

**Department of International Politics, University of Wales,
Aberystwyth, September 2006. Dissertation submitted in partial
fulfilment of the requirements for MSc(Econ) in Security Studies.**

Candidate Name: Paul Trenell

Candidate Number: 059005797

Supervisor: Dr. Alistair Finlan

The (Im)possibility of ‘Environmental Security’

DECLARATIONS

The word length of this dissertation is: 13, 831

Signed..... (Paul Trenell)

Date:.....

I hereby declare that this thesis has not already been accepted in substance for any degree and is not being currently submitted in candidature for any other degree. It is the result of my own independent investigation and all authorities and sources which have been consulted are acknowledged in the bibliography.

Signed..... (Paul Trenell)

Date:.....

I hereby give consent for my work, if accepted, to be available for photocopying and for inter-library loan, and for the title and summary to be made available to outside organisations.

Signed..... (Paul Trenell)

Date:.....

ABSTRACT

For over a decade the academic community has been locked in a stalemate regarding the most appropriate manner in which to conceptualize the threats posed to human life by the natural environment. Initial strategies attempted to generate an extraordinary policy response by conceptualizing the environment as a security issue, giving rise to the notion of ‘environmental security’. Objections were raised to this connection on the grounds that locating the environment on the security agenda could prove counterproductive by importing statist, militarist and status quo mindsets into the environmental realm. Recent moves from the critical security camp have attempted to negate these concerns by contesting that the nature of security is not fixed, and therefore may be modified to more effectively accommodate environmental hazards. Despite the scale of debate there is still no consensus on how best to frame environmental concerns. This thesis attempts to contribute to the breaking of this impasse. I contend that the project to connect the environment and security operates on the basis of the assumption that labelling the environment as a security issue will key in to the mobilization potential associated with the concept of security. Drawing on the work of the Copenhagen School I argue that the capacity of ‘security’ to mobilize is only unlocked as the result of complex political processes contingent on the presence of certain facilitating conditions which may not be fulfilled in the environmental sector. As such, successful securitization of the environment may not be a possibility. If connecting the environment to security will not mobilize an extraordinary response the entire rationale of the ‘environmental security’ enterprise is undercut, opening up the incentive to search for answers to environmental vulnerability which go beyond security.

INTRODUCTION

As humanity awakes from the complacent slumber of modernity it is faced with an all-encompassing problem of its own creation; the planet is unable to support life as we have come to know it. Human action over the two centuries from the dawn of the industrial revolution has had a profound and potentially devastating impact on the global ecosystem, the repercussions of which are only just beginning to be understood. The scope of resulting threats to human life is enormous and multi-faceted. Accordingly, the project of developing an appropriate response to the many-headed hazard that is environmental degradation is one of the most pressing issues in contemporary security studies. The foremost concern in this field is the set of questions surrounding the conceptualization of the environment of a security issue. Initial attempts to locate environmental issues on the security agenda by scholars such as Lester Brown (1977) and Richard Ullman (1983) were driven by a desire to generate a swift and effective response to newly recognised environmental hazards. For many years, this move went unchallenged. However, in the early 1990s, concerns emerged that the connection between the environment and security might prove detrimental to the attempt to find effective and lasting solutions to environmental vulnerability (Deudney, 1990, 1991; Levy, 1995). These concerns were met by a move to challenge the conventional associations of security, with the claim being made that by reconceptualizing security along environmentally responsive lines it may prove possible to retain the mobilizing power of the concept whilst eradicating the potential that its more negative aspects could be imported in to the environmental realm (Barnett, 2001; Dalby, 1992a, 1992b, 2002; Wyn Jones 1999). Three decades on from the start of the environment-security dialectic consensus has not been achieved. Despite the development of a considerable literature on the topic, “exactly

how [the] new found concern with the environment should be related to security is still much less than agreed upon” (Dalby, 2002: xx)¹. As such the academic community has reached a deadlock with regard to the desirability of continued attempts to conceive of the environment as a security issue². This thesis represents an attempt to contribute to the breaking of this deadlock.

The entire rationale behind the move to link the environment to security is a belief that by so doing it is possible to utilise the capacity of security to engineer a greater degree of social mobilization in the quest to meet environmental challenges. As Deudney points out “the aim of these new links is not primarily descriptive, but polemical. It is not a concern about fact but a rhetorical device designed to stimulate action” (1990: 465). In other words, the notion of ‘environmental security’ represents a “motivational strategy” (1991: 195). Therefore, the attempt to conjoin the environment and security can be understood with reference to the Copenhagen School’s conception of security as a performative speech act (Waeber, 1995; Buzan *et al.*, 1998). Under this model when an issue is cast in security terms, or ‘securitized’, social relations are reordered along security lines and a response which transcends normal politics is initiated. The status of attempts to link the environment and security as rhetorical moves undertaken with the desire to alter reality means that the conception of security as a speech act represents the best framework for analysing the environment-security literature. It will, therefore, be employed throughout this thesis.

¹ Jon Barnett has called the question of the desirability of connecting the environment and security “the most important underlying theme (and tension) in the environmental security literature” (2001: 9)

² Julia Trombetta refers to the deadlock regarding the use of environmental security as an “impasse”, straddled on either side by “those supporting the use of the concept on normative and analytical grounds and those who strongly oppose it” (2004: 24).

