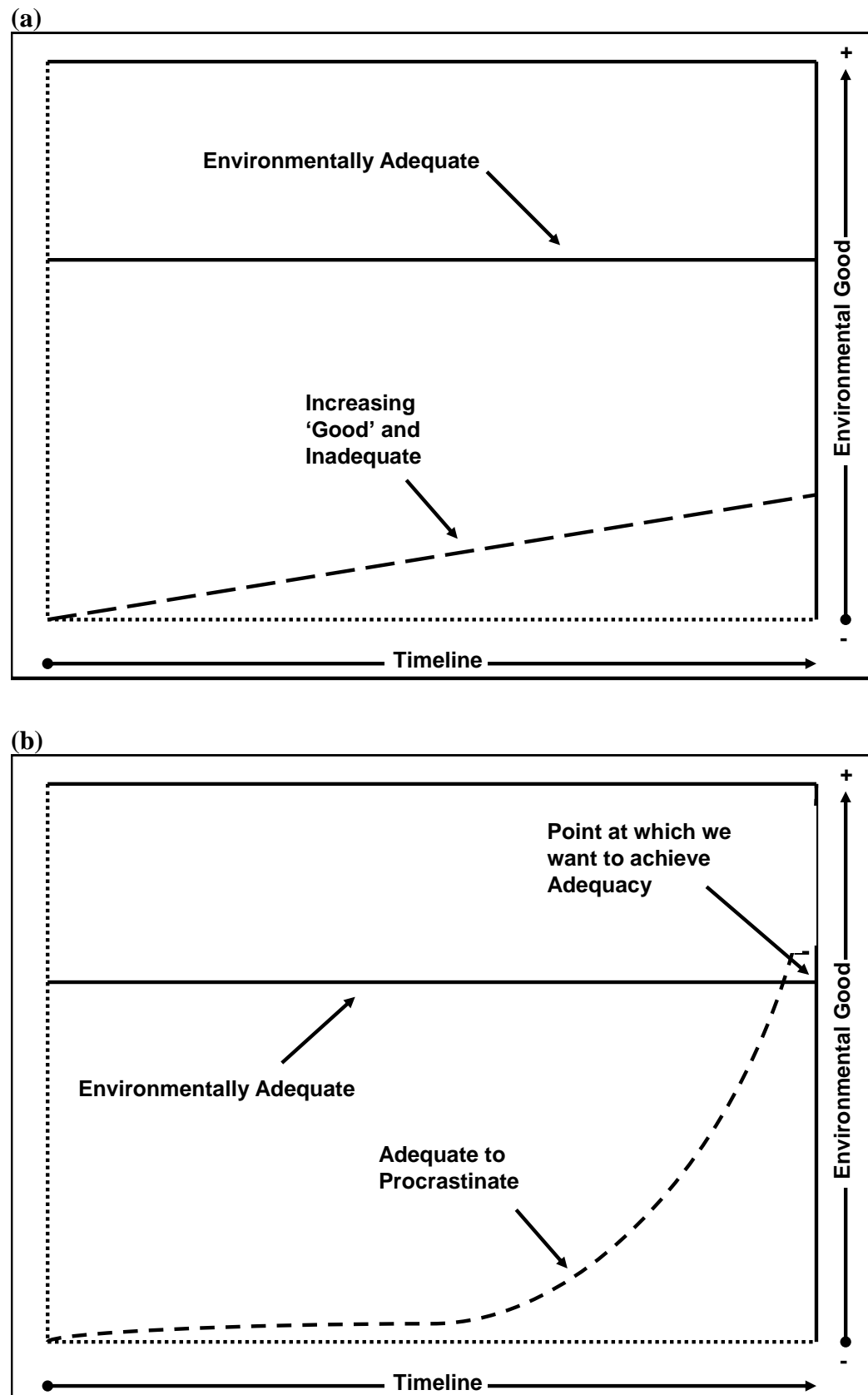


Figure 1: A summary of limitations of environmental good and adequacy (a) adequacy of environmental good (b) adequacy and procrastination

1.3 Efficiency is Important

Steve Matthews (2002: 4) says:

‘Any serious environmental ethic must supply a means of comparison, even if only rough, for cases where there are competing interests between individuals or groups of individuals’.

This, so-called ‘means of comparison’, is also important in environmental pragmatism. A means of comparison could be a type of measurement of environmental efficiency. Some may be quick to agree that efficiency is important, but it is critical to understand what type of efficiency that is important.

1.3.1 Type of Efficiency that is Important

While frustrating, inefficiency is common. It is common to fall short or miss the target altogether. For example, consider the claim that environmental education has failed to produce responsible citizens, reported in Nijhuis (2011). We might say that the failure of environmental education was a failure in execution. Failures in execution are unfortunate, but they are not always preventable. However, sometimes we fail not because of some unfortunate circumstance where our plans go wrong, but because we aim at the wrong thing. This is not to say that we want something different than we should. It means that we make a logical error in what we are aiming at. Sometimes we fail or fall below our potential because of inefficiency in our intentions. The type of efficiency that is important here is efficiency in what we aim at – efficiency in our decision making. I have communicated that the type of efficiency that I think is important is efficiency in decision making. However, it is

important to explain the measure of this efficiency in decision making that I am concerned with.

Paul Hawken (in van Gelder, 1995) states that:

‘We assume that everything's becoming more efficient, and in an immediate sense that's true; our lives are better in many ways. But that improvement has been gained through a massively inefficient use of natural resources. That inefficiency is masked because growth and progress are measured in money, and money does not give us information about ecological systems, it only gives information about financial systems.’

Hawken and I share a common distaste for inefficiency and a belief that inefficiency is somewhat linked to the lack of a fair stick by which we can measure the health of our environment. While I think Hawken significantly understates what money can tell us about ecological systems, I do agree that money is not a good measure of efficient use of natural resources. There are many ways in which efficiency can be measured in regard to the environment. Just as money is not a good measure of the efficient use of natural resources, the efficiency with which we use of our resources is not a good measure of overall environmental quality. After all, theoretically, we could use natural resources until they are gone – with perfect efficiency. If we were to know what is best for the environment – unlike knowing what is good or adequate – we have the potential to know how efficient we are in relation to that standard. We can know how far off target we are aiming or how off target we have hit with this information. Efficient, effective, and timely decision making are important in decision making (e.g. Conservation Foundation in Irwin, 1992: 26-27). In the next subsection, I will argue why this sense of efficiency is broadly important.

1.3.2 Why This Type is Important

One might argue that this sense of efficiency – a sense that measures in terms of what is best for the environment – is only useful to those who most want what is best for the environment. They may argue it is only useful to ecocentrists. This is incorrect for two reasons. The first, as Janna Thompson (1995a: 31) states:

‘Environmental problems are bound up with other global problems. It seems unlikely that environmental problems can be solved without also doing something about the problem of world poverty and underdevelopment, for people who are caught up in the struggle for mere survival are not able to make sacrifices to save their environment.’

It is likely that by doing what is best for the environment, we will also have a positive effect on other global problems. This will often, but not always, be the case. The second is that greater knowledge of what is best for the environment is important independent of whether or not we believe we should do what is best for the environment. Having greater knowledge of this allows us to better evaluate a set of options in regard to the environment. For example, in most instances, I do not feel morally compelled to keep my gas tank full, however, knowing how full my gas tank is instrumentally useful to me. In the same way, we should not prejudge knowledge of what is best for the environment as being useful only to those who want most to do what is best for the environment.

Gaining greater efficiency is one of the most important aspects in a movement toward sustainability. When most people think of ‘efficiency’ and ‘the environment’ their first thoughts are of efficient technology such as light bulbs, small cars, and low flow

taps. Efficiency in environmental decision making is every bit as important as efficient technology. Examining environmental efficacy has been a task of environmental pragmatists (Sandler, 2007: 116-117), and it is not an uncharted path (e.g. Rothenberg, 1996, Wenz, 1999, Hirokawa, 2002, Callanan, 2010).

My argument in this section is that efficiency is important in environmental decision making. Further, I argue that efficiency in decision making that aims at what is best for the environment, at sometimes and in some situations is important. Of course, to show that this type of efficiency is important, I will need to argue ‘what is best for the environment’ is widely used in decision making. I will argue this in Chapter 2. Additionally, I will draw on and expand upon this concept of efficiency later in this chapter and in Chapter 2. In this next section, I will discuss a kind of philosophical method of inquiry that I believe is useful for improving the efficiency some in forms of environmental decision making.

1.4 Ideal Types as a Kind of Pragmatic Contribution

There are lots of different ways that environmental pragmatism can contribute. Environmental pragmatism is useful because it ‘has the potential to furnish a durable and useful set of intellectual tools for analyzing knotty environmental policy issues’ (Mintz, 2004: 25). Light (1996: 172) states that:

‘[Methodological] environmental pragmatists are not wedded to any particular theoretical framework from which to evaluate specific problems, but can choose the avenue which best protects the long-term health and stability of the environment, regardless of its theoretical origin’.

‘Environmental pragmatism is about finding those philosophies which work in practice at clarifying and solving environmental problems’ (Rothenberg, 1996: 251). Furthermore, environmental pragmatism is open to theoretical experimentation (Wallington, 2002, Mintz, 2004, Norton, 2005). Mintz (2004: 21) states that ‘pragmatism places a high value on experimentation and innovative problem solving’.

E. Scott Geller (1995: 186) says ‘[u]sually, interdisciplinary collaboration is needed to define and prioritize behaviors detrimental and beneficial to the environment’.

Philosophy has long undertaken the task of prioritizing behaviors detrimental and beneficial to certain aims. One such method of doing this is creating an ideal-type or a typology. While many – as I will show – have used ideal types pragmatically, Max Weber (1949: 90) originated the term:

‘The conceptual pattern brings together certain relationships and events of historical life into a complex, which is conceived as an internally consistent system. Substantively, this construct in itself is a like a utopia which has been arrived at by the analytical accentuation of certain elements of reality. Its relationship to the empirical data consists solely in the fact that where...relationships of the type referred to by the abstract construct are discovered or suspected to exist in reality to some extent, we can make the characteristic features of this relationship pragmatically clear and understandable by reference to an ideal-type. This procedure can be indispensable for heuristic as well as expository purposes. The ideal typical concept will help to develop our skill in imputation in research: it is no “hypothesis” but it offers guidance to the construction of hypotheses. It is not a description of reality but it aims to give unambiguous means of expression to such a description.’

‘An ideal type is formed by the one-sided accentuation of one or more points of view and by the synthesis of a great many diffuse, discrete, more or less present and occasionally absent concrete individual phenomena, which are arranged according to those one-sidedly emphasized viewpoints into

a unified analytical construct (Gedankenbild). In its conceptual purity, this mental construct (Gedankenbild) cannot be found empirically anywhere in reality. It is utopia.’

It is important to translate this into a few simple examples to illustrate a couple of points. For example, we could wish to undertake the task of prioritizing behaviors detrimental and beneficial to accumulating as much money as possible. We might create the concept of a ‘perfect miser’ to do this. We might define a perfect miser as one who wants foremost to accumulate money. By creating the concept of a perfect miser, we might use it to identify more accurately the behaviors detrimental and beneficial to accumulating as much money as possible. The usefulness of such a concept is not in any way linked to the actual existence of perfect misers, or to the desire to be a miser. Perhaps we wish to identify misers or degrees of ‘miserness’. Perhaps we are a charitable organization that wants to adopt temporarily a practice of maximizing our money so that we may ride out a financial storm, so we can exist to be charitable again. The concept of the perfect miser is not likely one of the more useful ideal types. However, it is a good illustrative example because it shows that usefulness of the concept is independent of whether or not we wish to be a miser.

For another example, it is worthwhile to discuss ideal types in manufacturing. We might say that world competition grade billiard makers have a quest to make the perfect billiard ball. They have, as an ideal, a theoretical billiard ball with a perfect weight, perfect roundness, perfect color, and perfect finish. However, they know because of the materials and processes available for manufacturing billiard balls, that it is strictly impossible to create this perfect billiard ball. Despite the perfect billiard ball being an impossible standard, it is useful as an aiming point for those who wish to make as perfect a billiard ball as possible. It seems likely that it might be a useful

concept even to those who do not wish to try to make the best billiard ball possible. It could be a good aiming point for someone who wishes to make as perfect a billiard ball as possible for fewer than ten dollars a ball. A unit cost limit could impose a major compromise in the quality of the ball, yet a notion of efficiency can be derived. It is efficient in creating the best ball possible within the necessarily limits. Again, this example is probably not one of the more useful ideal types. However, it does demonstrate that usefulness of the concept is independent of whether the ideal is achievable or whether one wishes to attempt to achieve it. It also illustrates that a notion of efficiency can be derived from an ideal type.

A good example of the philosophical task of prioritizing behaviors detrimental and beneficial to certain causes is Plato's quest for describing the 'perfect ruler' (see for discussions on the Platonic 'perfect ruler' Drengson, 1983, Syse, 2002). Plato (in Waterfield, 1993: 116 (412 d-e)) states that:

'It follows that we should select from among the guardians men who particularly strike us, on investigation, as being the type to devote their whole lives to wholeheartedly doing what they regard as advantageous to the community, and to completely refusing to do anything they regard as disadvantageous to it.'

Plato was not the only one who found it useful to describe the perfect ruler.

Confucius and Al-Farabi also discuss each of their own conceptions of a 'perfect ruler' (see Walzer, 1963, Quiyum and Salimullah, 2005). Plato identifies some of the character traits that a perfect ruler would have – implying that selecting those with these ideal perfect ruler traits will lead to perfect, or more perfect, rulers. This philosophical ideal could possibly inform decision making.

Derek Parfit (1984) in his book *Reasons and Persons* also uses ideal types. Parfit uses ideal types of rational egoism and utilitarianism to highlight what he sees as indirectly self-defeating aspects of these theories. Parfit (1984: 3-24 & 30) discusses individuals who – quite fictionally – ‘always’ do what is best for themselves or are ‘pure-do-gooders’, all for pragmatic purposes. He uses it to illustrate aspects of the theories of rational egoism and utilitarianism, respectively. What results is – arguably – a better understanding of both theories via a pragmatic use of ideal types. I will utilize some of his arguments as a platform for refining some of my theories in Chapters 4-5.

My argument in this section is that ideal types have been used pragmatically as a philosophical method of inquiry. Further, there is reason to believe that this type of use is in harmony with the goals of environmental pragmatism. I will use and refine an ideal type in this thesis.

There are a couple more philosophical ideal types that are crucial to mention that strongly influenced the ideal type I use in this thesis. In this next section, I will discuss two ideal types that I used to inform my decision making while in Afghanistan.

1.5 Military Ideal Types: Concepts of ‘High ground’

My choice of this type of pragmatic contribution is unabashedly heuristic in nature. This method was very useful to me in military decision making and I believe it would

also be a useful contribution to environmental decision making. The role that I had in Afghanistan is known for its decision making complexity (see Strater et al., 2001).

Strater et al. (2001: vii) explain:

‘Infantry platoon leaders operate in a complex environment requiring that they attend to multiple information sources, prioritize among competing and sometimes conflicting goals, and make rapid decisions, all under highly stressful conditions where the loss of life, either their own or others', is a constant threat.’

The first of these ideal types is the concept of the ‘moral high ground’. The moral high ground is a term that is analogously derived from the concept of the ‘military high ground’ (Conflict Research Consortium, 1998). Both concepts can be used to aid decision making and both happen to be the decision making tools that I used more than any others while in Afghanistan.

The 'high ground' refers to the archaic tactic of occupying the topographical crest of a hill for military advantage. However, since the birth of accurate indirect fire (i.e. typically mortars and artillery), the topographical high ground has been a tactical vulnerability because it is easy to pinpoint a location at the peak of the hill (Miles, 1991: 7-8). For modern and conventional warfare, the concept of the ‘military crest’ of a hill has been adopted. This is a position on a hill that is not at the apex so it cannot be pinpointed, but is far enough up the hill to maintain some of the height advantage (see Miles, 1991: 7-8, Nalty, 2002: 4). Even more broadly – and especially within unconventional warfare – the 'tactical high ground' is used, and it is harder to define. It could be the geographical high ground or may be the low ground. It may be a position where we do not have a good view of the surrounding area, and it may even

make us look vulnerable. Finding the tactical high ground involves finding the place that offers us a tactical advantage at a given time and place. Especially in unconventional warfare, we do not fixate on the tactical high ground alone. Most of the time, the point of greatest tactical advantage is the base or outpost. If we fixate on maintaining the tactical advantage for ourselves alone, we would likely never leave the base. There are many reasons for leaving tactical high ground, or in other words, making ourselves less secure. One of the most common implied reasons is moral. If we were to never leave a 200 square meter outpost, our ability to make a difference would be very limited. Assisting the locals by delivering aid, securing a road way or area of commerce, destroying illegal weapons, or catching the ‘bad guys’ are all next to impossible without leaving the base. There is a saying in the combat zone that if you are not going ‘outside the wire’ to do good things, then you may as well be “‘back on the block” playing basketball’. The implication is that the risk and sacrifice that we are all making merely by being overseas and occupying the tactical high ground is not worthwhile if we do not go a step further to do some good. There is inherent risk involved in even occupying the tactical high ground at the base, and if you are unable to do some good from the tactical high ground you cannot justify even that risk. The justification for making ourselves less secure by leaving the base is the morally higher ground. Paul Bloomfield (2003: 511-512) discussing the ‘moral high ground’ says that:

‘We may engage in what might be called the “theoretical topology” of normative ethical positions or theories. The question that arises is whether or not the metaphysical underpinnings of morality, at bottom, place all moral positions (or theories) on a “flat two dimensional map” (a level playing field) or if, in fact, the map of moral positions is considered “three dimensional” by which we may understand that some moral positions have the “high ground” over others. Thus, we might stand off

from an engaged normative dispute and ask, from a God's-eye point of view, whether the positions of the disputants vary in terms of their correctness or objectivity, as measured by the "height" of the ground (position) they occupy or if, at bottom, no side has this sort of correctness or objectivity on its side and everyone is on a "level playing field."

Despite our tactical job as leaders in the military, the strongest appeal we can make in decision making is an appeal to the moral high ground – not to the tactical high ground. There is probably only one thing in this discussion scarier than a group of heavily armed men declaring what the moral high ground is, and that is a group of heavily armed men declaring some form of moral relativism. For Bloomfield, moral relativism is the only alternative to a belief in the moral high ground. Bloomfield (2003: 511) says that '[u]ndoubtedly, there will not be a single sense of the phrase upon which all completely agree, but the concept of one party's having "the moral high ground" in a dispute is indisputably a part of commonsense moral discourse and thought'. Further, Bloomfield (2003: 511) argues 'that the denial of a belief in moral high ground is a particularly undesirable form of moral relativism' that he calls 'metaethical relativism'. Regardless of what anyone thinks about the practical ability for soldiers to make major ethical decisions in war, soldiers in war making decisions based on the moral high ground is probably better than soldiers in war making decisions based on something else. Bloomfield (2003: 525-526) states that:

'Independent of what the metaphysical truth is about the ontological status of moral properties and from a purely pragmatic basis, if we commit ourselves to the existence of moral high-ground, we will then be more likely to think about morality as clearly and objectively as possible and be more conscious of our all-too-human ability to be wrong.'

It could be said that we depart from the tactical high ground (the base) to occupy morally higher ground. We used the term "moral high ground" mostly when it came to justifying a decision, but it was also implied in decision making.

The normative aspects are not important for my example. What is important is the relationship between different concepts of high ground. The concept of tactical high ground is useful despite it being – quite literally – morally inferior to the moral high ground. To illustrate how both concepts are useful despite one being inferior, I will use an example. Someone might question a decision I made. They might ask: ‘why did you enter a dangerous village immediately after a road side bomb went off, when your mission was something else; why did you make a tactical blunder?’. Their error – and I exaggerate their ignorance and arrogance for illustrative purposes – was looking at the decision as a tactical one and not also as a moral one. I could effectively justify my decision morally. I brought us into the village to get the wounded out and establish security. The vulnerability I subjected my men to was for moral reasons. The argument for why something was a mistake in purely tactical terms is virtually always defeated if there is a valid moral argument for the decision. Even though I was primarily a tactician, it was really efficiency within moral decision making primarily and tactical efficiency secondarily. This was the ideal anyway.

1.6 Military and Environmental Decision Making and the ‘High ground’

Military decision making is heavily studied (e.g. Loberg et al., 1986, Klein, 1989, Lipshitz, 1989, Roberts et al., 1994, Scott and Bruce, 1995, Zaccaro et al., 1995,

Endsley and Smith, 1996, Kaempf et al., 1996, Ahituv et al., 1998, Larsen, 2001, Pech and Durden, 2003). Even the Infantry Platoon Leader position, which I held in Afghanistan, has been frequently studied (e.g. Strater et al., 2001, Strater and Bolstad, 2009, Jones et al., 2011, Kennedy et al., 2011). Military decision making is often applied to civilian decision making (e.g. Wellens, 1993, Pech and Durden, 2003). I think the experiences I had in Afghanistan have something to offer decision making outside the military. In particular, I feel it has a lot to offer environmental decision making. While I am not precisely certain of all the reasons why I have this intuition, it is something that I have come to trust. Regardless, there are certain reasons to think it would be. In both military and environmental decision making: 1) a large number of issues in factors have to be considered simultaneously, within a broad context; 2) requires frequent situation reassessment, together with the consideration of optional strategies, all to achieve multiple, and often conflicting goals; and 3) a combination of practical decisions, as well as social (moral) judgments are necessary.

If we believe in a universal moral ‘ought’, and thus a moral high ground, it does not necessarily eliminate the usefulness of other concepts of ‘high ground’, such as tactical high ground. It could easily be argued that knowing what decisions would be most efficient economically speaking would be useful even in a war where morality and tactics should carry so much weight. We might call this the ‘economic high ground’. It should not surprise us that other ‘high ground’ concepts may have use in practice outside of military decision making. If it were useful, we might create all sorts of different conceptual high grounds. One that I think is worth explicating and developing is one that is based on ‘what is best for the environment’ – call it the ‘environmental high ground’.

1.7 Environmental High ground

1.7.1 The Concept

The phrase ‘environmental high ground’ has been used before in this sense (e.g. Pearce et al., 1992: 297, Raustiala, 1997: 505, Schroeder, 1998: 53, Seelye, 2003, Train, 2003: 79, Jehlička and Cowell, 2004: 102, Lohmann, 2005: 38, Kerr, 2009: 24, Warren and Birnie, 2009, Dorsi, 2010: 600, Howarth and Foxall, 2010: 172, Kerr, 2011: 1) though without much explanation or expansion beyond the analogous use of ‘high ground’. Thor Kerr is the only one who I have read that attempts to explain the concept. Kerr (2009: 24) calls the environmental high ground an ‘ecological modernist language stratum’. Sometimes the ‘environmental high ground’ is discussed as a moral position (e.g. Flavin, 1995, Nollkaemper, 1996: 244), but mostly it is discussed as a strategic position in conflict (e.g. Flavin, 1995: xiv, Lohmann, 2005: 38) and in politics (e.g. Cannon and Riehl, 2004: 251). The environmental high ground, for me, has little to do with the *moral* high ground. To borrow some of Bloomfield’s words, modified for my purposes: ‘from a purely pragmatic basis, if we commit ourselves to the existence of the’ *environmental* ‘high ground, we will then be more likely to think about’ *what is best for the environment* ‘as clearly and objectively as possible and be more conscious of our all-too-human ability to be wrong’.

Efficiency in intentionality can also be pragmatic, and this is exclusively how I mean it. I start from the idea that it would be pragmatic to know ‘what is best for the environment’. I will argue (mainly in Chapter 2) that for various aspects of environmental decision making this would be true. This ideal is what I consider the

'environmental high ground'. Someone who always 'wants what is best for the environment, one who always occupies the environmental high ground, I will call a 'pure environmentalist'. I will describe the 'pure environmentalist' concept more in Chapter 3 and beyond. Throughout this thesis I will refer to the Working Principle of the Pure Environmentalist and refine it. In refining this principle, I will be refining our understanding of the environmental high ground. The Working Principle is:

'I want what is best for the environment'

The analogous 'view' from the environmental high ground – in other words the point of view of the pure environmentalist – I will call the 'environmental perspective' (I will discuss this further in Chapter 2).

In this subsection, I have introduced the environmental high ground, associated concepts, and the Working Principle. In a way, the task I have given myself of refining the environmental high ground is not completely distinct from describing the environmental high ground. In this next subsection, I introduce how and why I will refine the concept.

1.7.2 The Task of Refining the Concept

I am most interested in analyzing the concept of 'what is best for the environment'. In particular, I am interested in efficiency in decision making where the concept of 'what is best for the environment' informs decision making. Throughout this thesis, I attempt to add rigor to the term 'environmental high ground' for its use in strategy – but especially decision making.

Norton (1999b: 455) states that ‘environmental philosophers can provide an essential ingredient in objectively supportable environmental policies’. The major contribution in my thesis is the refining of the concept ‘what is best for the environment’ and giving *some* understanding of the environmental high ground and related concepts. The environmental high ground exists because ‘what is best for the environment’ has weight with society. There are a lot of differing values behind this practical usage of ‘what is best for the environment’, but whatever these different values are do not matter in this thesis. What is important is that the phrase – I will argue – is a rallying point for so many at certain times and situations. It is the rallying point – not the values behind the rallying point – that makes it powerful in practice. We know that generally some positions are defeated with economic appeals, others morally (socially), and some environmentally. Environmental values have broad support within our society (Farber, 1999: 3). We often depart from the economic high ground to reach environmentally higher ground. Some would probably argue that we depart from the moral high ground to reach environmentally higher ground (e.g. Berliner, 2009). There are often conflicting goals (see Campbell, 1996, Thacher and Rein, 2004).

As I previously stated, the environmental high ground is very different from the moral high ground. The environmental high ground is much more similar to the tactical high ground. Like the tactical high ground, it is different things in different situations, and there is consistency in intentionality in the ideal. Like the tactical high ground, it is also hard to describe, and we can never know exactly what the environmental high ground is even if we manage to occupy it – it is a conceptual ideal. It is the belief that

there is a position that we can take that is really difficult to criticize on environmental grounds.

I start from the idea that wanting what is best for the environment is taking the environmental high ground. It seems difficult to claim that someone who always wants what is best for the environment is not taking the environmental high ground. I believe it would be useful to have a conceptually pure, one-sided accentuation of an environmental viewpoint for informing environmental decision making. What I am trying to do in this thesis is add greater resolution to the environmental high ground concept. I believe that I can give enough resolution to what the environmental high ground is that it can be useful as a conceptual tool – mainly in the sub-fields of environmental pragmatism/philosophy, environmental decision making, and environmental argument. It could be a partial solution for the problem of inefficiency in environmental decision making where – at least in some times and in some situations – wanting what is best for the environment is the goal. I will demonstrate its usefulness in clarifying complex, theoretical – but practical – decision making scenarios. Some of these will reflect back to help me add more resolution to the environmental high ground. Moreover, those who hold pragmatic environmental beliefs could use this to reflect on their own positions. I wish to emphasize that I feel no need to limit what I mean by decision making. I believe, theoretically speaking, that enhanced understanding of the environmental high ground *could* impact all types of decision making relevant to the environment – from international policy to a rural Minnesotan's choice what to eat for dinner. Practically speaking, having an impact would at least require being informed and comprehending the clarifications in complex decision making scenarios. Because of this, I would expect that it *would* be used more often formally.

In this section, I have introduced the concept of the environmental high ground, associated concepts, and the task of refining our understanding of it. With this a background, I can sufficiently describe my thesis aims and outline in the next section.

1.8 Aims and Outline

As stated before, since I wish to contribute in the sub-field of environmental pragmatism, I will move from practice to theory. My targeted audience is environmental pragmatists. My intent is to make a contribution that moves towards assisting environmental decision makers. The element of practice that I wish to have an impact on is the understanding of ‘what is best for the environment’ as it is used in informing decision making. My hope is that the conclusions from my thesis could be linked by environmental practitioners to rich case studies from practice to show the benefit of a clearer understanding of what is best for the environment.

My Thesis Aims are as follows:

Thesis Aim (1) ‘Wanting what is best for the environment’ ‘is’ an important goal of environmental practice. I will establish this to show that there will be practical value in my thesis. To establish this aim I will argue that ‘what is best for the environment’ is widely used in environmental decision making by a literature-review. Chapter 2 is devoted to this aim.

Thesis Aim (2) Enhance our understanding of the environmental high ground.

I will do this by refining the environmental high ground. Chapters 1 & 3 are primarily devoted to this aim.

Thesis Aim (3) The refined environmental high ground is – at least in certain times and situations – useful as a lens to view and/or inform environmental decision making. There could be an empirical and theoretical sense of verifiability of this aim. Empirically, I would be required to verify that my refinements to the environmental high ground are useful – perhaps through some form of action research. This is not what I wish to do. What I wish to do is verify the environmental high ground is useful in a theoretical sense.

In a strict sense, it is impossible for me to show that the environmental high ground is useful. However, it is possible to establish that it could be used, and that – if used – it could more meaningfully inform decision making. I hope to do this primarily by the refinements themselves. The refinements should show some of their potential promise innately. Additionally, Chapter 3 is primarily devoted to this aim with clarifications in 4 & 5. To support this aim, I have applied the refined concept of the environmental high ground in several ways: 1) discuss several general decision-making scenarios; 2) create some tenets of the environmental high ground; and 3) comment on some active discussions. Chapters 4 & 5 are devoted to this aim. Chapter 3 is secondarily concerned with this. I plan meet my Thesis Aim 3 by conveying that the refinements to environmental high ground could enhance its use in informing decision making – at least sometimes and in some situations.

After discussing the primary concepts of the environmental high ground in detail, and relevance to decision making processes, in Chapters 2-5, a final synthesis relating concepts and potential use in decision making with broader implications is provided in Chapter 6. It is emphasized that the obvious increasing scale of many environmental issues (e.g. climate change, biodiversity loss) heightens the importance of any contribution to refine or improve environmental decision making processes. I have discussed environmental pragmatism and some of the basic questions and concepts in this chapter. I have highlighted the legitimacy of environmental pragmatism, and I have discussed the usefulness of ideal types in examining different philosophical positions. In the next chapter, I will argue that wanting to do, know, or consider 'what is best for the environment' is a widely used concept in informing decision making. Doing this shows that the examination that I do in Chapters 2-5 could have practical relevance. In addition to gaining practical relevance from showing the use of 'what is best for the environment', my thesis also gains some practical relevance from military decision making as discussed in this chapter. The related concepts of 'high ground' and their practical use in decision making have shaped my 'environmental high ground'. It should not surprise us that concepts already used in practice might have practical relevance in other areas when adapted.

CHAPTER 2: ‘Wanting what is Best for the Environment’ in Practice

2.1 Goals and Defining Terms

My first goal for this chapter is to talk about the two parts of ‘wanting what is best for the environment’. The reason for discussing these two parts is that I will only substantially contribute to answering one of them. This will add more precision to my thesis aims, and how I wish to contribute to the understanding of ‘wanting what is best for the environment’. My second goal is to show that ‘what is best for the environment’ is a concept used in practice. If I show this, it will establish that my refinements to the environmental high ground could have practical implications. My third goal is to demonstrate how ‘what is best for the environment’ is used in a variety of ways, and by those with differing goals – aside from wanting what is best for the environment. This is important to show is because it will demonstrate that greater understanding of ‘wanting what is best for the environment’ is useful even to those who only ‘want what is best for the environment’ sometimes or in some situations.

2.1.1 The Two Parts of ‘Wanting what is Best for the Environment’

There are two parts to wanting what is best for the environment: 1) ‘wanting’ what is best for the environment; and 2) knowing what ‘is’ best for the environment. These are two different things because it is possible to ‘want what is best for the environment’ without knowing much about what – in fact – ‘is’ best for the environment. Likewise, we could theoretically ‘know what is best for the

environment’ without wanting it. These two parts are what inform our understanding of the environmental high ground as situated in practice.

Later in this chapter, I will discuss those who want what is best for the environment at least sometimes and in some situations. I am interested in assisting these people in thinking clearly about what is best for the environment. I am interested in assisting them with a greater understanding of the first part – what it means to ‘want’ what is best. Among these people, there would be a wide variety of views about what the ‘environment’ is – including those that would argue ‘the environment’ is not something separate from us (e.g. Parker, 1996, Santas, 1996, 2003). Furthermore, there would be a wide variety of views about what ‘is’ best for that environment. I will leave the second part – what ‘is’ best – as open as possible as to assist the widest possible variety of those who ‘want’ what is best. Dealing with ‘wanting’ and without deeply examining ‘knowing’ is common in philosophy. For example, both Parfit (1984: 3-4) and Shaver (1999: 4) do this when discussing rational egoism. They both discuss what a rational egoist wants in great detail, but deliberately say very little about what results the rational egoist would pursue (i.e. Hedonistic Theory, Desire-Fulfillment Theory, or Objective List Theory).

I have stated that there are two different parts of ‘wanting what is best for the environment’. It was important for me to qualify which one I was intending to enhance our understanding of. In this next subsection, I begin to introduce some of the evidence for ‘wanting what is best for the environment’ as a concept in environmental decision making. I believe there are many phrases that we use that are

an implicit appeal to what is best for the environment. The use of the phrase ‘environmental perspective’ and related phrases are one such appeal that I will discuss.

2.1.2 Environmental Perspective

We often hear people talk about a particular issue ‘from an environmental perspective...’. The very notion of an ‘environmental perspective’, that so many refer to (e.g. Van Horn et al., 1996, Nagel, 2000, Hunter and Rinner, 2004, Hirschier et al., 2005, Kleter et al., 2007, Mascarenhas and Jayakumar, 2008, Merroun and Selenska-Pobell, 2008, Arriaga et al., 2009, Moberg et al., 2010, Buckley, 2011, Steubing et al., 2012), seems to imply that there is some general objective environmental lens for looking at particular issues. When I say ‘objective’, I mean pragmatically objective and justifiable, not objective moral theory (see Norton, 1999b: 455-460). Other phrases similar to ‘environmental perspective’ are used, such as ‘point of view of the environment’ (e.g. Eglin, 1995: 777, Heller, 1997: 618, Backhaus, 1999: 131, Goodwin, 1999: 655, Bengtsson et al., 2000: 46, Heinonen et al., 2001: 331, Niva and Timonen, 2001: 331, Ulgiati and Brown, 2002: 345, Isin and Yildirim, 2007: 919, Martinez-Crego et al., 2010: 1013). In addition to the implicit reference to objectivity, it seems that these phrases are usually used in a way to ‘inform’ decision making rather than something that ‘is’ a type of decision making. In other words, looking at an issue from an environmental perspective seems to imply that it is a useful way to look at an issue, and worthwhile to take into account, but certainly not the only perspective to look at. For example, sustainable development should take into account what is best for the environment (Rodgers, 2009: 3), but – of course – it must also take into account economic and social perspectives. If this

environmental lens is intended to be objective and truthful, we might think that it is meant to highlight what a particular issue means in regard to the environment. In a way, the environmental perspective represents the ‘interests’ of the environment, in the similar way that a lawyer is supposed to represent an impaired adult or a small child. It seems to me that a defensible way of representing the ‘views’ of the environment is to represent ‘what is best for the environment’. Similar phrases are used in regard to the environment such as: 1) ‘speaking for the environment’ (e.g. Rydin and Greig, 1995: 274, Beyer, 2011); 2) ‘representing the environment’ (e.g. Birkin, 2001: 48-49, Gold and Revill, 2004, Lucas and Fuller, 2005, Videira et al., 2006: 26, Cilano and DeLoughrey, 2007: 79, Collins et al., 2007: 566, Desmond, 2007: 261, Bondy, 2008: 308, Potschin, 2009: 5171, Johns-Putra, 2010: 758); and 3) ‘on behalf of the environment’ (e.g. Jones and Dunlap, 1992: 44, Klinger, 1994, Allen and Ferrand, 1999, Yokohari et al., 2000: 168, Fryxell and Lo, 2003, Dunlap and York, 2008: 543, Feygina et al., 2010: 330, Pfeffer, 2010: 42, Goralnik and Nelson, 2011: 189, Liu and Sibley, 2012: 4).

Where taking the environmental perspective genuinely intends to represent a purely environmental viewpoint, greater understanding of what is best for the environment could be useful. We might be able to better represent the environment by acting ‘as if’ we wanted what was best for the environment (see Figure 2).

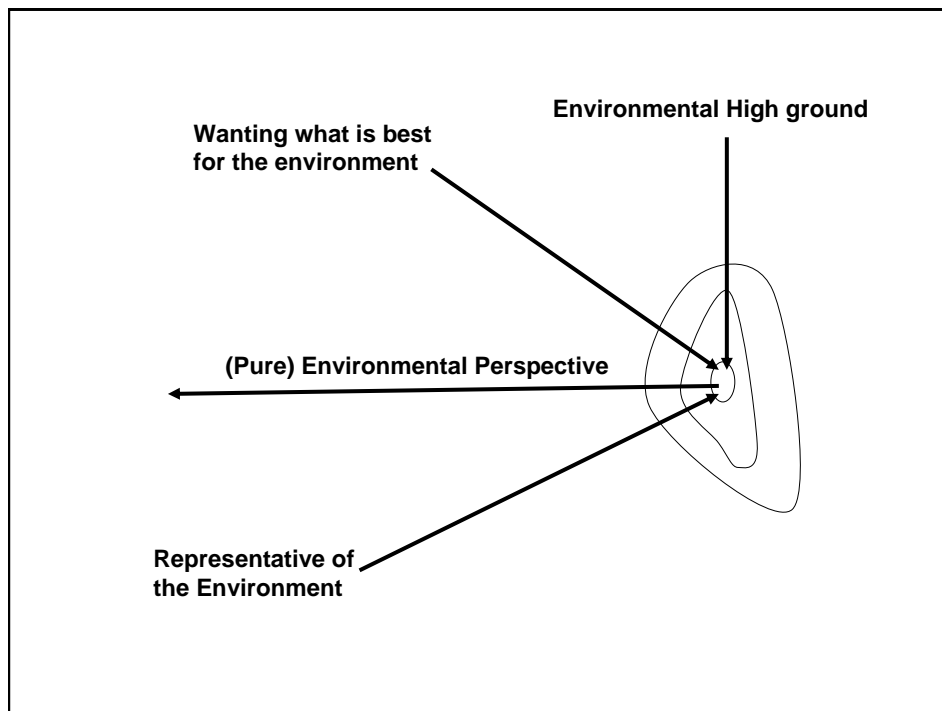


Figure 2: Evidence of the Environmental High ground

In this subsection, I discussed environmental perspective and some of the related phrases and argued that they are evidence of the conceptual importance of ‘what is best for the environment’. I believe this lends support to argument that ‘what is best for the environment’ is an important concept within environmental decision making. In this next section, I will discuss the direct use of the phrase ‘what is best for the environment’. I will argue that the wide use of the phrase provides more evidence of its importance.

2.2 Use of ‘What is best for the Environment’

It is important for me to show the wide usage of the phrase ‘what is best for the environment’. It shows, at least sometimes or in some situations, that it is an important goal for many people, or it is at least a widely considered perspective.

Additionally, I want to go further than to just show that it is widely used. I would like to convey that it is so widely used that it should give the impression that something ought to be done about enhancing our understanding of this phrase.

2.2.1 General Use

‘What is best for the environment’ is widely used within the literature. What is best for the environment is even used in discussions in environmental philosophy (e.g. Matthews, 2002: 200, Hale, 2008: 417, Johnson-Sheehan and Morgan, 2008: 15). Moral issues relate to what is best for the environment (Porton, 2005: 5). Julian Morris (in Stott, 1999: 5) argues that:

‘Through a process of experimentation – trial, error and emulation – people will come to learn how best to manage the land. The environment will then be managed in ways that are best for humanity as a whole, not according to the whims of a minority of ecoimperialists. Giving rights to people, not to the environment, is not only best for the people, but is also best for the environment.’

Furthermore, what is best for the environment at times seems as though it is an implicit goal within environmental pragmatism. Light (1996: 172) states that ‘environmental pragmatists are not wedded to any particular theoretical framework from which to evaluate specific problems, but can choose the avenue which best protects the long-term health and stability of the environment, regardless of its theoretical origin’. For Light, it seems as though the best measure of the pragmatic value of a theoretical framework is evaluating which ‘best protects the long-term health and stability of the environment’. Arguably, such a measure could be called ‘what is best for the environment’.

‘What is best for the environment’ is also heavily used in environmental discussions (e.g. Payne et al., 1990, Cairncross, 1992: 35, Gilpin, 1995, Roberts, 1996, Piskurek, 2000, Scrase and Sheate, 2002, Owen, 2004, Shellenberger and Nordhaus, 2005, Trevors and Saier, 2006: 2, Douglas, 2008). More generally, people are sometimes encouraged to do what is best for the environment (e.g. Keirstead, 2005: 1255, Melo-Escribuela, 2007). Sometimes people strive to do what is best for the environment as part of their job (e.g. de Ruyter et al., 2009: 485), or as their own code of ethics (e.g. Lee, 2003: 76, Keirstead, 2005: 1255, Participant in Torjusen et al., 2008: 225). Sometimes they want what is best for the environment (e.g. Elizabeth Naess in Gundersen, 1995: 72, Resident in Mustafa et al., 2010: 609).

Although the phrase ‘what is best for the environment’ is frequently used in environmental discussion, and people are sometimes encouraged – or already feel compelled – to do what is best for the environment in situations, there is a lack of knowledge about what is best for the environment. In a Yale University School of Forestry and Environmental Studies (2005: 8) survey they found a couple of notable things in regard to what is best for the environment and public understanding (see discussion in Rhode and Ross, 2008).

‘A majority (53%) of Americans says that “there is so much information and disagreement in the media that I don’t know who to believe about what is best for the environment.”’

‘Just 42% of Americans say “I have enough information to have a good idea about what is best for the environment.”’

Not only does the general public have a lack of understanding about what is best for the environment, this is also often the case among experts, the informed, and the concerned. These are not just theoretical disagreements, they are practical disagreements on real issues sometimes between parties with the same goals. Some environmentalists have admitted to being previously incorrect about what is best for the environment (see Flowers, 2000). Environmental decision makers at the US Federal level do not always know what is best for the environment (Norse, 1983: 224). Quite understandably, many would claim that there is no universal sense of what is best for the environment (e.g. Representative from a UK dialogue facilitator organization in Roberts, 1996: 228, Herring, 1998: 244, Burchell and Cook, 2006: 166). Making decisions based on what is best for the environment requires a great degree of scientific knowledge that we rarely have (Tarsney, 1994: 565).