From this perspective this I contend that there is a fundamental, and erroneous, assumption underlying ongoing attempts to conceive of the environment as a security issue. I argue that this project is guilty of assuming that the mere linguistic conjunction of ‘environment’ and ‘security’ will produce the mobilization effect which forms the fundamental purpose of the environment-security linkage. This is not necessarily the case. Not every issue referred to in security terms generates an extraordinary response, and thus far the connection of the environment to security has roundly failed to generate large-scale environmental mobilization. A deeper analysis of the dynamics of securitization reveals that ‘security’ only attains the performative capacity to mobilize through a complex political process. I argue, following Thierry Balzacq (2005) that successful securitization is intersubjective, meaning that in order for mobilization to occur an audience must accept a securitizing actor’s claims and the necessity for an extraordinary response to a problem. As such, securitizing moves must be backed with external evidence of an imminent existential threat to affirm the urgent need for action. Whether or not the environment provides this external dimension is a point of contention. It is my claim that the spatially and temporally distant nature of environmental threats leads to a lack of evidence of environmental destruction in the everyday experience of the target audience of securitizing moves³. This may prevent the environment from being seen as a pressing existential threat which merits immediate and extraordinary corrective action. I attempt to validate this claim by comparing environmental hazards to other examples of distant suffering such as famine and genocide in order to highlight how suffering which is not immediately proximate and observable to individuals frequently fails to motivate

³ When mentioning the audience of securitizing moves I am referring to the inhabitants of industrialised nations. I justify this in part because I am in a more informed position to talk about the politics of the industrialised world, but chiefly because it is inhabitants of industrialised nations who do the most damage to the environment - through consumption habits and lifestyle choices - so if corrective action is to be taken it is they who must take it.

remedial action. The environment too could fall foul of the tendency to ignore suffering which is not accompanied by a proximate physical stimulus and therefore fail to generate mobilization. If it can be shown that the environment is unlikely to sustain large-scale mobilization on security grounds due to the very nature of the threat it poses, then the incentive for linking the environment to security is removed. This would serve to break the academic deadlock over whether and how to connect the environment and security and provide the basis for the project to overcome environmental vulnerability to move beyond security.

Organization

Chapter one begins by tracing the initial moves to conjoin the environment and security from the 1970s onwards. Having outlined in greater depth the understanding of security as a performative concept which underpins the ‘environmental security’ enterprise, I will detail the objections which emerged to this conjunction from the 1990s. I categorise these objections according to three mismatches between the conventional security framework and the demands of present environmental vulnerabilities: statism, militarism and status quo mindset. The first half of chapter two is dedicated to summarising the response to these objections to the notion of ‘environmental security’ in the form of the move to reconceptualize security on environmental grounds. The second half of chapter two marks the beginning of my critique of continued attempts to incorporate the environment into the security framework. I claim, with reference to speech act theory, that there is reason to doubt the belief that labelling the environment as a security threat will indeed lead to mobilization. Chapter three develops this claim by exploring the dynamics of mobilization along security lines. It is claimed that in order to mobilize, the concept of

security must be allied to an externally observable concrete existential threat, for unless individuals feel that their lives are endangered they are often reluctant to mobilize. This claim is substantiated by reference to inaction in conventional cases of distant suffering. As there is no externally observable existential threat in the environmental case, only scientific reports threatening bleak futures, it is claimed that the environmental threat may fail to generate mobilization along security lines. In light of this claim I contend that the attempt to link the environment to security will ultimately prove fruitless in terms of generating an extraordinary response, and, as such, should be discontinued in favour of the search for environmental solutions which lie outside the realm of security.

CHAPTER ONE

TRACING ENVIRONMENTAL SECURITY

It is a relatively recent realisation that human activity over the past two centuries has taken a detrimental toll on the natural environment. The first tentative contentions that the economic modes of production and consumption established by the industrial revolution were exerting a negative impact on the ecosystems which sustain human life were made in the mid twentieth century (Revelle & Suess, 1957). Since then it has become widely acknowledged that human activity is altering the planet's climatic make-up. As the science behind environmental degradation grows ever more certain, the security impacts of these developments are constantly unfolding. Among the ways in which environmental degradation poses direct risks to continued human survival are starvation stemming from reduced crop productivity, disease stemming from increasingly conducive conditions for air and vector borne diseases, and good old fashioned physical destruction stemming from sea level rises and increased storm frequency and intensity⁴. Given that "nature is the precondition for everything else" (Dobson, 2006: 175), its ongoing destruction is an extremely disconcerting process, and one that takes on an even more alarming character when it is noted that "the developing world is only just undergoing its industrial revolution" (Brown: 1995: 7).

Before tracing the response to the emergence of environmental hazards it is necessary to say a word about the causes of environmental degradation. By this I refer not to the scientific explanations of the process, but the deeply rooted societal and philosophical developments that have allowed the process to continue. As Simon Dalby has

⁴ For a detailed overview of the science behind environmental degradation, as well as a summary of the complex and interwoven threats these developments pose, see reports by the Intergovernmental Panel on Climate Change (2001) and the Worldwatch Institute (2003-04).

detailed, environmental threats “are the result of the kind of society that the current global political economy produces. Industrial activity, agricultural monocultures, and rampant individual consumption of “disposable items” (all of which are efforts to enhance some forms of human welfare through domination and control of facets of nature) produce other forms of insecurity” (1992a: 113). A large hand in the development of contemporary environmental problems must be attributed to the enlightenment faith in human ability to know and conquer all. In the quest for superiority and security, an erroneous division between humanity and nature emerged whereby the natural world came to be seen as something to be tamed and conquered rather than something to be respected (Adorno & Horkheimer, 1973). Over time, this false dichotomy has become accepted as given, and as a result humankind has lost sight of its own dependence on nature. It is this separation which allows the continued abuse of planetary resources with such disregard for the long-term implications. What is at stake in how we respond to environmental insecurity is the healing of this rift and, in turn, the preservation of human life into the future. Any suggested solutions to environmental vulnerability must account for these concerns and provide a sound basis for redressing the imbalance in the humanity-nature relationship.