Even if we could get consensus on what is best for the environment in a general sense, there would be an even greater task in ironing out the details. Miller and Szekely (1995: 401) state that '[t]o have a complete understanding of what is best for the environment will take time, effort, and continuous multi-way dialogue'. I do not believe we will ever have a truly complete understanding of what is best for the environment, but I also believe we do not need it. We are accustomed to making decisions with limited information. However, we could do with having a more informed – and ultimately useful – understanding of what is best for the environment.

Although we do not have a complete understanding or even consensus on what is best for the environment in particular situations, this concept is used to guide certain types

of decision making – from formal to informal (e.g. Birkby, 2005: 47). For example, Svensson et al. (2006: 143) state that:

‘When products or services are studied in environmental assessments, these often originate in the simple question: What is best for the environment?’

What is best for the environment has also been discussed as a goal (e.g. Hirschi, 1997: 192, Ziel, 2006: 189). Divisions of government have advocated for what is best for the environment (e.g. Covington, 1985: 185, Sultana et al., 2008: 362), and governments have made policy determinations on what is best for the environment (see Tarsney, 1994: 564-565). This type of decision making criterion was suggested for some of the highest levels of environmental decision making. The Conservation Foundation proposed that the US Environmental Protection Agency (EPA) have its mission to try to achieve what is best for the environment (Irwin, 1992: 26-27). One of the goals of eco-labeling is to help inform the consumer in deciding which product is best for the environment (Erskine and Collins, 1997: 130, McHale, 1998: 4). Sometimes a third party – usually the government – decides which products are best for the environment in the eco-labeling process (Pittinger, 1998: 630).

The public has been asked which forms of energy they thought were best for the environment (e.g. Šegon et al., 2002, The European Opinion Research Group, 2003, Domac and Šegon, 2004, Rohrer et al., 2004: 5, Šegon et al., 2004, McGowan and Sauter, 2005: 17, Cushion et al., 2010: 21), and which forms of transport they thought were best for the environment (e.g. Kingham and Donohoe, 2002: 7). Mees et al. (2008: 369) and Mees et al. (2007: 11) claim that walking to work is the best mode of transportation for the environment. Chardon et al. (2007) discuss trying to find which

practices in dairy and pig farming in France were best for the environment. Some farmers try to do what is best for the environment (Claassen et al., 2001: 8) and some have different philosophies of land management to doing what is best for the environment (Morris and Lobley, 2006: 13). One study found that when faced with two options where neither is better economically speaking, most farmers will choose the option that is best for the environment (Nassauer et al., 2007: 77). Some farmers make economic sacrifices to do what is best for the environment (e.g. Follett, 2009: 43).

The concept of what is best for the environment is also important in environmental education. Riddell (in Payne and Riddell, 1999: 255) says that:

‘If we really wanted to do what’s best for the environment then we’d be looking at developing knowledge, skills, values, and motivation to manage and improve ourselves as well as internalise our behaviour (our lifestyle, our thinking, and our approach to the non-human world).’.

Ferrante (1996: 306) suggests that, when it comes to environmental issues surrounding dolphins in tuna fishing, international parties ‘should put their differences aside and attempt to do what is best for the environment as a whole’. Cadotte et al. (2007: 247) researched which methods of contaminated soil remediation would be best for the environment. In addition, Suter (1997: 1283) says that:

‘In order to obtain decisions that are best for the environment as a whole, health and ecological risk assessors should work to integrate their results and communicate them in a coherent manner.’

Life-cycle Analysis (LCA) is a tool for deciding what is best for the environment.

Unger et al. (2004: 2) states:

‘LCA...is used mainly for comparing different options and for deciding which option is best for the environment. LCA and LCA software are thus used as a support tool in decision taking.’

Decision makers within companies have claimed that their company’s policies factor in what is best for the environment (e.g. Bansal and Roth, 2000). One anonymous environmental manager or senior manager (in Bansal and Roth, 2000: 725) said that:

‘Overall, when I show you our policy, the thing that we talk about in our policy is being committed to working with government to find the best reward for what is best for the environment.’

Within businesses, managers, designers, and engineers are making decisions informed by what is best for the environment (Matysiak, 1993: 1). Furthermore, the important environmental concepts of Best Available Techniques (BAT) and Best Available Techniques Not Entailing Excessive Cost (BATNEEC) are dependent on an understanding of what is best for the environment (see Hunt, 1991, Kiuchi, 1996, Haigh, 2000, Derden et al., 2002, Samarakoon and Gudmestad, 2011: 19). Derden et al. (2002: 262) says that the word ‘best’ within BAT means ‘best for the environment as a whole’ (see Haigh, 2000: 3). Kiuchi (1996: 241) concludes that ‘the best technology is best for the environment’.

The environmental engineering concept of Environmental Load Factor (ELF), a type of impact determiner, is designed with the goal of determining what is best for the environment within chemical reactions (Liu, 1997: 118).

In the past, it has been useful to compare the actions of a group, individual, or policy and compare it with doing what is best for the environment (e.g. Moul, 1996). For example, Fogleman (1987) shows that ‘the USDA faces a conflict of interest in situations where the promotion of agriculture differs from what is best for the environment’ (Allen, 1990: 558). Similarly, Rodgers (1985: 41) discusses how ‘skeptical oversight is sustained no doubt by theoretical and empirical convictions that agencies doing what is best for themselves may not be doing what is best for the environment and its public constituency’. Díaz-Briquets and Pérez-López (1998: 158) state that:

‘In reality, allocation of environmental expenditures in CPEs tends to be made by the central authorities on the basis of the “branch principle,” whereby resources are distributed through the hierarchy of ministries rather than directly to regions or cities where environmental protection expenditures could be most effective. Ministries, in turn, assign such resources to their own priorities, not necessarily the ones that would be best for the environment on a national scale.’

Xu et al. (2008: 4027) argue that the consumption structure that is considered most reasonable in China may not be the one that is best for the environment. Gardner (2000: 44) also notes that conflicts of interest often exist between what is best for the regulatory agency and what is best for the environment. Howard-Williams (2011: 28) mentions the disparity between the dominant social paradigm and what is best for the environment.

Comparison between best for industry and best for the environment has been used to show the disparity between policies. For example, Mark Halsey (1997) states that:

‘In this way, the efficacy of environmental legislation (especially that designed to oversee forest use) has been hijacked by a concept of sustainability that is, in ecological (as opposed to political) terms, fatally flawed. Specifically, the political conception of 'ecologically sustainable development' has been equated, at the industrial level, with the foresters ability to regrow a stand of trees (ie a merchantable commodity) rather than with the capacity of various forest management agencies to foster the long-term evolution of the original forest ecosystem. Despite the rhetoric concerning 'preservation of biodiversity', the 'success' or 'applicability' of production processes utilised to harvest old-growth eucalypt forest are measured according to their capacity to yield the quantities of wood necessary to meet international demand for the raw ingredient (ie woodchips) of high quality printing and writing papers. Notions of 'ecological harm', therefore, become a function of what is best for industry rather than what is best for the environment (and the human and nonhuman life which depend on these environments for their well-being).’

Such an exposition of what is best for industry alongside of what is best for the environment is extremely illustrative. Without Halsey’s juxtaposition, we might not see the gap between industry and the environment as being so great in this scenario. Elisabeth Rosenthal uses a similar technique when she writes about biofuel subsidies. There is a lot of variation in the environmental impacts of different biofuels. Rosenthal (2008) highlights that biofuel subsidies encouraged businesses to follow the cheapest fuels, not what is best for the environment. Like the Halsey article, Rosenthal highlights the gap in cheap biofuels and the best biofuels for the environment. Corvellec (2001: 33) discusses that an above ground rail track was best for commuters, but a tunnel solution was best for the environment. Many environmentalists believe that what is best for the environment is not what is best for utility companies (White and Rao, 2000: 5). Sometimes those who want to do what is best for the environment cannot, because others see what is best for the environment

as being different. According to Doyle et al. (2008: 185) this type of situation has occurred during oil spills:

‘[I]t is important to remember that the political reality will not always allow the responders to a spill to base their decisions solely on what is best for the environment. For example, natural biodegradation, and bioremediation of a beach may be the best ecological solution, however, the company responsible for the spill, and cleanup, and the agency overseeing the response may have to attempt to clean the area in order to be seen as responsive.’

Another scenario where a better understanding of what is best for the environment is useful is in conflict. There are conflicts between environmentalists (see Birkland et al., 2006: 400-401) over what is best for the environment (Herring, 1998: 244).

There are examples of conflict between environmentalists (e.g. DiMento, 1976: 108, 1977: 436) and between environmentalists and oil companies (e.g. Flowers, 2000) over what each believes is best for the environment.

Yet another scenario where a better understanding of what is best for the environment is useful is in green washing and manipulation. It is useful both to the manipulator and to the would-be-victim. It is quite common for individuals or groups to attempt to manipulate other individuals or groups into thinking that something that is good for them is best for the environment. An international property developer stopped the development of a small factory near by his investment property claiming that he knew better than the locals what was best for the environment (Svašek, 2006: 108-109). In politics, convincing the public that your party is best for the environment seems important (see McLean, 2008: 187). Dreiling and Wolf (2001: 43) state that:

‘Rather than dismissing claims that the environment is at serious risk, neoliberal business interests enlisted the help of conservation groups to actually promote the idea that free trade and the expansion of markets is actually what is needed to help “save” the environment. These alignments resulted in a growing congruence in the discursive frames of corporations, foundations, and business-friendly environmental groups around an ideology that defines free markets and economic rationality as what is best for the environment.’

Corporations often adopt practices that aim at what is best for the environment for certain projects to build trust with environmentalists (see Bakir, 2006: 82). Trade policies are being made that masquerade as being motivated by what is best for the environment while they are actually intended as protectionist policies (Hassoun, 2009: 64). Hassoun (2009: 64) comments that collusion between protectionists and environmentalist will lead to better environmental results.

I believe I have demonstrated, thus far in this section, that ‘what is best for the environment’ is widely used. It is used formally and informally. It is used for rather trivial things such as choosing a product to purchase, but also major things such as a governmental policy. Also, I believe the wide use of what is best for the environment shows that a clearer understanding of the concept would likely be important.

Much of the evidence that I have given may not be cases where people actually *want* what is best for the environment. Since I want to have a pragmatic impact on our understanding of ‘wanting what is best for the environment’, we might be forgiven for thinking that the practical impact might be quite limited. In this next subsection, I will argue that refining our understanding of ‘wanting what is best for the environment’ could have an impact on those that sometimes, and in some situations,

want what is best for the environment. Further, I will argue that it could be useful sometimes and in some situations where we want to do, consider, or know what is best for the environment.

2.2.2 Use in Partially Informing Decision Making

Hypothetically, we need not even believe that increasing our knowledge about what is best for the environment as a whole is useful in decision making. For example, it is coherent – if not necessary – to ask what is best for the environment for a particular time period. The European Opinion Research Group (2003: 69 & 119) for the European Commission's Eurobarometer asked citizens of the European Union what they thought is 'best for the environment on a 50 year time horizon' (McGowan and Sauter, 2005: 17). It is also coherent to ask what is best for the environment for a particular location such as a national scale (e.g. Díaz-Briquets and Pérez-López, 1998: 158). For example, Philip Fearnside (2001: 177) discusses the 'perceptions of people in countries like Brazil as to what is best for the environment in their countries'. It is also coherent to ask what is best for the environment limited to a single decision (e.g. Thurston, 1994a, Sayer, 2010: 19). For example, asking whether the transport fuel biodiesel or pure rapeseed oil is best for the environment (Reinhardt and Gartner, 2002), or whether using treated or untreated timber is best for the environment (Abrahamsen, 2008). Other examples of this type of question are: what brand of toilet paper is best for the environment (Molland, 2009: 55), whether recycling is always best for the environment (Dieffenbach, 1996), and what vehicles are best for the environment (Dooley, 2004). Further, Ekvall et al. (2007: 992) found it useful to determine which site for a waste management plant was best for the environment.

Additionally, BAT is choosing what is best for the environment of the affordable options available. In this sense, a business is not necessarily choosing what is best for the environment, but what is best for the environment within the set of affordable options. Dijkmans (2000: 20) and Dijkmans and Jacobs (2002: 196) state that:

‘According to its definition BAT should be “best” for the environment as a whole and economically “available” for the industrial sector concerned.’

Likewise, Thurston et al. (1994: 205) explains:

‘The problem for the engineer choosing materials then becomes 'How do I factor environmental issues into the material choice problem? After complying with regulatory requirements, how do I identify the option that is best for the environment?’ (see also Thurston, 1994b)

Another example of this is asking respondents which energy technologies do they most associate with the phrase ‘best for the environment’ (Farhar and Coburn, 1999: 9). Sometimes we coherently ask what is best for the environment even when we know that achieving what is best for the environment is not our main – or not our only – goal. Howett (1992: 459) states that:

‘Policymakers must weigh industry interests and rights against considerations of what is best for the consumer and what is best for the environment.’

There are also many discussions about balancing what is best for the environment and what is best for humans (Sisters Ranger District, 2001). Another example of where

what is best for the environment is not the end goal, but it is factored, is in construction. Wilson et al. (2000: 981) states that:

‘Some features of green facilities, while increasing the initial project costs, achieve significant savings over the life of the facility. Thus, a difficult challenge will be finding the right balance between doing what is best for the environment over the long term with the immediate realities of limited funding for new construction’

Similarly, Allen (1999) states that building designers are confronted with five major questions before any design is complete. Some of these questions are related to insuring that the building is economical, aesthetically pleasing, functional, and legally designed (Allen, 1999). One of these questions is ‘what is best for the environment’ (Allen, 1999: 12). In this sense, a designer asks what is best for the environment, not because they want the design to be what is best for the environment, but because it carries *some* weight in decision making.

We sometimes ask what is best for the environment in a limited sense. We might limit the question temporally, spatially, and even limit it to a single choice or limit its weight in decision making. Furthermore, it would be coherent to ask what is best for the environment limited in weight, temporally, spatially, and to a single choice. Regardless of how it is limited, or how far removed it is from what is in fact best for the environment, a greater understanding of what is best for the environment could help in informing decision making in such cases.

Even though an understanding of what is best for the environment has been useful enough for it to be used conceptually and in informing decision making, it seems very likely that greater understanding could significantly improve its usefulness. Despite

its use, lack of knowledge about what is best for the environment creates practical problems (e.g. DiMento, 1976: 108, 1977: 436, Thurston et al., 1994: 205, Roberts, 1995: 110, Herring, 1998: 243-244).

I believe I have shown that ‘what is best for the environment’ is widely used, and so widely used that its use should be better understood. Additionally, I believe I have also shown that what is best for the environment is used in not-so-trivial ways such as governmental and business policy, ethics, policy evaluation, and conflict. Further, I believe I have shown that despite its wide use, there is a lack of understanding of what is best for the environment. Moreover, I believe I have shown that there is conflict over what is best for the environment. By establishing the use of ‘what is best for the environment’, I do not intend to show that this means in all cases this use is genuine. Where its use is virtuous, a better understanding of what it means could help guide. Where its use is less-than-virtuous, a better understanding of what it means could be used to spotlight the vice. In effect, it could be useful sometimes and some situations when we want to do, consider, or know what is best for the environment.

2.2.3 Practical Incorporation into Decision Making Processes

I would like to conclude five things from this section on the usage of ‘what is best for the environment’. Firstly, as a concept, ‘what is best for the environment’ and related concepts are used extensively in decision making and in evaluating and judging decision making. Secondly, its extensive use is a strong indication of this concept’s usefulness. Thirdly, there is disagreement over what is best for the environment. Fourthly, it is likely that an enhanced understanding of the concept would be useful to those who want to do or consider ‘what is best for the environment’ – especially in

decision making. It should be clear that work on this concept has real potential to have practical relevance. I am now prepared to begin refining the environmental high ground and related concepts. Chapter 3 will follow from concepts introduced in Chapter 1.

CHAPTER 3: The Pure Environmentalist: On ‘Compatibility’ and Promoting Environmentalism

In Chapter 1, I discussed the pure environmentalist as the personification of the environmental high ground. By definition, the pure environmentalist always wants what is best for the environment. I will refine the concept of the environmental high ground by refining the related concept of the pure environmentalist. I use the pure environmentalist concept because it is often clearer and more direct than discussing concepts in relation to the environmental high ground. I will use the pure environmentalist concept to comment within this chapter on the following relevant discussions in the literature: 1) ‘compatibilism’; and 2) promoting environmentalism.

This chapter serves two functions simultaneously. The first is to logically refine the concept of the environment high ground. The second is to show that my refinements to the environmental high ground could enhance its use in informing decision making. I will do this by commenting on promoting environmentalism, the term environmentalist, and indirectly through my comments on ‘compatibilism’. The refinements I will make to the pure environmentalist will be utilized in Chapters 4-5 in a couple of complex theoretical decision making scenarios. Overall then, the refinement of the pure environmentalist concept helps us better understand what it means to want what is best for the environment.

3.1 The Term, Concept, and Background

At the end of Chapter 1, I introduced the pure environmentalist. The pure environmentalist is a personification of the environmental high ground. They always want what is best for the environment. They always take the environmental high ground. This concept is useful for explaining what we should gather from the environmental high ground. It is much easier to ask what a pure environmentalist would do, rather than asking what the environmental high ground is in a particular situation. It is important to understand more about what it means to be a pure environmentalist.

The pure environmentalist relentlessly and unwaveringly pursues what is best for the environment. This is not to say that the pure environmentalist cares about nothing, but what is best for the environment. The pure environmentalist could have other desires, but they would be strictly subordinate to wanting what is best for the environment. This does not mean that the pure environmentalist's subordinate desires are then practically irrelevant. There are situations where they can become a practical factor. The pure environmentalist may encounter a situation where there are two or more options that are best for the environment. They may choose between the two options based on their subordinate (or more particular) desires (this is discussed more in Chapter 4). The phrase 'pure environmentalist' has also been used before in a related context (e.g. Ely, 1997: 183, Gow and Leahy, 2005: 133, Talshir, 2005: 317, Foss, 2009: 42-43, Johnson and Clisby, 2009, Lehtonen, 2009: 82). The phrase is primarily used to describe fundamentalist views in individuals and political parties. Foss goes further than just using the term, he mentions its usefulness. Foss (2009: 42-43) states:

‘The defining element of the environmentalist value system is its ultimate value: the good of the environment. In environmentalism as such, or *pure environmentalism*, the good of the environment is of value in and of itself, or intrinsically valuable, and all other values are valuable as means to it, or extrinsically valuable.’

‘If we want to understand environmentalism, we need to study it in its pure form. The pure environmentalist's values form a system inasmuch as all environmental values flow from the ultimate value, environmental health.’

The pure environmentalist, if they were an actual person, would be considered by many as immoral. As a concept, the pure environmentalist is, admittedly a one-sided accentuation of a view. Its purpose is to better position ourselves to discuss trade-offs – including, potentially, compromising on what is best for the environment for moral reasons.

For the pure environmentalist to be a useful tool, it would be best if the Pure Environmentalist concept was coupled with knowledge and intelligence. This is because we can obviously learn more from the pure actions of the informed and intelligent than the pure actions of the uninformed and confused.

I think that the pure environmentalist concept could be used indirectly to help inform decision making. In the next section, I will attempt use the pure environmentalist concept to lend support to the concept called the ‘convergence hypothesis’ or ‘compatibilism’.

3.2 *Compatibilism*

3.2.1 **Concept**

A core principle within environmental pragmatism is the idea of the ‘convergence hypothesis’ (see Norton, 1991) or ‘compatibilism’. Some environmental pragmatists’ positions are even dependent on the empirical existence of the convergence hypothesis (Light, 2009: 207-208). The hypothesis emerged in response to theoretical debates that existed in environmental ethics which some argue had little practical relevance. This emerged largely because of the theoretical debates between anthropocentrists and non-anthropocentrists, but also other entrenched groups. Norton (1984: 133) says that being anthropocentric is ‘to believe that every instance of value originates in a contribution to human values and that all elements of nature can, at most, have value instrumental to the satisfaction of human interests’. Non-anthropocentrists believe nature can have value outside of ‘value instrumental to the satisfaction of human interests’. Norton pointed out that though these different groups would often not agree in theoretical debate, they would often agree on policy. ‘Compatibilism’ (see Light, 1996, Rothenberg, 1996, Varner et al., 1996, Hirokawa, 2002: 258-259, Mintz, 2004: 8 & 19-20) is the idea that environmentalists should unite over common policy, rather than divide over ideological differences. This position is supported by the fact that there *is* often common ground in policy regardless of ideology (see Light, 1996, Hirokawa, 2002: 258-259, Mintz, 2004: 8 & 19-20), though some believe this merits questioning (e.g. Callicott, 2005, Rolston, 2009). Mintz (2004: 20) states that:

‘[Environmental advocates] expend scarce resources pursuing disputes with one another. With its intrinsic ideological flexibility, its pluralism and its non-dogmatic focus on the overall “consequences” of environmental decisions, pragmatism does indeed have the potential of providing a “middle-ground” on which disagreeing environmentalists may choose to stand in the interest of achieving agreed-upon, environmentally-protective ends.’

However, the ‘convergence hypothesis’ has ignited controversy (see Stenmark, 2002, Callicott, 2005, Minter, 2009: 12, Norton, 2009, Rolston, 2009).

In this thesis, I will predominantly use compatibilism, though the ‘convergence hypothesis’ is used more as of late. I do this merely because I use much of Mintz and Light’s earlier work which uses ‘compatibilism’. I also find it is more versatile in a sentence.

3.2.2 Relation with Extreme Views

Environmentalism is accustomed to having extreme views within its ranks.

Cairncross (1994: 35) argues they have had to be alarmists to be heard. Extreme views are common within groups, but environmentalism definitely has the full-spectrum. In the name of the environment, Earth Liberation Front (ELF), Sea Shepherd, and Earth First! have all operated in such a way as to have been labelled by some as terrorist organizations (see Handler, 1990: 197, Correll, 1993, Leader and Probst, 2003). Whether they deserve to be equated with terrorist organizations is another question (see Nagtzaam and Lentini, 2007, Vanderheiden, 2008, Fritsvold, 2009: 812-813). Deep Ecology – despite its position of non-violence among its key philosophical figures such as Arne Naess and Warwick Fox (see Fox, 1995) has long

been, and will likely continue to be, a source of inspiration to radical environmentalists (see Devall, 1992: 61, Taylor, 1998: 1-2 & 21).

Anti-compatibilism primarily comes from the radical environmentalists – notably social and deep ecologists (Light, 1996). This is because compatibilism ‘appear[s] to violate some of the foundational claims’ of some representatives of the social and deep ecologist movements (Light, 1996: 170).

3.2.3 Practical Problems with Anti-compatibilism

Anti-compatibilism ‘makes environmental political theory difficult to translate into practice’ (Light, 1996: 167). The environmental movement is often associated with radicalism (Rothenberg, 1996). Bryson (1993) argues that one of the problems with the environmentalism movement is credibility. Others mention credibility issues with environmentalism (see Duncan, 1978, Kehoe, 1992, de-Shalit, 2001: 117-118, Guber, 2001: 120, Schoenbrod, 2002: 55, Huggan, 2004: 724, Ives, 2005, Markham, 2008: 513, Robertson, 2011). Bryson (1993: 794) says that:

‘There are many people who call themselves environmentalists who are very knowledgeable and who have a balanced view of the world. I listen carefully to their arguments. There are many others who use the same name whose knowledge is narrow, whose logic is faulty, and some at least have a real agenda quite different from protection of the environmental systems. These people are dangerous to the environmental movement, for they may destroy the credibility of the entire group and endanger the future of our society while putatively working to protect it.’

Rothenberg (1996: 253) states that:

‘A common opinion is that mainstream environmentalists are glad that extremists exist, to make themselves appear more reasonable, but there is a flip side: opponents of the ecological cause may tend to brand all environmentalists as unreasonable provocateurs.’

Assuming that radical environmentalists do cause environmentalists to lose credibility with some people, it might give mainstream environmentalists and others good reason to care about what radical environmentalists are doing in the name of the environment (see Taylor, 1998: 2).

3.2.4 Hope for ‘Compatibilism’?

Light sees an aspect of environmental pragmatism as being inherently appealing to even those with radical views. Light (1996: 161-162) says that:

‘A radical pragmatist stance can give us the compatibilism necessitated by dire environmental conditions, without necessitating the surrender of the philosophical commitments of these two forms of political ecology. But again, the form of pragmatism advocated here is one importantly predicated as *environmental*, as a reminder that environmental concerns play a foundational role in directing how radical ecologists decide to form bonds of agreement towards ecological renewal in practice.’

Further, Light (1996: 170-171) states that:

‘I believe that some theoretical questions (and sometimes some strategic materialist principles) while valuable often get in the way of an attempt to formulate a broad-based radical plan to solve environmental problems. In order to achieve that goal some sort of mutual toleration of competing theories is demanded by the overwhelming need for action on the environmental front. But such

compatibilism, even though it may appear to violate the foundational claims in the work of some representatives of the two forms of environmental thought just described, need not lead inevitably to relativist environment philosophy. I propose, then, a principle of tolerance in the form of a pragmatic position which would require radical environmentalists to leave some questions which divide them to private dispute.’

Within the environmental field, there are a lot of entrenched radical views. It is important that environmentalists work together despite their many differences because of numerous environmental problems. Light has gone so far as to argue that compatibilism offers practical solutions those with radical views would likely appreciate. So long as radical environmentalists see compatibilism as advantageous and can be tolerant of views that they may see as immoral or barren in experience, it opens the door to this pragmatic option. I believe I can assist this position with the refinement of the pure environmentalist concept.

So far, I believe I have shown that compatibilism is widely seen as an important aspect of modern environmentalism. I have also argued that some believe radical views can hamper compatibilism, and that intolerance of others’ views is a major cause of this.

As this is an argument essentially about what our ‘pure *environmentalist*’ would do, it seems that I owe the term ‘environmentalist’ some attention. Since I am especially interested in what a pure environmentalists’ position is in regard to others’ beliefs and intentions, it means that I should especially focus on the aspects of environmentalism that reference ‘others’.

3.3 *The Term ‘Environmentalism’*

There are two inherent problems in defining what an environmentalist is, that we should be aware of. The first problem is that there is great variation in people’s level of concern about the environment. Within this full spectrum of concern, it seems that there needs to be a line drawn between just barely concerned enough to be considered an environmentalist and not concerned enough. To justify this line, it would require a convincing justification as to why the smallest amount of concern less would not be an environmentalist. This would be an arbitrary, but necessary line. Virtually all who define ‘environmentalist’ will be vague about the level of concern one has to have to be considered an environmentalist. For example, Herrington-Shaner (2009: 12) uses a general definition for environmentalist that he considers merely shorthand, avoiding the ‘tedious typological task’ of ‘propos[ing] and describe[ing] a continuum of environmental concern’. We could probably go further to say that if anyone bothered to describe it, they would ultimately draw an arbitrary – but necessary – line in regard to level of concern. The second – and more important – problem is what type of concern is it that we believe an environmentalist possesses. Surely, a great deal of concern for *only* elephants could not be an environmentalist’s world view. I am concerned most with what types of concern an environmentalist has, because this is relevant to exploring the issue of compatibilism in radical environmentalism, and also refining the pure environmentalist. This is what I will examine in this section.

Rydin and Greig (1995: 292) eloquently call this the ‘commonality of values between environmentalists’ and Plater (1988:124) calls this ‘a common thread that runs through virtually all the differing components of the environmental movement’.

While recognizing that there should be some commonality, some have noted that it is not always clear what exactly an environmentalist is. Tesh (1994: 298) has said that environmentalism has 'varied messages'. Tesch and Kempton (2004: 67) stated that the term *environmentalist* itself is problematic because it 'has multiple meanings and interpretations'. Pepper (1984) discusses some of the implications of these 'multiple meanings and interpretations'. Pepper (1984: 13) says the disagreements between environmentalists, and non-environmentalists are frequently 'a function of genuine ideological differences, but sometimes it simply results from ignorance or ill-based assumptions about what the other side stands for'. Pepper (1984: 13) immediately goes on to say that:

'This is partially because there is no clear-cut and easily circumscribed definition of environmentalists or environmentalism. Within the environmental movement there is a host of ideologies and cross-currents, and there are many classifications of them, which overlap and produce confusion.'

The confusion has caused some to call for there to be more terms to describe the very different views among environmentalists (e.g. Wiley, 1998). Many others have attempted to classify or categorize different types of environmentalists in efforts to create some commonality where it may seem to be lacking. Bryson (1993: 788) divides environmentalists into two categories 'students of the environment' and 'activists'. Bryson (1993: 794) states people 'with poorly thought out stands on the environment' are 'Environmentalists (capitalized)' and 'those who are knowledgeable and informed' are 'environmentalists (uncapitalized)'. Bidinotto (1992) similarly divides environmentalist into the categories, but he does not distinguish these by name. Bidinotto (1992: 2) states that '[t]he problem with identifying environmentalist activists is that there are millions of people who today call themselves

“environmentalists,” but who pose no predatory threat’. These distinctions – as well as being pejorative – are undoubtedly born of frustration with arguing for or against environmentalists. When one makes an argument for or against environmentalists, it is rarely representative of all the individuals within the set ‘environmentalists’. Rydin and Greig (1995: 274) write that:

‘The nature of environmental values and beliefs as integrally related to the potential for tension and disagreement reinforces the benefits of adopting a fairly inclusive definition of the term “environmentalist”, rather than picking one particular strand within environmentalism. However, a distinction is made here between those who may hold one or more attitudes associated with environmentalism (and may or may not undertake activities such as recycling of waste or buying organic produce which may follow from those attitudes) and those who engage in the policy process by, in some sense, speaking *for* ‘the environment’ in a variety of fora (public meetings, educational institutions, local council meetings, items in the press and other communication media, for example). Environmentalists are, therefore, a form of embodiment of environmental interests and concerns, or indeed of the interests and concerns of ‘the environment’.’

Foss (2009: 42) states that: ‘What all environmentalists have in common...is a concern for the good of the environment’. Birkland et al. (2006: 400) remarks that ‘two or more people can call themselves environmentalists and find themselves adamantly opposed to the ideas and beliefs of other environmentalists’. Birkland et al. (2006: 400) goes on to say that ‘the term can mean many things to different people’. This also reinforces Pepper’s (1984) aforementioned argument for the need for a clearer definition – because as it stands, the term seems to even lack utility. Ruhl (1999: 33) states:

‘For many, however, environmentalism is a worn-out label, its permutations found in a sea of bumper sticker slogans and self-righteous, self-anointed “environmentalists.” What is an environmentalist today? What must one believe in order to join the club, and who decides the qualifications? If the vast majority of Americans consider themselves environmentalists, does the label still serve to distinguish?’

Saad and Dunlap (2000: 12) report statistics that support Ruhl’s argument: ‘83% of Americans agree with the goals of the environmental movement, including 43% who “strongly agree.”’

While discussing Norway, Rothenberg (1996: 252) states:

‘So are all its citizens environmentalists? It depends who you ask. Everyone wants to call themselves environmentalists these days, wherever they are on the political map.’

Hawken (2007: 194) argues that ‘[e]veryone on earth will be an environmentalist in the not too distant future, driven there by necessity and experience’. If Hawken is correct, the term maybe on the verge of losing its usefulness.

Norton (1991: 11-12) states that environmentalists ‘have not accepted a common and shared worldview, and those who look for unity in the explanations and rhetoric of environmentalists will be disappointed’. Norton (1991: 11) challenges ‘the suggestion that environmentalists hold no common ground, and the associated suggestion that environmentalists represent at best a shifting coalition of interest groups’. Norton (1991: 11) argues that ‘those who deny that environmentalism is a

unified social movement, are looking in the wrong place for the unity of environmentalism'. Norton (1991: 12) says:

'[T]wo environmentalists might work together to achieve the objective of prohibiting strip mining in a wilderness area, while justifying their activities by appeal to quite different values'

Norton (1991: 238) argues that despite the different values that compel environmentalists, there is an 'emerging consensus regarding desirable environmental policies'. Norton's argument is that environmentalists should concentrate on what unifies them rather than argue over values. Norton (1991: 13) states:

'The most important consequence of this policy-oriented approach, and the rough distinction we have drawn between policies and the ideas that justify them, is that we will not miss examples where environmentalists pursue a policy by consensus in the policy arena, even while discussing and supporting these policies in quite different frameworks of concepts and values.'

If we accept Norton's claim that environmentalists are generally unified by policies, we should wonder if this unity among environmentalists is the 'common thread that runs through virtually all the differing components of the environmental movement' that Plater discusses. If we believe this, it would be circular. Norton does not try to do this. Furthermore, since Norton's hypothesis is a general empirical principle, there would be times when even a pure environmentalist would disagree with broader policy of another pure environmentalist.

In order to understand better the 'multiple meanings and interpretations' of the term environmentalist, Tesch and Kempton (2004: 67) worked to ascertain what the

distinct definitions of the term were by interviewing 156 people from the Eastern United States, who were members of 20 ‘diverse environmental groups (and two comparison groups)’. Tesch and Kempton (2004: 67) found that there were four distinct types of people who were referred to as environmentalists:

‘1) those who say they care about the environment but take no public actions; 2) those who act to preserve local habitat often through private action (also called “conservationists”); 3) those who act in the civic or political realm, by writing to representatives or attending hearings (also called “activists”); and 4) those who act via demonstration, civil disobedience, or “direct action” such as blocking logging operations (also called “radicals”).’

Tesch and Kempton’s work helps relate how the term is understood in practice and goes on to describe why the term and its many meanings make it a problematic term to use in questionnaires without disambiguation. However, their work does not say anything about the tenability of these different definitions – and does not intend to.

The Oxford English Dictionary term for an ‘environmentalist’ seems to have been accepted by many in the environmental field (e.g. Pepper, 1984, Potter, 1985, Bulloch, 2003). Most notable of these is by the long-time editor of *The Environmentalist*, John F. Potter (1985), in his paper ‘What is an Environmentalist?’.

The Oxford English Dictionary (1989: 315) defines an ‘environmentalist’ as:

‘One who believes in or promotes the principles of environmentalism; also, one who is concerned with the preservation of the environment (from pollution, etc.).’

This definition is conservative to the point of seemingly saying very little. All the truly controversial aspects of what makes an environmentalist an environmentalist remain undefined. This unspecific definition of ‘environmentalist’ is a positive quality for some because they recognize the philosophical diversity among environmentalists (e.g. Pepper, 1984). Pepper (1984) agrees with the Oxford definition, but chooses to define further what he means by ‘environmentalism’ within the definition.

As Pepper stated, undoubtedly some of the issues between environmentalists and non-environmentalists are born of misunderstandings of what the other side stands for and also the lack of clarity in the terms. It seems that even some of the disagreements among environmentalists (see DiMento, 1976: 108, 1977: 436, Herring, 1998: 244, Birkland et al., 2006: 400-401) might be related to such a misunderstanding. Tesch and Kempton’s (2004: 82) remarks in the closing of their paper that ‘[f]or the scholar of the environmental movement, or actor within it, it is worth sorting out the meaning and ramifications of the identity of “environmentalists...”.’ Ultimately, there is no clear term and looking for one may be mistaken.

Opinions on the term ‘environmentalist’ seem to fall into three camps. The first is the group that defines the term based on how it is used (e.g. Tesch and Kempton, 2004). This is sort of a linguistic or bottom-up approach. The second camp desires a philosophical – or top-down – term, but has not found a suitable one (e.g. Wiley, 1998) or believes that it is meaningless (e.g. Ruhl, 1999). The third uses only a very general definition (e.g. Pepper, 1984) or keeps it very open-ended (e.g. Birkland et al., 2006).

The main purpose of looking at the different terms was to see if there was a clear indication of what environmentalists do in regard to others' belief and actions. Of the approaches by the different camps, the two that provide definitions are inadequate for telling us what a pure environmentalist will do in regard to others – the former because it merely describes how the term is used, and the latter because it is only very general. That being said, there are several statements within the discussion that indicate *something* about environmentalists' interactions with others. Firstly, the ideological diversity among environmentalists was widely acknowledged. With such diversity, there is certainly the potential for ideological discord and for this discord to interfere with environmental action. Secondly, there were several words used in describing environmentalists which conceivably could be at least associated with interactions with others: 1) Self-righteousness (e.g. Ruhl, 1999); 2) Activism (e.g. Tesch and Kempton, 2004); 3) Demonstrating (e.g. Tesch and Kempton, 2004); 4) Civil Disobedience (e.g. Tesch and Kempton, 2004); 5) Direct Action (e.g. Tesch and Kempton, 2004); and 6) Promoting environmentalism (e.g. Pepper, 1984, Potter, 1985, Bulloch, 2003).

If all of these involved the beliefs and actions of others and were genuine attempts to do what is best for the environment, I think they could all fall under a broadly conceived (6) – as promoting environmentalism. Promoting environmentalism is broad, and it could blanket all interactions with others' beliefs and actions. My only point from this section is that I think it would be a worthwhile task to look at what the pure environmentalist would do in regard to the beliefs and intentions of others and on promoting environmentalism.

In this next section, I will briefly discuss promoting environmentalism in practice. Most importantly, I will discuss what we might be able to learn about promoting environmentalism from refining the pure environmentalist concept.

3.4 Promoting Environmentalism

Promoting environmentalism is discussed widely as an environmental goal (e.g. Cantrill, 1992, McKenzie-Mohr and Oskamp, 1995, Darlington, 1998, Jones et al., 1999, Oskamp, 2000, Zelezny et al., 2000, Zelezny and Schultz, 2000, Kurz, 2002, Saunders, 2003, Hunter and Toney, 2005). All of these discussions are in regard to promoting environmentalism by more conventional means – not activism, disobedience, or direct action. I think it is relevant to look specifically at promoting environmentalism, with regard to the intentions of others.

In Chapter 1, I described the Working Principle of the Pure Environmentalist. This is:

‘I want what is best for the environment’

The Working Principle – in its present state – is probably too vague to be very useful. Things become unclear when we ask more specifically: ‘what is “wanting” what is best for the environment?’. I believe all the plausible types of wanting what is best for the environment can be placed into one of four categories, which will be explained shortly.

In addition to the fact that they are plausible, I have chosen these four because I believe three of them can be trenchantly criticized as *not* wanting what is best for the environment. This does not mean that the category that I am unable to criticize is flawless. This cannot be shown with this negative expositional exercise. That being said, I think the remaining category will not be trenchantly criticized as not wanting what is best for the environment.

As I stated in Chapter 1, we can never know exactly what the environmental high ground is – even if we are standing on it. This exercise is about getting better resolution of the environmental high ground. Figuratively speaking, I will argue that the pure environmentalist would look down on the other categories from the perch on the environmental high ground. Since the pure environmentalist looks down on these categories, we know they are down the hill from the environmental high ground – thus not on the environmental high ground (see Figure 3).

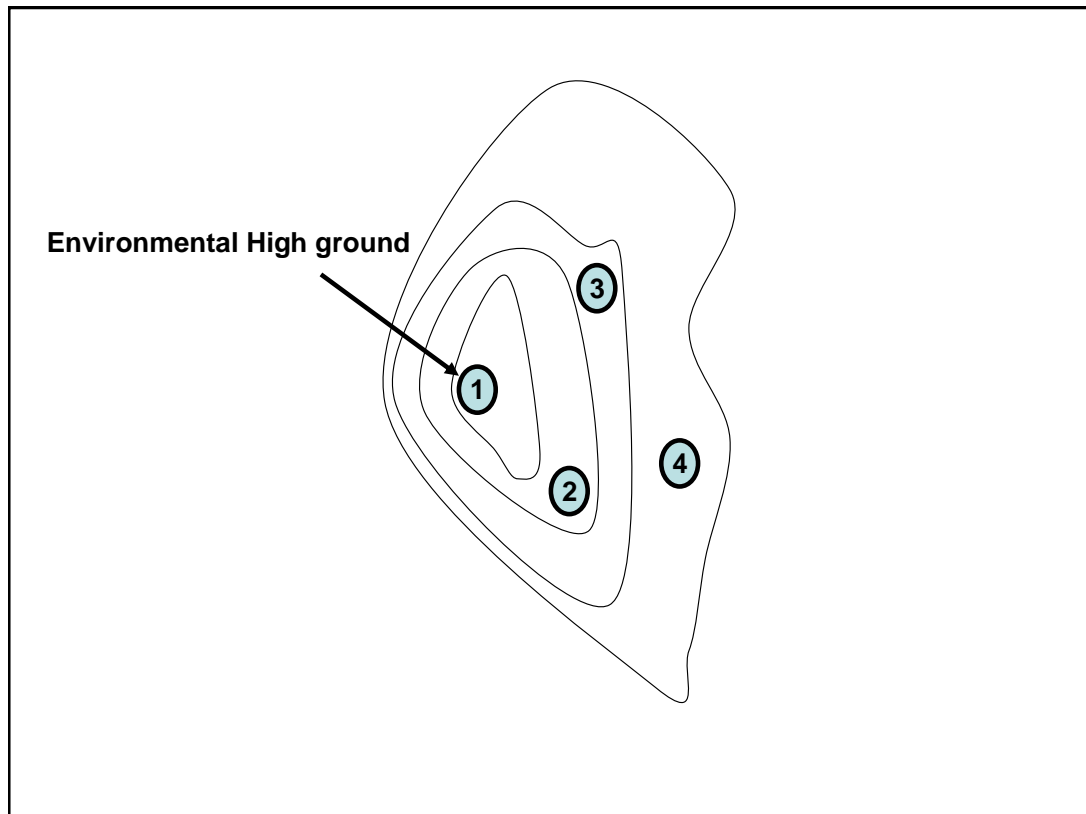


Figure 3: Analogous Argument and the Four Types of ‘Wanting what is Best for the Environment’

If I am correct that I can eliminate three plausible types of ‘wanting what is best for the environment’, I will have achieved better resolution for the environmental high ground. This enhanced understanding could then help us better inform decision making that uses the environmental high ground or related concepts. In this next section, I will introduce, discuss, and critique four plausible interpretations of ‘wanting what is best for the environment’.

3.5 *Wanting ‘What is Best for the Environment’- Interpretations*

There are at least two important questions in regard to the beliefs and actions of others. 1) If I want to be a pure environmentalist, should I want most to strive for

results or intentions? In other words, should I be more consequentialist-like or more Kantian-like in regard to the environment. 2) If I want to be a pure environmentalist, should I want most *for me* to strive for results or to have certain intentions, or for *everyone* to strive for these results and intentions? If I want everyone to act a certain way, this would mean that promoting environmentalism may be a core part of being a pure environmentalist.

3.5.1 Four Alternative Ideal Types

Four general distinct and plausible answers that pivot around the words ‘believing in’ (b) and ‘promoting’ (p), and intentions (i) and results (r) can come from the question: what is best for the environment? (see Figure 4).

	Me	Everyone
Results	① I want what is best for the environment; I want the best results. (b,r)	② I want everyone to want what is best for the environment; I want the best results. (b,p,r)
Intentions	③ I want what is best for the environment; I want the best intentions. (b,i)	④ I want everyone to want what is best for the environment; I want everyone to have the best intentions. (b,p,i)

Figure 4: Four Types of ‘Wanting what is best for the environment’

For the remainder of this chapter, I will refer to the number for each of these general theories. Each of these four needs to be explicated and have some of the important alternative interpretations explained.

Right away there appear to be a few issues that make these different categories of alleged pure environmentalists indistinct. It may seem that there is no difference between wanting intentions and wanting results – they are both intentions.

Furthermore, there is the issue that if I want everyone to want something that this means I want myself to want it also. I will address all of these later in the chapter. In addition to these, there is the issue of how encompassing these categories are. While intentions and results would be exhaustive, clearly the ‘me’ and ‘everyone’ distinction is not exhaustive. My arguments in regard to the ‘everyone’ category will apply to any situation where I want anything more than myself to want what is best for the environment. I will also explain this later in the chapter.

In (1) because I want the best results, this means that sometimes I would allow myself – if possible – to have some other disposition if I believed it would be better for the environment. This occurs with many other dispositions too. Thomas Schelling (1960: 18) says that:

‘[A]n explicit theory of “rational” decision, and of the strategic consequences of such decisions, makes perfectly clear that it is not a universal advantage to be inalienably and manifestly rational in decision and motivation. Many of the attributes of rationality...are strategic disabilities in certain conflict situations. It may be perfectly rational to wish oneself not altogether rational, or – if that language is philosophically objectionable – to wish for the power to suspend certain rational capabilities in

particular situations. And one *can* suspend or even destroy his own “rationality,” at least to a limited extent....”

Following from Schelling, Parfit (1984: 11-17) argues that there are situations where an individual cannot avoid being irrational. Parfit (1984: 13) states that ‘rationality can tell us to cause ourselves to do what, in its own terms, is irrational’ (see Figure 5 for an example).

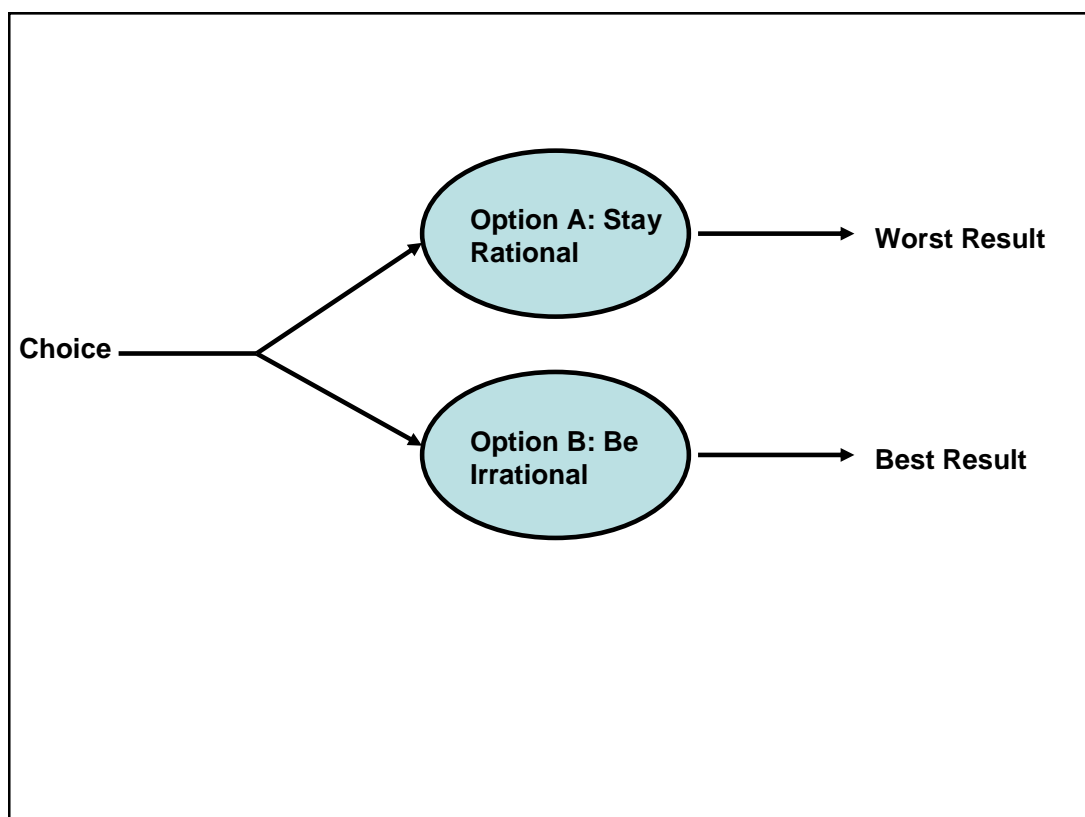


Figure 5: Depiction of how it can be rational to be irrational

If Option B in Figure 5 is the best option, but only Option A will be possible if I remain rational, then it would be irrational for me to stay rational. If posed with such a situation, in a way, we will be irrational no matter what we do. Parfit would say that choosing to be irrational for rational reasons is the only tenable choice – as opposed

staying rational for irrational reasons. For example, if I am always Hedonistic, it might be better for me if I did not aim at achieving my own happiness. Parfit (1984: 6) explains that:

‘Hedonists have long known that happiness, when aimed at, is harder to achieve. If my strongest desire is that I be happy, I may be less happy than I would be if I had other desires that were stronger’.

I think it would also be true that, at some times and in some situations, it may produce better environmental results if I change my disposition. To illustrate this, I will use an example inspired by one Parfit (1984: 7) uses. In this example, I will argue that if I *always* do what I believe is best for the environment, I *always* want the best results, it might be better if I *always* do what I believe is best for the environment, I *always* want the best results *unless my life is in grave danger*.

Let’s say that, I believe that I can do what is best for the environment by trying to catch and report poachers of an endangered animal in a remote piece of wilderness. I do not try to stop the poachers from making the kill because I know that if I report them, and they are caught with the remains of this animal, the conviction will be virtually assured, and punishment will be severe and that this result will be better for the environment in the long run. Let’s also say that I happen to be very bad at deceiving people. I am so unskilled that I never convince anyone of anything that I believe untrue. After successfully catching a few poachers, my identity becomes known. On a particular evening, I witness a few poachers making an illegal kill. In a hurry to get back to their vehicles to record their licence plates, I am caught by one of these poachers – a result I did not anticipate. He and his party of poachers know who I am, and because of our close proximity, they know that I can identify them (T₀) (see

Figure 6). All of us are aware that if they were to kill me in this remote wilderness, they would only have a small chance of being caught. Even though there is only a small chance of being caught, the poachers would like to avoid the severe consequences involved with a murder conviction and are willing to take some risk of being reported for poaching by letting me live. They give me an ultimatum (T_1). If I promise not to report them – and of course make the promise convincingly – they will let me live. Because I always do what is best for the environment, I think of the implications of me being killed in terms of how it will impact the environment. I know that I am fairly youthful, and thus I will likely have a long life ahead of me of doing that which I believe is best for the environment. I conclude that it would be better for the environment if I live – even if it means I never report the poachers. Even though I know it would be best for the environment if I lived and promised not to report the poachers, I know that as soon as I am safe (T_2), I will report them because *at that time* ($T_2 - T_3$) it will be what is best for the environment because I know I will both live, and they will get caught. If at that time ($T_2 - T_3$) – when I was safe – I decided I would still not report them, I would not be doing what is best for the environment.

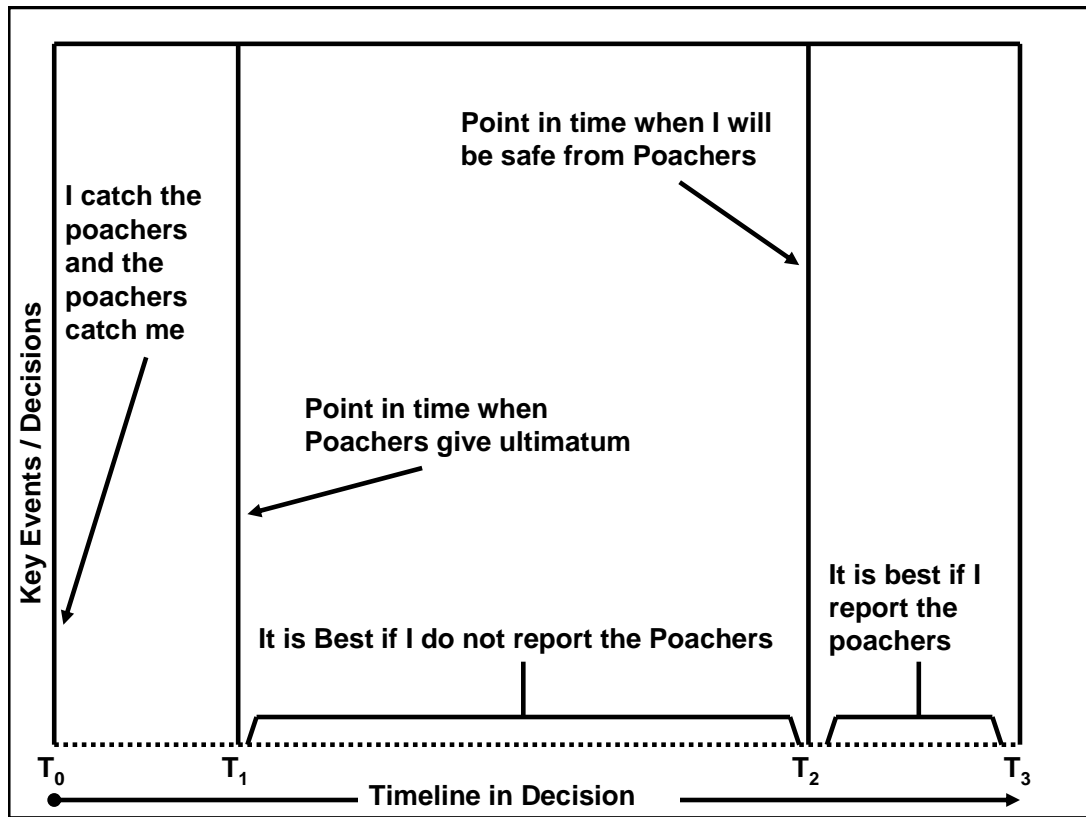


Figure 6: Example of how it can be rational to be irrational

I know at the time they give me the ultimatum (T_1), that once I am safe (T_2), I will report them because I do what I believe is best for the environment. Because I know I will report them, and I am horrible at deceiving people, I fail to convince the poachers that I will not report them, and thus I am killed. In this case, it would be better – for the environment – if I had another disposition other than always wanting the best environmental results. It probably would have been better for the environment if I did not – for a time (notably $T_1 - T_2$) – want the best results. Perhaps a better disposition for me to have would be to want what is best for the environment unless my life is in grave danger. It would be better for the environment if I could – in certain situations – make myself want foremost something other than what is best for the environment in order to achieve what is best for the environment.

To solidify this point, it is best to dive into the wildly hypothetical. Let us say I knew an evil genius would visit me for a year, and she would ensure that *whatever* my intended acts were, *in regard to the environment*, the opposite would happen.

Because I want what is best for the environment, it would trouble me to know that for the next year, if I do nothing to prevent it, my actions will bring about the greatest environmental ills that I could create. If possible, I would make an effort to stop her from making my acts produce great environmental ills. It might occur to me that if I could irrevocably have the opposite environmental disposition for that year, she would make it so my actions did that which is best for the environment. If I care most about the results, and if it were possible, I would irrevocably change my disposition from wanting what was best for the environment to wanting what is worst. This is because I would know that by wanting what is worst in the year should bring about what is best. Likewise, in (2), to want everyone to want the best results is to mean that you would want them – if possible – to want to have the disposition that they think is most likely to produce best environmental results.

In (3), because I want the best intentions, this could be interpreted as two distinctly different things which I will call 3A and 3B.

3A: I want to have the best intentions towards the environment which means to me that I could not have the best environmental intentions if I did not change my disposition to do what I think will produce the best environmental results.

3B: I want to have the best intentions towards the environment even when I believe it will be worse for the environment.

Furthermore, this same principle could easily be applied to (4) which I will call 4A and 4B:

4A: I want everyone to have the best intentions, which means to me that they cannot have the best environmental intentions if they do not change their disposition to what they believe will produce the best environmental results.

4B: I want everyone to have the best intentions even when they believe it will be worse for the environment.

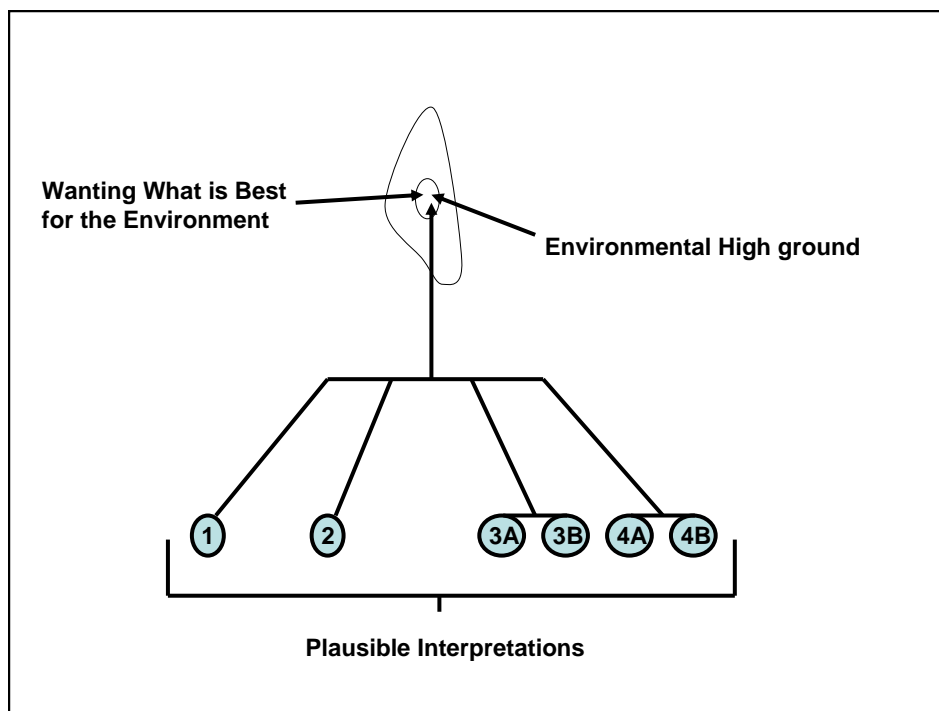


Figure 7: Plausible interpretations of wanting what is best

If I believe (3A), this belief is indistinct from (1). If I believe (3A) and (1), they both tell me that I should do whatever will produce the best environmental results. If I believe (3A), then the phrase 'best environmental intention' is indistinct from the

phrase ‘aiming at the best environmental result’. This easily applies to (4A) and (2) as well. I will collapse (3A) into (1) and (4A) into (2) because these are indistinct.

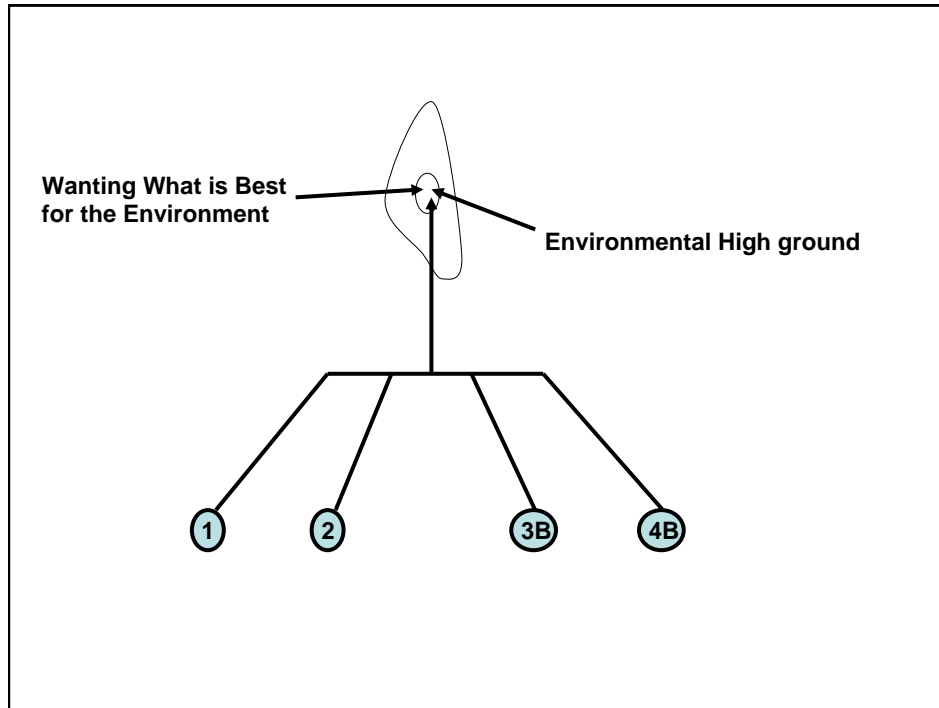


Figure 8: Remaining Interpretations 1, 2, 3B, & 4B

If I believe (3B), I want to have the best intentions to the environment even when I know it will be worse for the environment. We might be able to come up with a very long list of acts that are something we believe an environmentalist would or would not do. For instance, environmentalists do not cut down old-growth forest.

Environmentalists promote environmentalism. Environmentalists do not dump oil on pristine beaches. Environmentalists do not skin baby gorillas alive. Of course, we know even a pure environmentalist could dump oil on a pristine beach accidentally.

We are only worried about intentions here, not accidents. However, if I say I will not skin baby gorillas alive in all cases because I am an environmentalist, this must mean that I am not willing to skin baby gorillas alive even when I believe it is best for the environment. It seems plausible, if not probable that such cases would exist. For

example, let's say that it is believed – to take what I believe to be the least environmentally justifiable action given how threatened some species are – one should never skin baby gorillas alive.

Let us say that I am a pure environmentalist. I believe that I should do that which I believe is best for the environment always. Imagine that I am currently trying to protect a rare population of gorillas because I believe it is what is best for the environment. After visiting this population, I realize that easy solutions are not present. I believe the main threats to the population to be habitat destruction and poaching. I believe that the solutions would involve expensive land purchases and costly active management of these populations to protect them from illegal logging and from being used for bushmeat. The amount of money needed to do this is well beyond what I can directly muster. I believe the best way to protect them is to get people to donate funds to an already existing charity.

I become acquainted with an existing charity for the gorillas, and they tell me they barely have funds to operate. After a documentary came out examining the gorilla population's plight some years ago their donations spiked and then slowly trailed off after a year. The charity workers believe that potential donors are more concerned with other flavor-of-the-month issues, and that they do not have the connection to the issues at hand as they did when these issues were beamed into their living rooms. When they have tried to get media coverage, there is little interest from the media because the story was already reported on in the once popular documentary, and little has changed since then.

I realize that what is needed is new and sensational footage of poachers in action, but this is next to impossible to get. I head to an impoverished local village where many of the poachers live. Posing as a big-game hunter, I asked to be taken on a gorilla hunt. Throwing around large amounts of money, I quickly have a hunting party. I prescribe a brutal killing of a family of gorillas because I know that this will pull the most heart strings. I secretly film the whole event, and I make it look as though this is purely a local hunt for skins and bushmeat. I actively take part in the slaughter of a mother gorilla and her baby. I then deliver the film to the media where the footage is shown all around the world. The charity is flooded with more than enough donations to implement active management and to make necessary land purchases. It could be coherent for me to say I did all of these horrible things to a family of endangered gorillas, because I believe it was best for the environment – because I am a pure environmentalist.

If I say I want to have the best intentions towards the environment even when I know it will be worse for the environment, it could mean I believe there are certain things I will never do for the environment. At other times, it could mean that I am not willing to change my disposition for the environment even when I know it would be better for the environment. If I realize that a scenario such as the gorilla slaughter would produce the best environmental results, but I refuse to do it because I want what is best for the environment; I want the best intentions – even when I know it will be worse for the environment – there is something wrong about this. There is something distinctly environmentally impure about what I believe is best for the environment.

Let us take things further and imagine a situation which will make this distinction sharper. Imagine an evil genius will visit me for the remainder of my life, and she will ensure that whatever my intended acts were *in regard to the environment*, the opposite will happen. If I believe (3B) we can see that I will have to admit that I will continue with my best intentions even though I know I will be doing what I believe is worst for the environment. It would seem I care more about acting with the best intentions rather than doing what I believe is best for the environment – to the extent that I do what I believe is worst for the environment. It would be hard to say coherently that ‘I want what is best for the environment’, *and* that I will bring about the worst environmental results for that cause. This alone is enough for them to be considered something other than a pure environmentalist. Again, this can easily be applied to (4B).

Shellenberger and Nordhaus (2005) argue that the idea that environmentalists represent what is best for the environment merits questioning. In a strict sense, we should not expect environmentalists to represent what is best for the environment – if for no other reason than they, like everyone else, may on occasion do what they believe they ought not do. In addition, people who are environmentalists would likely also represent other things, and likely represent some of those things with a greater priority than the environment – such as their family or their life. If we do not allow this to be true, we have a very exclusive definition of an environmentalist – essentially the definition of a pure environmentalist. However, something seems correct about the idea that environmentalists should at least sometimes want what is best for the environment. If this is the case, it may be that (3B) and (4B) are not even environmentalists on these grounds.

Some may say this is going too far to consider (3B) or (4B) not environmentalists.

They might concede that it would be hard to say they ‘want what is best for the environment’, but that does not make it un-environmental. For the most part, this is correct, and it brings up an important reason for doing this exercise. A person’s actions may be very good for the environment, but they still may not be an environmentalist. There are many reasons that could cause me to do something good for the environment that are not environmentally motivated. It is very likely that even doing what is best for the environment could be done for non-environmental reasons. For example, Cairncross (1992: 35) states:

‘The economic policies that are good for economies may, by happy coincidence, frequently be the ones that are best for the environment, too.’

If we want what is best economically we may do what is best for the environment practically speaking – by happy coincidence.

If I forgo doing what is best for the environment it may or may not be good for the environment, but I could not coherently state that I am motivated by trying to do what is best for the environment in this instance. In (3B) and (4B), I am motivated by the best intentions towards the environment and not by the environment. This argument will probably still not satisfy some. We can take this further by examining the reasons for the best environmental intentions.

The best environmental intentions could be motivated by moral concern. Let’s say, hypothetically, that an intention based philosophy (Kantian-like philosophy) could be

the basis for doing that which is believed to be best for the environment; wanting the best intentions. If I wanted to do what was best for the environment because I believed it to be best for humanity, we could say that I am being moral according to my own beliefs. Let us call such a person a ‘moralist’. Because I am a moralist, it does not mean, of course, that I cannot be an environmentalist, communist or a feminist. If I am motivated to be environmental solely by being a moralist, what would it mean to be a moralist environmentalist versus a moralist anti-environmentalist? One would think there would have to be a meaningful distinction between them if they share a morality. The two individuals, the moralist environmentalist and the moralist anti-environmentalist, would do the same thing – what morality says – because they are always moral. It is only where two of the options are equally moral that there is the possibility of their environmentalist and anti-environmentalist desires have a chance of coming into play. If two or more options are equally morally best, only then I would have the opportunity to be an environmentalist, anti-environmentalist, communist or a feminist. A moralist would likely see an anti-environmental act as morally relevant – especially since it is their values that define ‘environment’ – that there would not be many of these options which are equal morally, practically speaking, but still environmentally relevant. Regardless, because the moralist environmentalist and the moralist anti-environmentalist do the same thing when it is morally relevant, it is not their moral actions that determine whether or not they are an environmentalist. Few – if any – people that call themselves environmentalists would say they would rather have the best environmental intentions than prevent the world from all the environmental ills they, themselves, can produce. Again, the same principles are easily applied to (4B).

I will no longer consider the intention based (Kantian-like) (3B) and (4B) as environmentalists.

All of this leaves us with two distinct consequentialist-like forms of ‘believing in’ and ‘promoting’ the environment:

1: I want what is best for the environment; I want the best results.

2: I want everyone to want what is best for the environment; I want everyone to want the best results.

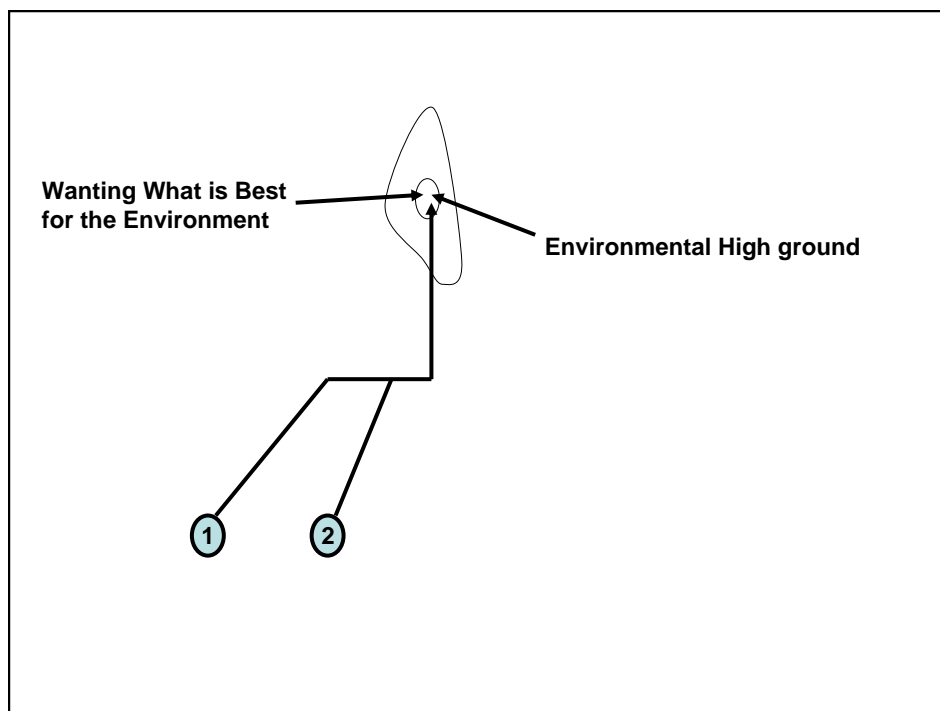


Figure 9: Remaining Types 1 & 2

It is worth noting that (1) requires believing in environmentalism, and (2) requires both believing in and promoting environmentalism. We should also take notice that to this point we can be an environmentalist by ‘believing in’, or ‘believing in’ and ‘promoting’ environmentalism but not just ‘promoting’. To promote

environmentalism, without believing in environmentalism, may or may not lead to ‘what is best for the environment’. For example, another evil genius, like the one we spoke of earlier, could believe that she should do whatever was worse for the environment. Let us say she knows – unbeknown to the rest of us – that anthropogenic *global cooling* is actually the most severe environmental issue. Let us say she also knows that she could get people to believe in environmentalism through zealous *promotion* of environmentalism exceeding that of our most renowned environmentalists. Let us say she also knows that this zealous promotion of environmentalism would cause them to combat anthropogenic global warming because she knows it is popularly believed to be the most pressing environmental issue. She knows that if people combat global warming these actions will make critically worse for the real issue – global cooling. If she believed by promoting environmentalism, it would somehow end up being what is worst for the environment, she would do this. She would promote environmentalism to the peril of the environment. If we allowed promotion of environmentalism without belief in environmentalism, she would be considered an environmentalist – maybe even one of the greatest environmentalists.

This is probably another good reason not to call the intention based (Kantian-like) moralist who has moral reasons for protecting the environment an environmentalist. In this case, the results of the moralist’s actions may accord with the beliefs of environmentalism, but it does not stem from a belief in environmentalism. And even if and when the moralist – with his beliefs that accord with environmentalism – engages in even the most zealous promotion of environmentalism for moral reasons we should not necessarily consider this promotion as adding anything to the case as to

whether or not he is an environmentalist. He could still be a moralist anti-environmentalist. To be clear, the moralist could argue that they can only be responsible for their own intentions and not the diabolical actions of the evil genius. However, I am stating that it is hard to argue that this moralist is a pure environmentalist. I am not arguing that it is a logically or morally sound position.

When given the option of choosing the one that is ideal: 'Believing in' in (1) and 'Believing in and Promoting' in (2), most who call themselves environmentalists would probably choose (2). In fact, wanting everyone to want what is best for the environment – since I am included in everyone – means that I will want what is best for the environment in (2) as well as (1). In this sense, an environmentalist may be drawn to (2) because (1) says nothing more than (2) about what my intentions will be, and (1) says nothing about what the intentions of others will be, unlike (2). Why would an environmentalist want (1) 'believing in' environmentalism when (2) is getting 'believing in' and 'promoting' environmentalism? This is not only because (2) says everything (1) does about how we will ideally act, that 'I want what is best for the environment; I want the best results'. It is also because it goes further to say how *others* should ideally act, that 'I want everyone to want what is best for the environment; I want everyone to want the best results'.

Number (2) could be reworded to say both: 2A) 'I want what is best for the environment; I want the best results'; and 2B) 'I want everyone else to want what is best for the environment; I want everyone else to want the best results', as this is logically equivalent to saying 'I want everyone to want what is best for the

environment; I want everyone to want the best results'. Symbolically, we could say that: $(2) = (2A) + (2B)$.

Making the ideal (2) – that I want both (2A) and (2B) – would likely appeal to an environmentalist, but they cannot coherently claim they want both equally. This is because (2) is internally conflicting. If (2A) I want the best results, this would often conflict with (2B) wanting everyone else to want the best results. This is because everyone else having the best intentions will not always aim at what I believe will produce the best results.

For example, there may be situations where I know if everyone else had the best intentions, that it would not yield the best possible results. If I knew it would be better if everyone else had some other disposition, and I wanted (2A) – that I have the best intentions – I could not claim I *equally* want (2B) – that I want everyone else to have the best intentions. This is because I cannot have the best intentions if I want others to do that which is worse for the environment, even if they had the best intentions. I cannot coherently want what is best and want something worse at the same time. I only see two ways around this practical inconsistency – that A or B needs to be made dominant over B or A, respectively. My revised (2) could be either 2A Dominant or 2B Dominant.

2A Dominant: 'I want what is best for the environment; I want the best results', and 'I want everyone else to want what is best for the environment; I want everyone else to want the best results', unless I believe it will not yield the best results for the environment.

2B Dominant: ‘I want everyone else to want what is best for the environment; I want everyone else to want the best results’, and ‘I want what is best for the environment; I want the best results’, unless I believe it will stop everyone else from wanting the best results for the environment.

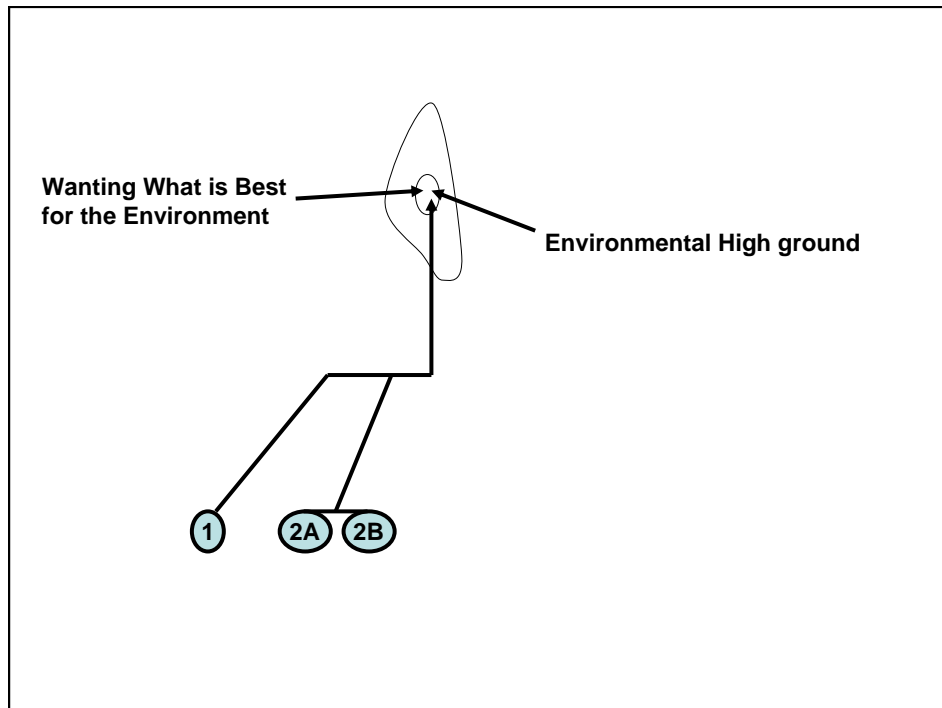


Figure 10: Remaining Types 1, 2A, & 2B

2A Dominant can be simplified much further. 2A Dominant says that X) I want what is best for the environment and Y) I will only want everyone else to want what is best for the environment where I believe it to be what is best for the environment. By adding that ‘I will only want everyone else to want what is best for the environment where I believe it to be what is best for the environment’ to the statement does not add anything significant to the fact, that ‘I want what is best for the environment’. (X) says, ideally, I want anything in regard to the environment so long as it is what I believe is best for the environment, and (Y) says, ideally, I want everyone else to want

what is best for the environment so long as it is what I believe is best for the environment. (Y) says nothing significantly that (X) does not so (Y) collapses into (X) making 2A Dominant say, in effect, that:

2A Dominant: ‘I want what is best for the environment; where this too allows everyone else to want what is best for the environment, I will prefer this’.

This makes 2A Dominant practically equivalent to (1). Because of this, I will collapse 2A Dominant into (1) and just deal with (1) and 2B Dominant as the remaining motive within environmentalism still to be considered.

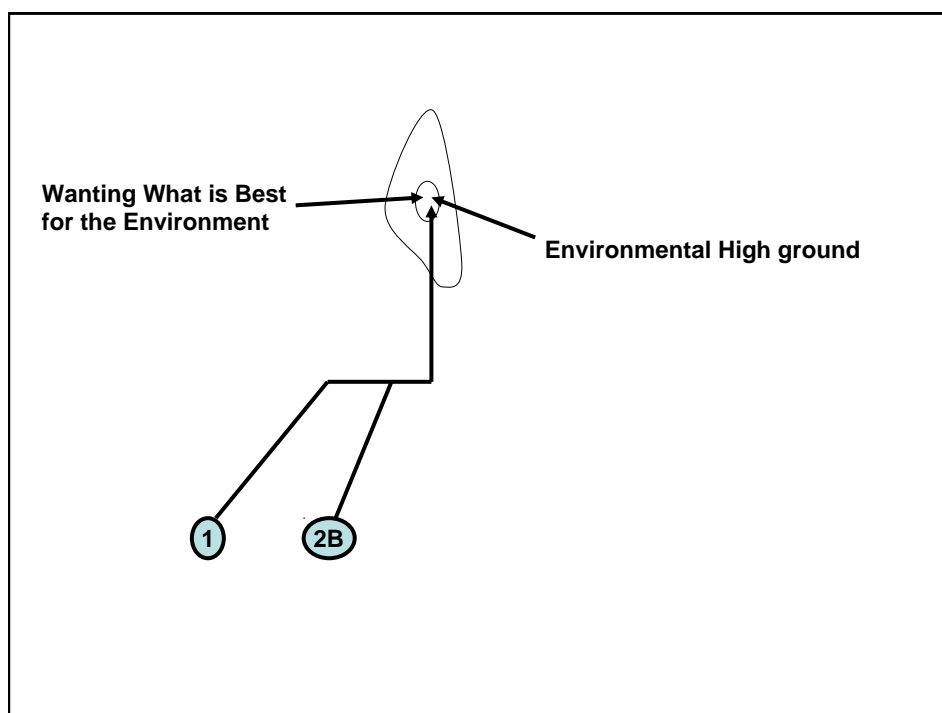


Figure 11: Remaining Types 1 & 2B

2B Dominant can be simplified much further also. 2B Dominant says that X) ‘I want everyone else to want what is best for the environment’ and Y) ‘I will only want what I believe is best for the environment where it allows everyone else to want what is

best for the environment'. By adding that 'I will only want what I believe is best for the environment where it allows everyone else to want what is best for the environment' to the statement does not add anything significant to the fact that 'I want everyone else to want what is best for the environment'. (X) says, ideally, I want anything in regard to the environment so long as that want allows everyone else to want what is best for the environment and (Y) says, ideally, I want what I believe is best for the environment so long as it allows that everyone else wants what is best for the environment. (Y) says nothing significantly that (X) does not so (Y) collapses into (X) making 2B Dominant, say in effect, that:

2B Dominant: 'I want everyone else to want what is best for the environment where this too allows me to want what is best for the environment, I will prefer this'.

If I want everyone else to want what is best for the environment, I have shown that this is practically inconsistent with the belief that 'I want what is best for the environment'. Thus, I cannot want as an ideal everyone else to want what is best for the environment more than wanting myself to want what is best for the environment and still be considered an environmentalist.

This means that we are able to refine the Working Principle of the Pure Environmentalist to:

1: I want what is best for the environment; I want the best results.

I will call this the refined Working Principle.

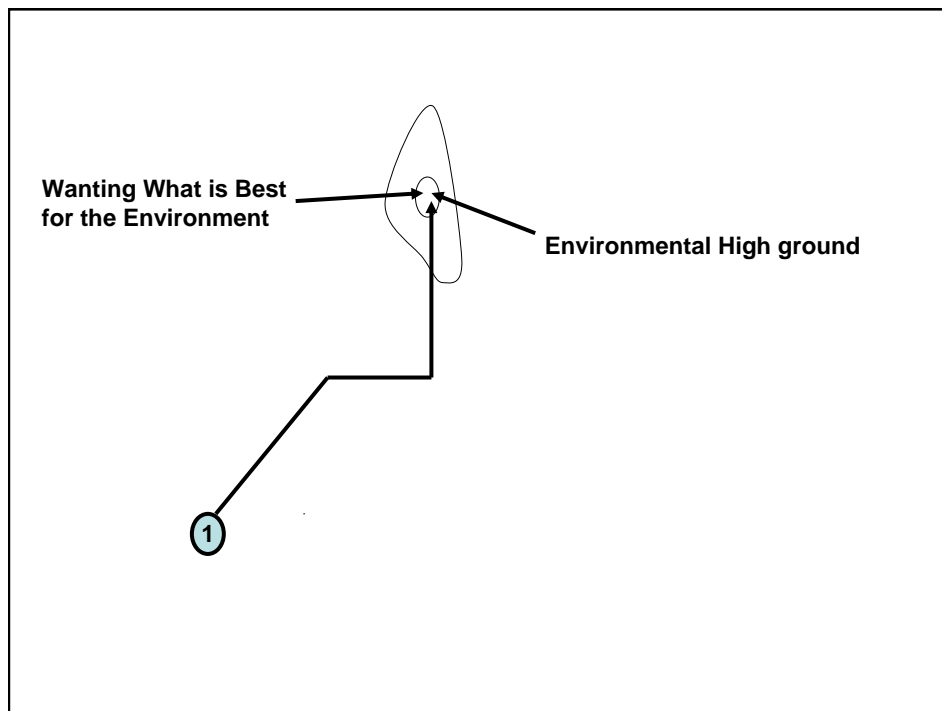


Figure 12: Remaining Type 1

3.6 Conclusions

I have argued that the three ideal types of wanting what is best for the environment can be criticized for not always wanting what is best for the environment. I think it would be very difficult to argue that (1) is not a pure environmentalist. Though there is no agreed definition for an environmentalist – and it may be a mistake to think that there is one – I do not see how it would be possible to say that this pure environmentalist is not an environmentalist. If we could say that the pure environmentalist is a subset of environmentalists, we know that characteristics of pure environmentalists must be allowed to be present within the set of environmentalists. If this is correct, it allows us to say some interesting things about what it means to be an environmentalist (see Figure 13).

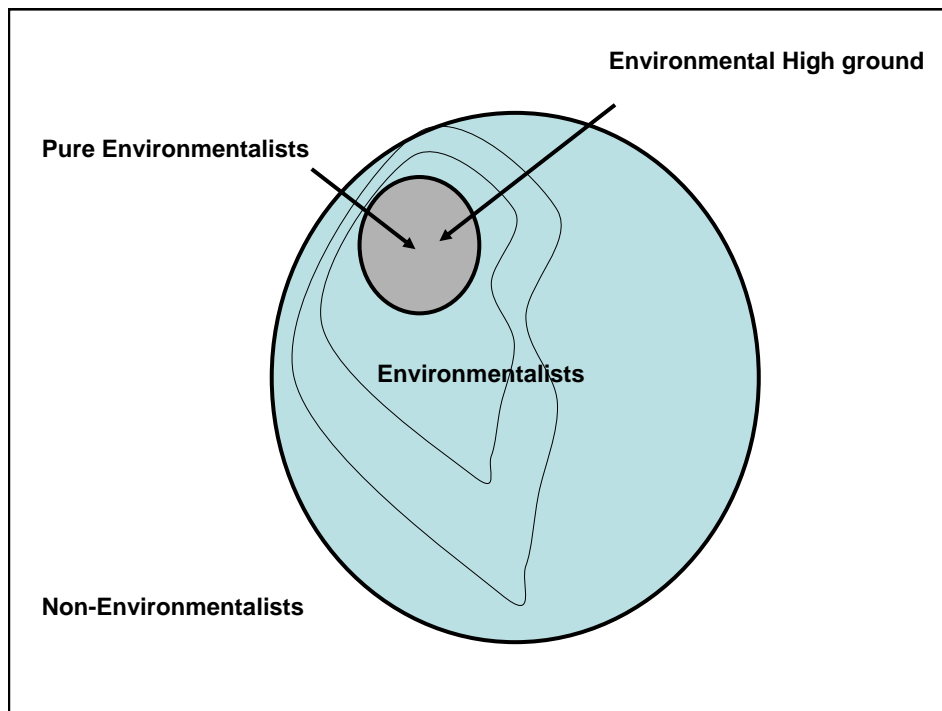


Figure 13: Hypothetical Relationships between Pure Environmentalists, Environmentalists, and Others

3.6.1 On Compatibilism

As I have previously argued, environmentalists have varying levels of concern for the environment. I also argued in this chapter that the pure environmentalist is primarily indifferent towards the beliefs and intentions of others. The pure environmentalist's unwavering aims and zealotry for an environmental cause would likely have some respect among radical environmentalists. Throughout history, and regardless of their philosophical position, zealots with unwavering aims have not been known as our diplomats, dealmakers, or great compromisers. In fact, they have been quite the opposite. It is almost paradoxical that those with radical views would be expected to agree to unite with those with very different views.