1.1 – The Evolution of ‘Environmental Security’⁵

As the potential scale of the impacts of environmental degradation became clear a literature quickly developed in the attempt to devise an appropriate response to the

⁵ There is a split in the literature between the related phrases ‘environmental security’ and ‘ecological security’. The latter was introduced as a result of the belief that the former privileges the security of human beings and thus fails to convey adequate concern for the protection of the physical environment itself. It is intended to convey the idea that human life is dependent on ecosystems and challenge anthropogenic dominance of the natural world. Whilst sensitive to the logic and intentions behind ‘ecological security’ I will employ the term ‘environmental security’ throughout because I believe it better conveys the reality of the task of maintaining conditions on earth that can support human life. If preserving ecosystems was our only concern the task would be much more straightforward, for the planet will survive even if it is no longer fit for humans to inhabit (Buzan *et al.*, 1998: 76).

challenges at hand. The initial strategy in this field was the attempt to connect environmental concerns to the concept of security on the basis that “security is a power word” (Mische, 1992: 105) and is therefore capable of generating swift action to tackle threats. Lester Brown of the Worldwatch Institute pioneered this move in the late 1970s, publishing a paper that called for the redefinition of national security in order to incorporate environmental concerns (Brown, 1977). Richard Ullman restated this theme in 1983, attempting to justify the status of the environment on the security agenda by emphasising that the threat posed by the environment was as great as that posed by traditional military concerns, and therefore warranted comparable funding and attention (Ullman, 1983). Yet, at a time when the East and West were still locked in Cold War enmity these calls to redefine security fell largely on deaf ears. Military circles were unreceptive to anything that might distract focus from the geostrategic threat of superpower military engagement, and this resistance extended to policy makers and the general public who found themselves too concerned with the prospect of nuclear apocalypse to give a great deal of concern over to seemingly secondary concerns about environmental degradation.

Towards the end of the 1980s superpower rivalry began to wane, giving rise to the recognition that there was to be life, and insecurity, beyond the Cold War. First to capitalise on this thawing of blinkered worldviews was the World Commission on Environment and Development (WCED), which published the ‘Brundtland Report’ in 1987. This paper claimed that “[t]he whole notion of security as traditionally understood – in terms of political and military threats to national sovereignty – must be expanded to include growing concerns of environmental stress” (WCED, 1987: 19). As part of the attempt to enforce this shift the report employed the phrase

‘environmental security’ and is now widely credited with popularising the term. In the wake of this conference numerous articles were published which utilised a variety of strategies in the attempt to legitimise linking the environment to security. Two years after the WCED conference Jessica Tuchman Mathews’ published a *Foreign Affairs* article which took the United States policy community as its target audience and focussed on the impact of overpopulation, claiming that the side effects of deforestation, desertification and displacement could develop into security concerns (Mathews, 1989). The hydrologist Peter Gleick focussed on the contention that food or water scarcity and competition over access to arctic minerals could form the spark for conventional military conflicts (Gleick, 1989; 1991; see also Klare, 2001), whilst Norman Myers attempted a grander validation, claiming that because the environment represents the basis for all other human activity nothing could be secure whilst the environment remained insecure. Environmental security, therefore, represented “ultimate security” (Myers, 1993).

Marc Levy has noted that the rise of the notion of ‘environmental security’ from the mid 1980s “encountered hardly any voices of dissent” (1995: 35). By the early 1990s this began to change, as a number of scholars expressed unease at the connection between the two concepts. One line of objection came from those who wished to retain the focus of security on the intentional use of military force by states. Stephen Walt expressed a desire to retain “the phenomenon of war” as the focus of security studies in order to ensure the retention of conceptual clarity (1991: 212). Daniel Deudney showed sympathy with Walt’s concerns, warning that should all large-scale threats to human life be incorporated under the security rubric “we shall soon drain the term of any meaning...” (1990: 465). Whilst such anxieties are not entirely invalid

they are stained by an air of greater concern for the security of concepts than that of people. Far more serious, was the contention that the environment-security link may be counterproductive in the quest to conceive of and implement effective solutions to environmental problems. Deudney was amongst the first to express these sentiments, claiming that “[e]nhanced concern for the environment because it is perceived as a security problem may alter environmental politics in negative ways” (1995: 195). This belief rests on the vision that the policies and strategies invoked by framing an issue in security terms are unsuitable for addressing environmental problems. To understand the nature of these concerns it is necessary to say some more about the concept of security.

Securitization: Security As A Performative Act

In order to comprehend how the seemingly intuitive strategy of linking the environment to security might be counterproductive it is instructive to recall Michael Dillon’s words on what ‘security’ is: “it is not a noun that names things, it is a principle of formulation that does things” (Dillon, 1996: 19). The implication here is that ‘security’ goes beyond a mere nametag to be attached to anything that might render human beings insecure and becomes a category that “articulates a particular way of organizing forms of life” (Huysmans, 1998: 231). This understanding of security has been developed at the greatest length by the Copenhagen School (CS), the collective of scholars amongst whom Barry Buzan, Ole Waever and Jaap de Wilde are the most prominent. Their jointly authored text *Security: A New Framework For Analysis* (1998) builds on the earlier work of Ole Waever to forward the notion of security as a speech act. Under this conception ‘security’ is understood as a performative utterance, following John Austin’s distinction between descriptive

speech acts, which merely label objects, and performative speech acts, which by being said *do something* to change reality (Buzan *et al.*, 1998: 26; Austin, 1975: 98ff). Security can be seen as having a performative function because “[r]ather than describing or picturing a condition it orders social relations into security relations” (Huysmans, 1998: 232).