If the environmental pragmatists are correct that there is a great deal of overlap among environmentalists in regard to what practically should be done in regard to the environment – including probably between the four types of environmentalists discussed in this chapter – then there are not a lot of reasons to be anti-compatibilists.

Let's assume for just a moment 'compatibilism' is an effective strategy for producing the best results. Since the pure environmentalist cares foremost about results, in addition to having no reason to care about others' beliefs and intentions primarily, they would likely have little secondary reason to be intolerant of others' beliefs or intentions.

If this is correct, it, firstly, means that *a* type of radical environmentalist is a pretty tolerant fellow of other environmentalists. This is interesting, but does not say much. Secondly, this means that 'anti-compatibilists' have an uphill battle in explaining their 'anti-compatibilism' on environmental grounds. I see only two plausible explanations for why they are 'anti-compatibilists'. Both of these come with serious consequences. The first plausible explanation is that the convergence hypothesis is untrue, and that 'anti-compatibilism' is better. This would mean that 'anti-compatibilists' would have to argue on pragmatic grounds that 'anti-compatibilism' produces better results. This carries the problem of validating their – usually – theoretical position with a pragmatic argument. This means that their theoretical position could be criticized on pragmatic grounds by the environmental high ground. The second plausible explanation is that they do not want what is best for the environment. This carries two potential problems: A) they would have to argue that 'anti-compatibilism' is

pragmatically just as good as ‘compatibilism’ (which carries with it the same problem as the first), and that they have a more particular desire for ‘anti-compatibilism’; or B) that they are doing what is worse for the environment by being ‘anti-compatibilists’. I will indirectly argue that (A) is not very likely in Chapter 4 because it is a ‘more particular desire’.

I think there are actual examples of people turning away from compatibilism, and quite possibly also turning away from ‘what is best for the environment’. I believe Holmes Rolston III might be an example of this. Rolston (2009) discusses Norton’s convergence hypothesis critically. Rolston remarks about the thought of having to appeal to anthropocentric values to get people to support environmental friendly policies – anthropocentric values that he finds morally misguided. Rolston’s (2009: 106) explains how his non-anthropocentric intuitions guide him away from such activities:

‘Norton teaches in a School of Public Policy, and if I worked there, I might myself have gotten diluted (or become more inclusive) and come around to his position. If he and I were on the floor of the Georgia legislature, defending the Georgia wetlands, or the floor of the U.S. Congress defending the Endangered Species Act, his position would be my fallback position. I would be trying to transform those legislators into becoming more enlightened environmentalists. I would stoop to conquer. But afterward I would be sorry I had to stoop to conquer. I might congratulate myself on my political insight or on my psychological analysis of the way average citizens think, but I would think I had fallen back from philosophical high ground. (A day or two later, I might be apologizing to ordinary people, as well as to Georgia legislators, for selling them short as though they were never able to occupy any high moral ground respecting God’s good creation.)’

I believe this puts Rolston, and similarly-minded non-anthropocentrists with non-inclusive intuitions, into a curious situation. Some of the power of their position comes from their argument that non-anthropocentrism can protect the environment in ways that anthropocentrism cannot (see McShane, 2007, McShane, 2008, Rolston, 2009). Rolston, if he is correct philosophically, would be able to claim that he is taking the ‘high moral ground’. However, I think Norton might be able to argue that he has taken the environmental high ground in this issue.

To be clear, the pure environmentalist does not care whether he is a ‘compatibilist’ or not – results dictate this stance. However, he has no primary reasons to care about other’s beliefs and intentions. If compatibilism is an effective strategy for producing the best results, he would likely not have any secondary reason to care about environmentalists’ beliefs and intentions. This would mean we would most likely find him behaving in a compatible way. My argument in this subsection is that I believe the pure environmentalist and the environmental high ground have some interesting uses within arguments about compatibilism and likely within environmental philosophy generally.

3.6.2 On Promoting Environmentalism

Wanting everyone else to want what is best for the environment is not what makes someone a pure environmentalist. This means that ‘promoting’ – or the lack of promotion of – environmentalism is not what makes someone an environmentalist. One can promote environmentalism for a variety of reasons, such as religious reasons (e.g. Darlington, 1998, Hunter and Toney, 2005, Saniotis, 2012) or profit incentives

(e.g. Newton and Harte, 1997: 75). It is the pure environmentalist who is compelled to promote environmentalism for the sake of the environment. It is also the pure environmentalist who will not promote environmentalism for the sake of the environment. Promoting environmentalism does not directly follow from being an environmentalist. For those who promote environmentalism for non-environmental reasons, or for those who believe we should only promote environmentalism if and where it is what is best for the environment, I offer no criticism. I only argue that environmentally pure reasons cannot support blind promotion. Instead of trying to get people to be environmentalists, to be responsible, or to be environmentally educated, they should primarily concentrate on trying to get people to believe whatever will produce the best environmental results – if their reasons are purely environmental. This meshes well with claims by Light (2009). Secondary to this primary aim, this may often – but not always – mean getting others to be an environmentalist. Where people conclude – from an environmentalist position – that they should always promote environmentalism, they open themselves up to blindly promoting environmentalism in situations where when there is no benefit or even a detriment to the environment. Given that promoting environmentalism is often discussed as a general goal (e.g. Cantrill, 1992, McKenzie-Mohr and Oskamp, 1995, Darlington, 1998, Jones et al., 1999, Oskamp, 2000, Zelezny et al., 2000, Zelezny and Schultz, 2000, Kurz, 2002, Saunders, 2003, Hunter and Toney, 2005), a goal of environmentally responsible behavior (see De Young, 2000, Kaplan, 2000), and a goal environmental education (Myers et al., 2003), we should also look closely at when and in what situations it should be a goal.

Further, like any other environmental measure, promoting environmentalism should be used merely as a tool to achieve specific environmental goals, and should be subject to an environmental cost-benefit analysis. This does not just mean that a pure environmentalist must believe that promoting environmentalism will create a good result for the environment. If that were all it took, it would seem very likely that promoting environmentalism would create such a result. This must mean that a pure environmentalist believes that promoting environmentalism will create *the best* result for the environment. Often promoting environmentalism will not be the way of achieving the best environmental result. It may always be better for an oil spill in an isolated area to be cleaned up, but not if the means of the cleanup involves a greater environmental ill. This is rather obvious. Cleaning-up an oil spill is not always an environmental good (see Flowers, 2000). What is less obvious and far more relevant is even if cleaning-up a particular oil spill is positive environmentally, it does not mean that using the monetary resources we would use to clean up the oil instead to preserve land that might otherwise be logged would not be better.

Likewise, if I believe that the best result I can create for the environment is to stop litter from entering a small bushland reserve, it would be hard to believe that I think the best way to achieve this is by promoting environmentalism. It would be easier to believe that it would be better – or more efficiently – achieved by promoting proper disposal of waste, or even picking up the garbage myself. This efficiency will allow me to more rapidly or better use my resources to deal with the second most pressing environmental issue – whatever that may be. Promoting the environment is a powerful – albeit an unpredictable – tool for the environmentalist. However, it is merely a tool.

3.6.3 On the Term ‘Environmentalist’?

I think there is potential to create a better top-down term ‘environmentalist’, but this would be against the linguistic approach and some of the important beliefs within pragmatism. However, it may be useful if we did. My only point in this subsection is that a philosophically clearer definition could emerge from my conclusions.

We know what a pure environmentalist does. We know a pure environmentalist will want what is best for the environment; they will want the best results. However, what does this say about an environmentalist? An environmentalist will do something less than or equal to what is best for the environment; they will want something less than or equal to the best results. In a way, this tells us nothing meaningful. One bookend of the term environmentalist is comparatively easy to define. We know what a pure environmentalist will do. However, it is very difficult to say what a mediocre environmentalist will do (see Figure 14). How little can one do and still be an environmentalist? I have not been productive at answering this question, and it is not surprising. It seems just as difficult to answer how bad can a pious man be and still be a pious man.

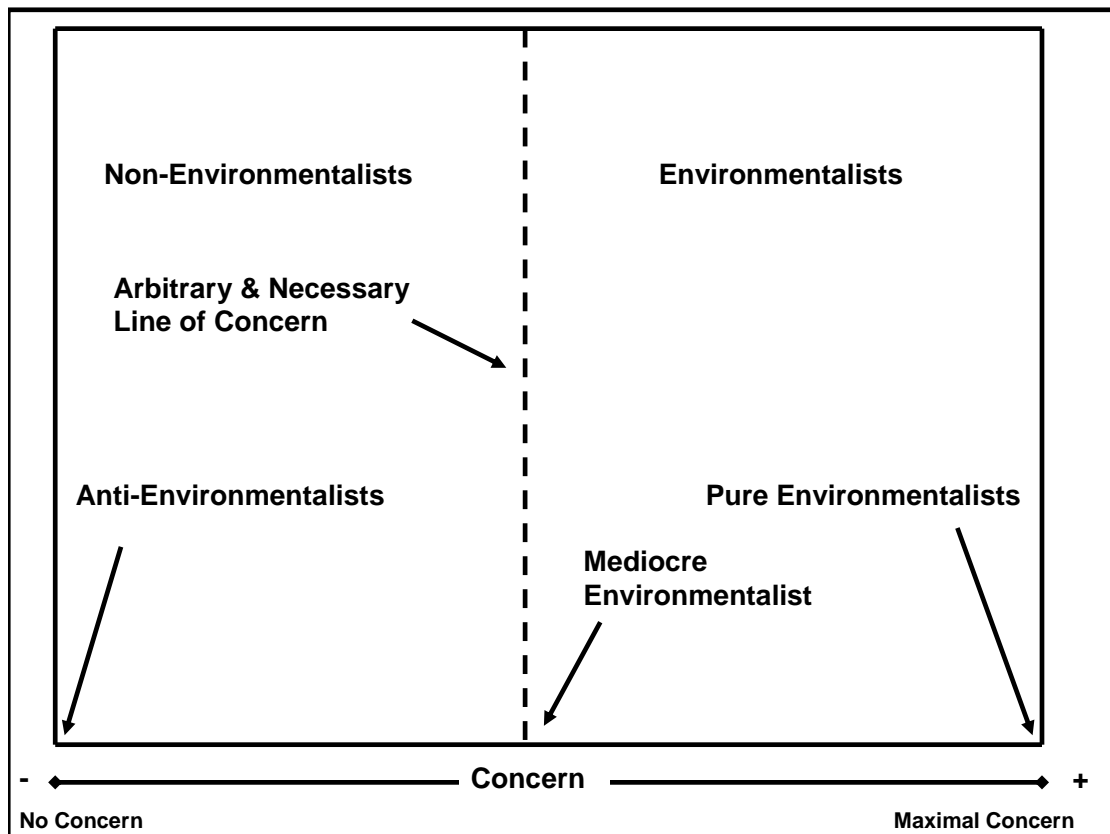


Figure 14: Different categories of Non-environmentalists and Environmentalists distinguished by their levels of environmental concern

What we can conclude is that we should not at all be surprised at what an environmentalist does. If a pure environmentalist will do anything for what is best for the environment – including massacring a gorilla family, dumping oil on the beach, and cutting down an old-growth forest – we can imagine that the more encompassing term environmentalist would contain individuals doing all sorts of things. This shows one problem that must be considered with attempts to link environmental attitudes with certain environmental actions. A pure environmentalist will do nothing if they think that is what will produce the best results. This means that if we presuppose which actions are indicative of being an environmentalist, we may often be incorrect. If we define an environmentalist as one who does certain actions we do so recognizing that some who want what is worst for the environment could be

considered an environmentalist. Likewise, those who go so far as always to seek the best results for the environment could be considered non-environmentalists.

We might be able to define an environmentalist based on why they do what they do, but not what they do as a means to an end. For all environmentalists but the pure environmentalist, that end will not always – maybe even less than rarely – be what is best for the environment, but they will hold the motive that they want the best results. This could be used to exclude a great number of people who are identified – or self-identified – as environmentalists. At the very least it would seem many who are considered environmentalists would be better called something else. Most of these groups already have adequate names (anthropocentrist, utilitarian, Kantian, religious, Animal Rights/Welfare activist). These distinct groups, if united in policy, need not be fractious over values (Norton, 1991) or name as I see it. Ecocentrists and Ecofeminists can converge and work together on a single issue despite have different theoretical positions (Afeissa, 2008) and names. Norton and I would agree that the group he calls ‘environmentalists’ have not accepted a common and shared worldview. We would also agree that there are pragmatic benefits for there to be unity among individuals within this group. I believe a more disciplined use of the term ‘environmentalist’, as I have suggested, might be pragmatically useful – if only in academic discourse. If it would not be useful, leave it here. We must keep in mind that environmentalists are a diverse group of people (see Plater, 1988, Ellen et al., 1991, Birkland et al., 2006: 400-401, Foss, 2009: 42-43) even if we accept this narrowed – albeit incomplete – definition.

3.6.4 Intent of Refinement

Using the pure environmentalist to *divide* different types of ‘wanting what is best for the environment’ is not intended to be *divisive*. Though, I believe I have shown one version of the aim is superior to the others on its own grounds. What is useful to extract from this is a refined Working Principle of the Pure Environmentalist. It is intended to be as pure an aim as possible, though subject to further refinement.

1: I want what is best for the environment; I want the best results.

Through its specificity, this refined Working Principle can better inform environmental decision making than ‘wanting what is best for the environment’. This refinement has allowed me to critique ‘compatibilism’, promoting environmentalism, and the term ‘environmentalist’ in important ways that the previous Working Principle was not able to do. I believe that this refined, results based (consequentialist-like) Working Principle can be applied in similar ways to innumerable issues where – in sometimes and some situations – individuals want to do, consider, or know what is best for the environment.

Even though there are more issues available which the refined Working Principle can give us insight into, I believe I have sufficiently illustrated how it can be applied in its more conventional ways such that it could be duplicated. At this point, I am more concerned with broadening how it can be used rather than using it. I intend to leave the work of applying these principles to cases studies to practitioners. I will continue to utilize the refined Working Principle in the remaining chapters of this thesis. However, I will do so in a more unconventional way than I did in this chapter.

I intend to throw the refined Working Principle a couple of curveballs. In the next chapter, I will pose the Working Principle a well know decision making conundrum – the choice between equal things or Buridan’s Ass. I do this not only because I know it is a difficult decision making scenario that I will argue would be common to environmental decision makers, but because I know the refined Working Principle, as it stands, gives inadequate advice for dealing with the scenario. This exercise will both show a practical way through this decision making scenario, and force us to further modify the Working Principle so that it can give adequate advice.

The second curveball I will throw the refined Working Principle is in Chapter 5. I will set-up the revised Working Principle with the adequate advice from Chapter 4 for failure. I will have it accept an interpretation that causes it to make decision making errors. This is unabashedly something like a straw man argument. However, it is not the argument that the interpretation leads to decision making errors in certain situations. What is important is extracting patterns about what situations it does give bad advice. These patterns of themes that are extracted allow us to assess other issues relevant to environmental decision making. I will, of course, explain this in greater detail at the end of Chapter 4 and in Chapter 5.

CHAPTER 4: On the Choice between Equal Things

The choice between things which are equal is a complicated decision making scenario. It is not surprising then that the choice between equal things in terms of what is best for the environment would also pose a conundrum for environmental decision makers if they encountered such decisions. In this chapter, I will discuss why this is a difficult decision making scenario, why it would be encountered, and why it is relevant to environmental decision makers. This will give these scenarios some practical grounding. I will argue that there are a couple of parallels between the ideal rational egoist and the pure environmentalist concept that I refined in Chapter 3 that make discussion on the decision making of one relevant to the other. I will critique Parfit's account of choice between equal things, and apply it to environmental decision making. This will have implications not only for the choice between equal things, but also for justifying decisions.

I will begin in the next section by briefly discussing Buridan's Ass or the conundrum of the choice between equal things. I will discuss its practical implications, why I think it is important, and why I believe it is relevant to environmental decision making.

4.1 *Buridan's Ass*

4.1.1 A Known Decision Making Conundrum

Buridan's Ass is a philosophical discussion about the choice between two things, which are equal. This is a specific type of decision making that made difficult by the complexity of attempting to satisfy conflicting goals or 'multiple constraints', such as in psychology (Thagard and Verbeurgt, 1998), medicine (Oddoye et al., 2007, and computing (Olarte et al., 2013). The historical example for Buridan's Ass is that if a donkey is confronted with two equal piles of hay that are equidistant, the donkey will starve because it has no criteria to choose one of them. However, despite the likelihood of donkeys confronting such a situation, there are, of course, no known instances of donkeys starving because they cannot decide (Lamport, 1986: 4). This part of the principle has little practical relevance. It is discussed as it relates to philosophical questions about determinism. It is also discussed within computer programming (see Lamport, 1986). Donkeys somehow overcome these predicaments and so do we. However, this is not to say that we overcome these issues without inefficiency, and there is a great potential for inefficiency in environmental decision making – as I will explain. There is a theoretical aspect to this principle and a practical one.

4.1.2 Why I think it is important

My reason for focusing in on this type of decision is once again unabashedly heuristic in nature. It is important for me to convey this importance or this could be seen as a rather arbitrary focus on one type of decision making scenario.

There are two things that make this type of scenario common. One of these things is time. If I were to say that there were two options in a given scenario, and then said no more, we would have no reason to believe that they were not equal. We collect evidence to try and show their differences. Where the evaluation of options is rushed, we will have generally gathered less information. This can even happen when we know the options are not equal, but do not know which one is best. It seems to me that generally with less time to evaluate options, we will have less reason to think they are different. Limited time will generally increase the likelihood of encountering choices where the options appear to be equal.

The other thing that makes this type of scenario common is uncertainty. Uncertainty can cause paralysis in much the same way as lack of time. Where the evaluation of options is plagued by uncertainty, we can have a lack of clear information to differentiate.

The immediate practical repercussion in a Buridan's Ass scenario is indecision (see Lamport, 1986: 3). In the cases of time pressures and uncertainty, indecisiveness can cause benefits to expire or diminish. These decisions are potentially common where there are time pressures and greater degrees of uncertainty, and have great potential for being sources of decision making inefficiency.

In the next subsection, I will describe why I believe Buridan's Ass scenario is highly relevant to environmental decision making

4.1.3 Relevance to Environmental Decision Making

Norton (2005: 101) remarks that ‘[p]erhaps no issue confounds environmental managers more than the “problem of uncertainty.”’ Since environmental decision making is often done with limited information and uncertain results, it would often be the case that we can be confronted with the choice between two things which we cannot now differentiate. There are many examples of Buridan’s Ass scenarios being mentioned in regard to environmental decision making (e.g. Hagenstein, 1971, Goodin, 1983, McKinney and Hill, 2000, Gowdy and Mayumi, 2001: 232-233, Andreou, 2007, Hillerbrand and Karlsson, 2008, Zeide, 2008: 360, Matteucci, 2009, Grundig 2012: 181, Nasca, 2012: 284, Hourcade and Shukla, 2013: S29).

I believe these scenarios would be increasingly common for upper level, remote, and team based environmental decision making. It seems to me that in situations where environmental quality is evaluated or rated, this increases the likelihood of them appearing equal on paper. Where decisions are made remotely or involve larger scale decision making, it decreases the ability to gather evidence of their inequality. This is because verbally conveying something, such as the environmental quality of a particular site, is generally somewhat impoverished or rather two-dimensional. Hillerbrand and Karlsson (2008: 4) discuss Buridan’s Ass scenarios in environmental decision making:

‘[W]e frequently find ourselves in a similar situation to Buridan’s donkey. However, when dealing with the environment, our situation is quite often even worse – the choice we have may only be between two rotten or even two poisonous haystacks: Neither sacrificing our natural environment as the living

condition of future generations, nor major sacrifices from present generations seem to be a bullet anyone would want to bite.’

For example, the choice to protect two different pieces of equal size and equally rated land could pose such a conundrum.

Additionally, environmental decision makers are accustomed to working with stakeholders with a variety of different strongly-held beliefs. Politically, there is a lot of pressure on them to not only make good decisions based on evidence, but justify these decisions publicly. This may often involve gathering additional evidence – beyond what is needed to make a good decision – perhaps to attempt to justify a decision. I will conclude at the end of this chapter that if we want what is best for the environment, we would be adequately justified in making decisions between two things without any other reason then we could only choose one. Furthermore, I believe there would be times where searching for an inequality would *not* be justifiable. Indecision can be very harmful. McKinney and Hill (2000: 79) state that:

‘[T]he precautionary principle appears to commit us to taking the branch of inaction, but there is absolutely no reason to believe that that branch will be any less destructive than the branch of action. Recognizing this, we find ourselves between Scylla and Charybdis, stuck like a modern Buridan 's Ass, paralyzed by indecision into inaction, and thus the acceptance of unknown, unforeseen, unacceptable risks.’

Similarly, Hillerbrand and Karlsson (2008: 4) state that:

‘[P]olitical decision-making just cannot remain in the middle of these two haystacks: Delaying actions in many cases simply worsens existing environmental problems. Once again, anthropogenic climate change is a paradigm case.’

My reason for examining Buridan’s Ass scenarios is because I believe they are common and that there is great potential for inefficiency. I would like to discuss what I believe is a more efficient way of handling such a scenario in decision making and argue with Parfit’s account of it in this chapter. Drawing connections between Parfit’s work and environmental philosophy is often done (e.g. Norton, 1982, Weiss, 1990, de-Shalit, 1992, Spash, 1993, Paden, 1994, Shrader-Frechette, 1996, Johnson, 2003, Ekeli, 2004, Davidson, 2008).

My argument from this subsection is that we should not be surprised that looking at the choice between two equal things would have relevance in environmental decision making. Further, there is reason to believe that discussions on how to efficiently handle such decision making scenarios could be useful in environmental decision making. Though I have stated that I would like to argue with Parfit’s account of rational egoism, my ‘argument’ with Parfit needs to be put into context. The next section is devoted to this, and to introducing Parfit’s discussion on rational egoism.

4.2 Parfit’s Discussion of Rational Egoism

In *Reasons and Persons*, Derek Parfit gives a detailed description of rational egoism – or Self-interest Theory (S) as he calls it. Rational egoism is a normative position that it is necessary and sufficient, for an action to be rational, that it contribute to the well-being of the agent (Shaver, 1999: 2). In Parfit’s description, he is not promoting

rational egoism, per se. Rather, in the relevant sections, he puts forward his best argument for rational egoism only to trenchantly criticize the theory with his arguments about relativity, time, and identity much later in the book. Parfit's *Reasons and Persons* has 'revitalized' discussions on rational egoism (Shaver, 2010).

For my purposes, it is not important whether rational egoism is tenable, or whether Parfit's version of Rational Egoism is tenable or accepted by proponents of rational egoism. The moral argument is irrelevant in this thesis. What are relevant are the parallels between Parfit's rational egoism and the pure environmentalist concepts, and internal consistency of these like concepts – how we might judge them on the grounds of their internal consistency.

Parfit finds it useful to illustrate the rational egoist position by creating a rational egoism ideal type. Because we are dealing with humans, we know that people 'often do what they ought not do' (Paton summarizing Kant, 1948: 14) or otherwise diverge from the ideal. By using ideal types, we do not have to worry about weakness of wills. Use of a rational egoist ideal type allows Parfit to discuss what someone that *always* acts in their self-interest does – even though there is probably no such person. This allows him to tease out and test for issues of consistency better. After all, it is hard to test the consistency of a theory as acted out by an inconsistent being.

What I wish to look at is the internal consistency of his discussion on the rational egoist's choice between two equal things. I find that in this choice Parfit's account for what this ideal rational egoist would do is not internally consistent. It is important that I put this charge of 'inconsistency' into context. This argument is very much in

the details of his overall argument. It may have little to no impact on Parfit's overall argument. My conclusions might be unimportant to Parfit, both because he is not a proponent of rational egoism and because it has a marginal place in his overall argument. Nevertheless, while it may unimportant to Parfit and those interested in rational egoism, I believe it is important for those interested in efficiency in decision making. Parfit's account is useful because it provides a rigid platform for discussing the pure environmentalist and the choice between equal things. Parfit's account of the ideal rational egoist will have many direct parallels with my pure environmentalist. Because of these direct parallels, my conclusions about Parfit's account of how an ideal rational egoist will choose between two equal things can be directly applied to the pure environmentalist. I will discuss the parallels in the next section, and I will argue that the conclusions can be directly applied at the end of this chapter.

4.3 Logical Parallels between the Pure Environmentalist and Parfit's Ideal Rational Egoist

There are strong parallels between the pure environmentalist and Parfit's ideal rational egoist. Much of this is due to Parfit's influence on my work.

The locus of concern for the pure environmentalist is very different from that of the ideal rational egoist. The pure environmentalist is concerned with producing the best result for the environment, and the ideal rational egoist is concerned with producing the best result for themselves. Some might argue these are polar opposites. However, both Parfit and I are less focused with what 'is' – in fact – the best result, and more

with what is ‘wanting’ the best result. Both the pure environmentalist and the ideal rational egoist have a lot of overlap in that they both want the ‘best’ result.

The other notable overlap is the use of ideal types. Both the pure environmentalist and the ideal rational egoist are unwavering in their aims. This allows both of us to focus on the internal consistencies of these positions.

Given both of these similarities, many of the arguments about the internal consistency of the ideal rational egoist would apply directly to the pure environmentalist.

Likewise, my arguments that I will make in this chapter about the internal consistency of the ideal rational egoist will apply directly to the pure environmentalist.

Having explained the relevance and parallels with environmental decision making, I am in a better position to summarize my argument. In this next section, I will summarize my argument in this chapter in more detail.

4.4 The Pure Environmentalist and the Ideal Rational Egoists Choice between Equal things

If I am a Pure Environmentalist, how do I choose between two things that I have no reason to prefer? Our Working Principle of the Pure Environmentalist does not give clear guidance on how to handle such a situation. Our Working Principle says only: ‘I want what is best for the environment; I want the best results’. Parfit (1984) talks about this decision in detail while discussing an ideal type form of Rational Egoism.

Parfit says that when confronted with equal choices, we will choose based on another desire. Though a pure environmentalist always does what is best for the environment, it does not mean that they do not have other desires that come into play when choosing between two equal things. Parfit is correct, that when we have a completely dominant desire, there is nothing stopping us from having another subordinate desire, however, I believe he is incorrect that we would always use the subordinate desire to choose between two things, which are equal in terms of the dominant desire. When choosing between two things, which are equal, the pure environmentalist would often still choose based on their pure environmentalist desire. The pure environmentalist desire would tell them to choose as fast as possible and move on to a situation where they can further pursue creating the best result for the environment.

For the remainder of the body of this chapter, I will ‘argue’ with Parfit’s ideal rational egoist’s choice between two equal things. In the conclusion, I will bring the concept of the pure environmentalist back into the argument.

4.5 Rational Egoism and the Choice between Equal Things

In Parfit’s description, he says that in certain cases, a rational egoist will act out of love – or another desire – and not out of self-interest. I will question when these cases would exist. Further, I will argue that even if a rational egoist is theoretically capable of acting based on reasons other than self-interest, it is extremely rare that they ever would. This should give us a clearer picture of what not only is involved with being rational according to rational egoism, but also what it means to have any completely dominant desire – such as being a pure environmentalist.

It has been argued by Parfit that S does not tell us what we ought to do so much as it tells us what we ought not to do. Rather than say we ought to act always out of self-interest, it says that we ought not to do that which we believe is worse for ourselves, which he calls 'never self-denying'. To be self-interested does not mean that we will only act out of self-interest. There are cases when self-interest is not a factor. These cases happen when there is more than one option that is best in terms of self-interest. Parfit (p. 5-6) states that:

'It may be thought that, if I am self-interested, I shall *always* be trying to do whatever will be best for me. However, I often act in one of two ways, believing that neither would be better for me. In these cases, I am not trying to do what will be best for me; I am acting on a more particular desire. And this may be true even when I am doing what I know will be best for me. Suppose that I know that, if I help you, this will be best for me. I may help you because I love you, not because I want to do what will be best for me.'

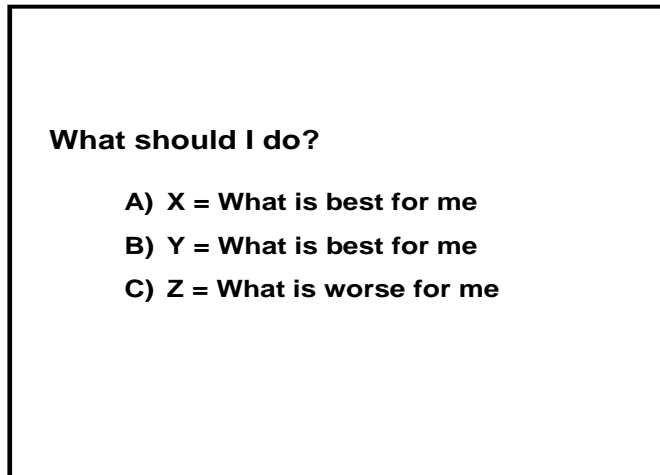
It may seem that this makes only a trivial difference. However, between acting out of self-interest and acting never self-denying there are infinite theoretical opportunities for individuals to act out of some other desire – a desire other than self-interest – so long as it does not detract from self-interest. The heart of Parfit's statement is that:

'...I often act in one of two ways, believing that neither would be better for me. In these cases, I am not trying to do what will be best for me; I am acting on a more particular desire.'

Parfit's point is that though S tells us not to do C, it does not tell us how to choose between A and B. Parfit says that '[i]n these cases' I 'act on a more particular desire' to decide between A or B. Henceforth, I will refer to this statement as (O1), and it is

these cases I will be discussing when we supposedly act on a more particular desire (MPD), such as love. Though A and B may be equal in terms of self-interest, it does not mean that they are necessarily equal in any other way. In fact, A and B could be completely different in some significant ways. For example, see Figure 15.

(a)



(b)

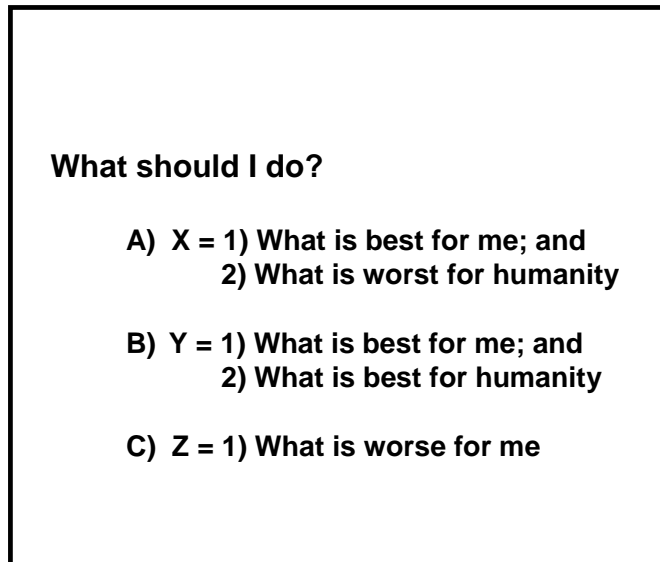


Figure 15: Parfit's Choice between two equal things: (a) example instance of O1; (b) theoretical importance of O1

By definition, A and B are equal in terms of self-interest, so I have no self-interested reason to prefer either option. Parfit concludes that since we have no reason to prefer in terms of self-interest, then some other desire – a more particular desire (MPD) – is actually our reason for choosing A or B. Because A and B, if achieved, would yield vastly different results – as far as humanity is concerned – and because S does not tell us what MPDs to have, it becomes important for us to know 1) what individuals' MPDs are. If they have a MPD to create a better or worse world, this would be

significant. Though it seems important to know (1), it is not sufficient. We must also know 2) how often we would act on these MPDs. If we have a MPD to create a better or worse world, it may not be significant if we never acted on this MPD. Likewise, it may be very significant if we frequently acted on this MPD. If Parfit is correct about O1, then to know (2), we would have to know 3) how often is there more than one best option.

From this it seems to me to be important to be able to explicate these variables by determining (1) how often are things equal in terms of self-interest, (2) what are these more particular desires that individuals have and (3) when they would act on them. I hope to contribute in a general sense to (1) and more explicitly to (3) in this chapter.

What I would first like to do in this Chapter is question whether it follows that A) if X and Y are equal in terms of self-interest, do I then B) choose based on a MPD. It would be fruitful to begin by asking: Is it necessarily true that we have MPDs, if we have 'A'? Before I begin this argument, it is important to discuss how I am going to illustrate choice in my examples.

4.6 Illustrating Choice in this Argument

We might decide to illustrate an individual's options as *all possible choices*, thereby determining every potential option that an individual has to them and listing them as the choices. This would be mistaken as it assumes a perspective an individual cannot have – this would be to take a 'god's eye view'. If we did this, it would not take into account how an individual sees their options. An option can be possible in an

objective sense, but if an individual does not know this option exists, then they cannot choose the option. This means that we should reject the idea of options being considered *all possible choices* in favor of *all possibilities that one believes exist*.

We might then be tempted to consider options to be the results. Because we would look at options through self-interested glasses, options must also be considered by both the benefits and detriments of both the means and the ends.

For the sake of consistency, I will consider it impossible to pick multiple options. I will illustrate the process then as below rather than confuse the situation (see Figure 16).

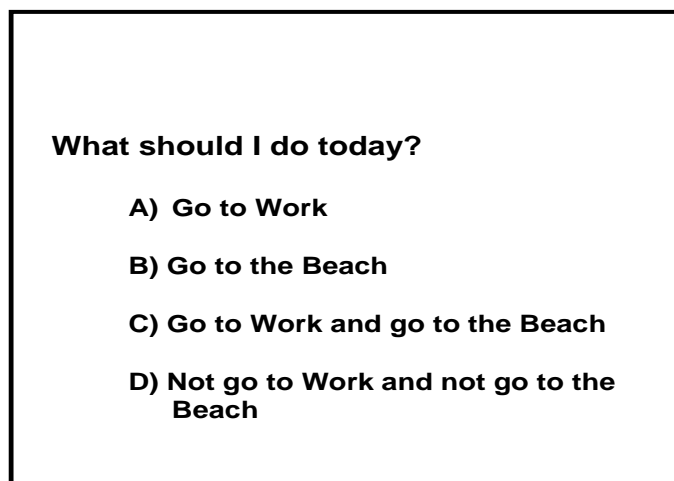


Figure 16: Example of how a decision about how selecting multiple options can be presented as single options

This is logically equivalent to being able to say, (A and B) and (Not A, and not B).

There would be a few objections to depicting such a complex act as a choice of what to do on a particular day – some valid and some invalid. Some of the legitimate issues people would have with these options being depicted in this way are that it 1)

oversimplifies the process; 2) does not consider the dynamics of time; 3) underestimates the options considered. These criticisms of depicting choice are all valid, but they do not change what is pivotal for my purposes.

One other significant criticism of this method of viewing choice is that often we are faced with infinite options. This means multiple alternatives could never adequately depict choice because a multiple-choice problem, as we will use them, will have a finite number of options. For example, see Figure 17.

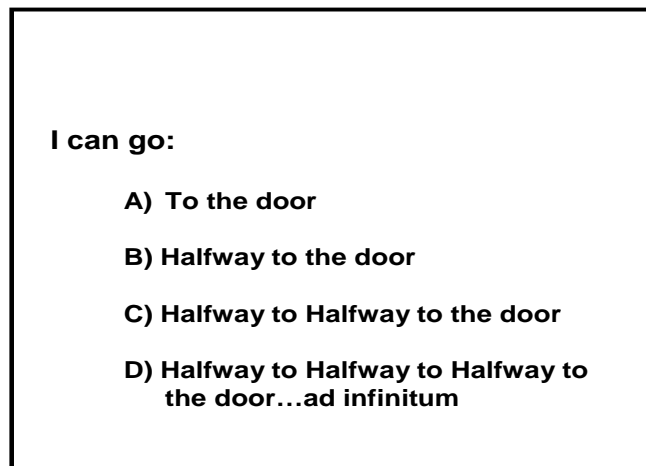


Figure 17: Example of infinite options in decision making

However, the criticism is not significant because it is impossible for an individual to decide after evaluating an infinite number of options.

If we look at the open-ended choice of ‘Where is best?’ in an objective sense we might expect that we would create an infinite list of options; infinite physical locations, hypothetical locations, and psychological states, etc. An individual cannot choose based on all options in an infinite set, but an individual can choose while

acknowledging that there are infinite possibilities. If an individual were to try to decide with infinite options available, they could never decide. An individual could, however, take a sample of the options recognizing that they do not know all the infinite options. I shall mention some reasons why a self-interested individual would do this later. Categorizing is a probable method of handling a case where there are infinite possibilities – more explicitly value laden categorization.

If we were to ask Dorothy from Wizard of Oz ‘Where is best?’ we might understand if she interprets the options as being infinite locations and not as hypothetical locations or psychological states. Given that Dorothy believes ‘there is no place like home’ and with liberal interpretation of her words and actions at the end of the film, we could assume that not only does she believe that home is unique, but that there is something better about it than other locations. If so, we might expect that she would see her options, not as infinite options, as an objective individual may try to believe, but value laden categories of options. For example, Dorothy might see her options as home or anywhere else. Both are technically sets of infinite locations, and whether Dorothy realizes this does not matter. The division between the categories is indicative of the fact that she values these sets very differently. Her categorization is a rational – self-interested –way of dealing with the infinite.

When looking at the desires of an individual, we must see the options as they do – through their eyes. Individuals will handle infinite choices by giving themselves finite options.

For the purposes of the arguments in this chapter, multiple choice will be an adequate way of illustrating a choice. There are only two main questions which I would like to ask before drawing my conclusions. In this next section, I will return to the first question I would like to ask: ‘Is it necessarily true that we have MPDs?’. I will conclude that we cannot assume that we will always have MPDs. The question I will then ask is if there are cases where having a MPD we are face two equal option, but we do not decide based on the MPD. I will conclude that there are such cases.

4.7 Is it Necessarily True that we have MPDs?

Under S, our desires can be put into two categories. There are those which are 1) self-interested, and those which are 2) not self-interested (MPDs). Since, under S, we are never self-denying, we do not act on those MPDs which are worse for us. Parfit says that A) if X and Y are equal in terms of self-interest, do I then B) choose based on a MPD. This seems to make intuitive sense. What I will argue is that when A is true, B is not necessarily true because I could still choose based on self-interested desires.

Parfit seems to assume that because X and Y are equal in terms of self-interest, that self-interest can have no additional significant role in the decision. Furthermore, by saying that we do act on MPDs in those situations, he assumes that we all have MPDs. If I can show that Parfit is making an assumption that self-interest can have no additional role, and that we have MPDs, by showing that self-interest or no desire can explain our choice between X and Y, then we will be in a position to further question when we would act on MPDs.

Before I get into the primary arguments, I would like to draw on an analogy that is helpful for determining whether a desire is necessary in a particular choice between two options, which are equal in terms of S; the concept of a *value vacuum*.

4.7.1 Value Vacuum: An Analogy for My Arguments

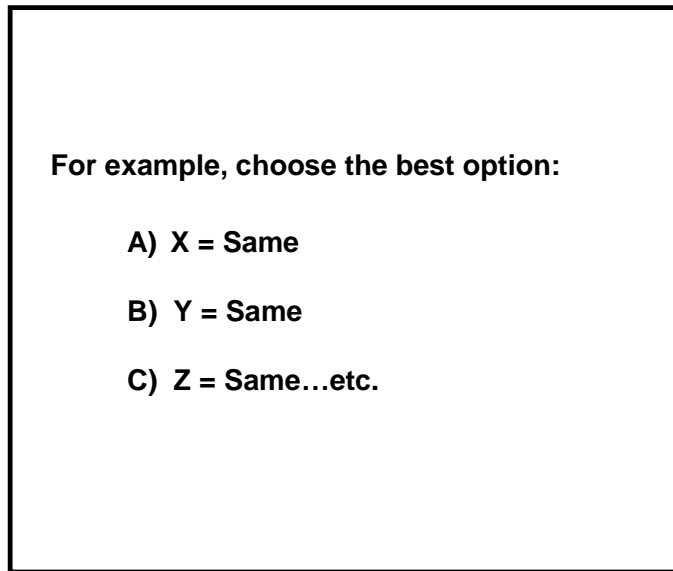
By *value vacuum*, I mean a situation where an individual has no desires; no reason to do anything. In this situation, they would not willingly do anything. They would cease to make any voluntary movement, and they would not even voluntarily act randomly because they would lack the reason to do so. It is important to understand that this individual is not necessarily incapacitated or had their freedoms violated by not having desires, but they are like you and me, just without any desires. They are what we would be if we had all of our desires satisfied – and there was no means to dissatisfy us for a period of time. Whether this actually happens to individuals, in a practical sense, does not matter for my argument. We will use this concept to test some of the positions in the next section.

It is necessary to discuss the different types of cases where it is possible to have equal options. In the next subsection, I will discuss these scenarios and argue that there are only two types of scenarios. This will allow me to later answer whether MPDs are necessary to explain choice.