Therefore, by presenting an issue in terms of security, it is possible to initiate a certain set of social conditions that would not be introduced if the issue were conceived of as other than a security issue. These social relations typically involve a state of exception, a stepping outside of normal political procedures whereby exceptional measures are legitimised due to the pressing need to address the pending threat. For the CS security “is the move that takes politics beyond the established rules of the game and frames the issue as either a special kind of politics or above politics” (Buzan *et al.*, 1998: 23). The textbook case here is the mobilization of a populace against an external enemy during wartime, whereby citizens accept enforced hardships – rationing, relocation, conscription – as a necessary component of the response to the threat. ‘Securitization’, as such, can be understood to refer to the casting of an issue as an existential threat with the intention of generating an extraordinary response to the problem⁶. Recognition of the power of the security tag to generate an extraordinary response is fundamental in understanding the desire to locate the environment within the security framework.

⁶ It should be noted that whilst securitization represents a method whereby swift action can be taken against a problem, it also represents “a failure to deal with issues as normal politics” (Buzan *et al.*, 1998: 29). Therefore, the CS express a preference for the twin strategy of desecuritization whereby issues are taken out of the security framework and dealt with via normal political means. For them “desecuritization is the optimal long range option” (Buzan *et al.*, 1998: 29).

With the understanding of security as a performative rather than descriptive act in place the debate over environmental security takes on a new character. As Ole Waever has detailed, under the speech act conception of security, the “use of the security label does not merely reflect whether a problem is a security problem, it is also a political choice, that is a decision for conceptualization a special way. When an issue is ‘securitized’ the act itself tends to lead to certain ways of addressing it” (Waever, 1995: 65). Therefore, the focus shifts from the question of whether the environment is in reality a threat to human well being – the question which underpinned the early work on the topic by those such as Mathews and Ullman – and onto the issue of whether the conditions invoked by applying the security tag are desirable for addressing the issue at hand. As Huysmans has said “One has to decide...if one wants to approach a problem in security terms or not...the is-question automatically turns into a should-question” (1998: 234, 249). The response to the should-question of environmental security is dependent on whether or not the way in which security organizes social relations can be seen as beneficial to the attempt to develop effective environmental policy.

1.2 – Mismatches: Against ‘Environmental Security’

A concern that the social relations invoked by posing environmental issues as security issues would not lead to the most effective environmental policy motivated the initial objections to the notion of ‘environmental security’. Whilst the securitization of the environment represents a seemingly attractive proposition due to security’s assumed ability to deliver a swift response, there is cause to doubt whether the conditions invoked by applying the security label correlate with the demands of present environmental problems. Ole Waever has warned that whilst the speech act

approach opens up the possibility that almost any issue could be securitized in theory, this may be dangerous in practice because “[s]ecurity, as with any other concept, comes with a history and a set of connotations that it cannot escape” (Waever, 1995; 47). The contention is that the historical associations of security may lead to the importation of a logic unfit for dealing with the problem at hand, especially given that the environmental issue differs greatly from conventional notions of threat and vulnerability. When one scratches the surface it becomes clear that there are a number of mismatches between the conditions invoked by a securitization along conventional lines and the response required to meet the environmental challenge. These concerns can be expressed through three related categories: statism, militarization and status quo mindset.

Statism

The most immediately striking mismatch between the security framework and environmental needs is the fact that the notion of security is so closely entangled with the territorially bound nation state. Waever has noted that “[t]here is no literature, no philosophy, no tradition of “security” in non-state terms; it exists only as a critical idea” (1995: 48-9). Since its inception security has been the business of the state, for it is at the heart of the social contract which brought the state into existence that citizens sacrifice freedoms and liberties to the sovereign in order that security be provided in return (Hobbes, 1651: 91ff). As such, at the mention of security one’s focus is invariably turned towards the state as the great protector. As far as the environmental sector is concerned the focus on the state is detrimental in a number of ways.

Firstly, for many years the security of states has been achieved at the expense of other states. Security is innately linked with the “identification of others which threaten the purpose and cohesion of the state” (Barnett, 2001: 30). This stems from the project of nation building, for which security proved to be an important tool. By focussing attention on the threats posed by outsiders, national elites found that the domestic populace could be more easily homogenized and managed. As Huysmans has detailed “fear-of-the-power-of-the-other to kill me splits the human species, or better, unites atomic individuals in communities” (1998: 235). Therefore, states in the process of providing security have a tendency to focus on external enemies in order to unite the internal population. There is a danger that a security framework could import this type of ‘us versus them’ thinking into the environmental realm to detrimental effect. By searching only the external realm for the causes of insecurity “our complicity in evil is erased” (Campbell, 1993: 3) and the faults in our own actions are overlooked. This aspect of security logic would be unwelcome in the environmental sector, for as Ulrich Beck has emphasised in his analysis of the present ecological threat “[t]his threat to all life does not come from outside... It emerges within, enduringly as the reverse side of progress peace and normality” (Beck, 1995: 163). Put simply “society today is *confronted by itself*” (Beck, 1992a: 183). Any discursive association which obscures this fact is likely to prove counterproductive in the quest to address environmental issues.

Secondly, the zero-sum mindset of conventional security may hinder the development of effective solutions by preventing transnational cooperation. Ken Conca has suggested “the concept of security invokes images of insulation” (1994: 18) whereby one takes care of one’s own land and people by any means necessary, and generally

disregards the impact of this on other countries. This may lead to a response whereby states attempt to forestall environmental damage by ‘target hardening’; protecting their own territory rather than confronting the root of the problem. For example, it is not inconceivable that developed nations could protect against the threat of rising sea levels by utilising their technological and engineering expertise to construct offshore dams to divert water away from major cities (Myers, 1993: 196). This is an expensive but real possibility, and such action would fulfil the obligation of the state to provide security for its citizens. The problem lies with the fact that “as far as we try to find national solutions for environmental problems we do not really solve them but manage them instead” (Kakonen, 1994: 3). Environmental problems are international in terms of both scope and impact, and therefore only truly international solutions are likely to prove true solutions.

Thirdly, it can be claimed that the security mindset channels the obligation to address environmental issues in an unwelcome direction. Due to terms laid out by the social contract “security is essentially something done by states...there is no obligation or moral duty on citizens to provide security...In this sense security is essentially empty...it is not a sign of positive political initiative” (Dalby, 1992a: 97-8). Therefore, casting an issue in security terms puts the onus of action onto governments, creating a docile citizenry who await instructions from their leaders as to the next step rather than taking it on their own backs to do something about pressing concerns. This is unwelcome because governments have limited incentives to act on environmental issues, as their collectively poor track record to date reveals. Paul Brown notes that “at present in all the large democracies the short-term politics of winning the next election and the need to increase the annual profits of industry

rule over the long term interests of the human race” (1996: 10; see also Booth 1991: 348). There is no clearer evidence for this than the grounds on which George W. Bush explained his decision to opt out of the Kyoto Protocol: “I told the world I thought that Kyoto was a lousy deal for America...It meant that we had to cut emissions below 1990 levels, which would have meant I would have presided over massive layoffs and economic destruction” (BBC: 2006). The short-term focus of government elites and the long-term nature of the environmental threat means that any policy which puts the burden of responsibility on the shoulders of governments should be viewed with scepticism as this may have the effect of breeding inaction on environmental issues.

Moreover, governmental legislation may not be the most appropriate route to solving the problem at hand. If environmental vulnerabilities are to be effectively addressed “[t]he routine behaviour of practically everyone must be altered” (Deudney, 1990: 465). In the case of the environmental sector it is not large scale and intentional assaults but the cumulative effect of small and seemingly innocent acts such as driving a car or taking a flight that do the damage. Exactly how a legislative response could serve to alter “non-criminal apolitical acts by individuals” (Prins, 1993: 176-177) which lie beyond established categories of the political is unclear. Andrew Dobson has covered this ground in claiming that the solution to environmental hazards lies not in piecemeal legislation but in the fostering of a culture of ‘ecological citizenship’. His call is made on the grounds that legislating on the environment, forcing people to adapt, does not reach the necessary depth to produce long-lasting change, but merely plugs the problem temporarily. He cites Italian ‘car-free city’ days as evidence of this, noting that whilst selected cities may be free of automobiles on a

single predetermined day, numbers return to previous levels immediately thereafter (2003: 3). This indicates that the deeper message underlying the policy is not being successfully conveyed. Enduring environmental solutions are likely to emerge only when citizens choose to change their ways because they understand that there exists a pressing need to do so. Such a realisation is unlikely to be prompted by the top-down, state oriented focus supplied by a security framework.

Militarization

A further association of conventional security practices that could be misguidedly imported into the environmental realm is the use of military force to attain security. Security has for centuries been the preserve of the military, and the provision of security remains highly entangled with military institutions. As such concern has been expressed that casting the environment in security terms may lead to greater military involvement in addressing environmental problems. For their part the military have been keen to involve themselves in environmental matters due to the fact that, in the aftermath of the Cold War, this represents a good way to ensure continued status and funding (Conca, 1994: 16). Yet further military involvement in the environmental sector would be unwelcome and counterproductive in numerous ways, not least because “there are of course, no military solutions to environmental insecurity” (WCED, 1987: 301). One cannot bomb the environment back into good health, and the secretive and hierarchical structures that dominate military organisations are fundamentally unsuited to environmental challenges which demand cooperative and innovative solutions (Deudney, 1991: 24).

More than just hinder the search for solutions, military organisations actively exacerbate environmental problems. Jon Barnett has claimed that “militarization is arguably the single biggest risk to human beings” (2001: 19). There is the obvious point that military conflict rarely passes without high numbers of fatalities. However, the preparations and conduct of military conflict also have hugely detrimental environmental impacts. For example it is estimated that the burning of oil fields during the 1991 Gulf War produced one hundred times the carbon dioxide emissions emitted by an entire year of global economic trading (Brock, 1991: 411). Similarly devastating environmental damage is sustained via nuclear testing and military preparations. Legitimising a military role in addressing environmental problems by framing environmental concerns in terms of security may serve only to enshrine the military’s status as “protected polluters” (Dalby, 1992b: 512) and thereby create further environmental damage. Moreover, should the military succeed in hijacking a role in addressing environmental issues, the funding that it would receive for this function would represent serious “opportunity costs” to environmental initiatives by siphoning off funds that could be spent on more environmentally oriented solutions (Stern, 1995: 222)⁷. In sum, in the quest to address environmental vulnerability it would seem counterproductive to follow any strategy that may give further justification to the existence and dominance of an industry that does so much to harm the environment.

⁷ For example since 1945 an almost incomprehensible \$8 *trillion* dollars has been spent on nuclear weapons alone (Barnett, 2001: 19). Meanwhile Norman Myers has highlighted that \$12billion, or the equivalent of four days global military spending, invested annually would be enough to reverse the process of desertification (1993: 220). It is worth noting however that a reduction in military spending by no means ensures that the difference would be transferred to the environmental sector.