4.7.2 Two Scenarios Where Options are Equal

There are two possible valid scenarios where I 'act in one of two distinct ways, believing that neither would be better for me'. One is A) where all options are equal in terms of S , and another is B) where there is more than one best option. Examples of these are depicted in Figure 18.

(a)



(b)

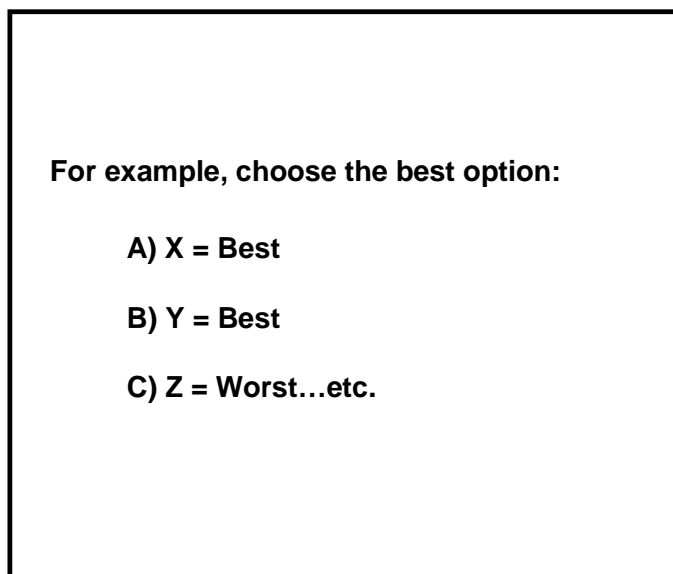


Figure 18: Type of O1 Scenarios: (a) Scenario 1 - Within the set of all options, all options are equal in terms of self-interest; (b) Scenario 2 - Within the set of all options, some options are better than others, but there is more than one best option

I will call Scenario 1 *Equal Options* and Scenario 2 *Multiple Best Options*. If *options* – again – are defined as *all possibilities that one believes exist*, then there is only one thing that can limit our choices. As a consequence of our definition, an act which is not an option is believed impossible to bring about. It can be impossible in one of two

ways 1) perceived *logically impossible* and 2) perceived *practically impossible*. The distinction between these two is arbitrary, but it helps with illustrating that between the collective (1) and (2) it is exhaustive of all impossibilities in options. It is important to understand that *all possibilities that one believes exist* includes every action an individual thinks they could take. Now, consider another example (see Figure 19).

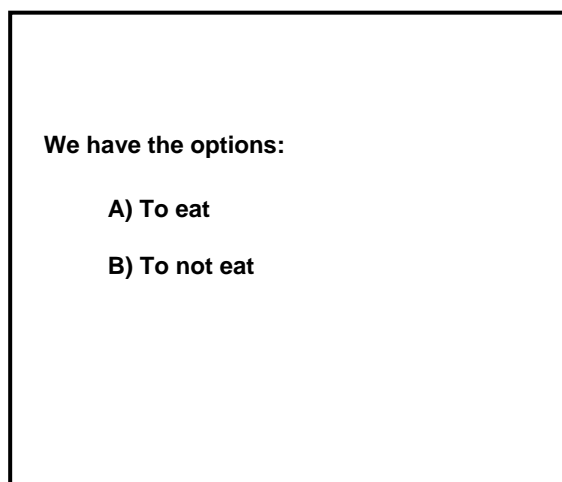


Figure 19: Example of Logical Impossibility

So long as we believe these are our only options in this scenario, we can say that a third option is *logically impossible* because it is necessarily true that A or B but not both. Now consider yet another related example (see Figure 20).

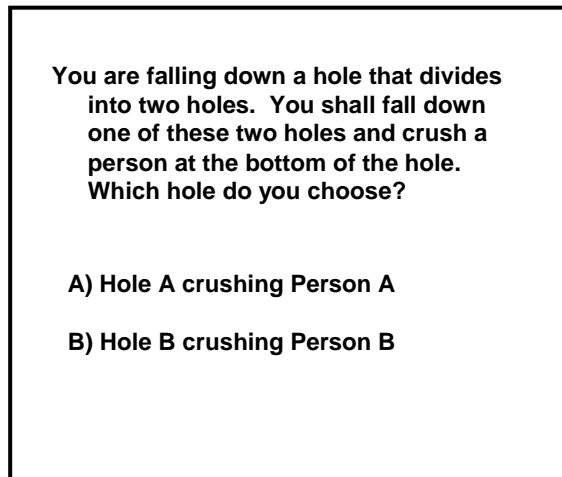


Figure 20: Example of Practical Impossibility

So long as we believe these are our only options in this scenario, we can say that falling down neither of the holes – though logically possible – would be an example of something that has been made *practically impossible* by the givens.

In these two scenarios, the options have been validly limited. There is a third way in which the options can be limited. I will discuss this later. Consider an *Equal Options* example next (see Figure 21).

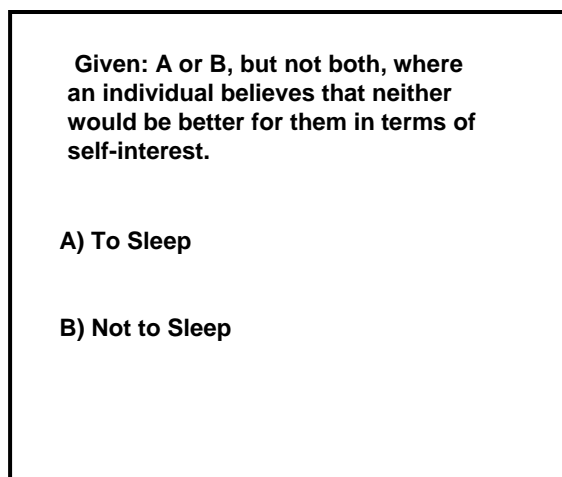


Figure 21: Equal Options example

If an individual believes that these are the only two options, all the desire in the world cannot prevent one of these options from being chosen. This is not just because ‘To Sleep’ and ‘Not to Sleep’ are logically exhaustive in all cases themselves, but because the individual believes these are their only options. It may be that the individual has a MPD that would cause them to choose A over B or B over A, but a MPD is not *necessary* to explain why either has been chosen. An individual in a *value vacuum*, for example, would not prefer one over the other but one shall be chosen. To solidify this notion, let us now consider this less intuitive *Equal Options* example (see Figure 22).

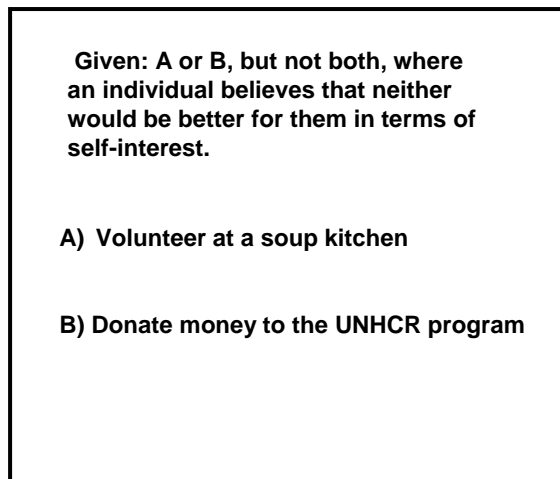


Figure 22: Example of Necessary Choice

No matter what we put as options – regardless of how voluntary we make them sound – if an individual believes these are the only two options, one but not both shall be chosen. Because of this, any choice between one of two acts need not be explained by a MPD, because a desire itself is not necessary to explain the choice. This can account for all scenarios where all options are equal (*Equal Options*).

It may seem absurd to think that the individual in a *value vacuum* will *choose* A or B but not both. However, the absurdity is not in the fact that they will choose A or B but

not both per se, but the fact that the individual believes they are confronted with a situation where somehow they shall either A) volunteer at a soup kitchen or B) donate money to the UNHCR program but not do both. No amount of desire to not do both A or B shall stop one from being chosen. This is not an issue for us, but it is an issue for anyone making a practically believable *Equal Options* scenario. In Figure 22, as in all *Equal Options*, desire is not necessary for the choice of A or B but not both. I shall call this *necessary choice*.

Some may claim that a necessary choice is not a choice at all. This is mistaken. The individual is in every way capable of choosing A or B from a MPD – if they had one. To state that they did not have a MPD does not mean they did not have a choice, just *no reason* to choose one over the other. For example, a sociopath somehow confronted with choosing between the brutal death of a neighborhood child and allowing the neighbor's newspaper to get wet, who does not desire to avoid either one of these options coming to fruition, has *chosen*. They have chosen to allow either of these to happen by not caring if either of these did happen. An individual – under S – who knowingly does not prefer any option in a given situation has evaluated the situation and chosen to allow any of them to happen. This is no less an instance of choice.

In the last two examples (Figures 21 and 22) it is *logically impossible* or has been made *practically impossible* to choose anything other than A or B by virtue of the individual believing there are no other options. Posing such logically rigid ‘A or B but not both’ scenarios are not very realistic because individuals are rarely confronted with scenarios where there are only two options (see similar argument in Harding

(1985: 45-6) about moral dilemmas). Even when individuals seem to be confronted with such situations, they are usually a false binary choice. This is a third – but invalid – way of limiting options. What is important to understand is that in all situations where all options are equal, desire is not necessary to explain choice. This means that at the very least, given that an individual would encounter an *Equal Options* scenario in O1, ‘acting’ does not mean ‘acting based on a MPD’.

I must again stress that we should not confuse options I am told I possess and options I think I possess. I should also not forget why I feel compelled to choose actively in the first place. Some options may not be considered options because the individual would never choose that option because it is such a bad option. This is an understandable way of dealing with choices from an individual’s point of view. However, as an observer, it can obscure possible *reasons for choice*. We must look closely at reasons for choice. To illustrate this, see Figure 23.

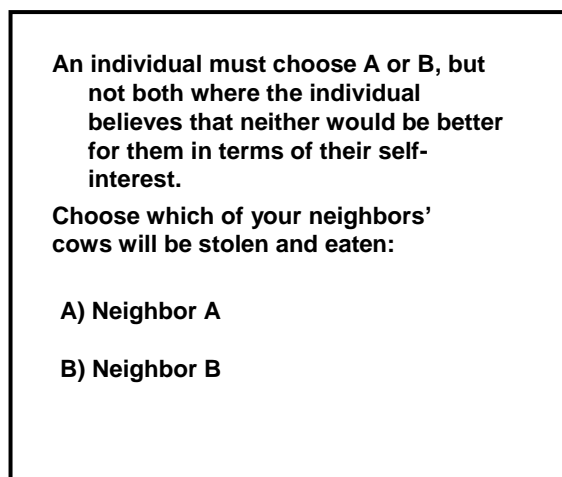


Figure 23: Example of Falsely Limited Choice (A)

If such a case were posed, the individual should wonder what would happen if they did not choose. In all situations where an individual has a choice, they also have the

ability not to choose. It may be that in some situations this is tantamount to choosing either A or B (such as in Figures 21 & 22), but often this would be tantamount to having and choosing a third option. If by not choosing an individual *believed* it would bring about a situation other than A or B, then they *have* more than two options to choose from and thus this is a *Multiple Best Options* scenario. If this is the case with the example in Figure 23, this is *falsely limited choice*. We could revise Figure 23 further (see Figure 24).

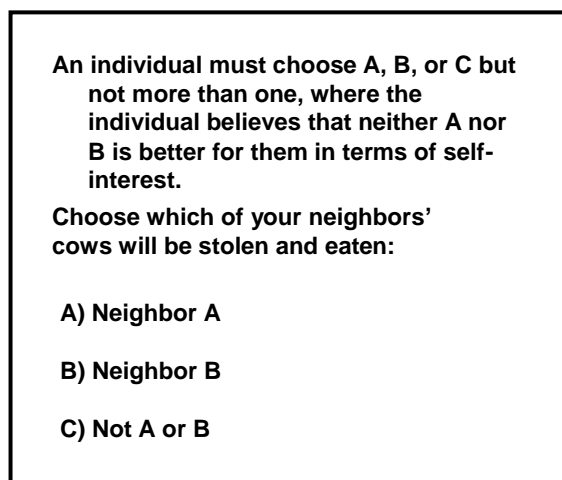


Figure 24: Example of Falsely Limited Choice (B)

If by not choosing A or B the individual's family starves, it is still an option that they have. An expression of how undesirable or difficult an option is – so long as believed possible by the individual with the option – makes it no less an option. It is important to realize all options that we believe are in play in order to look at *reasons for choice*. Recall (O1):

‘...I often act in one of two ways, believing that neither would be better for me. In these cases, I am not trying to do that which will be best for me; I am acting on a more particular desire.’

In the example in Figures 23 & 24, it is true that between options A and B, neither would be better for the individual. However, if the individual's options are A, B, or C and not more than one, they could easily choose A or B randomly in order to avoid C, in this case the individual's family starving. The choice between A or B, when neither is better, may not be driven by a MPD. Instead, it may be driven by a desire to avoid C for S reasons. Where an individual has a choice between acting in one of two ways when the individual believes that neither is better, they can choose one or the other still out of self-interest if – for them – all options other than A or B represent something worse. So it is easy to explain the choice between the equal A and B when C is worse for an individual. Thus, in any of these situations, we have reason enough to choose A or B when C is worse from self-interest in all *Multiple Best Options* scenarios.

There are then only two possible valid scenarios where I 'act in one of two ways, believing that neither would be better for me' (see Figure 25).

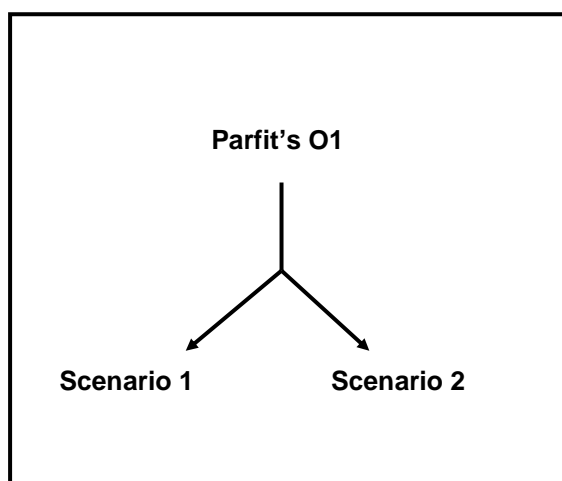


Figure 25: Two Scenarios under O1

Scenario 1: Equal Options- Within the set of all options, all options are equal in terms of self-interest.

Scenario 2: Multiple Best Options- Within the set of all options, some options are better than others, but there is more than one best option.

I have argued that there are two distinct O1 scenarios. Now I have discussed these two scenarios, it is possible to see if we need a MPD to explain how we have chosen. In the next section, I will argue that MPDs are not necessary to explain choice. I believe this provides *a* practical reason for why Buridan's Ass does not starve.

4.8 Why MPDs are Unnecessary to Explain Choice

4.8.1 Meanings for Equal, Better or Worse?

If an individual *believes* an act to be equal, what does this mean? To begin to answer this, we must first understand how equal should each option be to be considered equal. What if an individual only perceives there to be a minute difference in terms of their self-interest? What if for one of the equal options, there is merely a very small chance of something happening that would be a detriment or a benefit to an individual, under S? What if an individual knows an option will harm or benefit them, but that the effect will be imperceptible?

Parfit (1984) gives us a lot of material to work with on this topic when he discusses the *Five Mistakes In Moral Mathematics*. One of the questions we need to answer is, 'What if two options are otherwise equal in terms of S, but one is believed to have a

small chance of causing some harm?'. Does this mean an individual will see this as unequal? Parfit (1984: 73-5) argues that when the stakes are very high or when the tiny risks are taken many times over it is obviously the case that it must be considered. Parfit then addresses small or imperceptible effects. Here, he shows that small or imperceptible effect done over a certain number of times will eventually be perceptible. From this, Parfit (1984: 78-9) argues that an individual's pain can become imperceptibly better or worse. To take this from an individual's point of view in terms of S, they would not feel the difference when imperceptible harm or benefit came to them, but this does not mean that they are unaware that an imperceptible harm or benefit came to them. An individual who believes that one of two options that are otherwise equal will cause them even a very tiny chance of small or imperceptible harm or benefit would be enough for the individual to see the options as unequal. This is enforced by Parfit's (1984: 8) S-4, which states: 'that it would be rational for anyone to do is what will bring the greatest *expected* benefit' Since a greater benefit can be expected – even when there is a tiny difference – we can expect that a rational egoist will choose accordingly.

So far, I have argued that the rational egoist would be very strict with their decision making. We can expect them to not only be always self-interested, but also calculatingly and exactly so.

Now we can clearly answer that if an individual *believes* an act to be equal, this must mean that all the benefits and detriments of these acts – including their probabilities of happening – are weighed, and the individual believes none of the options are

preferable to any other. We could say then that the *overall impact* in terms of self-interest could be determined by the following formula:

Where:

B = Perceived Benefit of Future Act

D = Perceived Detriment of Future Act

P = Perceived Probability

Anticipated Overall Impact of future Act A: Act

$$A = (B_{A_1} \times P_{B_{A_1}} \dots + B_{A_n} \times P_{B_{A_n}}) - (D_{A_1} \times P_{D_{A_1}} \dots + D_{A_m} \times P_{D_{A_m}})$$

As I have illustrated, though an individual may believe an act will yield the same results, the means by which the individual believes the result will come into being must be factored in with that perceived result. Let us assume that in the next example, that all options *are* believed to be equal to a particular individual (see Figure 26). In this example, where all options *are* believed to be otherwise equal but one option is *then* made the default. I define default as meaning that if I do nothing that the default will happen.

Choose A, B or C but not more than one.

You can have:

A) 1 kg gold nugget in your hand

B) 1.05 kg gold nugget buried five meters under a bush

C) 1.1 kg gold nugget buried ten meters under a bush (Default)

Figure 26: Example of Cost of Choosing

Because C is the default, it means that if you do *nothing*, then C. What this implies is that it will take *something more than nothing* (some effort) to bring about A or B. *If* this effort is a detriment, then by making C the default, A, B and C are no longer equal in terms of self-interest because C now requires less effort. If the effort is not a detriment, then they were not actually equal previously. In some cases, bringing about an option other than the default may require only the effort of choosing verbally or mentally, in others it may mean walking across a desert. Regardless, where things were otherwise equal in terms of self-interest, where one has been designated as the default and choosing another option causes *some* negative impact on self-interest, the options are no longer equal.

4.8.2 Do we have MPDs?

Under S, if an individual does not act from a MPD when they are confronted with *Equal Options*, they will allow any of them to happen. This is because an individual would not care which one happened. If an individual does not act from a MPD when

they are confronted with Multiple Best Options, they will *randomly* choose one of the best options. This is because they need to choose to avoid the worse options, but they would not care which of the best options was chosen. These two scenarios account for all scenarios where two or more of the best options are equal. All choices to ‘act in one of two ways, believing that neither would be better for me’, may not be based ‘on a [MPD]’ as Parfit has stated. This does not necessarily mean that Parfit’s statement in O1 is wrong. I have merely shown that we need more evidence to show he is correct.

What I believe I have shown is that since we are able to choose between one of two acts, believing that neither would be better for us in terms of self-interest, is that we are neither able to establish that we sometimes act on MPDs nor that we even have MPDs.

In light of this I have taken Parfit’s original statement (O1) and revised it (R1) to a more tenable state with the evidence made available.

(O1): ‘...I often act in one of two ways, believing that neither would be better for me. In these cases, I am not trying to do what will be best for me; I am acting on a more particular desire.’

(R1): ‘...I often act in one of two ways, believing that neither would be better for me. If I have MPDs and I act on them, I may not be trying to do what will be best for me because I am acting on these desires. Where I have no MPDs, or I do not act on them, I am acting still from self-interest.’

We have two theories: Theory 1) that under (O1), individuals may not have MPDs, or that they may not act on them; and Theory 2) that under S, individuals have MPDs, and that they act on under (O1).

As much as we could accuse O1 of being unverified, we can criticize R1 for only replacing an unverified statement with one that says very little of substance. It would be desirable to show definitively one theory was correct or the other wrong. While I do not have the ability to verify or discredit the notion that they have MPDs under S directly, I think it would be worthwhile to answer whether it is possible to *act on* MPDs under the dominant S, and if it is, then answer when individuals would act on them. It would add a lot more weight to my argument if I could show that individuals *would* act based on self-interest or no desires even when they are confronted with a choice between two things that are equal in terms of S. To do so would be to show that not only *may* it be the case that *individuals are not* acting based on MPDs in situations where the best options are equal, but they *would not* act based on a MPD in some of these cases. Instead of merely stating that (O1) needs more evidence to be verified, I believe showing this would allow refutation of Parfit's (O1) statement.

To this point, I have only argued that self-interest or no desire *can* explain our actions in decisions between two things that are equal in terms of our self-interest, and that it is possible individuals may not have MPDs in at least some cases.

In this next section, I would like to look at the validity of – if an individual did have MPDs – whether it is the case that they could, in some situations, act on these desires. If they can act on these desires, in what types of situations would these occur? I will

argue that, even if individuals have MPDs, there are significant cases where they would still act based on self-interest when things are equal. This will show that Parfit's statement (O1) does not just need supportive evidence, but that it needs to be modified.

4.9 Are There O1 Situations Where We Would Not Act Based on a MPD?

In this section, I will argue that there are cases where we would not act based on a MPD. I will look at the decision making process temporally, and when we would ignore our MPDs under S. I will apply this to both of the O1 scenarios and I will conclude that it seems it would be infrequent that we would act based on MPDs. Now, I will argue that there are cases where we would ignore MPDs.

4.9.1 Existence of O1 Situations Where We Ignore MPDs

For the remainder of this paper, it is necessary for us to look at the decision making process temporally. To do so I will use Figure 27.

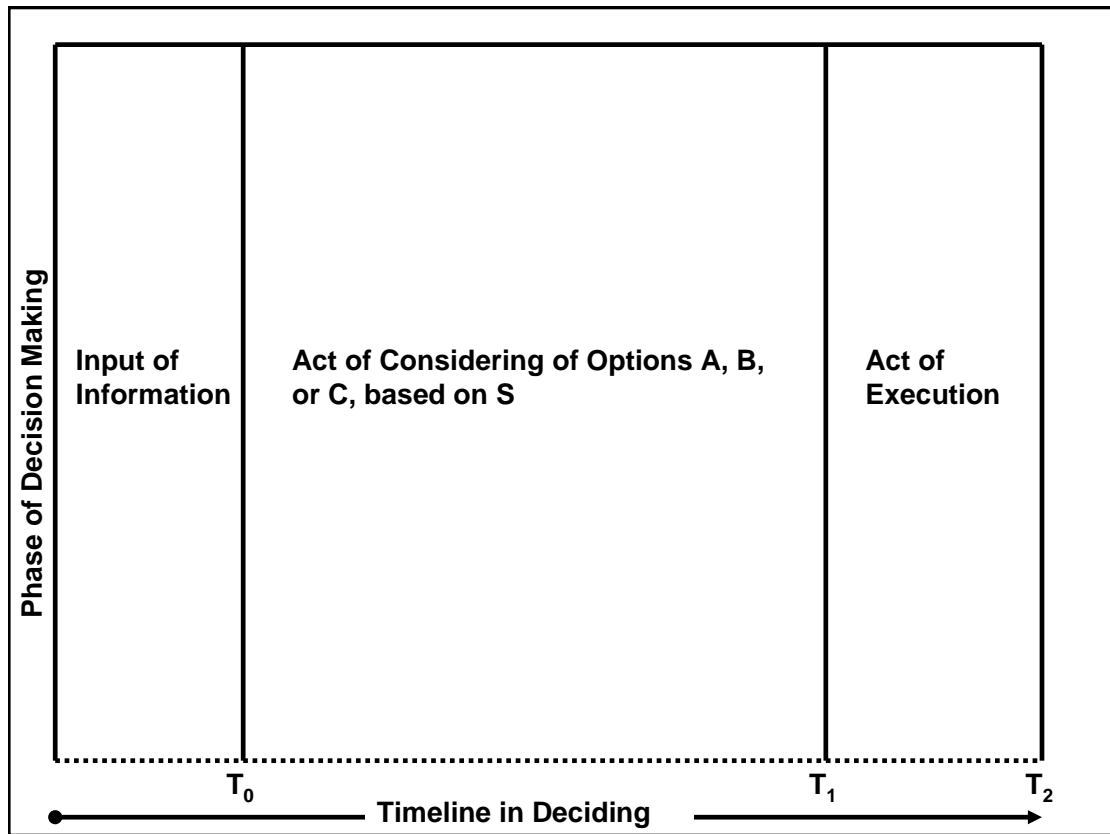


Figure 27: Timeline in Deciding

The points and periods in time are as follows:

- 1) T_0 is the point in time at which we begin to consider what our options are and which option is best.
- 2) T_1 is the point in time at which we have concluded which option is best in terms of S.
- 3) T_2 is the point in time at which we have chosen in a committed way (the point of no return to the previous set of perceived options).
- 4) Prior to T_0 is the Input of Information. Prior to T_0 is the length of experience that an individual believes is relevant in the decision at hand. This period of time is relatively unimportant for our discussion.
- 5) From T_0 to T_1 is the Act of Considering. This is where options are weighed based on S. An individual, under S, will not devote any time in T_0 - T_1 towards anything

other than determining what is best for them. This is because until T_1 , the individual has not concluded what is best in terms of S. It is only after T_1 that it would be possible to decide based on a MPD. Information will still be gathered in a self-interested manner. The only thing that can distract in this period is a more pressing issue in terms of self-interest.

6) From T_1 to T_2 is the *Act of Execution* where a decision is executed based on the conclusions in the Act of Considering. No information will be actively sought.

Assuming S, all rational decision making follows this table conceptually. Let's walk through this process with an example. At T_0 , I recognize what I believe to be the most important decision to me self-interestedly speaking. Let's say – for simplicity's sake – it is a rather boring day and the most pressing choice I have is whether to play chess.

Let's also say that, for some reason, I believe these are my only two options in the issue that is most pressing to me. At T_0 , I will begin considering my two options. I will draw on my experiences and knowledge prior to T_0 , and from T_0 to T_1 I will seek out information to arm myself with what I need to make the best decision possible. I will spend the amount of time in T_0 to T_1 that I believe it is in my interest to – no more, no less. In this time, I will pursue only my self-interest. If I were to pursue something other than my self-interest, it would be a disadvantage to me. It would be a disadvantage because I will believe the most considered choice will be most likely to bring about what is best for me. If I believe a less considered choice will bring about a better situation for me, then this would mean that I would choose to spend less time in T_0 to T_1 , but this would still be to 'spend the amount of time in T_0 to T_1 that I

believe it is in my interest to – no more, no less’. So, in T_0 to T_1 , I would draw on my experience in regard to whether to play chess and apply this to the current situation to decide what is best for me. I will delay committing to play or not play for as long as I believe it is in my interest – no more, no less. If I committed too early or late, it would be to risk making a hasty decision or allow an option to pass or diminish in its reward to me. The only reason I would stop pursuing my act of considering whether playing chess was in my interest is because I believe that it was in my interest to pursue something else.

For example, if while considering whether to play chess, I were to notice a poisonous snake at my feet, my decisions involving the snake would likely have become the more pressing issue. At T_1 , I will have exhausted the time that I believe it was in my interest to spend on the act of considering. I will have concluded A or B or either. Once I have concluded at T_1 , I will execute by the most efficient means possible what I believe is best for me. If I conclude that it is best for me to play chess I will commit as soon as possible. I will do it as soon as possible because if I were to have extra time it would have been used to pursue my self-interest in T_0 to T_1 or on the next most pressing issue. From T_1 to T_2 , I will execute as efficiently as possible my conclusion. I will not seek more information. However, if I am confronted by a more pressing choice, I will abandon my execution of my conclusion. So, if I decided to play chess, and I was about to commit to playing chess and the poisonous snake again was in my presence, I would likely stop short of committing and again may consider my options in regard to the snake.

What makes these situations an (O1) scenario is when, at T_1 , the individual concludes that two or more options are best in terms of S; *Multiple Best Options* or *Equal Options*.

During the *act of considering* (T_0 - T_1) options in terms of self-interest, an individual would gather enough information to determine whether they believe something to be equal, better, or worse. This is not to say that they will consider until they determine something is beyond any doubt to themselves to be equal, better or worse. Self-interest also limits this process. I will call this following statement X1:

X1: An individual will strive to choose the best option, to the extent that they believe the effort is worth choosing the best option.

Let's approach our main question again for this section: 'Under S, if an individual is presented with the choice between two acts that are equal in terms of their self-interest, when would they act on a MPD?'. Even if we assume they have MPDs, it does not follow the choice between one of two acts where it is the case that neither is better in terms of their self-interest, that it will be based on these MPDs. This is because once an individual determines that a choice contains *Equal Options* or *Multiple Best Options*, the act of deciding which equal option in terms of S is better based on MPDs may often impact our self-interest more negatively than just deciding based on self-interest or self-interest and no desire. This means that we would never actually consider acting based on a MPD because we would not do anything other than pursue the option that appears to be most in our self-interest during the act of considering (T_0 - T_1). If there is any hope of us acting on a MPD it is in the Act of

Deciding (T_1 - T_2). Individuals could be forgiven for believing we would never act on a MPD at this point. We would only act on MPDs when there are cases where two or more options are equal, but even in these cases we would not consider our MPDs. This makes deciding based on MPDs seem like a rare occasion indeed. However, the possibility of acting based on the MPDs still exists in the Act of Deciding.

To affirm this, take the predicament in the following example. Somehow, Under S, an individual with their twin children is playing on a dangerous set of railroad tracks in a rail yard. A train moves unexpectedly along the track that they are on and the individual has only three options, and they cannot do more than one option.

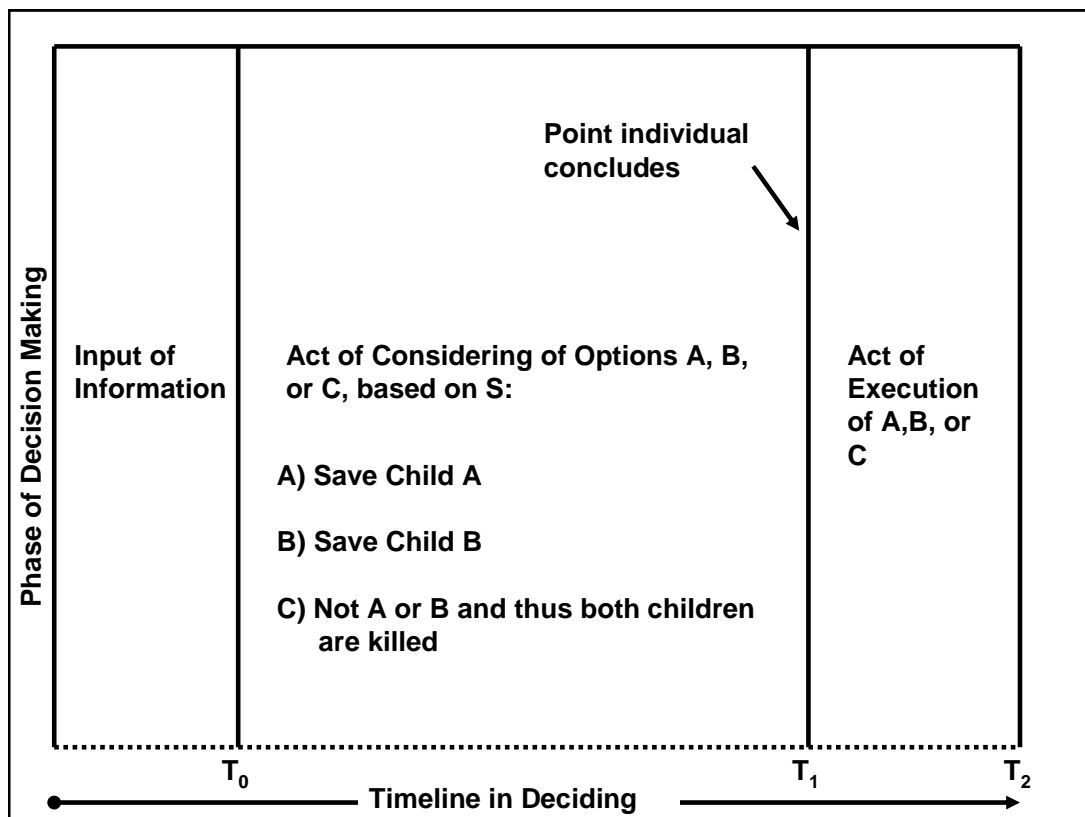


Figure 28: Example of timeline in deciding (I)

Let's assume the individual believes that C is the worst option and that neither A nor B is better in terms of their self-interest and also that they have MPDs. If the individual believed while in the act of considering whether to do A or B based on a MPD, C would happen, they would not choose based on a MPD, and they would choose *randomly*. These situations need not be this extreme. Where the act of deciding which of two equal options in terms of S is better based on MPDs *does impact* an individual's self-interest, they would not do it, and they would choose based on self-interest or no desire according to S.

Recall that the revised statement (R1) about when individuals act on MPDs was that:
(R1): '...I often act in one of two ways, believing that neither would be better for me. In some of these cases, I am not trying to do what will be best for me because I am acting on a MPD. Where I have no MPDs, I may be acting still from self-interest or from no desire.'

We can now revise (R1) further.

R2 '...I often act in one of two ways, believing that neither would be better for me. If and where I have MPDs, and where considering these options and acting based on these desires is not a detriment to my self-interest, I shall act on them. If and where I do not have MPDs, or where considering these options and acting based on these MPDs is a detriment to my self-interest, I shall act out of self-interest or self-interest and no desires since my motives are only self-interested, and since time is always of value in T_0 to T_1 .

Because S tells us never to be self-denying and assuming that MPDs do exist, (R2) tells us that in order to know when an individual would act from these desires, we would have to know when acting on a MPD would not represent something worse in terms of self-interest than choosing to ‘allow anything to happen’ under Equal Options or *randomly* under Multiple Best Options. This means in order to act from a MPD, it would seem, that the individual believes it to be an equal or better method of choosing between one of two acts than choosing to allow anything to happen under Equal Options or randomly under Equally Better Options.

Earlier, I showed that the *act of consideration* of a particular set of options is limited by self-interest. That means that the *act of considering* beyond a point in time (T_2) where an individual has already put forth the effort in accurately determining which option is best to the degree that they believe it is worth the benefit of being accurate, is a perceived detriment to us and thus against our self-interest. I shall call this very small segment in time under S where an individual believes it is most in their self-interest to decide and act the *decisive point*. By *an act* here, I mean what an individual does to set things in motion to bring about the chosen option. The point of action (T_2) will be at – at least potentially – the believed point of no return – no return to the same significant options. There will be little time between decision and action (T_1 to T_2).

At the point of realization that they are faced with three options (T_0), the individual with their children in the train tracks will begin the act of consideration. The individual believes that saving either of their children is better than saving neither of

their children, and they have no preference which child is saved in terms of S. They will conclude A or B!, but not C! at (T_1).

Once the individual – trying to find the best outcome for the situation of having his twin children in the path of an oncoming train – concludes A or B, but not C, they no longer have any self-interest reason for delaying the act of A or B. This is because they have used all the time that they thought was in their interest to in concluding ‘A or B, but not C’. They will deliberate for as long as it is in their interest, and they will avoid decisively engaging in bringing about an option in order to keep other options open while awaiting a more considered conclusion in (T_0 - T_1). This means that after (T_1), from self-interest alone, they will work to put into action A or B as soon as possible *by the most efficient means* because the result of A vs. B is not important in terms of S. An individual would not waste effort in choosing between A or B based on a MPD as it would have been an effort they would have devoted to look closer at A or B in the act of considering (T_0 - T_1) to ensure greater accuracy in the conclusion that they are equal at (T_1) or devote to pursuing their self-interest in some other way. This means that consideration time will always be maximized in T_0 to T_1 and any extra time in T_1 to T_2 would be devoted back to T_0 to T_1 for extra consideration or onto pursuing their self-interest in some other way. This means that every time effort is devoted in (T_1 to T_2) to choosing based on a MPD above and beyond what would have been devoted to choosing based on self-interest is an effort that could have been used to make a better prediction of which choice would have produced better results in terms of S in T_0 to T_1 .

If it is true that we would not act on MPDs when considering based on them is more of a detriment than considering self-interestedly, it does not necessarily mean that we would not act on MPDs where choosing based on a MPD was equal or less of a detriment than choosing based on S. If there is any chance of acting based on a MPD it is here. Before I consider those potential instances where considering based on a MPD is believed to be equal or less of a detriment, I would like to examine how much opportunity there would be for considering based on a MPD to be equal or less of a detriment in $T_1 - T_2$.

Recall that I stated earlier that if an individual does not act from a MPD when they are confronted with Equal Options, they will allow any option to happen. If the individual does not act from a MPD when they are confronted with Multiple Best Options, they will randomly choose one of the best options. By randomly, I do not mean a randomized method of deciding. I mean choosing any of the best options merely to avoid the worse options. For considering based on a MPD to be equal or less of a detriment, this would have to mean (1) that under Equal Options considering based on a MPD in T_1 to T_2 would have to be equal or less of a detriment than ‘allowing any option to happen’ and (2) that under Multiple Best Options considering based on a MPD in T_1 to T_2 would have to be equal or less of a detriment than ‘randomly choose one of the best options’ in T_1 to T_2 . I will now address each of these scenarios individually.

4.9.2 Scenario 1

In scenario 1, Equal Options, because it takes no effort to allow anything to happen, it is impossible that considering, based on a MPD, is less of a detriment, per se.

However, plausibly choosing, based on a MPD, could be a benefit as we could enjoy choosing based on MPD. I will deal with this situation later.

4.9.3 Scenario 2

In scenario 2, it only takes the effort of picking any of the best options, where it is already known which options are considered best in terms of self-interest. We might then say that in this scenario, we 1) pick one of 2) the options are considered best in terms of self-interest. These are the two tasks involved with acting out of self-interest in this scenario. The task for choosing based on a MPD is 1) pick one of 2) the options are considered best in terms of self-interest 3) that best fulfills the MPD. In both situations, we must pick one and know which of the options are considered best. We do (2) during the act of consideration. In the second situation, it may seem unlikely that choosing based on a MPD in this scenario requires an additional task and thus would create a greater overall detriment, but this is not necessarily true. There are two situations that make this not necessarily true. The first one is that it is plausible that during considering whether the options are equal in terms of S, we *incidentally* come across the knowledge of how the options rank based on a MPD. Consider the following example. Imagine I am self-interested, but I also have a MPD that 'red is best'. During the act of consideration of whether I should pick and eat the red apple or the green apple where I can only choose one from the tree, I conclude that neither would be better in terms of self-interest. It could very well be that in the

process of looking for worms and examining the size and shape of the apple, I *incidentally* noted the color – a characteristic that is irrelevant to me in terms of self-interest. This would mean that I could have all the information required already to decide in T_1 to T_2 based on my MPD of ‘red is best’.

Self-interest will tell us time is best spent on doing that which we believe is best for us. The only exception is that self-interest could tell us that if we were to have another disposition that this would be better for us in terms of self-interest. In these cases, self-interest could tell us that deciding in T_1 to T_2 based on a MPD is better – in terms of self-interest – than choosing based on that MPD. What this means is, where I previously stated that I could only decide based on a MPD, that if it was an equal or better method of deciding than deciding based on self-interest, what is actually the case is that I could only decide based on a MPD if the MPD was only an equal – not better – method of deciding. If I decided based on a MPD where it was a better method of deciding according to self-interest this would clearly be for self-interest and not for the MPD.

4.10 Conclusions

4.10.1 Rational Egoist and O1

I believe I have shown that Parfit’s O1 statement is incorrect when he states that when two or more of the best options are equal in terms of self-interest, under S, we would decide which of the best options to choose based on a MPD. I believe I have shown this is the case because it is, firstly, not necessary that such a decision would have to

be based on a MPD. I believe I have shown that self-interest could still explain the reasons for choice. Secondly, I believe I have shown that even if we assume we have these MPDs, we would never ‘consider’ based on a MPD if we believed it was worse for us in terms of self-interest. Further, I believe I have shown ‘considering’ based on a MPD will always be detrimental, so we can only choose based on a MPD.

Choosing based on a MPD will only be possible where it is equal in terms of self-interest, and it will be merely as a means of efficiently executing our self-interested desires. Believing that choosing based on a MPD is equal in terms of self-interest would require us to believe that choosing based on a MPD would take precisely no more or no less effort than *randomly* choosing between the best options. It seems that MPDs are used in decision making for their own sake only very rarely. It seems that it would also be very rare for a MPD to be equal – in terms of effort – to *randomly* choosing between the best options.

If we believe that self-interest, or any of our desires, are dominant over our MPDs, this means that we would not wager even the smallest chance of an imperceptibly diminished ability to strive to achieve our dominant desire for even the satisfaction of all of our MPDs. In practice, it would likely be that we would rarely entertain these MPDs. This should have implications for any truly dominant desire – such as the pure environmentalist position – and the MPDs in its very dark shadow. The degree to which the rational egoist would ignore their MPDs would seem to defy our common sense understanding of psychology. I believe this means Parfit’s rational egoist is quite a bit more peculiar than he described – much like our pure environmentalist.

My comments in this conclusion are controversial. However, I believe it would be safe to say that Parfit's O1 statement is very questionable. From this, I believe I can offer some pragmatic advice from some of my comments on the pure environmentalist and O1.

4.10.2 Pure Environmentalist and O1

Now that I have shown how strong a purist position is, I would like to apply it directly to environmental decision-making to make the impact of Parfit's error clear. Rarely will two options actually be equal. However, given the amount of uncertainty and limited information that are frequently in environmental decision making, it increases the likelihood that we cannot differentiate between two or more options in terms of any specified criteria. We may often not be able to tell which is better. How we decided in Buridan's Ass scenarios is important.

As important as the details of this argument are, we need to provide a practical and easily understandable way for decision makers to get through a Buridan's Ass Scenario or multiple constraint scenario. This is important for others that deal with the satisfaction of 'multiple constraints' (e.g. Thagard and Verbeurgt, 1998, Oddoye et al., 2007, and Olarte et al., 2013).