Status Quo Mindset

The final mismatch between the conditions invoked by security and the demands of environmental degradation is one of the mindset induced. As Brock notes “[s]ecurity policies are essentially status quo oriented” (1991: 418, see also Dalby, 1992: 98). The conventional metaphor for tackling a security issue may be said to be that of a ship battening down the hatches and sailing through a storm in order to return to its normal, pre-storm course. The environment demands a different approach, a permanent changing of course in order to avoid the coming storm. Security may be unable to provide the backbone for such a shift because as a concept it is “basically defensive in nature, a status quo concept defending that which is” (Waever, 1995: 64). Securing the existing order, ‘that which is’, would be a self-defeating enterprise in the environmental realm. Simon Dalby expresses this point in noting that “in so far as security is premised on maintaining the status quo it runs counter to the challenges needed to alleviate many environmental and ecological problems because it is precisely the status quo that has produced the problems” (1994: 33). Security does not convey the necessity for society to alter in order to prosper, and therefore the wisdom of framing the environment in security terms is ultimately questionable.

The concerns outlined above represent a summary of the initial objections to the connection of the concepts of environment and security. Ole Waever has summarised the debate in noting that “[u]se of the slogan ‘environmental security’ is tempting because it is an effective way of dramatising environmental problems” (1995: 65). It was this logic which underpinned the early moves to incorporate the environment into the existing security framework. “In the longer run however” Waever continues, “the practices resulting from the slogan might lead to an inappropriate social construction

of the environment as a threat defense problem” (1995: 65), along with all the mismatches between issue and response that this entails. There could be little scope to claim that the conditions conventionally invoked by securitization are desirable in the environmental case, so divergent are the demands of the issue at hand and the response invoked via a security strategy. Yet far from sounding the death knell on the environmental security dialectic, these concerns merely served to open a new chapter, one which ventures to the very core of the concept of security.

CHAPTER TWO

THE NATURE OF SECURITY AND THE SECURITY OF NATURE

As detailed in chapter one, there are manifest flaws in the strategy of simply tacking environmental concerns onto the conventional security framework. Due to the mobilization potential attached to the concept of security, however, there is understandable resistance to the outright abandoning of the security tag. As a result, a number of scholars have made moves to reconceptualize security in an attempt to negate the mismatches between a conventional security-generated response and the requirements of the environmental sector. These scholars are receptive to the flaws in the traditional security framework, but believe that “[i]f security can be reinterpreted...it may offer some useful potential” (Dalby, 1992: 116)⁸. The attempts at reinterpretation follow various paths but are all broadly inspired by the critical security studies project which contends that “the meaning of security is not necessarily fixed but is open to argumentation and dispute” (Wyn Jones, 1999: 110; see especially Booth, 1991a). Below I will outline three attempts to remake security, those of Simon Dalby, Jon Barnett and Julia Trombetta. Having detailed their work I contend that their desire to retain security stems from a flawed underlying assumption that labelling an issue a security issue automatically produces mobilization. This is not the case, and the history of ‘environmental security’ to date reveals a thoroughgoing failure to generate effective mobilization which warrants greater consideration when weighing the relative merits of the notion of ‘environmental security’.

⁸ Dalby adds that should such a reinterpretation prove unattainable “[t]he alternative may be to abandon security altogether” (Dalby, 1992: 122).

2.1 – Remaking Security

Simon Dalby has spearheaded the attempt to remake security from a ‘critical geopolitics’ perspective, his main point of contention being the association of security with the territorially bound nation state. He claims that conventional security analyses are guilty of “taking the state for granted”, neglecting the fact that states are merely a modern invention and “[f]or the majority of our history, humanity has existed without states” (1992a: 106). For Dalby this simple fact – that states are not a pre-social given but a social construction – opens up the door to the potential for new conceptions of security that transcend the state. He envisages that the existing “negative, spatially exclusionist and force based” concept of security could be replaced by a notion of ‘common security’ which takes a human centred outlook and includes a focus on the needs of the poor, the provision of human rights and an intergenerational responsibility to bequeath an inhabitable planet to future generations (1992a: 116-120).

Jon Barnett enumerates similar themes in his 2001 book *The Meaning of Environmental Security*, perhaps the most prominent attempt to remake security on environmental grounds. He criticises the tendency to begin with existing notions of security then factor the environment in, and attempts to invert this process by putting the environment first and building an environmentally sound notion of security from this base. He expresses a desire to “empty [security] of its existing meaning and refill it with notions of human security and positive peace” (Barnett, 2001: 121). Similarly to Dalby, Barnett advocates a human rather than state centred focus, and calls for security to factor in a concern for global justice built on the notion of an international “responsibility to the Other” (Barnett, 2001: 144) which echoes the critical project’s

mantra of “I am not truly free until everyone is free” (Booth, 1991a: 322). As such Barnett’s remade notion of security “prioritises the welfare of the most disadvantaged above all else” (2001: 127), on the grounds of his belief that stable peace demands universal security and that “the enhancement of welfare, peace and justice [is] the fundamental purpose of politics” (2001: 127).

Julia Trombetta follows a slightly different path in trying to reconceptualize security, although still with the intention of making the concept more amenable to environmental solutions. She attempts to incorporate Ulrich Beck’s work on risk society (Beck, 1992a; 1992b) into security, answering Wyn Jones’s call for an “intellectual cross-pollination” between the two fields (Wyn Jones, 1999: 128). Beck’s work recognises that modern industrial and ecological risks differ from previous categories of risk in numerous ways, not least of which is the fact that they emerge as the secondary result of decisions rather being directed from an external enemy. The scale of industrial risks is so grand that they cannot be neutralised by insurance arrangements, and nor can they be solved; they are “irreversible” (1992a: 22-3). As such risks cannot be overcome, but must be continuously managed and monitored in the hope of avoiding the worst-case scenario. This managerial approach to risks, for Beck, would include the process of “reflexive modernization” (1992a: 183-236) whereby, through the increased involvement of citizens and social movements in the political sphere, society becomes more attentive to the long-term impacts of its decisions and begins to monitor its own actions more closely.

Trombetta extrapolates from Beck’s logic to argue that “securitization [too] can become reflexive” (2004: 10). Under the condition of ‘reflexive securitization’ “the

logic of survival and enemies to be destroyed is replaced by another one concerned with overlapping, diffuse risks to be managed” (2004: 13). Trombetta questions the fixity of security practices, contending that security does not necessarily have to carry a set of predetermined conditions to be imposed regardless of the problem at hand, but can become a reflexive affair which responds by provoking a response appropriate to tackle the issue at hand. She uses a neat metaphor to illustrate her vision, seeing security as “a litmus paper that changes colours and characteristics according to the object to which it is stuck” (Trombetta; 2004: 92-3) rather than, say, a heavy-duty die that produces the same colour wherever it is applied.

For those in the reconceptualization camp “[t]he whole question of securitization hinges...on the meaning of security” (Barnett, 2001: 138). They wish to tap into security’s performative capacity in order to generate an extraordinary response, but to simultaneously avoid the negative connotations of such a move by securitizing using a remade conception of security. Theoretically at least, this step stands to reason; there is nothing set in stone which dictates that security must retain its existing meaning and function permanently. I do not, therefore, accept Waever’s claim that “the concept of security carries with it a history that it *cannot* escape” (1995: 47, my emphasis). What is true however is that the move to remake security represents “a political project of very large scope indeed” (Walker, 2006: 121). Security can escape its past but is likely to take a very long time to do so, given that “a society’s consciousness changes only gradually – usually with the changes of generations” (Ullman, 1983: 152) ⁹. Barnett acknowledges this fact in noting that the quest to achieve his alternative

⁹ This fact jars considerably with Booth’s own acknowledgement that if we fail to tackle environmental – among other – issues within the next generation “all bets must be off regarding the prospects of an international community living in stable peace” (1991: 349). Whilst entirely valid the concerns about the timescale remaking security are secondary in this thesis.

vision of security demands “a widespread and deep reform of modern society (2001: 46). Yet he maintains that the continued use of the security tag is justified “as a means to prompt an extraordinary policy response” (2001: 116). This stance represents the outlook of the reconceptualizing camp well. They are willing to undertake a project to remake security vast in both scope and timescale rather than abandoning security because they are desperate to cling on to the mobilization potential of security in order to generate an extraordinary response to environmental vulnerability.

The logic behind the reconceptualizing move is eminently understandable. The contention that one could retain the mobilizing function of security yet use this in order to invoke environmentally beneficial conditions, thereby offloading the risk of importing negative associations and unhelpful policies into the environmental arena, is an undeniably appealing prospect. However, a deeper analysis reveals that the logic of remaking security rests upon a potentially flawed assumption. The entire reconceptualizing move operates on the basis of a belief that referring to an issue as a security issue ensures that mobilization will follow. This is evident in the lightness with which Trombetta’s litmus paper metaphor suggests security can be stuck to any issue and be expected to work its magic. It is also evident in Wyn Jones’s criticism of the strategy of desecuritization, which he expresses by asking “what of those problems that are a threat to survival? Should groups abandon the mobilization potential that is undoubtedly generated by using the term “security”?” (1999: 109). It is my claim that mobilization is not “undoubtedly generated” by using the term security, but contingent on a complex set of political processes which may not be forthcoming in the environmental case.

2.2 – Oversights of ‘Environmental Security’: Components of Securitization

Whilst ‘security’ is a concept imbued with the performative power to alter social relations, there is no guarantee that simply referring to an issue as a security issue will key into this performative capacity¹⁰. The process of mobilization along security lines follows more complex dynamics which have received scant consideration in the environment-security literature to date. To elaborate on this point it is necessary to delve a little deeper into the realm of security as a speech act¹¹. John Austin has split the speech act into three components: locutionary, illocutionary and perlocutionary (Austin, 1975: 12-14). Jurgen Habermas has in turn claimed that “the three acts Austin distinguishes can be characterised in the following catchphrases: to say *something*, to act *in* saying something, to bring about something *through* saying something” (1986: 288-289, emphasis in original). Where mobilization is what one seeks we are in the realm of the perlocutionary component of the speech act, because the speaker is attempting to alter social relations, to bring about a change in the world. Until all three components have been completed a speech act remains incomplete and the performative capacity of language to alter reality will not be realised.

By merely labelling the environment as a security threat the speaker is only fulfilling the locutionary component of the speech act, that is *saying something*. In order to complete the perlocutionary component, complete the speech act and key in to security’s performative capacity to alter social relations the speaker must engage with and convince his audience that his or her truth claims are valid and warrant action. As

¹⁰ As Dalby acknowledges “[t]he presentation of environment as a threat is a complex political process, not simply an issue “security experts” can paraphrase to illicit a conveniently adequate political response” (2001: 159)

¹¹ I justify filtering the totality of the environment-security literature through a security-as-speech-act lens because the entire rationale of security is to key into the performative capacity of the concept of security to mobilize. Where the performative capacity of security is at issue speech act theory provides the best framework for understanding how this capacity is realised.

Habermas has noted, “through *perlocutionary* acts the speaker produces an effect upon the hearer” (1986: 289). Therefore when casting an issue in security terms in order to achieve mobilization “what is essential is the designation of an *existential threat* requiring emergency action or special measures and *the acceptance of that designation by a significant audience*” (Buzan *et al.*, 1998: 27, my emphasis). The logic behind this stance stands to reason. Until the target audience has accepted the validity of the securitizing actor’s truth claims no *mobilization will follow* from labelling the issue as security. Therefore, when properly understood “securitization is audience-centred” (Balzacq, 1998: 25; see also Williams, 2003: 526), because unless the audience accepts the validity of, and acts upon, the labelling of an issue with the ‘security’ tag the mobilization function which forms the very purpose of security linkages will remain absent¹².