4.10.3 On a Pragmatic Way through a Buridan's Ass Scenario

One important thing we should gather from this chapter is that examining the most efficient way through a Buridan's Ass Scenario is complex and difficult. It is no

wonder that it has given computer programmers issues (see Lamport, 1986). I think it is also fair to say that it would neither be accessible to most decision makers, nor should they have to be able to access this argument to benefit from it. Unlike with computer coding, it is a little easier for humans to take a common sense way through this issue. As such, I have a few pragmatic recommendations for those that want what is best for the environment at least at certain times and in certain situations.

The first is a modification of X1. X1 says:

X1: An individual will strive to choose the best option, to the extent that they believe the effort is worth choosing the best option.

We can modify this statement for the pure environmentalist. Where the costs and benefits are measured in terms of costs or benefits to the environment, strive to choose the best option for the environment, to the extent that it is believed that the cost is worth the benefit choosing the best option.

The second recommendation builds on the first point. Where it is believed that the proper amount of striving has been put forth, and options appear to be equal, choose one of the options. This supports an insightful comment by Goodin's (1983: 61) on the 'moral significance of irreplaceability':

[W]e do, when forced, make tradeoffs between assets that are irreplaceable. Sometimes we must trade off one irreplaceable asset in order to secure another. In such unfortunate circumstances, our argument hardly requires that we—like Buridan's ass—should stand idly by, torn between the two, until both are lost. When we are forced to choose between irreplaceable assets, then of course we do and we should

make a choice. But that we choose and what we choose when forced to do so should not obscure our overwhelming desire not to have to choose at all.

The third recommendation is that it might be easiest to ignore MPDs. This decision making scenario is complex enough. Since, by definition, the fulfillment of MPDs is irrelevant to what is best for the environment, it would do no harm to ignore them on environmental grounds. If they were ignored, the risk of choosing and deciding based on them would be eliminated.

The pragmatic guidance that I have given decision makers raises the possibility of an interesting situation, which I will discuss in the next subsection.

4.10.4 On Justifying Decision Making

I believe that it would be seen as unacceptable for an environmental decision maker to say, when justifying the choice between two options, that they chose randomly or had no reason to pick one over the other. Yet, there is an interesting consequence from admitting that sometimes after doing as much analysis as we believe is worthwhile, we may find that some of the options are equally 'best'. If we admit this, there would be cases where it would be best to decide randomly and commit no further time to analysis. This means that in some cases it would be a completely valid response to say that a decision was made in such a way, if the goal was to do what was best for the environment. The commitment to having 'greater reasons' for choosing would likely come at detriment to the environment.

Before I close Chapter 4, there are some implications that need to be stated for the rest of the thesis. I will discuss the relation of this chapter and Chapter 5.

4.10.5 Implications for the Thesis

In Chapter 3, I promised to show how oppressed MPDs were by dominant desires. I believe I have now shown this.

From the end of Chapter 3, the refined Working Principle was:

1: I want what is best for the environment; I want the best results.

Predictably, with the curveball we threw at it, the refined Working Principle did not provide adequate advice. It did not tell us how to handle Buridan's Ass scenarios.

This does not mean that it is incorrect. In Chapter 5, we will further refine the Working Principle so that it provides clearer advice. Once this is done, we throw the further refined Working Principle another curveball. This time the refined Working Principle will provide incorrect advice. We will be effectively setting it up for failure. What is important here is not that we know that it is not a viable option as a Working Principle, but what we can glean from the way it fails. The way it fails gives insight into the importance of unique knowledge and abilities, local environmentalism, and situational awareness.

CHAPTER 5: On Maximizing Contribution

My goal for this chapter is to support my thesis aim to show the usefulness of the environmental high ground and related concepts. I believe I do this by showing that applying Parfit's discussion on the Share-of-the-Total View to the Pure Environmentalist concept tells us important things about environmental decision making by the way that it fails. Common themes can be extracted from times and situations in which it fails. These themes will emphasize the importance of unique knowledge and abilities, local environmentalism, and situational awareness.

I believe I have demonstrated in Chapters 3 & 4 that refinements to the environmental high ground can tell us important things about what is best for the environment in particular situations. This chapter should be a demonstration that refinements are not the only way that the environmental high ground will be useful. Here I will compare two possible interpretations of the Working Principle. One of them is not a substantive change and the other one known to fail sometimes and in some situations. My purpose for doing this is not to show that I agree it is false. The point is to show what times and/or in what situations it fails. The common themes in times or situations when it fails can tell us what to pay close attention to when making decisions.

My reason for doing this is to provide additional support to Thesis Aim (3). If I can show that we can not only learn from refining the principle, but we can also learn from looking at the ways in which other principles fail, I will have broadened the

ways in which the refined Working Principle – and thus the environmental high ground – are seen as useful. This broadening is significant because principles which work are much fewer than those that fail.

This first thing I will argue is that, though the refined Working Principle is useful, it is far from perfect, and that this could plausibly lead us to wish to reword it so that it was more helpful. Perhaps we could make something better. In the next section, I will discuss some of the shortcomings of our revised Working Principle. In the section after this, I will suggest a rephrasing that should seem plausible, but that will ultimately fail.

5.1 Shortcomings of the Refined Working Principle

Independent of its theoretical correctness, there could be valid practical criticisms of any principle that is meant to guide decision making. One criticism could be that it does not give adequate advice – it might be too vague in some situations.

In Chapter 4 the revised Working Principle was:

1: I want what is best for the environment; I want the best results

We were not able to criticize the theoretical correctness of this Working Principle in the course of Chapter 4. However, I believe I showed that it did not give adequate advice when posed with a choice between equal things. Often, the process of trying to eliminate the vagueness of a principle can cause us to compromise the theoretical

correctness in the process. The goal is to achieve specificity without making a theoretical compromise. This will be an example of when, in search of specificity, we ‘unintentionally’ compromise theory.

5.2 A Plausible Alternative to the Working Principle

Given that the revised Working Principle does not give adequate advice in some situations, we should be willing to consider modifying it to see if we can make it give better advice. I argued in Chapter 4 that rational egoism had some similarities with the refined Working Principle. Perhaps we could turn again to rational egoism for direction in further modifying the revised Working Principle. Some versions of rational egoism use ‘maximizing’ ‘well-being’ as the desired contribution (Shaver, 1999: 2). It seems plausible that we might consider a revised Working Principle as this:

‘I want what is best for the environment; I want to maximize my contribution to the desired result’

Perhaps because we have diminished the emphasis on the phrase ‘want the best result’ by adding some emphasis to ‘maximizing my contribution’, this would cause us to think about the bigger picture. Maybe we would stop looking at each and every decision, such as the choice between equal things, and rather look at the overall intention to maximize. Also, it has the benefit that it tells me what ‘I’ should do – I should ‘maximize my contribution’. It seems plausible that this would provide better advice. However, accepting such a revision would – as I will argue – come at a

compromise to the theoretical correctness of the principle. This is because we would have accepted what is called the ‘Share-of-the-Total view’ (ST).

5.3 *Share-of-the-Total View*

ST is, quite simply, the belief that to achieve the best result, we should maximize our personal contribution to the desired result (Parfit, 1984: 67-70). Following from Parfit (1984: 70) I will show that ST fails. ST will often – *but not always* – make the correct choice. It fails not because it does not give adequate advice, but because it gives the wrong advice in some situations. Because the ST fails in some situations, we know that it could never be the ultimate aim of the pure environmentalist. Again, the fact that it fails is not what is interesting. Rather, what is interesting is *when* it fails.

ST fails because it is an individual goal. It says for me to maximize ‘my’ contribution. This is distinct from saying that I should maximize ‘the’ contribution. I believe most people, if presented with the principle of maximizing their contribution to the desired result, would not immediately see an issue with the phrasing of the principle. However, if given the option between maximizing ‘my’ or ‘the’ contribution, the important distinction would be highlighted, and they would likely see that ‘the’ is a better option.

5.4 *Developing a Test for the Share-of-the-Total View*

I have argued that the pure environmentalist would care primarily about environmental results in Chapter 3. I have also stated in Chapter 2 that what these results would be are entirely contentious – for many temporal, spatial, and ecological

reasons. However, if we knew precisely what was best for the environment, we would be able to test to see if the ST works in different scenarios based on the anticipated results. If the ST is true, it will always tell us to produce the best result. If it tells us to do something other than trying to produce the best result, then we know it is false, and that it cannot be the principle to guide us to do ‘what is best for the environment’.

Further discussions about the Working Principle would benefit greatly from a set parameter – even if only hypothetical – by which we could objectively analyze whether the suggested alternative Working Principle was producing the best environmental result.

I am reluctant to even temporarily adopt one of the more plausible parameters of what could be considered the ‘best result’. I am concerned that adopting a plausible parameter will interfere with the logic of the scenarios. The practical aspects of these parameters may – by association – diminish the plausibility of the pursuit for the best environmental results. This is mainly because there is no clear or quantifiable method measuring its maximization.

What I need is a clear and quantifiable result by which I can test and then refine the hypothetical Working Principle. Since it is beyond the scope of my thesis to look at what ‘is’ the best environmental result, it does not matter what we use as a quantifiable parameter that we call the best environmental result. This quantifiable parameter should – for my purposes – have as simple a relation to environmental results as possible. I should also emphasize that it does not matter – for my purposes

– what is used as the quantifiable parameter. For these two reasons, I have chosen a magical and mythical parameter – unicorns. It is easy to make a simple connection using such a magical creature, and it should be clear to all because of my use of a mythical creature that I believe the plausibility of any parameter of the environmental result, does not matter for my argument.

The simplest and strongest connection I can make is that we have suddenly realized, without any doubt, that increases and decreases in the numbers of unicorns were directly related to environmental results (let us call this ‘environmental quality’). As unicorns increase in numbers, environmental quality increases proportionately. Thus, to produce the best environmental results, we need to maximize the number of unicorns. We could say then:

Pure Environmentalist + Any given scenario = Action that is believed to maximize the Environmental Result = Action that is believed to maximize the number of unicorns

By definition this should be true. Pure environmentalist wants the best result and that best result is maximizing unicorns. Our hypothesis is that this principle – if it is an adequate Working Principle – will tell us to do that which maximizes unicorns in any given scenario. If it does not maximize unicorns in any given scenario or does not give enough guidance to make such a decision, we will know it needs to be refined. By coming closer to understanding the pure environmentalist, we will better understand how to make decisions that attempt to produce better environmental results.

In the next section we will begin testing the modified Working Principle. This will show us a couple of situations where ST fails.

5.5 *Share-of-the-Total View Test*

In practice, we would rarely have an easily testable result. By asserting ‘what is best for the environment’ and making it easily quantifiable, we can test principles to see if they achieve what they are intended to. Our hypothesis is that whatever we assert is best for the environment, ST will tell us to do the right thing (see Figure 29). If ST were correct and gave adequate guidance, the ST would always choose the option that is believed to maximize unicorns.

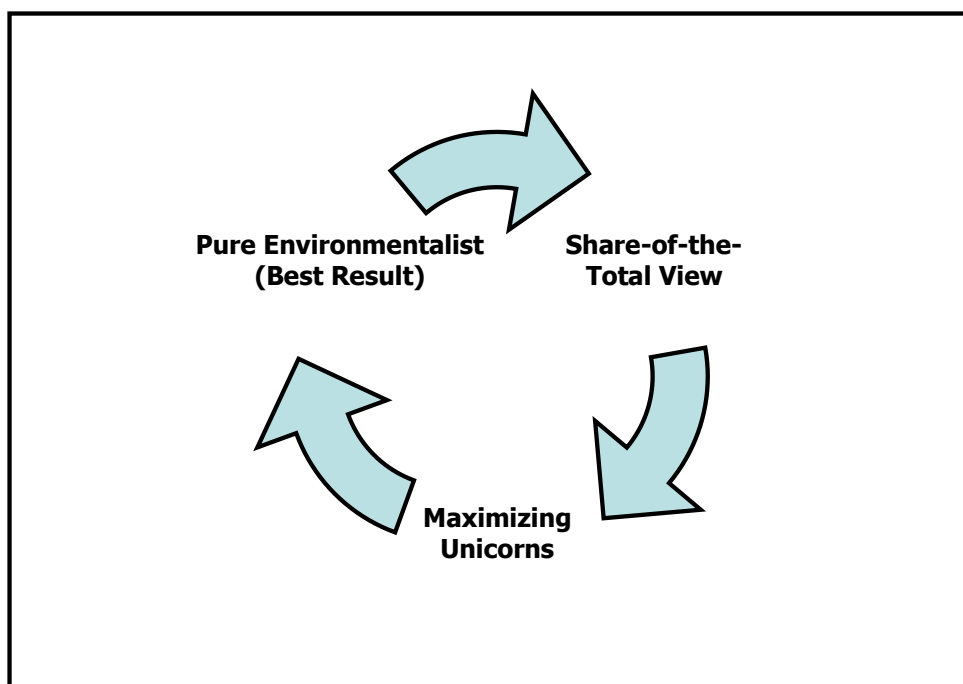


Figure 29: Summary of the Share-of-the-Total View Test, related to the unicorn situation discussed

In most scenarios ST will maximize unicorns. There are many example of this (see Figure 30 for one example).

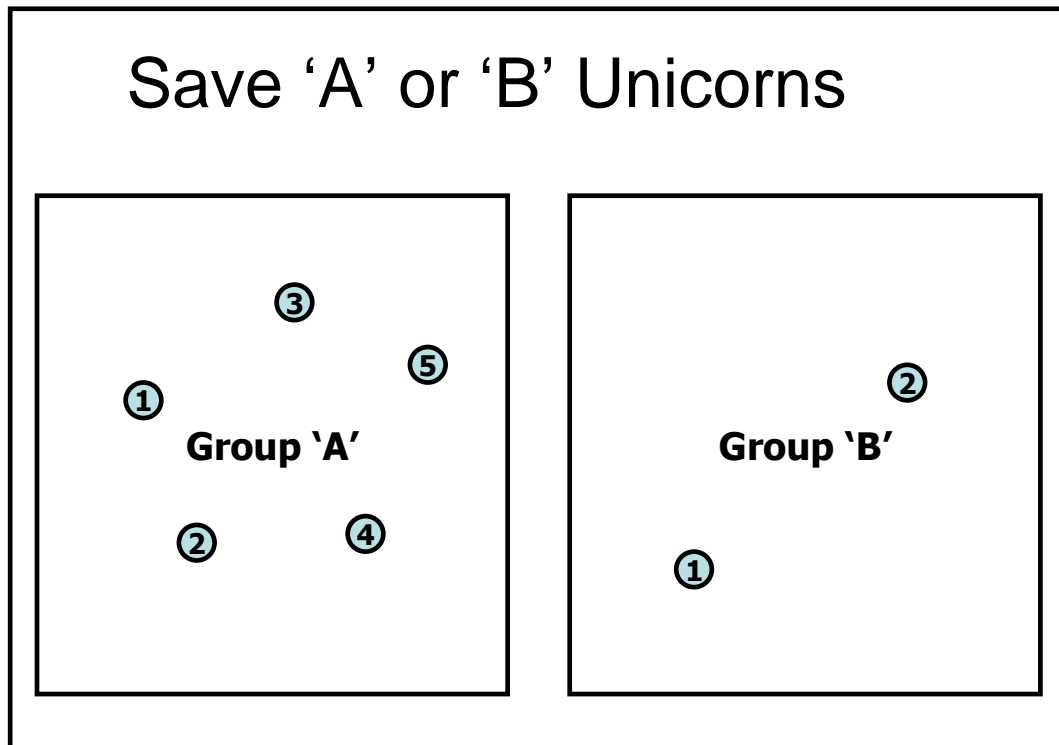


Figure 30: Example of maximizing contribution (A)

Sadly, we cannot save both groups. We can only choose Group 'A' or Group 'B'. Since ST tells us to maximize our contribution to maximizing the unicorns, it would tell us to choose Group 'A'. We choose 'A' if we follow ST because we saved the most we could save. This is the correct choice, as we are guided to save five of a possible maximum of five unicorns. The pure environmentalist could use ST in such a scenario – and in most scenarios. However, there are two notable exceptions that I have found. For an example see Figure 31.

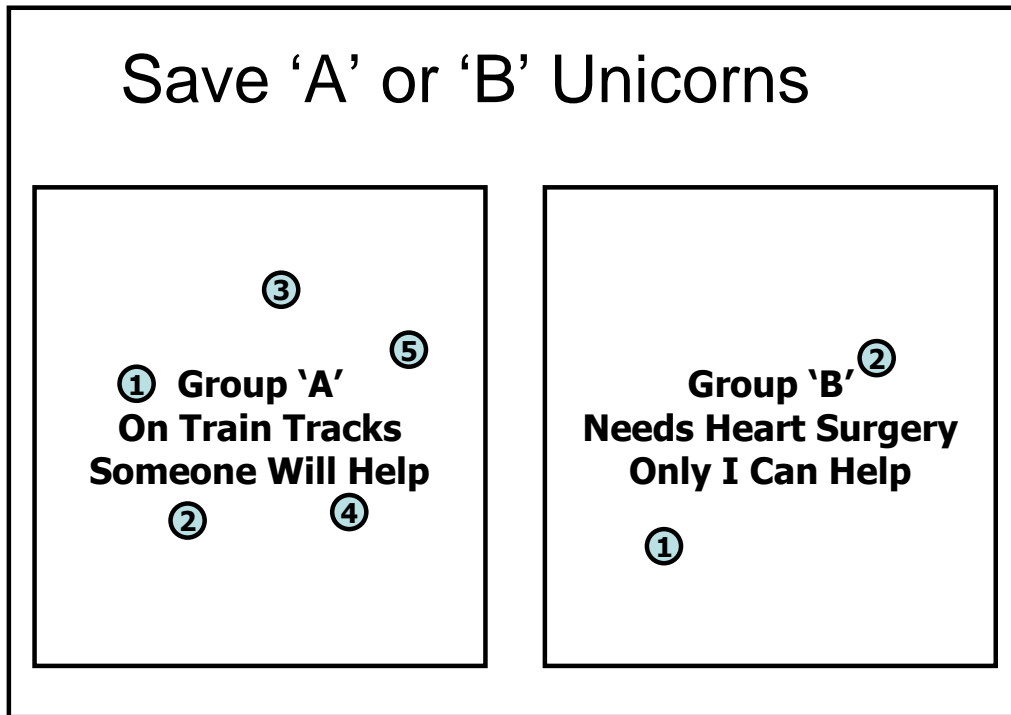


Figure 31: Example of maximizing contribution (B)

I can only choose Group 'A' or Group 'B', but not both. Group 'A' unicorns are sleeping on the train tracks, and will most certainly be hit by a train if something is not done. Fortunately, for Group 'A' unicorns, someone will help regardless of what I do. Group 'B' unicorns have a fatal, but 100 percent treatable heart condition. Unfortunately, for the Group 'B' unicorns, I am the only one who knows how to treat their heart condition. Since ST tells me to maximize 'my' contribution to maximizing the unicorns, it would tell us again to save the five Group 'A' unicorns rather than the two Group 'B' unicorns. If I ignored ST, and I chose to save Group 'B' unicorns, I would have only saved two unicorns, but I would have been part of a set of actions that saved seven versus only five if I chose to save Group 'A' unicorns. In this case, ST gives us the wrong answer because the pure environmental wants the best result. Maximizing 'my' contribution does not tell us always to maximize unicorns. Maximizing 'the' contribution appears to survive this test. It is possible to argue that you interpret 'maximizing your contribution' as being the same as 'maximizing the

contribution’. This criticism is a criticism of wording not that there would not be a logical difference (see Figure 32). The pure environmentalist could not use ST as a guide in such a scenario.

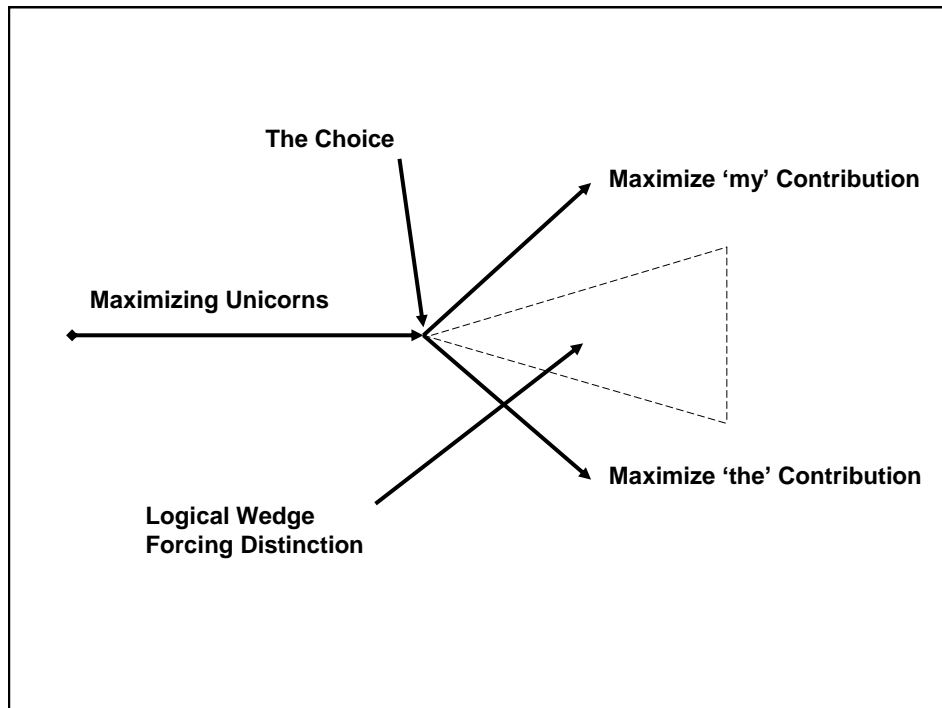


Figure 32: Logical Distinction in Maximizing Contribution

ST failed in this situation – unlike the very similar scenario before it – because I had *unique knowledge*. I had – in addition to knowledge that may or may not have been unique that someone would save group ‘A’ unicorns if I did not – unique knowledge of the treatment of unicorn heart conditions. This tells us, firstly, that a pure environmentalist would not always try to maximize *their* own contribution to the result. Secondly, this scenario tells us that both utilizing unique knowledge and – the more proactive – fostering unique knowledge are extremely important practices to producing better results. I will discuss unique knowledge more later.

In addition to the instance of unique knowledge, there is another related instance where ST fails (see Figure 33).

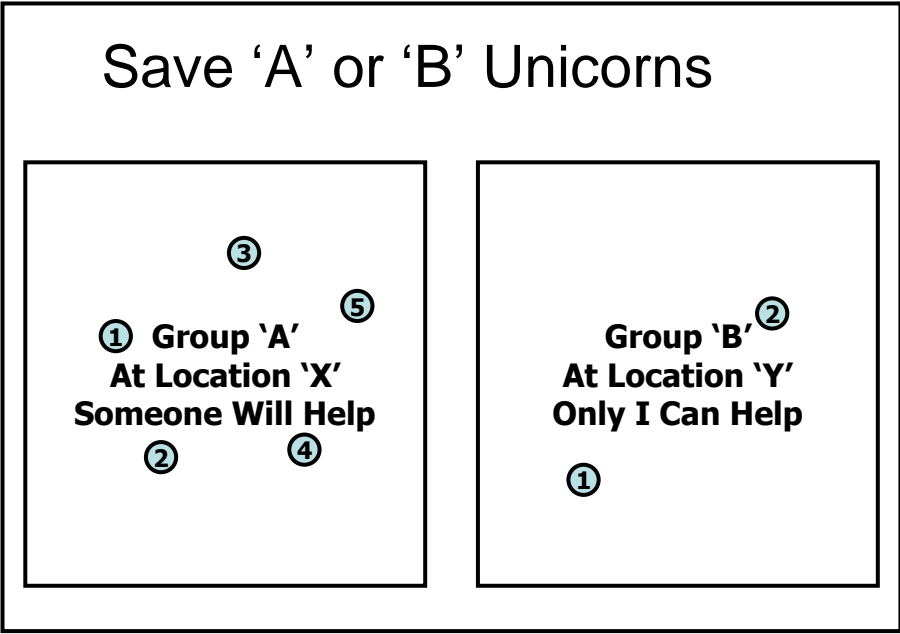


Figure 33: Example of Maximizing Contribution (C)

I can only choose Group 'A' or Group 'B', but not both. Both group's unicorns are sleeping on the train tracks and will surely die if not led off the tracks. If I do not lead Group 'A', I know that someone else will. I am the only one who can get to Group 'B' unicorns in time, and if I do not lead them off the tracks, they will surely die. Since ST tells me to maximize my contribution to maximizing the unicorns, it would tell us again to save the five Group 'A' unicorns rather than the two Group 'B' unicorns. If I ignored ST, and I chose to save Group 'B' unicorns, I would have only saved two unicorns, but I would have been of a set of actions that saved seven versus only five if I chose to save Group 'A' unicorns. Again, ST gives us the wrong answer because the Pure Environmentalist wants the best result. The Pure Environmentalist could not use ST as a guide in such a scenario.

ST failed in this situation in a similar way to the last scenario. In this situation, it was because I had a unique ability. I had a unique ability to save the Group 'B' unicorns because I was the only one who could help them in time. Firstly, this shows us once again that a pure environmentalist would not always try to maximize 'their' own contribution to the result. Secondly, this scenario tells us that both utilizing unique abilities and – the more proactive – fostering unique abilities are extremely important practices to producing better results.

In this section, I have argued that there is a difference between 'maximizing my contribution' and 'maximizing the contribution'. In the next section, I will discuss a couple of reasons why I think this is significant for the understanding of what is best for the environment.

5.6 Possible Criticisms of the Test

In the examples I gave, we had absolute certainty. We had absolute certainty that someone would help and absolute certainty of our knowledge and abilities. In Chapter 4, I discussed the lack of certainty that exists in environmental decision making. The level of certainty that was in my example is implausible. However, the fact that there was implausible certainty in my examples is not a trenchant criticism of my examples. We could have easily factored perceived probabilities. We could have made example were we were 90% certain of our abilities and 80% certain that others would help. It is simply a calculation. Though it could change what decisions should be made, it would not change that there would still be these two scenarios where the ST fails.

Another potential criticism of the ST test is that it is not plausible that someone would make the decision making errors in the last two examples. This could be a criticism that ST is practically irrelevant because no one would accept ST in these scenarios. First thing to keep in mind is what makes ST seem so wrong in those scenarios is that we have a clearly quantifiable way of evaluating a decision. Given a situation where results are not quantifiable, it would not be so clear. The second thing to keep in mind is that showing ST fails is only a small part of what I would like to do. The most important thing was to show when it failed.

In the next section, I will argue that there is good reason to believe that test results are significant. This is because it has practical implications both as a guiding principle and assisting decision making by identifying some important themes.

5.7 Reasons to Believe the Test Results have Significance

I think there are two reasons to believe that the test results are significant. The first of them is that ‘maximizing contribution’ is practically relevant as a guiding principle.

5.7.1 Use of ‘Maximizing Contribution’ in Guiding

Though I believe it pales in comparison to the other reason I will give, I also believe it is important to mention how a better understanding of maximizing contribution is significant. I think ‘maximizing contribution’ is relevant to company and government environmental policy, mission statements, and planning. It is significant because maximizing contribution is used as a guide in decision making.

For example, for the environmental technology company Dyesol Limited's (2012) company environmental policy says:

'The Company has adopted the following approaches to maximize our contribution to the future of the environment.'

The President of the Global Environment Centre Foundation (GEC) (Miyahara, 2011) discusses GEC's purpose as to 'maximize our contribution to global environmental conservation and the resolution of environmental problems'. Similarly worded policies are common (e.g. ICES, 2011, CEMEX, 2012, DSM Engineering Plastics, 2012, ManTech International Corporation, 2012, Royal Caribbean International, 2012).

By establishing the use of 'maximizing our contribution' I do not intend to show that this means they are actually being guided by these statements. Often, published guiding statements are more vice than virtue. Where its use is virtuous, a better understanding of what it means could help better guide us. Where its use is questionable, a better understanding of what it means could help highlight disingenuous usage. Where 'maximizing our contribution' is strictly followed, perhaps highlighting the ways in which it fails would be reason to reword policy.

What is more important than the actual use of maximizing contribution is what we glean from how ST fails. I will discuss the significance of the results in this light in the next subsection.

5.7.2 Themes Extracted

I have been promising throughout this chapter that the themes extracted will be the most significant thing to come from testing this principle that we know will fail. The gap between ‘maximizing my contribution’ and ‘maximizing the contribution’ exposed two scenarios that ‘maximizing my contribution’ failed. Those two scenarios were unique ability and unique knowledge.

So far in this chapter I have argued that unique knowledge and abilities are extremely important concepts. In the next section, I will expand on unique ability and unique knowledge and draw further conclusions from them about local environmentalism and situational awareness.

5.8 *Synthesis: From the Failure of the Share-of-the-Total View*

5.8.1 Unique Knowledge and Abilities

I believe I have shown that unique knowledge and abilities can be valuable in maximizing environmental results in a particular situation. They are so valuable that they would cause us to forsake maximizing our own contribution. Outside of individual situations, it is not just unique knowledge and abilities that are valuable, per se. The knowledge and abilities might be incredibly common. For example, being a medical doctor is a pretty common thing. However, even in an emergency room full of doctors where they are all occupied, the same benefit as uniqueness is potentially present in an available doctor. What this means is that it is not uniqueness so much as it is being in demand. To have knowledge and abilities that are in demand

are potentially beneficial. It seems to me that the pure environmentalist would almost certainly foster their own knowledge and abilities that are or may become in demand. It seems to me that they would also foster knowledge and abilities in others that are or may become in demand.

In the next two subsections, I will argue that conclusions about the importance of unique knowledge and abilities allow us to make important comments about local environmentalism and situational awareness and what is best for the environment.

5.8.2 Local Environmentalism

I used to be very cynical about local environmentalism. Gould et al. (1996: 3) remark that critical views of local environmentalism are common. Largely, it was my research in this chapter that made me change my mind. Local environmentalism can be seen as NIMBYism or more broadly self-interested (Gould et al., 1996: 3), or just inefficient or ineffective. Many have noted that local environmentalism often conflicts with the global environmental goals (Hayter and Soyez, 1996: 146, Glaeser, 2009). The charges of being inefficient/ineffective and often conflicting are probably the most damning from the pure environmentalist perspective. This is especially the case with urban and suburban environmentalism, where natural purists argue that the land is so degraded and broken off from 'wild nature' it is not worth saving. They may argue that they are better off sending money to protect pristine areas of the world.

This may still be true in many cases. However, local environmentalism could be justified because it is a type of scenario where locals would have unique knowledge and/or unique abilities based on intimate familiarity with their proximity. Most individuals are far more likely to find public information about the quality of areas of the Amazon Rainforest than they are to find information about the quality of their backyard or local reserve. The public information that they find about the rainforest is likely not unique to them. If it were unique, they may not be well positioned to utilize their unique knowledge. My hypothesis is that unique knowledge and unique abilities will occur in average individuals most often in their local area. We may be fairly confident that someone may adopt a particular piece of rainforest, but we can probably be absolutely confident that no one but us has the ability to look after the environmental quality of our backyard as well as we do. We also may be confident that we are the only one with knowledge of what our backyard needs. Repeatedly, while doing environmental social analysis, I have encountered individuals with no formal environmental education that can give a detailed account of annual algae blooms, erosion, or where contaminated soils were deposited. This type of information is practically inaccessible to most researchers due to financial and time constraints, lack of baseline data, or other practical reasons. The value of this unique knowledge is high. In addition to this, as Weston (1994: 13) has stated, '[t]he "rest of the world" is not somewhere else, but right here'. There is a place for both transnational and local environmentalism (Thompson, 1995a).

5.8.3 Situational Awareness

Situational awareness is an important concept in military decision making (Vieweg et al., 2010: 1079-1080). There are many examples of its discussion in military decision making (e.g. Kass et al., 1991, Wellens, 1993, Carretta et al., 1996, Toet et al., 1997, Feibush et al., 2000, Sonnenwald and Pierce, 2000, Gauvin et al., 2004, DeFraites and Chambers, 2007, Strater and Bolstad, 2009), and it is frequently discussed in regard to Infantry Platoon Leader decision making (e.g. Strater et al., 2001, Jones et al., 2011, Kennedy et al., 2011: 226). Strater et al. (2001: vii) explains:

‘As the Army moves to exploit information age technology, Infantry forces will be called upon to gather information and achieve situational dominance in an increasingly complex environment. Superior situation awareness (SA), in terms of the warfighter's ability to access and use available information to improve lethality, survivability, and communication, will be a pivotal factor in the ability of the Infantry force to meet this challenge.’

Situational awareness is also important in environmental decision making. In the examples I gave where ST failed, I could only make the proper decision if I had knowledge of not only my abilities and knowledge, but other's abilities and knowledge. Except in the most isolated forms of environmentalism, it seems it would almost always be important to maintain situational awareness about other's knowledge and abilities. To remain situationally aware allows the environmentalist to capitalize on the potential inefficiency that lies between maximizing my contribution and maximizing the contribution to the environmental result. The potential for inefficiency is virtually limitless. It seems incredibly important for individuals and organizations to factor in their knowledge and abilities, and the knowledge and ability of those around them in environmental decision making.

5.8.4 Conclusions

I believe I have shown, both generally and when applied to the environment, that ST is false. I also show that the pure environmentalist will forsake maximizing *their* own contribution to the results in scenarios where doing so would produce better results overall. These scenarios exist when one has unique knowledge and/or unique ability or knowledge and abilities that are in demand. These two findings permit me to comment generally about local environmentalism, and situational awareness is also shown to be important in environmental decision making. To know when my knowledge and abilities are unique to a particular situation, it is necessary to know what other's knowledge and abilities are. To know this, I must be situationally aware. I must also know how to capitalize on the potential inefficiency that lies between maximizing 'my' contribution and maximizing 'the' contribution to the environmental result. Depending on the particular decision, the gap between the two could be enormous. There is no doubt in my mind that environmental decisions are made involving millions of dollars that do not properly take into account the gap between these two.

In those cases where we improperly refine the Working Principle of the Pure Environmentalist we can potentially learn a lot. We learn that certain plausible approaches to producing the best environmental results are not always the best approaches. We can also learn a lot from principles that fail by learning about when they fail. I believe this broadens the usefulness of the environmental high ground concept. In Chapter 3, I believe I showed the usefulness of refining the Working Principle by commenting on promoting environmentalism, the term 'environmentalist', and compatibilism. In Chapter 4, I believe I showed the

usefulness of using the refined Working Principle by finding and supporting a pragmatic way through Buridan's Ass scenarios. In this chapter, I believe I have shown that even modifying the Working Principle in ways that we know will fail, we can still learn a great deal from learning about when it fails. This allows me to comment on unique knowledge and abilities, local environmentalism, and situational awareness.

In the next chapter, I will conclude by discussing the major theoretical findings, the implications, and recommended future work.

CHAPTER 6: Synthesis, Conclusions, and Implications

6.1 *Major Theoretical Findings*

By better understanding the environmental high ground, we create a more detailed structure that can be used to better inform decision making. To borrow some of Bloomfield's words modified for my purposes again: 'from a purely pragmatic basis, if we commit ourselves to the existence of the *environmental* high ground, we will then be more likely to think about *what is best for the environment* as clearly and objectively as possible and be more conscious of our all-too-human ability to be wrong'. I believe I showed in Chapter 3 that refining the Working Principle can be useful. In Chapter 4, I believe I showed that applying the refined Working Principle can be useful. In Chapter 5, I believe I showed that testing principles that we know will fail can be useful by gathering information on when they fail.

I have argued in Chapter 2 that 'what is best for the environment' is widely used in decision making. It is used in varying capacities to inform decision making. This means that what is best has wide practical relevance. In Chapters 1 & 2, I argued that it may be useful to better understand 'what is best for the environment' which I call the environmental high ground. In Chapter 3, I refine the concept of the environmental high ground. I believe the refined environmental high ground offers a platform for creating tools for informing disciplined normative thinking. I believe this is useful when we want to 'do' what is best for the environment, 'consider' what

is best for the environment, or just want to ‘know’ what is best for the environment, sometimes or in some situations (see Figure 34).

		Purpose of Use		
		Do	Consider	Know
Frequency and Conditions of Use	Always	Yes	Yes	Yes
	Sometimes	Yes	Yes	Yes
	Always In Some Situations	Yes	Yes	Yes
	Sometimes In Some Situations	Yes	Yes	Yes

Figure 34: Potential usefulness of the Environmental High ground

I argued that my refinements to the environmental high ground could be useful in at least one – if not all – of these scenarios.

In Chapters 3, 4, 5, and 6, I used my refined environmental high ground to comment on several decision-making scenarios, to create tenets of the environmental high ground, and comment on discussions. The decision-making scenarios were: 1) whether to promote environmentalism; 2) the choice between two things which we believe are equal; and 3) how to maximize contribution when we want what is best for the environment. The tenets were: 1) primary and conditional secondary compatibilism; 2) unique knowledge and abilities; 3) situational awareness; and 4)

justifiable random decisions. The discussions I commented on were: 1) environmental pragmatism's compatibilism; 2) the term environmentalist.

6.1.1 Promoting Environmentalism

A lot of wonderful interdisciplinary work is being done between environmental sustainability and psychology. One such contribution is working on how best to promote environmentalism (e.g. Oskamp, 2000, Zelezny et al., 2000, Zelezny and Schultz, 2000, Saunders, 2003). Promoting environmentalism is a goal of environmentally responsible behavior (see De Young, 2000, Kaplan, 2000), and environmental education (Myers et al., 2003). A common sense way of looking at the task of promoting environmentalism is to view it from the environmental high ground. When we do so, we add important context to the goal of promoting environmentalism. From this view, the usefulness of promoting environmentalism comes only from its ability to produce best results. Promoting environmentalism may empirically be the best overall thing we can do. However, it is likely that promoting something else may work better sometimes and in some situations. It would likely be the case in some situations that promoting any type of behavior may be less effective than dealing with some of the negative results of individual's behavior. I believe the environmental high ground provides a rich and useful perspective for environmental decision makers.

6.1.2 Primary and Conditional Secondary Compatibilism

Bryan Norton's influential convergence hypothesis (or compatibilism) has received a considerable amount of criticism (see Minter, 2009: 12, Norton, 2009). Norton's

suggested focus on policy rather than theory has been criticized for not being as effective as a strictly non-anthropocentric approach (e.g. McShane, 2007, McShane, 2008, Rolston, 2009). This is an empirical argument which claims its environmental credentials. I believe the environmental high ground provides an interesting view of this argument. Through Rolston's (2009) work as an example, I believe I show that the unwillingness to 'stoop to conquer', by appealing to anthropocentric values of decision makers, may take the moral high ground, however, it comes at the cost of the environmental high ground. As I see it, in these cases, non-anthropocentrists are put in the awkward position of compromising their empirical claim to having environmentally higher ground than the environmental pragmatists. I think the environmental high ground is a useful concept for environmental pragmatists, and a concept for self-reflection for non-anthropocentrists. If we are purely focused on what is best for the environment, we would have no primary reason to be not inclusive. We would only cease being inclusive for secondary reasons where being exclusive is a better strategy for the environment.

6.1.3 The Term Environmentalist

Many have lamented about the term 'environmentalist' (Wiley, 1998, Ruhl, 1999, Tesch and Kempton, 2004). Generally, these issues seem to have to do with the fact that there is a lack of accepted unifying values among environmentalists (see Pepper, 1984, Norton, 1991, Tesch and Kempton, 2004). While it is not the traditional linguistic approach to refining terms, I think the environmental high ground provides a partial definition that may be useful. I argued that many who may be called 'environmentalists' might be called something else if they only conditionally care

about the environment. It seems to me to be useful to distinguish between those who sometimes or in some situations want what is best for the environment for its own sake, and those who do not. If this were the definition of environmentalist we would be discussing a group that had much more in common value wise. Perhaps, this term would be more useful.

6.1.4 The Choice between Equal Things

The choice between equal things (or Buridan's Ass) is widely discussed in environmental decision making (see Goodin, 1983, McKinney and Hill, 2000, Hillerbrand and Karlsson, 2008). The problem with these scenarios in environmental decision making is that they cause harmful indecision (see Goodin, 1983, McKinney and Hill, 2000, Hillerbrand and Karlsson, 2008). The environmental high ground provides interesting insight into these comments. Firstly, it confirms that it is likely indecision would lead to diminished benefit. This is because either the benefits of that individual decision diminish and/or it takes time or other resources away from other potential positive environmental action. Secondly, while it is possible to decide between two equal things based on a more particular desire without diminishing the benefit environmentally, it is very complicated – if not unlikely. Based on this, there is some pragmatic advice for environmental decision makers. Buridan's Ass scenarios are common, but hard to recognize (Lamport, 1986). If a decision maker realizes these scenarios exist, and actively reflects on whether or not in are in such a decision, this could possible help them spend less time indecisive. If we foremost want what is best for the environment we can simplify complex problems by ignoring MPDs. Randomly selecting one of the best options can be justified environmentally.

Thinking clearly about this may help avoid over-committing to a form of analysis that is time and/or resource intensive.

Consequently, since random decisions can be justified environmentally, it may be worthwhile to pay special attention to decisions where justifying a decision in the eyes of others is much more burdensome than justifying the decision among decision makers. These may be cases where decision making can be creatively masked as to avoid having to go through the much more burdensome process of justifying.

6.1.5 Unique Knowledge and Abilities and Associate Concepts

I have argued that unique knowledge and abilities can create situations where we would forsake our contribution for the overall contribution to the desired result. Provided we can be situationally aware enough to capitalize on unique knowledge and abilities, these provide the ability to maximize the overall contribution. However, maintaining situational awareness can be very inefficient. It can be a diversion from the task at hand. Although maintaining situational awareness can be inefficient, it can also be inefficient to not be situationally aware. Sometimes and in some situations, we may be unaware of the knowledge and abilities of others that are relevant in our decision making. We may decide incorrectly because we were over focused on the task. It would seem potentially useful to limit our situational awareness as to concentrate on aspects that help us become more efficient, but at the same time ignore aspects which are likely irrelevant. It might be useful to focus our situational awareness on awareness of the unique knowledge and abilities of others that have a potential influence on the task at hand.

Generally, I believe that local environmental action would be one case that would be rich with opportunity to capitalize on the unique knowledge and abilities of others. This is because we generally have less knowledge and ability in regard to environment areas that are further away. Places where we have daily contact provide us with the knowledge and opportunity to have a unique positive influence. I believe this might provide some counter balance to criticism of local environmentalism (see Gould et al., 1996: 3).

6.1.6 Environmental High ground and Associated Concepts

The environmental high ground gets most of its practical relevance from the wide use of ‘what is best for the environment’ in decision making that I discussed in Chapter 2 (e.g. Tarsney, 1994, Miller and Szekely, 1995, Morris and Loble, 2006, Cadotte et al., 2007). The environmental high ground also gets some practical relevance from ‘high ground’ ideal-types (see Miles, 1991: 7-8, Conflict Research Consortium, 1998, Nalty, 2002: 4, Bloomfield, 2003) used in informing military decision making that inspired it. The environmental high ground is explicitly mentioned in literature (Train, 2003: 79, Warren and Birnie, 2009, Howarth and Foxall, 2010: 172).

All of the contributions in my thesis were made possible due to my refinements to the environmental high ground. If any of these is seen as pragmatically beneficial, then I have validated the usefulness of the environmental high ground indirectly. I believe I have shown that the concept of the environmental high ground exists, and, when

refined, is a useful concept to enhance our understanding of what is best for the environment.

Steve Matthews (2002: 4) states:

‘The deep view thus enjoins its practitioners to take a holistic approach to moral decision-making; what this means, roughly, is that practical deliberation should be dominated by thoughts about whether one’s actions will turn out to be, all things considered, best for the environment. It implies that in certain circumstances the interests of some individuals within the biosphere may be traded off if doing so contributes to the well being, or the integrity of the whole system. As we saw earlier this view is unnecessarily harsh. The harshness stems from combining a morally monistic account of intrinsic value with a holistic account.’

My argument is quite different. I have argued – to use some of Matthew’s words for comparison – that ‘practical deliberation... about whether one’s actions will turn out to be, all things considered, best for the environment’ would likely be useful. In our case, because we are talking about using the environmental high ground for informing decision making, it is not necessarily any harsher than a fuel gauge in a car. The gauge is not necessarily harsh – it informs. Likewise, the harshness of the environmental high ground comes from how it is used.

6.2 Environmental Ethics and Practical Decision Making

There are two levels to my thesis. If my thesis can be related to microwave ovens, one aspect is how a microwave works, and the other is how to work a microwave. Since environmental pragmatism is committed to the practical and conveyable, the

how the microwave works portion is not directly useful to practitioners because it may be too technical to be accessible. These subsections should be useful for academics for – hopefully – creating better and more useful microwaves for practitioners. The ‘how to work a microwave portion’ could be directly useful to practitioners. I see my contributions being used in two different types of ways: 1) In environmental philosophy and environmental pragmatism; and 2) In practice.

6.2.1 In Philosophy and Environmental Pragmatism

Environmental pragmatists are primarily concerned with practice. This thesis is primarily concerned with communicating with environmental pragmatists and academics interested in environmental decision making. I believe this is the most appropriate audience. The ultimate purpose of doing this is to eventually assist practitioners. This thesis is meant to put forward a concept, hopefully, to be further refined and utilized.

In addition, the environmental high ground is useful in other respects for environmental philosophers. One I find fascinating is the effect of the refined pure environmentalist on some of the more ‘environmentally friendly’ traditions in environmental ethics. I am interested in this question both theoretically and empirically. How many of those who align themselves with those traditions do so because they already want what is best for the environment? What does this mean for them if their theoretical position diverges from the environmental high ground? It may also be useful for weighing in on practical problems such as the alliance between

environmentalists and animal rights/welfare activists against factory farms (see Holt, 2008, Erickson, 2009).

6.2.2 In Practice

Most of what I have written about is not in a form readily accessible to practitioners, but this does not mean I do not care about assisting practitioners. In fact, despite attempting to communicate with environmental pragmatists and academics interested in environmental decision making, I am foremost concerned with assisting practitioners. The content of this thesis is written with the goal of indirectly assisting.

Even though I wrote in a way that was not readily accessible to practitioners, I believe all the practical aspects discussed could be easily communicated to environmental decision makers. Even the potential for inefficiency in the choice between two things that are believed to be equal can be conveyed in a way that is useful. I believe the environmental high ground can be used many more practical ways than I have here. Additionally, I would expect that some of these would be more useful than the ones I have created. I envision writing a chapter in an environmental decision making textbook devoted to logical errors, and tenets of the purely environmental perspective.

The explanation of some of the potential logical errors in environmental decision making has two major benefits. The first is that decision makers will recognize the potential for inefficiency in a particular decision and will be able to act accordingly if they wish. The second benefit is that they are given supportive guidance in decision making. This would often reduce the deliberation time in decision, and assist them in

justifying certain technical decisions. I see this working largely the same as the ‘logical fallacies’ work for philosophers. They assist with recognizing, and identifying logical errors, and can assist with convincing others of the logical errors we see in arguments. For instance, I can see a decision maker recognizing that they are making a choice between two equal things. I can see them entertaining the idea that it may be better for the environment if they choose one rather than trying to evaluate the situation further. They may recognize the risks of indecision and that further deliberation may come at a cost to the environment.

Explaining tenets of the environmental perspective has a more philosophical benefit to decision makers. For instance, a decision maker may be instructed to ask themselves in evaluating a new situation: ‘How can I utilize the unique knowledge and abilities of others to produce a greater benefit to the environment?’. Perhaps this would lead the decision maker to engage a local school to undertake daily monitoring of the Creek on their site. Perhaps the decision maker would provide a site and resources for research to get a state-of-the-art design plan for bush regeneration.

6.3 Recommended Future Work

There is a lot of future work to recommend. I think the work can be divided into three categories: 1) Work for environmental philosophers; 2) Work for environmental decision makers; and 3) Work for philosophers generally.

6.3.1 For Environmental Philosophers

I believe further refinement of the environmental high ground, such as I have done in this thesis, is possible. In addition to this, I believe there are a lot of practical situations where the refined Working Principle would not give adequate advice, such as the Buridan's Ass scenario in Chapter 4. In these cases, clarifications to the Working Principle should be added, as I did in the conclusion of Chapter 4. Environmental philosophers are well suited to the task of finding further scenarios where the refined Working Principle does not give adequate advice, and clarifying by adding this advice.

More generally, I hope that this thesis can be an example of the promise of using ideal types – and especially Parfit's ideal types – within environmental pragmatism. I especially hope that the benefit of examining common phrases which do a lot of 'heavy lifting' in environmental literature has been demonstrated, such as 'what is best for the environment', 'sustainability (e.g. Norton, 2003, 2005)', 'environmentally adequate', and 'environmental good'. This could be beneficial in ensuring that the heavy lifting these phrases are being asked to do is within their capacity and otherwise fitting.

In addition to my hope about the use of ideal types, I hope this thesis can serve as another example of the potential benefit of examining some of the 'big' pragmatic questions, and working *towards* answering what is likely practically unanswerable. I think there would be a lot of benefit of environmental philosophers moving more into this territory.

6.3.2 For Environmental Decision Makers

I believe many environmental decision makers will not be interested in or moved by theoretical arguments with hypothetical examples. This is not because the arguments are not convincing, but because the arguments are not yet incorporated into practice. They might be convinced by the argument, but not convinced that it follows that they should implement any of my suggestions. A task best left to those decision makers that are interested in or moved by theoretical arguments with hypothetical examples, is noticing, incorporating, and conveying what worked to their peers. It is through case studies, personal accounts, and evidence from decision makers, that advice like what I have given in this thesis will become a part of practice. A majority of decision makers will want rich, real examples before they will be convinced that implementing some of my suggestions is a good idea. The same thing happens within agriculture. Most farmers adopt practice from other farmers, not academic research. Further, there is the issue that many of these scenarios I have discussed are conundrums – or present themselves within conundrums – that people are often unaware of, such as Buridan's Ass Scenarios. I believe the most important thing that is needed is honest personal accounts of decision making. It seems likely to me that it may take psychological analysis of personal accounts of environmental decision making. Through analysis the decision making inefficiencies they could be empirically located allowing for them to be potentially mitigated.

More generally, since environmental pragmatists are primarily concerned with assisting with practice, environmental decision makers should feed issues within

decision making, such as some of the themes I have discussed to environmental pragmatists. It is not only important for environmental philosophers to expand into this territory, but also for decision makers to be aware of some of the potential benefits of having them there.

6.3.3 For Philosophers, Generally

If this thesis is an example of ideal types being used to assist with heavy lifting phrases in practice, perhaps similar methods could be used in related ‘applied’ fields. Much like I utilized some of Parfit’s conclusions on the ideal types he developed to apply it directly to the pure environmentalist, I believe some of my comments could be directly applied to ideal types developed for use in other ‘applied’ fields.

My comments in Chapter 4 may be worthwhile to those interested in Buridan’s Ass Scenarios or other fields that deal with the satisfaction of ‘multiple constraints’.

Further, if my comments are correct about Parfit’s account of the choice between two things, perhaps it would be worthwhile to examine how – if at all – it impacts his arguments.

6.4 Summary

I imagine myself sitting at the helm of a futuristic environmental decision making machine. In front of me is a wide console outfitted with all sorts of buttons, gauges, and screens. The console of this machine is tailored to my wishes, and is designed to support my command and control of decision making. The components that I use

frequently are right in front of me. One of my most prominent gauges is definitely a ‘what is best for the environment calculator’. Updated to the minute, it tells me what is best for the environment. It has features that allow me to focus this information temporally and spatially, and it even allows me to run different decision making scenarios and predicts how they will play out. Despite its brilliant capabilities, this gauge does not make decisions for me. It is one of many gauges that inform my pragmatic decision making – but it is right in front of me.

Often, decision making relies on an understanding of ‘what is best for the environment’. In this thesis, I believe I have successfully refined our understanding of ‘what is best for the environment’ by using an ideal-type similar to ones that were useful to me in the military. I have done this by refining what ‘wanting what is best for the environment’ is – or what I call the ‘environmental high ground’. Further, I have argued that my refinements could make for practical changes to real life decision making scenarios. I did this by using my principle to weigh in on a variety of issues such as decision making conundrums, promoting environmentalism, and tolerance of differing theoretical views. I believe that the environmental high ground can be eventually used for better informing environmental decision making in innumerable ways.

My environmental high ground is a theoretical concept, and a slide-rule version of my futuristic gauge. I hope that it will be something that is seen as worth further refinement and application. It is useful, if for no other reason than it will allow us to think clearer about ‘what is best for the environment’. We could certainly use a great deal more efficiency.

REFERENCES

- ABRAHAMSEN, R. B. 2008. Bridge across Rena River - "World's strongest timber bridge". *10th World Conference on Timber Engineering (WCTE)*, June 2-5, Miyazaki, Japan: Engineered Wood Products Association.
- AFEISSA, H.-S. 2008. The transformative value of ecological pragmatism: an introduction to the work of Bryan G. Norton. *SAPIENS*, 1, 73-79.
- AHITUV, N., IGBARIA, M. & SELLA, A. 1998. The effects of time pressure and completeness of information on decision making. *Journal of Management Information Systems*, 15, 153-172.
- ALLEN, E. 1999. *Fundamental of Building Construction: Materials and Methods*, New York: John Wiley & Sons.
- ALLEN, J. B. & FERRAND, J. L. 1999. Environmental locus of control, sympathy, and proenvironmental behavior. *Environment and Behavior*, 31, 338-353.
- ALLEN, W. 1990. Current Federal Regulatory Framework for release of Genetically Altered Organisms into the environment. *Florida Law Review*, 42, 531-562.
- ANDREOU, C. 2007. Environmental preservation and second-order procrastination. *Philosophy & Public Affairs*, 35, 233-248.

- ARRIAGA, H., PINTO, M., CALSAMIGLIA, S. & MERINO, P. 2009. Nutritional and management strategies on nitrogen and phosphorus use efficiency of lactating dairy cattle on commercial farms: an environmental perspective. *Journal of Dairy Science*, 92, 204-215.
- ARROW, K., BOLIN, B., COSTANZA, R., DASGUPTA, P., FOLKE, C., HOLLING, C. S., JANSSON, B., SIMON, L., MÄLER, K., PERRINGS, C. & PIMENTEL, D. 1995. Economic growth, carrying capacity, and the environment. *Science*, 268, 520-521.
- BACKHAUS, J. G. 1999. The law and economics of environmental taxation: when should the ecotax kick in? *International Review of Law and Economics*, 19, 117-134.
- BAKIR, V. 2006. Policy agenda setting and risk communication. *The Harvard International Journal of Press/Politics*, 11, 67-88.
- BANSAL, P. & ROTH, K. 2000. Why companies go green: a model of ecological responsiveness. *The Academy of Management Journal*, 43, 717-736.
- BARRETT, S. & GRADDY, K. 2000. Freedom, growth, and the environment. *Environment and Development Economics*, 5, 433-456.
- BECKERMAN, W. 1999. Sustainable development and our obligations to future generations. In: DOBSON, A. (ed.) *Fairness and Futurity: Essays on*

Environmental Sustainability and Social Justice. Oxford: Oxford University Press, 71-92.

BENGTSSON, J., NILSSON, S. G., FRANC, A. & MENOZZI, P. 2000.

Biodiversity, disturbances, ecosystem function and management of European forests. *Forest Ecology and Management*, 132, 39-50.

BERLINER, M. 2009. The Danger of Environmentalism. *SPPI Commentary & Essay*

Series [Online]. Haymarket, VA: Science & Public Policy Institute. Available: <http://scienceandpublicpolicy.org/images/stories/papers/commentaries/berliner.pdf> [Accessed January 30th, 2012].

BEYER, P. 2011. Who shall speak for the environment? Translating religious, scientific, economic, and political regimes of power and knowledge in a globalized society. In: DEANE-DRUMMOND, C. & BEDFORD-STROHM, H. (eds.) *Religion and Ecology in the Public Sphere*. New York: T&T Clark International, 21-38.

BIDINOTTO, R. J. 1992. The most dangerous pest: "Homo Environmentals". In:

BORRECCO, J. E. & MARSH, R. E., (eds.) *Proceedings of the Fifteenth Vertebrate Pest Conference, March 3-5, Newport Beach, California*: University of California - Davis, 1-8.

BIRKBY, R. C. 2005. *Lightly on the Land: The SCA Trail-building and Maintenance Manual*, Seattle, WA: The Mountaineers Books.

- BIRKIN, F. 2001. Steps to natural capitalism. *Sustainable Development*, 9, 47-57.
- BIRKLAND, T. A., MADDEN, S., MAPES, J., ROE, K. & STEIN, A. 2006.
Environmental Policy in New York. *In*: STONECASH, J. M. &
PECORELLA, R. F. (eds.) *Governing New York State*. 5th ed. Albany: State
University of New York Press, 391-410.
- BJÖRNBERG, K. E. 2007. Setting rational environmental goals: five Swedish
environmental quality objectives. *Journal of Environmental Planning and
Management*, 50, 297-316.
- BLOOM, N., GENAKOS, C., MARTIN, R. & SADUN, R. 2010. Modern
management: good for the environment or just hot air? *Economic Journal*,
120, 551-572.
- BLOOMFIELD, P. 2003. Is there moral high ground? *Southern Journal of
Philosophy*, 41, 511-526.
- BONDY, K. 2008. The paradox of power in CSR: a case study on implementation.
Journal of Business Ethics, 82, 307-323.
- BRYSON, R. A. 1993. Environment, environmentalists, and Global Change: a
skeptic's evaluation. *New Literary History*, 24, 783-795.
- BUCKLEY, R. 2011. Polar tourism: an environmental perspective. *Journal of
Ecotourism*, 10, 175-176.

- BULLOCH, M. J. 2003. *The Grizzly Hunt in British Columbia: An Ecofeminist Evaluation of Environmentalists' Attitudes Toward Women in Relation to Precautionary Evidentiary Requirements* [Online]. Master of Arts Thesis, Simon Fraser University. Available: <http://summit.sfu.ca/item/7537> [Accessed January 31st, 2012].
- BURCHELL, J. & COOK, J. 2006. It's good to talk? Examining attitudes towards corporate social responsibility dialogue and engagement processes. *Business Ethics: A European Review*, 15, 154-170.
- CADOTTE, M., DESCHÊNES, L. & SAMSON, R. 2007. Selection of a remediation scenario for a diesel-contaminated site using LCA. *The International Journal of Life Cycle Assessment*, 12, 239-251.
- CAIRNCROSS, F. 1992. *Costing the Earth: The Challenge for Governments, the Opportunities for Business*, Boston: Harvard Business School Press.
- CAIRNCROSS, F. 1994. Environmental pragmatism. *Foreign Policy*, 95, 35-52.
- CALLANAN, L. P. 2010. Intrinsic value for the environmental pragmatist. *Res Cogitans*, 1, 132-142.
- CALLICOTT, J. B. 1984. Non-Anthropocentric Value Theory and Environmental Ethics. *American Philosophical Quarterly*, 21, 299-309.

- CALLICOTT, J. B. 1989. *In Defense of the Land Ethic: Essays in Environmental Philosophy*, Albany: State University of New York Press.
- CALLICOTT, J. B. 2005. The pragmatic power and promise of Theoretical Environmental Ethics expanding horizons in Bioethics. *In*: GALSTON, A. & PEPPARD, C. (eds.) *Expanding Horizons in Bioethics*. Dordrecht, The Netherlands: Springer, 185-208.
- CAMPBELL, S. 1996. Green cities, growing cities, just cities? *Journal of the American Planning Association*, 62, 296.
- CANNON, J. & RIEHL, J. 2004. Presidential Greenspeak: how Presidents talk about the Environment and what it means. *Stanford Environmental Law Journal*, 23, 195-274.
- CANTRILL, J. G. 1992. Understanding Environmental Advocacy: Interdisciplinary Research and the role of Cognition. *Journal of Environmental Education*, 24, 35-40.
- CARRETTA, T. S., PERRY, D. C. & REE, M. J. 1996. Prediction of situational awareness in F-15 pilots. *International Journal of Aviation Psychology*, 6, 21.
- CEMEX. 2012. Land management & biodiversity. CEMEX. Available: <http://www.cemex.com/SustainableDevelopment/LandManagement.aspx> [Accessed January 20th, 2012].

- CHARDON, X., RIGOLOT, C., BARATTE, C., LE GALL, A., ESPAGNOL, S.,
MARTIN-CLOUAIRE, R., RELIER, J., RAISON, C., POUPA, J. &
FAVERDIN, P. 2007. MELODIE: A Whole-Farm Model to study the
dynamics of nutrients in integrated dairy and pig farms. *In*: OXLEY, L. &
KULASIRI, D., (eds.) *MODSIM 2007 International Congress on Modelling
and Simulation, December, Christchurch, New Zealand: Modelling and
Simulation Society of Australia and New Zealand.*
- CILANO, C. & DELOUGHREY, E. 2007. Against authenticity: global knowledges
and postcolonial ecocriticism. *Interdisciplinary Studies in Literature and
Environment*, 14, 71-87.
- CIRIACY-WANTRUP, S. V. 1971. The economics of environmental policy. *Land
Economics*, 47, 36-45.
- CLAASSEN, R., HANSEN, L., PETERS, M., BRENNEMAN, V., WEINBERG, M.,
CATTANEO, A., FEATHER, P., GADSBY, D., HELLERSTEIN, D.,
HOPKINS, J., JOHNSTON, P., MOREHART, M. & SMITH, M. 2001. *Agri-
environmental policy at the crossroads: guideposts on a changing landscape*,
Washington, DC: Economic Research Service, US Department of Agriculture.
- COCHRANE, A. 2007. *Environmental Ethics* [Online]. Martin, Tennessee:
University of Tennessee-Martin. Available: <http://www.iep.utm.edu/envi-eth/>.
- COLLINS, K., BLACKMORE, C., MORRIS, D. & WATSON, D. 2007. A systemic
approach to managing multiple perspectives and stakeholding in water

catchments: some findings from three UK case studies. *Environmental Science & Policy*, 10, 564-574.

CONFLICT RESEARCH CONSORTIUM. 1998. Moral High Ground *International Online Training Program On Intractable Conflict* [Online], Version 1.1.7. Boulder, CO: University of Colorado Conflict Research Consortium. Available: <http://www.colorado.edu/conflict/peace/treatment/moralhg.htm> [Accessed December 7th, 2011].

CORRELL, D. E. 1993. No peace for the Greens: the criminal prosecution of environmental activists and the threat of organizational liability. *Rutgers Law Journal*, 24, 773-806.

CORVELLEC, H. 2001. Talks on tracks - debating Urban Infrastructure Projects. *Studies in Cultures, Organizations & Societies*, 7, 25-53.

COVINGTON, C. R. 1985. Development of Organizational Memory in Presidential Agencies. *Administration & Society*, 17, 171-196.

CSATHÓ, P., SISÁK, I., RADIMSZKY, L., LUSHAJ, S., SPIEGEL, H., NIKOLOVA, M. T., NIKOLOV, N., ČERMÁK, P., KLIR, J., ASTOVER, A., KARKLINS, A., LAZAUSKAS, S., KOPÍŃSKI, J., HERA, C., DUMITRU, E., MANOJLOVIC, M., BOGDANOVIĆ, D., TORMA, S., LESKOŠEK, M. & KHRISTENKO, A. 2007. Agriculture as a source of phosphorus causing eutrophication in Central and Eastern Europe. *Soil Use and Management*, 23, 36-56.

- CUSHION, E., WHITEMAN, A. & DIETERLE, G. 2010. *Bioenergy Development: Issues and Impacts for Poverty and Natural Resource Management*, Washington, D.C.: The World Bank.
- DARLINGTON, S. M. 1998. The Ordination of a tree: the Buddhist Ecology Movement in Thailand. *Ethnology*, 37, 1-15.
- DAVIDSON, M. D. 2008. Wrongful harm to future generations: the case of climate change. *Environmental Values*, 17, 471-488.
- DAVION, V. 2002. Anthropocentrism, artificial intelligence, and moral network theory: an ecofeminist perspective. *Environmental Values*, 11, 163-176.
- DE-SHALIT, A. 1992. Environmental policies and justice between generations. *European Journal of Political Research*, 21, 307-316.
- DE-SHALIT, A. 2001. Ten Commandments of how to fail in an environmental campaign. *Environmental Politics*, 10, 111-137.
- DE RUYTER, K., DE JONG, A. & WETZELS, M. 2009. Antecedents and consequences of environmental stewardship in boundary-spanning B2B teams. *Journal of the Academy of Marketing Science*, 37, 470-487.
- DE YOUNG, R. 2000. Expanding and evaluating motives for environmentally responsible behavior. *Journal of Social Issues*, 56, 509-526.

- DEFRAITES, R. F. & CHAMBERS, W. C. 2007. Gaining experience with military medical situational awareness and geographic information systems in a simulated influenza epidemic. *Military Medicine*, 172, 1071-1076.
- DERDEN, A., VERCAEMST, P. & DIJKMANS, R. 2002. Best available techniques (BAT) for the fruit and vegetable processing industry. *Resources, Conservation and Recycling*, 34, 261-271.
- DESMOND, M. 2007. Decision criteria for the identification of alternatives in strategic environmental assessment. *Impact Assessment & Project Appraisal*, 25, 259-269.
- DEVALL, B. 1992. Deep Ecology and Radical Environmentalism. In: DUNLAP, R. E. & MERTIG, A. G. (eds.) *American Environmentalism: The U.S. Environmental Movement, 1970-1990*. Washington, D.C.: Taylor & Francis, 51-62.
- DÍAZ-BRIQUETS, S. & PÉREZ-LÓPEZ, J. 1998. Socialism and environmental disruption: implications for Cuba. *Eighth Annual Meeting of the Association for the Study of the Cuban Economy (ASCE), August 6–8, Miami, Florida: ASCE*, 154-172.
- DIEFFENBACH, J. R. 1996. Recycling - not always best for the environment: a lifecycle look at automotive structural materials. *Advanced Materials & Processes*, 150, 53.

- DIJKMANS, R. 2000. Methodology for selection of best available techniques (BAT) at the sector level. *Journal of Cleaner Production*, 8, 11-21.
- DIJKMANS, R. & JACOBS, A. 2002. Best Available Techniques (BAT) for the reuse of waste oil. In: LENS, P. N. L., POL, L. H., WILDERER, P. & ASANO, T. (eds.) *Water Recycling and Resource Recovery in Industry: Analysis, Technologies and Implementation*. London: IWA Publishing, 191-202.
- DIMENTO, J. F. 1976. *Managing Environmental Change: A Legal and Behavioral Perspective*, New York: Praeger Publishers.
- DIMENTO, J. F. 1977. Citizen environmental litigation and the administrative process: empirical findings, remaining issues and a direction for future research. *Duke Law Journal*, 1977, 409-448.
- DOMAC, J. & ŠEGON, V. 2004. Public education on renewables in Croatia: results and future activities. *Biomass in Urban Communities, October 18-22, Tsukuba City, Japan: IEA Bioenergy/Task 29: Socio-Economic Drivers in Implementing Bioenergy Projects*.
- DOOLEY, E. E. 2004. POV's Borders: environment. *Environmental Health Perspectives*, 112, A987.
- DORSI, M. S. 2010. Piedmont Environmental Council v. FERC. *Harvard Environmental Law Review*, 34, 593-604.

DOUGLAS, E. 2008. Can the Red Sea raise the Dead Sea? *New Scientist*, 199, 40-43.

DOYLE, A. B., PAPPWORTH, S. S. R. & CAUDLE, D. D. 2008. Drilling and production discharges in the marine environment. *In: ORSZULIK, S. T. (ed.) Environmental Technology in the Oil Industry*. 2nd ed. Hampshire, U.K.: Springer, 155-187.

DREILING, M. & WOLF, B. 2001. Environmental movement organizations and political strategy: tactical conflicts over NAFTA. *Organization & Environment*, 14, 34-54.

DRENGSON, A. R. 1983. Being a mountain, astride a horse, the Warlord faces south: reflections on the art of ruling. *Philosophy East and West*, 33, 35-48.

DSM ENGINEERING PLASTICS. 2012. Plastics & emergency shelter. DSM Engineering Plastics. Available:
<http://www.innovativeshelter.tue.nl/iss/presentations/vdBerg.pdf> [Accessed January 20th, 2012].

DUNCAN, O. D. 1978. Sociologists should reconsider nuclear energy. *Social Forces*, 57, 1-22.

DUNLAP, R. E. & YORK, R. 2008. The globalization of environmental concern and the limits of the postmaterialist values explanation: evidence from four multinational surveys. *Sociological Quarterly*, 49, 529-563.

DYESOL LIMITED. 2012. Environmental Policy. Queanbeyan: Dyesol Limited.

Available: http://www.dyesol.com/download/Environmental_Policy.pdf

[Accessed January 20th, 2012].

EGLIN, R. 1995. Trade and environment in the World Trade Organisation. *World Economy*, 18, 769-779.

EKELI, K. S. 2004. Environmental risks, uncertainty and intergenerational ethics. *Environmental Values*, 13, 421-448.

EKVALL, T., ASSEFA, G., BJÖRKLUND, A., ERIKSSON, O. & FINNVEDEN, G. 2007. What life-cycle assessment does and does not do in assessments of waste management. *Waste Management*, 27, 989-996.

ELLEN, P., WIENER, J. & COBB-WALGREN, C. 1991. The role of perceived consumer effectiveness in motivating environmentally conscious behaviors. *Journal of Public Policy and Marketing*, 10, 102-117.

ELY, J. 1997. Green politics and the transformation of the left in Germany. *New German Critique*, 72, 177-192.

ENDSLEY, M. R. & SMITH, R. P. 1996. Attention distribution and decision making in tactical air combat. *Human Factors*, 38, 232-249.

ERICKSON, I. R. 2001a. Field water purification. *Field Sanitation Certification Course, Camp Ripley, Minnesota*. (Limited Distribution).

- ERICKSON, I. R. 2001b. Hot and cold weather injuries. *Field Sanitation Certification Course, Camp Ripley, Minnesota*. (Limited Distribution).
- ERICKSON, I. R. 2002a. Arthropod Borne Diseases. *Field Sanitation Certification Course, Camp Dodge, Iowa*. (Limited Distribution).
- ERICKSON, I. R. 2002b. Rodent Borne Diseases. *Field Sanitation Certification Course, Camp Dodge, Iowa*. (Limited Distribution).
- ERICKSON, I. R. 2008. A Kantian response to: “the general kinds of arguments that can be employed against anthropocentrism” as submitted by Warwick Fox in Toward a Transpersonal Ecology. *Australasian Postgraduate Philosophy Conference 2008, March 26-28, Sydney, Australia*: University of Sydney. (Abstract Only).
- ERICKSON, I. R. 2009. Questioning the environmentalists' anti-factory farming position and its choice of allies. In: TATE, A., (ed.) *Australasian Postgraduate Philosophy Conference Proceedings, April 15-17, North Ryde, Australia*: Macquarie University. (Title Only).
- ERSKINE, C. C. & COLLINS, L. 1997. Eco-labelling: success or failure? *The Environmentalist*, 17, 125-133.
- FARBER, D. A. 1999. *Eco-pragmatism: Making Sensible Environmental Decisions in an Uncertain World*, Chicago: University of Chicago Press.

- FARHAR, B. C. & COBURN, T. C. 1999. *Colorado Homeowner Preferences on Energy and Environmental Policy*, Golden, CO: National Renewable Energy Laboratory, U.S. Department of Energy Laboratory: NREL.
- FEARNSIDE, P. M. 2001. Saving tropical forests as a global warming countermeasure: an issue that divides the environmental movement. *Ecological Economics*, 39, 167-184.
- FEIBUSH, E., GAGVANI, N. & WILLIAMS, D. 2000. Visualization for situational awareness. *Computer Graphics and Applications, IEEE*, 20, 38-45.
- FERRANTE, A. R. 1996. Dolphin/tuna controversy and environmental issues: will the World Trade Organization's Arbitration Court and the International Court of Justice's Chamber for Environmental Matters assist the United States and the world in furthering environmental goals. *Journal of Transnational Law & Policy*, 5, 279-314.
- FEYGINA, I., JOST, J. T. & GOLDSMITH, R. E. 2010. System justification, the denial of Global Warming, and the possibility of "System-Sanctioned Change". *Personality and Social Psychology Bulletin*, 36, 326-338.
- FLAVIN, C. 1995. Foreword. In: GIPE, P. (ed.) *Wind Energy Comes of Age*. Hoboken, NJ: John Wiley & Sons, xii-xvi.
- FLOWERS, B. S. 2000. From the conferences: practicing politics in the economic myth. *The San Francisco Jung Institute Library Journal*, 18, 59-66.

- FOGLEMAN, V. M. 1987. Regulating Science: an evaluation of the regulation of biotechnology research. *Environmental Law*, 17, 183-274.
- FOLLETT, J. 2009. Choosing a food future: differentiating among alternative food options. *Journal of Agricultural and Environmental Ethics*, 22, 31-51.
- FOSS, J. E. 2009. *Beyond Environmentalism: A Philosophy of Nature*, Hoboken, NJ: John Wiley & Sons.
- FOX, W. 1995. *Toward a Transpersonal Ecology: Developing New Foundations for Environmentalists*, Foxhole, Dartington: Green Books Ltd.
- FRITSVOLD, E. D. 2009. Under the Law: legal consciousness and radical environmental activism. *Law & Social Inquiry*, 34, 799-824.
- FRYXELL, G. E. & LO, C. W. H. 2003. The influence of environmental knowledge and values on managerial behaviours on behalf of the environment: an empirical examination of managers in China. *Journal of Business Ethics*, 46, 45-69.
- GALCERAN, M. T., SANTOS, F. J., CAIXACH, J. & RIVERA, J. 1993. PCBs and chlorinated pesticides in shellfish of a deltaic environment. *Chemosphere*, 27, 1183-1200.
- GARDNER, R. C. 2000. Money for nothing? The rise of wetland fee mitigation. *Virginia Environmental Law Journal*, 19, 1-56.

- GAUVIN, M., BOURY-BRISSET, A. C. & AUGER, A. 2004. Context, ontology and portfolio: key concepts for a situational awareness knowledge portal. *In*: SPRAGUE, R. H., (ed.) *Proceedings of the 37th Annual Hawaii International Conference on System Sciences, January 5-8, Big Island, Hawaii*: IEEE Computer Society, 1-10.
- GELLER, E. S. 1995. Actively caring for the environment: an integration of Behaviorism and Humanism. *Environment and Behavior*, 27, 184-195.
- GILPIN, A. 1995. *Environmental Impact Assessment (EIA): Cutting Edge for the Twenty-first Century*, Cambridge: Cambridge University Press.
- GLAESER, E. L. 2009. The case against local environmentalism. *Green: A Blog About Energy and the Environment* [Online]. New York: The New York Times. Available: <http://green.blogs.nytimes.com/2009/04/23/the-case-against-local-environmentalism> [Accessed January 30th, 2012].
- GOLD, J. R. & REVILL, G. 2004. *Representing the Environment*, London: Routledge.
- GOODIN, R. E. 1983. The ethics of destroying irreplaceable assets. *International Journal of Environmental Studies*, 21, 55-66.
- GOODWIN, P. 1999. Transformation of transport policy in Great Britain. *Transportation Research Part A: Policy and Practice*, 33, 655-669.

- GORALNIK, L. & NELSON, M. P. 2011. Framing a philosophy of environmental action: Aldo Leopold, John Muir, and the importance of community. *The Journal of Environmental Education*, 42, 181-192.
- GOULD, K. A., SCHNAIBERG, A. & WEINBERG, A. S. 1996. *Local Environmental Struggles: Citizen Activism in the Treadmill of Production*, Cambridge: Cambridge University Press.
- GOW, J. & LEAHY, T. 2005. Apocalypse probably. *Journal of Sociology*, 41, 117-141.
- GOWDY, J. M. & MAYUMI, K. 2001. Reformulating the foundations of consumer choice theory and environmental valuation. *Ecological Economics*, 39, 223-237.
- GRUNDIG, F. 2012. Dealing with the temporal domain of regime effectiveness: a further conceptual development of the Oslo-Potsdam solution. *International Environmental Agreements: Politics, Law and Economics*, 12, 111-127.
- GUBER, D. L. 2001. Environmental voting in the American States: A Tale of Two Initiatives. *State & Local Government Review*, 33, 120-132.
- GUNDERSEN, A. G. 1995. *The Environmental Promise of Democratic Deliberation*, Madison, WI: University of Wisconsin Press.

- HAGENSTEIN, P. R. 1971. Forestry, public pressures, and economic development. *American Journal of Agricultural Economics*, 53, 887-894.
- HAIGH, N. 2000. The IPPC Directive and BAT in a wider context. *European Conference on "The Sevilla Process: A Driver for Environmental Performance in Industry"*, April 6-7 Stuttgart, Germany: Ecologic Institute, 1-3.
- HALE, B. 2008. Private Property and Environmental Ethics. *Metaphilosophy*, 39, 402-421.
- HALSEY, M. 1997. The wood for the paper: old-growth forest, hemp and environmental harm. *Australian & New Zealand Journal of Criminology*, 30, 121-148.
- HANDLER, J. S. 1990. Socioeconomic profile of an American terrorist: 1960s and 1970s. *Terrorism*, 13, 195-213.
- HARDING, C. 1985. Intention, contradiction, and the recognition of dilemmas. In: HARDING, C. (ed.) *Moral Dilemmas: Philosophical and Psychological Issues in the Development of Moral Reasoning*. Chicago: Precedent Publishing, Inc., 43-55.
- HASSOUN, N. 2009. Free Trade and the Environment. *Environmental Ethics*, 31, 51-66.

- HAWKEN, P. 2007. *Blessed Unrest: How the Largest Social Movement in History is Restoring Grace, Justice, and Beauty to the World*, New York: Penguin Books.
- HAYTER, R. & SOYEZ, D. 1996. Clearcut issues: German environmental pressure and the British Columbia forest sector. *Geographische Zeitschrift*, 84, 143-156.
- HAYWARD, T. 1997. Anthropocentrism: a misunderstood problem. *Environmental Values*, 6, 49-63.
- HEINONEN, S., JOKINEN, P. & KAIVO-OJA, J. 2001. The ecological transparency of the information society. *Futures*, 33, 319-337.
- HELLER, F. 1997. Sociotechnology and the environment. *Human Relations*, 50, 605-624.
- HERRING, H. 1998. Renewables: the energy alternative? *Environmental Politics*, 7, 241-244.
- HERRINGTON-SHANER, Z. 2009. *Please don't call me 'Green': improving environmental communication among conservative audiences in the United States* [Online]. Master of Research - Sustainability Thesis, University of Leeds. Available: <http://www.zachshaner.ca/wp-content/uploads/2010/03/THESIS-FINAL-COPY-ZACHARY-HERRINGTON-SHANER.pdf> [Accessed January 31st, 2012].

- HICKMAN, L. A. 1996. Nature as Culture: John Dewey's pragmatic naturalism. *In*:
LIGHT, A. & KATZ, E. (eds.) *Environmental Pragmatism*. New York:
Routledge, 50-72.
- HILLERBRAND, R. & KARLSSON, R. 2008. Introduction. *In*: HILLERBRAND, R.
& KARLSSON, R. (eds.) *Beyond the Global Village: Environmental
Challenges inspiring Global Citizenship*. Oxford: Inter-Disciplinary Press.
- HIROKAWA, K. 2002. Some pragmatic observations about radical critique in
Environmental Law. *Stanford Environmental Law Journal*, 21, 225-282.
- HIRSCHI, K. D. 1997. Possibilities for a Unified International Convention on the
Transboundary Shipments of Hazardous Wastes. *Georgetown International
Environmental Law Review*, 10, 169-198.
- HISCHIER, R., WÄGER, P. & GAUGLHOFER, J. 2005. Does WEEE recycling
make sense from an environmental perspective?: the environmental impacts of
the Swiss take-back and recycling systems for waste electrical and electronic
equipment (WEEE). *Environmental Impact Assessment Review*, 25, 525-539.
- HOLT, D. 2008. Unlikely allies against factory farms: animal rights advocates and
environmentalists. *Agriculture and Human Values*, 25, 169-171.
- HOURCADE, J.-C. & SHUKLA, P. 2013. Triggering the low-carbon transition in the
aftermath of the global financial crisis. *Climate Policy*, 13, 22-35.

- HOWARD-WILLIAMS, R. 2011. Consumers, crazies and killer whales: the environment on New Zealand television. *International Communication Gazette*, 73, 27-43.
- HOWARTH, N. A. A. & FOXALL, A. 2010. The veil of Kyoto and the politics of greenhouse gas mitigation in Australia. *Political Geography*, 29, 167-176.
- HOWETT, C. M. 1992. The Green labeling phenomenon: problems and trends in the regulation of environmental product claims. *Virginia Environmental Law Journal*, 11, 401-462.
- HUGGAN, G. 2004. "Greening" postcolonialism: ecocritical perspectives. *Modern Fiction Studies*, 50, 701-733.
- HUNT, D. T. E. 1991. An integrated approach to Environmental Management. *IEE Colloquium on Environmental Protection, February 26th, Bingley, UK*
Institute of Electrical and Electronics Engineers (IEEE), 21-26.
- HUNTER, L. M. & RINNER, L. 2004. The association between environmental perspective and knowledge and concern with species diversity. *Society & Natural Resources*, 17, 517-532.
- HUNTER, L. M. & TONEY, M. B. 2005. Religion and attitudes toward the environment: a comparison of Mormons and the general U.S. population. *The Social Science Journal*, 42, 25-38.

- ICES. 2011. ICES 4th Annual Conference: Trends and Challenges regarding Life-Cycle Management of Embedded Systems. *ICES Newsletter* [Online]. KTH Innovative Centre for Embedded Systems. Available:
http://www.kth.se/polopoly_fs/1.132584!/Menu/general/column-content/attachment/ICES_Newsletter_No11.pdf [Accessed January 20th, 2012].
- IRWIN, F. H. 1992. Integrated framework for preventing pollution and protecting the environment. *Environmental Law*, 22, 1-76.
- ISIN, S. & YILDIRIM, I. 2007. Fruit-growers' perceptions on the harmful effects of pesticides and their reflection on practices: the case of Kemalpaşa, Turkey. *Crop Protection*, 26, 917-922.
- IVES, J. D. 2005. Global Warming: a threat to Mount Everest? *Mountain Research and Development*, 25, 391-394.
- JANET, R. 2001. Indicator quality for assessment of impact of multidisciplinary systems. *Agriculture, Ecosystems & Environment*, 87, 121-128.
- JEHLIČKA, P. & COWELL, R. 2004. Czech minerals policy in transformation: the search for legitimate policy approaches. *Environmental Sciences*, 1, 79-109.
- JOHNS-PUTRA, A. 2010. Ecocriticism, genre, and climate change: reading the utopian vision of Kim Stanley Robinson's *Science in the Capital Trilogy*. *English Studies*, 91, 744-760.

- JOHNSON-SHEEHAN, R. & MORGAN, L. 2008. Conservation writing: an emerging field in technical communication. *Technical Communication Quarterly*, 18, 9-27.
- JOHNSON, L. E. 1993. *A Morally Deep World: An Essay on Moral Significance and Environmental Ethics*, Cambridge: Cambridge University Press.
- JOHNSON, L. E. 2003. Future generations and contemporary ethics. *Environmental Values*, 12, 471-487.
- JOHNSON, M. & CLISBY, S. 2009. Naturalising distinctions: the contested field of environmental relations in Costa Rica. *Landscape Research*, 34, 171-187.
- JONES, R. E. & DUNLAP, R. E. 1992. The social bases of environmental concern: have they changed over time? *Rural Sociology*, 57, 28-47.
- JONES, R. E., FLY, J. M. & CORDELL, H. K. 1999. How Green is My Valley? Tracking rural and urban environmentalism in the Southern Appalachian Ecoregion. *Rural Sociology*, 64, 482-499.
- JONES, R. E. T., CONNORS, E. S., MOSSEY, M. E., HYATT, J. R., HANSEN, N. J. & ENDSLEY, M. R. 2011. Using fuzzy cognitive mapping techniques to model situation awareness for Army Infantry Platoon Leaders. *Computational & Mathematical Organization Theory*, 17, 272-295.

- KAEMPF, G. L., KLEIN, G., THORSDEN, M. L. & WOLF, S. 1996. Decision making in complex naval command-and-control environments. *Human Factors*, 38, 220-231.
- KAPLAN, S. 2000. New ways to promote proenvironmental behavior: human nature and environmentally responsible behavior. *Journal of Social Issues*, 56, 491-508.
- KASS, S. J., HERSCHLER, D. A. & COMPANION, M. A. 1991. Training situational awareness through pattern recognition in a battlefield environment. *Military Psychology*, 3, 105-112.
- KATZ, E. 1996. Searching for Intrinsic Value: pragmatism and despair in environmental ethics. In: LIGHT, A. & KATZ, E. (eds.) *Environmental Pragmatism*. New York: Routledge, 307-324.
- KATZ, E. 1999. A pragmatic reconsideration of anthropocentrism. *Environmental Ethics*, 21, 377-390.
- KATZ, E. 2009. The big lie: human restoration of nature. In: KAPLAN, D. M. (ed.) *Readings in the Philosophy of Technology*. 2nd ed. Lanham, MD: Rowman & Littlefield Publishers, 443-451.
- KEHOE, T. 1992. Merchants of pollution?: The soap and detergent industry and the fight to restore Great Lakes water quality, 1965-1972. *Environmental History Review*, 16, 21-46.

KEIRSTEAD, J. 2005. Photovoltaics in the UK domestic sector: a double-dividend?

In: ATTALI, S. & TILLERSON, K., (eds.) Energy Savings: What works & who delivers?: ECEEE 2005 Summer Study, May 30 - June 4, Mandelieu La Napoule, France: The European Council for an Energy Efficient Economy, 1249-1258.

KENNEDY, W., RITTER, F. & BEST, B. 2011. Behavioral representation in modeling and simulation introduction to CMOT special issue—BRiMS 2010. *Computational & Mathematical Organization Theory*, 17, 225-228.

KERR, T. 2009. Negotiating green built environment at the margins. *Tenth Humanities Graduate Research Conference, November 5-6, Perth, Australia: Curtin University*, 1-25.

KERR, T. 2011. Negotiating green urbanism in imagined communities. Freeland, UK: Inter-Disciplinary.Net. Available: <http://www.inter-disciplinary.net/wp-content/uploads/2011/06/kerrepaper.pdf> [Accessed January 6th, 2012].

KEULARTZ, J. 1998. *Struggle for Nature: A Critique of Radical Ecology*, New York: Routledge.

KING, R. J. H. 1991. Caring about Nature: Feminist Ethics and the Environment. *Hypatia*, 6, 75-89.

KINGHAM, S. & DONOHOE, S. 2002. Children's perceptions of transport. *World Transport Policy & Practice*, 8, 6-10.

- KIUCHI, M. 1996. Technology required for protection of the environment in the field of metal forming. *Journal of Materials Processing Technology*, 59, 239-241.
- KLEIN, G. A. 1989. Strategies of decision making. *Military Review*, May, 56-64.
- KLETER, G. A., BHULA, R., BODNARUK, K., CARAZO, E., FELSOT, A. S., HARRIS, C. A., KATAYAMA, A., KUIPER, H. A., RACKE, K. D., RUBIN, B., SHEVAH, Y., STEPHENSON, G. R., TANAKA, K., UNSWORTH, J., WAUCHOPE, R. D. & WONG, S.-S. 2007. Altered pesticide use on transgenic crops and the associated general impact from an environmental perspective. *Pest Management Science*, 63, 1107-1115.
- KLINGER, J. 1994. Debt-for-nature swaps and the limits to international cooperation on behalf of the environment. *Environmental Politics*, 3, 229-246.
- KURZ, T. 2002. The psychology of environmentally sustainable behavior: fitting together pieces of the puzzle. *Analyses of Social Issues & Public Policy*, 2, 257-278.
- LAMPORT, L. 1986. *Buridan's Principle* [Online]. Microsoft Corporation.
Available: <http://research.microsoft.com/en-us/um/people/lamport/pubs/buridan.pdf>.
- LARSEN, R. P. 2001. Decision making by military students under severe stress. *Military Psychology*, 13, 89-98.

- LAW REFORM COMMISSION OF CANADA. 2009. Crimes against the environment (excerpts). *In: SOIFER, E. (ed.) Ethical Issues: Perspectives for Canadians*. 3rd ed. Toronto, Ontario: Broadview Press, 76-85.
- LEADER, S. H. & PROBST, P. 2003. The Earth Liberation Front and Environmental Terrorism. *Terrorism and Political Violence*, 15, 37-58.
- LEE, M. 2003. On codes of ethics, the individual and performance. *Performance Improvement Quarterly*, 16, 72-89.
- LEHTONEN, M. 2009. OECD peer review and policy convergences: diffusing policies or discourses. *In: BIERMANN, F., SIEBENHÜNER, B. & SCHREYÖGG, A. (eds.) International Organizations in Global Environmental Governance*. New York: Routledge, 71-90.
- LEWIS, L. 2000. Environmental audits in local government: a useful means to progress in sustainable development. *Accounting Forum*, 24, 296.
- LIGHT, A. 1996. Compatibilism in Political Ecology. *In: LIGHT, A. & KATZ, E. (eds.) Environmental Pragmatism*. New York: Routledge, 161-184.
- LIGHT, A. 2004. Methodological pragmatism, animal welfare, and hunting. *In: MCKENNA, E. & LIGHT, A. (eds.) Animal Pragmatism: Rethinking Human-NonHuman Relationships*. Bloomington, IN: Indiana University Press, 119-139.

- LIGHT, A. 2009. Does a public environmental philosophy need a convergence hypothesis? *In: MINTEER, B. A. (ed.) Nature in Common? Environmental Ethics and the Contested Foundations of Environmental Policy*. Philadelphia: Temple University, 196-214.
- LIGHT, A. & KATZ, E. (eds.) 1996. *Environmental Pragmatism*, New York: Routledge.
- LIOUBIMTSEVA, E. & DEFOURNY, P. 1999. GIS-based landscape classification and mapping of European Russia. *Landscape and Urban Planning*, 44, 63-75.
- LIPSHITZ, R. 1989. "Either a medal or a Corporal": the effects of success and failure on the evaluation of decision making and decision makers. *Organizational Behavior and Human Decision Processes*, 44, 380-395.
- LIU, D. H. F. 1997. R & D for cleaner processes. *In: LIU, D. H. F. & LIPTÁK, B. G. (eds.) Environmental Engineers' Handbook*. 2nd ed. Boca Raton, FL: CRC Press.
- LIU, J. H. & SIBLEY, C. G. 2012. Hope for the future? Understanding self-sacrifice among young citizens of the world in the face of Global Warming. *Analyses of Social Issues and Public Policy*, 10.1111/j.1530-2415.2011.01275.x.
- LOBERG, G., POWELL, G. M., OREFICE, A. & ROBERTS, J. D. 1986. Representing operational planning knowledge. *IEEE Transactions on Systems, Man and Cybernetics* 16, 774-787.

- LOHMANN, L. 2005. Freedom to plant: Indonesia and Thailand in a globalizing pulp and paper industry. *In: PARNWELL, M. J. G. & BRYANT, R. L. (eds.) Environmental Change in South-East Asia: People, Politics and Sustainable Development*. 2nd ed. New York: Routledge, 21-45.
- LUCAS, K. & FULLER, S. 2005. Putting the 'E' into LSPs: representing the environment within Local Strategic Partnerships (LSPs) in the UK. *Local Environment*, 10, 461-475.
- MANTECH INTERNATIONAL CORPORATION. 2012. Mantech Red goes Green. Fairfax, VA: ManTech International Corporation. Available: <http://www.mantech.com/about/green.asp> [Accessed January 20th, 2012].
- MARKHAM, B. 2008. Book Reviews. *Environmental Politics*, 17, 512-514.
- MARTINEZ-ALIER, J. 1995. The environment as a luxury good or "too poor to be green"? *Ecological Economics*, 13, 1-10.
- MARTINEZ-CREGO, B., ALCOVERRO, T. & ROMERO, J. 2010. Biotic indices for assessing the status of coastal waters: a review of strengths and weaknesses. *Journal of Environmental Monitoring*, 12, 1013-1028.
- MASCARENHAS, A. & JAYAKUMAR, S. 2008. An environmental perspective of the post-tsunami scenario along the coast of Tamil Nadu, India: Role of sand dunes and forests. *Journal of Environmental Management*, 89, 24-34.

- MASSANARI, R. L. 1998. A problematic in Environmental Ethics: Western and Eastern styles. *Buddhist-Christian Studies*, 18, 37-61.
- MATTEUCCI, A. 2009. Economists and climate change: homework comes first: a comment to Henderson. *World Economics*, 10, 159-171.
- MATTHEWS, S. 2002. A hybrid theory of environmentalism. *Essays in Philosophy*, 3.
- MATYSIAK, L. M. 1993. Cost-benefit analysis for design of environmentally conscious manufacturing. *Second International Congress on Environmentally Conscious Manufacturing, September 1, Arlington, VA: Los Alamos National Laboratory*.
- MCDONALD, H. P. 2002. Dewey's naturalism. *Environmental Ethics*, 24, 189-208.
- MCGOWAN, F. & SAUTER, R. 2005. *Public Opinion on Energy Research: A Desk Study for the Research Councils*, Brighton: Sussex Energy Group, SPRU - Science and Technology Policy Research: University of Sussex.
- MCHALE, T. 1998. What's in a label?: fisheries leaders are interested but leery as Unilever and World Wildlife Fund team up to launch a seafood eco-labeling regime for seafood. Medford, OR: Fur Commission USA. Available: <http://old.furcommission.com/resource/Resources/MSC.pdf> [Accessed December 18th, 2011].

- MCKENZIE-MOHR, D. & OSKAMP, S. 1995. Psychology and Sustainability. *Social Issues*, 51, 1-14.
- MCKINNEY, W. J. & HILL, H. H. 2000. Of sustainability and precaution: the logical, epistemological, and moral problems of the precautionary principle and their implications for sustainable development. *Ethics & the Environment*, 5, 77.
- MCLEAN, I. 2008. Climate Change and UK politics: from Brynle Williams to Sir Nicholas Stern. *Political Quarterly*, 79, 184-193.
- MCSHANE, K. 2007. Anthropocentrism vs. nonanthropocentrism: why should we care? *Environmental Values*, 16, 169-185.
- MCSHANE, K. 2008. Convergence, noninstrumental value and the semantics of 'love': reply to Norton. *Environmental Values*, 17, 15-21.
- MEES, P., O'CONNELL, G. & STONE, J. 2008. Travel to work in Australian capital cities, 1976-2006. *Urban Policy & Research*, 26, 363-378.
- MEES, P., SORUPIA, E. & STONE, J. 2007. Travel to work in Australian capital cities, 1976-2006: An analysis of census data. Melbourne: Australasian Centre for the Governance and Management of Urban Transport (GAMUT). Available: <http://www.cycle-helmets.com/travel-to-work-1976-2006.pdf> [Accessed January 2nd, 2012].

- MELO-ESCRIHUELA, C. 2007. Promoting ecological citizenship: rights, duties and political agency. *ACME*, 7, 113-134.
- MERROUN, M. L. & SELENSKA-POBELL, S. 2008. Bacterial interactions with uranium: an environmental perspective. *Journal of Contaminant Hydrology*, 102, 285-295.
- MILES, C. O. 1991. The basic Map Interpretation and Terrain Analysis Course (MITAC) narrative. *ARI Research Note* 91-53. Fort Rucker, AL: United States Army Research Institute for the Behavioral and Social Sciences. Available: <http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA238753> [Accessed January 31st, 2012].
- MILLER, J. & SZEKELY, F. 1995. What is “Green”? *Environmental Impact Assessment Review*, 15, 401-420.
- MINTEER, B. A. 2009. Unity among environmentalists? Debating the values-policy link in environmental ethics In: MINTEER, B. A. (ed.) *Nature in Common? Environmental Ethics and the Contested Foundations of Environmental Policy*. Philadelphia: Temple University, 3-17.
- MINTZ, J. A. 2004. Some thoughts on the merits of pragmatism as a guide to environmental protection. *Boston College Environmental Affairs Law Review*, 31, 1-26.

- MIYAHARA, H. 2011. Greetings from the President. Osaka: Global Environment Centre Foundation. Available: <http://gec.jp/main.nsf/en/AboutGEC-Greetings> [Accessed January 20th, 2012].
- MOBERG, Å., JOHANSSON, M., FINNVEDEN, G. & JONSSON, A. 2010. Printed and tablet e-paper newspaper from an environmental perspective — a screening life cycle assessment. *Environmental Impact Assessment Review*, 30, 177-191.
- MOLLAND, J. 2009. *Get Out: 150 Ways for Kids & Grown-ups to get into Nature and Build a Greener Future*, Minneapolis, MN: Free Spirit Publishing.
- MORRIS, C. & LOBLEY, M. 2006. *Monitoring the Landscape Heritage Scheme*, Exeter, UK: Centre For Rural Research: University of Exeter.
- MOUL, U. P. 1996. *The Conflict Between Federal Acquisition Reform and Executive Order 12,969 (Federal Acquisition and Community Right-To-Know): What's Best for the Environment or What's Best for Politics?* [Online]. Master of Laws Thesis, George Washington University. Available: <http://www.dtic.mil/cgi-bin/GetTRDoc?Location=U2&doc=GetTRDoc.pdf&AD=ADA320674> [Accessed January 31st, 2012].
- MURDY, W. H. 1975. Anthropocentrism: a modern version. *Science*, 187, 1168-1172.

MUSTAFA, D., SMUCKER, T. A., GINN, F., JOHNS, R. & CONNELLY, S. 2010.

Xeriscape people and the cultural politics of turfgrass transformation.

Environment and Planning D: Society and Space, 28, 600-617.

MYERS, O. E., SAUNDERS, C. D. & GARRETT, E. 2003. What do children think

animals need? Aesthetic and psycho-social conceptions. *Environmental*

Education Research, 9, 305-325.

NAGEL, M. H. 2000. Environmental supply-chain management versus green

procurement in the scope of a business and leadership perspective.

Electronics and the Environment: Proceedings of the 2000 IEEE International Symposium, May 8-10, San Francisco, CA: ISEE, 219-224.

NAGTZAAM, G. & LENTINI, P. 2007. Vigilantes on the high seas?: the Sea

Shepherds and political violence. *Terrorism and Political Violence*, 20, 110-

133.

NALTY, B. C. 2002. *Outpost War: U.S. Marines from the Nevada Battles to the*

Armistice, Washington, D.C.: Marine Corps, History and Museums Division.

NASCA, J. J. 2012. Just scratching the surface: how EPA denied renewable energy

developers the liability protection they need to repower America's

contaminated land. *Hofstra Law Review*, 41, 267-307.

NASSAUER, J. I., CORRY, R. C. & CRUSE, R. M. 2007. Farmers' perceptions. *In:*

NASSAUER, J. I., SANTELMANN, M. V. & SCAVIA, D. (eds.) *From the*

Corn Belt to the Gulf: Societal and Environmental Implications of Alternative Agriculture Futures. Washington, D.C.: Resources for the Future Press, 67-77.

NEUMAYER, E. 2003. Are left-wing party strength and corporatism good for the environment? Evidence from panel analysis of air pollution in OECD countries. *Ecological Economics*, 45, 203-220.

NEWTON, T. & HARTE, G. 1997. Green business: technicist kitsch? *Journal of Management Studies*, 34, 75-98.

NIJHUIS, M. 2011. Green failure: what's wrong with environmental education? *Yale Environment 360* [Online]. New Haven: Yale School of Forestry and Environmental Studies. Available:
http://e360.yale.edu/feature/green_failure_whats_wrong_with_environmental_education/2407 [Accessed November 30th, 2011].

NIVA, M. & TIMONEN, P. 2001. The role of consumers in product-oriented environmental policy: can the consumer be the driving force for environmental improvements? *International Journal of Consumer Studies*, 25, 331-338.

NOLLKAEMPER, A. 1996. The legality of moral crusades disguised in trade laws: an analysis of the EC Ban on furs from animals taken by Leghold Traps. *Journal of Environmental Law*, 8, 237-256.

NORSE, E. A. 1983. From the Washington Office. *Bulletin of the Ecological Society of America*, 64, 223-225.

- NORTON, B. G. 1982. Environmental ethics and the rights of future generations. *Environmental Ethics*, 4, 319-337.
- NORTON, B. G. 1984. Environmental ethics and weak anthropocentrism. *Environmental Ethics*, 6, 131-148.
- NORTON, B. G. 1987. *Why Preserve Natural Variety?*, Princeton: Princeton University Press.
- NORTON, B. G. 1989. Intergenerational equity and environmental decisions: A model using Rawls' veil of ignorance. *Ecological Economics*, 1, 137-159.
- NORTON, B. G. 1991. *Toward Unity among Environmentalists*, New York: Oxford University Press.
- NORTON, B. G. 1996. Integration and reduction: two approaches to environmental values. In: LIGHT, A. & KATZ, E. (eds.) *Environmental Pragmatism*. New York: Routledge, 105-138.
- NORTON, B. G. 1999a. Ecology and opportunity: intergenerational equity and sustainable options. In: DOBSON, A. (ed.) *Fairness and Futurity: Essays on Environmental Sustainability and Social Justice*. Oxford: Oxford University Press, 118-150.
- NORTON, B. G. 1999b. Pragmatism, Adaptive Management, and Sustainability. *Environmental Values*, 8, 451-466.

- NORTON, B. G. 2001. What do we owe the future? How should we decide? *In:* SHARPE, V. A., NORTON, B. G. & DONNELLEY, S. (eds.) *Wolves and Human Communities: Biology, Politics, and Ethics*. Washington, D.C.: Island Press, 213-232.
- NORTON, B. G. 2003. *Searching for Sustainability: Interdisciplinary Essays in the Philosophy of Conservation Biology*, New York: Cambridge University Press.
- NORTON, B. G. 2005. *Sustainability: A Philosophy of Adaptive Ecosystem Management*, Chicago: University of Chicago Press.
- NORTON, B. G. 2008. Convergence, Noninstrumental Value and the semantics of 'Love': comment on McShane. *Environmental Values*, 17, 5-14.
- NORTON, B. G. 2009. Convergence and divergence: the convergence hypothesis twenty years later. *In:* MINTEER, B. A. (ed.) *Nature in Common?: Environmental Ethics and the Contested Foundations of Environmental Policy*. Philadelphia: Temple University.
- ODDOYE, J. P., YAGHOobi, M. A., TAMIZ, M., JONES, D. F., & SCHMIDT, P. 2007. A multi-objective model to determine efficient resource levels in a medical assessment unit. *Journal of the Operational Research Society*, 58, 1563-1573.
- OLARTE, C., RUEDA, C., & VALENCIA, F. D. 2013. Models and emerging trends of concurrent constraint programming. *Constraints*, 18, 535-578.

- O'NEILL, J. 2002. Future generations: present harms. *In*: O'NEILL, J., TURNER, R. K. & BATEMAN, I. (eds.) *Environmental Ethics and Philosophy: Managing the Environment for Sustainable Development*. Northampton, MA: Edward Elgar Publishing, 181-197.
- OSKAMP, S. 2000. A sustainable future for humanity?: how can psychology help? *American Psychologist*, 55, 496-508.
- OWEN, D. 2004. Green Manhattan. *New Yorker*, 80, 111-123.
- OXFORD ENGLISH DICTIONARY 1989. New York: Oxford University Press.
- PADEN, R. 1994. Against grand theory in environmental ethics. *Environmental Values*, 3, 61-70.
- PARFIT, D. 1984. *Reasons and Persons*, New York: Oxford University Press.
- PARKER, K. A. 1996. Pragmatism and environmental thought. *In*: LIGHT, A. & KATZ, E. (eds.) *Environmental Pragmatism*. New York: Routledge, 21-37.
- PASSMORE, J. 1974. *Man's Responsibility for Nature : Ecological Problems and Western Traditions*, London: Duckworth.
- PATON, H. J. 1948. *The Moral Law: Kant's Groundwork of the Metaphysic of Morals*, London: Hutchinson University Library.

- PAYNE, J. W., BETTMAN, J. R. & JOHNSON, E. J. 1990. The adaptive decision maker: effort and accuracy in choice. *In: HOGARTH, R. M. (ed.) Insights in Decision Making: A Tribute to Hillel J. Einhorn*. Chicago: University of Chicago Press, 129-153.
- PAYNE, P. & RIDDELL, K. 1999. Thinking the Environment: the written epistemology of enquiry. *Canadian Journal of Environmental Education*, 4, 243-261.
- PEARCE, D., FANKHAUSER, S., ADGER, N. & SWANSON, T. 1992. World economy, world environment. *World Economy*, 15, 295-314.
- PECH, R. J. & DURDEN, G. 2003. Manoeuvre warfare: a new military paradigm for business decision making. *Management Decision*, 41, 168-179.
- PEPPER, D. 1984. *The Roots of Modern Environmentalism*, London: Croom Helm.
- PFEFFER, J. 2010. Building sustainable organizations: the human factor. *Academy of Management Perspectives*, 24, 34-45.
- PISKUREK, N. 2000. Dive tourism in coral reefs - impacts and conditions for Sustainability: a case study from Desa Pemuteran (Bali / Indonesia). *In: WITTMER, H. & HASSAN, Z.-E., (eds.) INCO-DEV International Workshop on Policy Options for the Sustainable Use of Coral Reefs and Associated Ecosystems, June 19-22 Mombasa, Kenya: ACP – EU Fisheries Research Initiative*, 57-65.

- PITTINGER, C. A. 1998. Communicating human health and environmental risks: a corporate perspective. *Human and Ecological Risk Assessment: An International Journal*, 4, 627-632.
- PLATER, Z. J. B. 1988. Damming the Third World: multilateral Development Banks, environmental diseconomies, and international reform pressures on the lending process. *Denver Journal of International Law and Policy*, 17, 121-153.
- PORTON, I. J. 2005. The ethics of wildlife contraception. In: ASA, C. S. & PORTON, I. J. (eds.) *Wildlife Contraception: Issues, Methods, and Applications*. Baltimore, MD: The Johns Hopkins University Press, 3-16.
- POTSCHIN, M. 2009. Land use and the state of the natural environment. *Land Use Policy*, 26, S170-S177.
- POTTER, J. F. 1985. What is an environmentalist? *The Environmentalist*, 5, 2-3.
- QUIYUM, M. J. & SALIMULLAH, A. H. M. 2005. Confucius (551-479B.C.) and his philosophy on education, society and politics. *Pakistan Journal of Social Sciences*, 3, 880-888.
- RANGEL, A. 2003. Forward and backward intergenerational goods: why is social security good for the environment? *The American Economic Review*, 93, 813-834.

- RAUSTIALA, K. 1997. Domestic institutions and international regulatory cooperation: comparative responses to the Convention on Biological Diversity. *World Politics*, 49, 482-509.
- RECKHOW, K. 1994. Importance of scientific uncertainty in decision making. *Environmental Management*, 18, 161-166.
- REINHARDT, G. A. & GARTNER, S. O. 2002. Biodiesel or pure Rapeseed oil for transportation: which one is best for the environment? *12th European Conference on Biomass for Energy, Industry and Climate Protection, 17-21 June, Amsterdam, The Netherlands*: ETA Florence, 1158-1161.
- RHODE, D. L. & ROSS, L. D. 2008. Environmental values and behaviors: strategies to encourage public support for initiatives to combat Global Warming. *Virginia Environmental Law Journal*, 26, 161-188.
- ROBERT, J. S. 2000. Wild ontology: elaborating environmental pragmatism. *Ethics and the Environment*, 5, 191-209.
- ROBERTS, J. A. 1995. Profiling levels of socially responsible consumer behavior: a cluster analytic approach and its implications for marketing. *Journal of Marketing Theory & Practice*, 3, 97-117.
- ROBERTS, J. A. 1996. Green consumers in the 1990s: profile and implications for advertising. *Journal of Business Research*, 36, 217-231.

- ROBERTS, K. H., STOUT, S. K. & HALPERN, J. J. 1994. Decision dynamics in two high reliability military organizations. *Management Science*, 40, 614-624.
- ROBERTSON, T. 2011. Barry Commoner and the Science of Survival: the remaking of American Environmentalism. *Environmental History*, 16, 724-725.
- RODGERS, J. D. 2009. Sustainability and Civil Engineering. *Ohio Valley Regional Student Conference, April 2-4, Bowling Green KY: Western Kentucky University*, 1-6.
- RODGERS, W. H. 1985. The Washington Environmental Policy Act. *Washington Law Review*, 60, 33-68.
- ROHRACHER, H., BOGNER, T., SPÄTH, P. & FABER, F. 2004. Improving the public perception of bioenergy in the EU: Final Report. Available: http://ec.europa.eu/energy/res/sectors/bioenergy_publications_en.htm [Accessed December 10th, 2011].
- ROLSTON, H., III 1988. *Environmental Ethics: Duties to and Values in the Natural World*, Philadelphia: Temple University Press.
- ROLSTON, H., III. 2009. Converging versus reconstituting environmental ethics. In: MINTEER, B. A. (ed.) *Nature in Common? Environmental Ethics and the Contested Foundations of Environmental Policy*. Philadelphia: Temple University Press, 97-117.

- ROSENTHAL, E. 2008. Europe, cutting biofuel subsidies, redirects aid to stress greenest options. *The New York Times*, January 22, 2008.
- ROSENTHAL, S. B. & BUCHHOLZ, R. A. 1996. How pragmatism is an environmental ethic. In: LIGHT, A. & KATZ, E. (eds.) *Environmental Pragmatism*. New York: Routledge, 38-49.
- ROTHENBERG, D. 1996. Laws of Nature vs. Laws of Respect: non-violence in practice in Norway. In: LIGHT, A. & KATZ, E. (eds.) *Environmental Pragmatism*. New York: Routledge, 251-265.
- ROYAL CARIBBEAN INTERNATIONAL. 2012. Royal Caribbean International debuts next level of environmental and safety features onboard Oasis of the Seas. Available: <http://www.oasisoftheseas.com/presskit/Oasis%20-%20Environment%20&%20Safety.pdf> [Accessed January 20th, 2012].
- RUHL, J. B. 1999. Sustainable Development: a five-dimensional algorithm for Environmental Law *Stanford Environmental Law Journal*, 18, 31-64.
- RYDIN, Y. & GREIG, A. 1995. Talking past each other: local environmentalists in different organisational contexts. *Environmental Politics*, 4, 271-294.
- SAAD, L. & DUNLAP, R. E. 2000. Americans are environmentally friendly, but issue not seen as urgent problem: concern has dropped somewhat over past decade. *The Gallup Poll Monthly*, April, 12-18.

- SAMARAKOON, S. M. K. & GUDMESTAD, O. T. 2011. The IPPC directive and technique qualification at offshore oil and gas installations. *Journal of Cleaner Production*, 19, 13-20.
- SANDLER, R. L. 2004. Towards an adequate Environmental Virtue ethic. *Environmental Values*, 13, 477-495.
- SANDLER, R. L. 2007. *Character and Environment: A Virtue-oriented Approach to Environmental Ethics*, New York: Columbia University Press.
- SANIOTIS, A. 2012. Muslims and ecology: fostering Islamic environmental ethics. *Contemporary Islam*, 10.1007/s11562-011-0173-8.
- SANTAS, A. 1996. The environmental value in G. H. Mead's cosmology. In: LIGHT, A. & KATZ, E. (eds.) *Environmental Pragmatism*. New York: Routledge, 73-83.
- SANTAS, A. 2003. A pragmatic theory of intrinsic value. *Philosophical Inquiry International Quarterly*, 25, 93-104.
- SAUNDERS, C. D. 2003. The emerging field of conservation psychology. *Human Ecology Review*, 10, 137-149.
- SAYER, J. 2010. Agriculture, climate change and nature in Africa. *Nature & Faune*, 25, 17-21.

- SCHELLING, T. C. 1960. *The Strategy of Conflict*, Cambridge, MA: Harvard University Press.
- SCHOENBROD, D. 2002. The Mau-Mauing of Bjørn Lomborg. *Commentary*, 114, 51-55.
- SCHROEDER, C. H. 1998. Rational choice versus Republican moment - explanations for environmental laws, 1969-73. *Duke Environmental Law & Policy Forum*, 9, 29-60.
- SCOTT, S. G. & BRUCE, R. A. 1995. Decision-making style: the development and assessment of a new measure. *Educational and Psychological Measurement*, 55, 818-831.
- SCRASE, J. I. & SHEATE, W. R. 2002. Integration and integrated approaches to assessment: what do they mean for the environment? *Journal of Environmental Policy & Planning*, 4, 275-294.
- SEELYE, K. Q. 2003. Windmills sow dissent for environmentalists. *New York Times*, June 5th.
- ŠEGON, V., DOMAC, J. & KUFRIN, K. 2002. National survey of knowledge, attitudes and perceptions about renewables and energy efficiency. *IEA Bioenergy Task 29 Workshop, September 19-21, Cavtat, Croatia: IEABioenergy Task 29.*

- ŠEGON, V., STØER, D., DOMAC, J. & YANG, K. 2004. Raising the awareness of bioenergy benefits: results of two public surveys on attitudes, perceptions and knowledge. *2nd World Biomass Conference: Biomass for Energy, Industry and Climate Protection, May 10-14, Rome, Italy*: IEABioenergy Task 29.
- SHAVER, R. 1999. *Rational Egoism: A Selective and Critical History*, Cambridge: Cambridge University Press.
- SHAVER, R. 2010. Egoism. In: ZALTA, E. N. (ed.) *The Stanford Encyclopedia of Philosophy*. Stanford, CA: Metaphysics Research Lab, Center for the Study of Language and Information, Stanford University. Available: <http://plato.stanford.edu/entries/egoism> [Accessed January 30th, 2012].
- SHAW, W. H. 1996. Business ethics today: a survey. *Journal of Business Ethics*, 15, 489-500.
- SHELLENBERGER, M. & NORDHAUS, T. 2005. The death of Environmentalism. *Social Policy*, 35, 19-30.
- SHRADER-FRECHETTE, K. 1996. Individualism, holism, and environmental ethics. *Ethics and the Environment*, 1, 55-69.
- SISTERS RANGER DISTRICT 2001. *Suttle Lake Resort and Marina Master Development Plan*, Jefferson County, OR: Sisters Ranger District, Deschutes National Forest: University of Oregon.

- SONNENWALD, D. H. & PIERCE, L. G. 2000. Information behavior in dynamic group work contexts: interwoven situational awareness, dense social networks and contested collaboration in command and control. *Information Processing & Management*, 36, 461-479.
- SPASH, C. L. 1993. Environmental ethics and our moral relationship to future generations: future rights and present virtue. *Environmental Ethics*, 15, 117-132.
- STENMARK, M. 2002. The relevance of environmental ethical theories for policy making. *Environmental Ethics*, 24, 135-148.
- STEPHENS, P. H. G. 2009. Toward a Jamesian environmental philosophy. *Environmental Ethics*, 31, 227-244.
- STEUBING, B., ZAH, R. & LUDWIG, C. 2012. Heat, electricity, or transportation? The optimal use of residual and waste biomass in Europe from an environmental perspective. *Environmental Science & Technology*, 46, 164-171.
- STOTT, P. 1999. *Tropical Rain Forest: a Political Ecology of Hegemonic Myth Making*. London: Institute of Economic Affairs Environment Unit.
- STRATER, L. D. & BOLSTAD, C. A. 2009. Simulation-based situation awareness training. In: VINCENZI, D. A., WISE, J. A., MOULOUA, M. & HANCOCK,

- P. A. (eds.) *Human Factors in Simulation and Training*. Boca Raton, FL: CRC Press, 129-148.
- STRATER, L. D., ENDSLEY, M. R., PLEBAN, R. J. & MATTHEWS, M. D. 2001. *Measures of Platoon Leader situation awareness in virtual decision-making exercises*, Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.
- SULTANA, P., THOMPSON, P. & GREEN, C. 2008. Can England learn lessons from Bangladesh in introducing participatory floodplain management? *Water Resources Management*, 22, 357-376.
- SUTER, G. W., II 1997. Integration of human health and ecological risk assessment. *Environmental Health Perspectives*, 105, 1282-1283.
- SVAŠEK, M. 2006. Postsocialist ownership: emotions, power and morality in a Czech village. In: SVAŠEK, M. (ed.) *Postsocialism: Politics and Emotion in Central and Eastern Europe*. New York: Berghahn Books, 95-114.
- SVENSSON, N., ROTH, L., EKLUND, M. & MÅRTENSSON, A. 2006. Environmental relevance and use of energy indicators in environmental management and research. *Journal of Cleaner Production*, 14, 134-145.
- SYSE, H. 2002. Plato: the necessity of war, the quest for peace. *Journal of Military Ethics*, 1, 36-44.

- TALSHIR, G. 2005. Knowing right from left: The politics of identity between the radical left and far right. *Journal of Political Ideologies*, 10, 311-335.
- TAPLIN, R. 2004. Australian experience with 'New' environmental policy instruments: the greenhouse challenge and greenhouse friendly programs. *Energy & Environment*, 15, 437-449.
- TARSNEY, P. J. 1994. Regulation of environmental marketing: reassessing the Supreme Court's protection of commercial speech. *Notre Dame Law Review*, 69, 533-574.
- TAYLOR, B. 1998. Religion, violence and radical environmentalism: from earth first! to the Unabomber to the earth liberation front. *Terrorism and Political Violence*, 10, 1-42.
- TAYLOR, P. W. 2011. *Respect for Nature: A Theory of Environmental Ethics*, Princeton: Princeton University Press.
- TESCH, D. & KEMPTON, W. 2004. Who is an environmentalist? The polysemy of environmentalist terms and correlated environmental actions. *Journal of Ecological Anthropology*, 8, 67-83.
- TESH, S. N. 1994. Causal debates in Environmentalism. *Journal of Public Health Policy*, 15, 298-309.

- THACHER, D. & REIN, M. 2004. Managing value conflict in public policy. *Governance*, 17, 457-486.
- THAGARD, P. & VERBEURGT, K. 1998. Coherence as constraint satisfaction. *Cognitive Science*, 22, 1-24.
- THE EUROPEAN OPINION RESEARCH GROUP 2003. *Energy: issues, options and technologies*, Luxembourg: European Commission.
- THOMAS, K. 1996. *Man and the Natural World: Changing Attitudes in England, 1500-1800*, Oxford: Oxford University Press.
- THOMPSON, J. 1995a. Towards a green world order: environment and world politics. *Environmental Politics*, 4, 31-48.
- THOMPSON, P. B. 1995b. *The Spirit of the Soil: Agriculture and Environmental Ethics*, New York: Routledge.
- THOMPSON, P. B. 1996. Pragmatism and policy: the case of water. In: LIGHT, A. & KATZ, E. (eds.) *Environmental Pragmatism*. New York: Routledge, 187-208.
- THOREAU, H. D. 2004. *Walden*, New Haven, CT: Yale University Press.
- THURSTON, D. L. 1994a. Environmental design trade-offs. *Journal of Engineering Design*, 5, 25.

- THURSTON, D. L. 1994b. Internalizing environmental impacts in design. *Design for Manufacturability Conference at the National Design Engineering Conference, March 14-17, Chicago*: American Society of Mechanical Engineers, 107-113.
- THURSTON, D. L., LLOYD, S. M. & WALLACE, J. 1994. Considering customer preferences for environmental protection in material selection. *Materials & Design*, 15, 203-209.
- TOET, A., IJSPEERT, J. K., WAXMAN, A. M. & AGUILAR, M. 1997. Fusion of visible and thermal imagery improves situational awareness. *Displays*, 18, 85-95.
- TORJUSEN, H., LIEBLEIN, G. & VITTERS, G. 2008. Learning, communicating and eating in local food-systems: The case of organic box schemes in Denmark and Norway. *Local Environment*, 13, 219-234.
- TRAIN, R. E. 2003. *Politics, Pollution, and Pandas: an Environmental Memoir*, Washington, D.C.: Island Press.
- TREVORS, J. & SAIER, M. 2006. The illusion of scholarship in research and solving global problems. *Water, Air, & Soil Pollution*, 176, 1-3.
- ULGIATI, S. & BROWN, M. T. 2002. Quantifying the environmental support for dilution and abatement of process emissions: the case of electricity production. *Journal of Cleaner Production*, 10, 335-348.

- UNGER, N., BEIGL, P. & WASSERMANN, G. 2004. General requirements for LCA software tools. *iEMSs 2004 International Conference June 14-17, University of Osnabrück, Germany* International Environmental Modelling and Software Society.
- VAN GELDER, S. 1995. The next Reformation: an interview with Paul Hawken, by Sarah van Gelder. *In Context: Business On A Small Planet*, 41, 17-22.
- VAN HORN, H. H., NEWTON, G. L. & KUNKLE, W. E. 1996. Ruminant nutrition from an environmental perspective: factors affecting whole-farm nutrient balance. *Journal of Animal Science*, 74, 3082-3102.
- VANDERHEIDEN, S. 2008. Radical environmentalism in an age of antiterrorism. *Environmental Politics*, 17, 299-318.
- VARNER, G. E., GILBERTZ, S. J. & PETERSON, T. R. 1996. Teaching environmental ethics as a method of conflict management. *In*: LIGHT, A. & KATZ, E. (eds.) *Environmental Pragmatism*. New York: Routledge, 266-282.
- VERNON, R. 2009. Intergenerational rights? *Intergenerational Justice Review*, 9, 8-12.
- VIDEIRA, N., ANTUNES, P., SANTOS, R. & LOBO, G. 2006. Public and stakeholder participation in European water policy: a critical review of project evaluation processes. *European Environment*, 16, 19-31.

- VIEWEG, S., HUGHES, A. L., STARBIRD, K. & PALEN, L. 2010. Microblogging during two natural hazards events: what twitter may contribute to situational awareness. *Proceedings of the 28th International Conference on Human Factors in Computing Systems, April 10-15, Atlanta, GA*: New York: ACM, 1079-1088.
- WALLINGTON, T. J. 2002. *Civic Environmental Pragmatism: a dialogical framework for Strategic Environmental Assessment* [Online]. Doctor of Philosophy Thesis, Murdoch University. Available: <http://researchrepository.murdoch.edu.au/385> [Accessed January 31st, 2012].
- WALZER, R. 1963. Aspects of Islamic political thought: Al-Fārābī and Ibn Xaldūn. *Oriens*, 16, 40-60.
- WANG, M.-Z., AMATI, M. & THOMALLA, F. 2012. Understanding the vulnerability of migrants in Shanghai to typhoons. *Natural Hazards*, 60, 1189-1210.
- WARREN, C. R. & BIRNIE, R. V. 2009. Re-powering Scotland: wind farms and the 'Energy or Environment?' debate. *Scottish Geographical Journal*, 125, 97-126.
- WARREN, K. J. 2009. The power and the promise of Ecological Feminism. In: SOIFER, E. (ed.) *Ethical Issues: Perspectives for Canadians*. 3rd ed. Toronto, Ontario: Broadview Press, 97-113.

- WATERFIELD, R. 1993. *Republic*, Oxford: Oxford University Press.
- WEBER, M. 1949. *The Methodology of the Social Sciences*, New York: The Free Press.
- WEISS, E. B. 1990. Our rights and obligations to future generations for the environment. *The American Journal of International Law*, 84, 198-207.
- WELLENS, A. R. 1993. Group situation awareness and distributed decision making: from military to civilian applications. In: CASTELLAN., N. J. (ed.) *Individual and Group Decision Making: Current Issues*. Hillsdale, NJ: Lawrence Erlbaum Associates, 267-292.
- WENZ, P. S. 1999. Pragmatism in practice: the efficiency of sustainable agriculture. *Environmental Ethics*, 21, 391-410.
- WESTON, A. 1994. *Back to Earth: Tomorrow's Environmentalism*, Philadelphia: Temple University Press.
- WESTON, A. 1999. Is it too late? In: WESTON, A. (ed.) *An Invitational to Environmental Philosophy*. Oxford: Oxford University Press, 43-68.
- WHITE, L., JR. 1967. The historical roots of our ecologic crisis. *Science*, 155, 1203-1207.

WHITE, S. & RAO, R. K. S. 2000. Sulfur Dioxide allowances: the price of pollution.

College Park, MD: Robert H. Smith School of Business, University of

Maryland. Available:

<http://www.rhsmith.umd.edu/faculty/susanwhite/PDFs/SulfurDioxideAllowances.pdf> [Accessed January 2nd, 2012].

WILEY, J. P., JR. 1998. Coming to terms: our names for people who respect the environment should be as varied as the ways we see it. *Smithsonian*, 29, 28-29.

WILSON, S. H., MERKLE, S., BROWN, D., MOSKOWITZ, J., HURLEY, D., BROWN, D., BAILEY, B. J., MCCLAIN, M., MISENHIMER, M., BUCKALEW, J. & BURKS, T. 2000. Biomedical research leaders: report on needs, opportunities, difficulties, education and training, and evaluation. *Environmental Health Perspectives*, 108, 979-995.

WINSLOW, M. 2005. Is Democracy good for the environment? *Journal of Environmental Planning and Management*, 48, 771-783.

XU, M., ZHANG, T. & ALLENBY, B. 2008. How much will china weigh? Perspectives from consumption structure and technology development. *Environmental Science & Technology*, 42, 4022-4028.

YALE UNIVERSITY SCHOOL OF FORESTRY & ENVIRONMENTAL STUDIES. 2005. *Survey on American attitudes on the environment: key*

findings, New Haven, CT: School of Forestry & Environmental Studies: Yale University.

YOKOHARI, M., TAKEUCHI, K., WATANABE, T. & YOKOTA, S. 2000. Beyond greenbelts and zoning: a new planning concept for the environment of Asian mega-cities. *Landscape and Urban Planning*, 47, 159-171.

ZACCARO, S. J., GUALTIERI, J. & MINIONIS, D. 1995. Task cohesion as a facilitator of team decision making under temporal urgency. *Military Psychology*, 7, 77-93.

ZEIDE, B. 2008. The science of forestry. *Journal of Sustainable Forestry*, 27, 345-473.

ZELEZNY, L. C., CHUA, P. P. & ALDRICH, C. 2000. Elaborating on gender differences in environmentalism. *Journal of Social Issues*, 56, 443-457.

ZELEZNY, L. C. & SCHULTZ, P. W. 2000. Promoting environmentalism. *Journal of Social Issues*, 56, 365-371.

ZIEL, P. 2006. Interstate commerce and intrastate endangered species: the controversy and the need for compromise. *Brigham Young University Journal of Public Law*, 20, 167-194.