The claim that labelling an issue as ‘security’ does not equate to guaranteed mobilization can be buttressed by reference to the record of the rhetorical conjunction of environment and security to date. Whilst concerns that the environment may represent a security risk have been publicly expressed for nigh on three decades and the WCED coined the phrase ‘environmental security’ two decades ago, it could not be claimed that an extraordinary response has followed on from these concerns. As the CS have noted “[t]he environmental sector displays more closely than any other sector the propensity for dramatic securitizing moves but with comparatively little

¹² The focus on the audience is especially valid in the case of the environment. As Deudney has highlighted, in the environmental sector “everyone is involved, because certain aspects of virtually all mundane activities – house construction, farming techniques, waste treatment, factory design, land use planning – must be reformed” (Deudney, 1991: 24). It was noted in chapter one that legislation may be an ineffectual route to achieving the reform of individual’s everyday habits, therefore it is individuals themselves who must see fit to make – often dramatic – lifestyle alterations. Because action must come from all levels, and especially from the public at large, in the environmental sector it is critical that the target audience are convinced of the validity and necessity of a securitizing move because it is they who are being called upon to make the active difference.

successful securitization effects (i.e. those that lead to extraordinary measures)” (Buzan *et al.*, 1998: 74). These securitizing moves have come from various sectors. In the intellectual community any of the environmental security literature could be considered to have securitization as its aim, and especially that which takes the policy-making community as its target audience, such as Mathews’ *Redefining Security* (Lipschutz, 1995: 5). In the sphere of non-governmental organizations and pressure groups securitizing moves are rife, leading Buzan *et al.* to claim of NGOs that “securitizing the environment is their trade” (1998: 77). Of particular note are publicity-grabbing activities such as Greenpeace projecting the message ‘CO₂ KILLS’ onto the billowing chimneystacks of coal-fired energy plants. In the realm of state officials securitizing moves have generally been less forthcoming, with governments tending tiptoe around the issue of environmental degradation due to the reasons outlined in chapter one. This situation is slowly changing, with one notable example being the public statements of the British government’s chief scientist Dr. David King. Among a number of sensational claims he has made which express the environment in security terms is the widely circulated statement that “global warming is as big a threat to the world as terrorism” (Arthur, 2004: 1).

All of these moves emphasise the fact that environmental issues pose a threat to human life, and they do so with the express intention of generating immediate environmental action in order to respond to the problem. They can therefore be considered as securitizing moves. To date, none of them could be said to have been successful to the extent that they have not precipitated large-scale mobilization along environmental lines. The most they can be said to have achieved is politicization in the form of generating greater debate over environmental issues (Buzan *et al.*, 1998:

82). Unpacking why this is so is a crucial step in assessing the merits of an environment-security strategy. Those in the reconceptualizing school have acknowledged the propensity of securitizing moves in the environmental realm to fail. On the issue of why this is the case Barnett offers only that it is “a vexed question” (2001: 21) and Trombetta the more concrete claim that environmental issues “lack the specific institutional channel that can contribute to a successful securitization” (2004: 112). It is my claim that there is a deeper lying explanation for the failure of securitizing moves in the environmental sector, one which flows from the very core of the environmental threat. These concerns form the subject matter of chapter three. If it can be shown that it is the very nature of the environmental threat which has prevented the labelling of environmental degradation as a security issue from mobilizing an extraordinary response then there is reason to believe that the project of conjoining environment and security on mobilization grounds is fundamentally flawed.

CHAPTER THREE

ON THE (IM)POSSIBILITY OF ‘ENVIRONMENTAL SECURITY’

The significance of the repeated failure of securitizing moves in the environmental realm has been neglected in the environment-security literature to date, which has focussed on both the if- and the should-questions of security identified by Jef Huysmans (1998: 249) but given scant consideration to what may be termed the how-question of securitization in the environmental realm. The if-question was the focus of early work by those such as Ullman (1983) and Mathews (1989) who sought to prove that the environment represented an objective threat to human life. The should-question has been dominant since the early 1990s, with discussion focussing on whether the environment should be handled in security terms with Deudney, Levy and others arguing ‘no’, and Dalby, Barnett and Trombetta arguing for a qualified ‘yes’. It is my intention to focus on the how-question, by which I mean the question of how it is that security comes to exert its performative function. By analysing the process through which security attains the performative capacity to alter social relations and produce mobilization we can come to better understand the failure to date of ‘environmental security’ to mobilize extraordinary responses. I attempt to show that this failure can be traced to fact the distant and diffuse nature of the environmental threat precludes it from being recognised as a pressing existential threat which warrants urgent action. If correct, this claim has significant ramifications for the future of the environment-security enterprise.

Security and the Dynamics of Mobilization

The move to reconceptualize security on environmental grounds is guilty of assuming that by fulfilling the locutionary component of securitization – labelling the

environment as a security issue – the mobilizing capacity of security will automatically be imported in to the environmental arena. This does not necessarily follow, for as Michael Williams has noted, and the environmental sector clearly demonstrates, “[n]ot all claims are socially effective” (2003: 514). For a securitizing move to be successful it must be aligned to the requisite facilitating conditions. The CS expresses the facilitating conditions of a successful securitization across two categories:

- “1) internal, linguistic-grammatical – to follow the rules of the act
- 2) external, contextual and social – to hold a position from which the act can be made” (Buzan *et al.*, 1998: 32)

The focus here is on the securitizing actor. To be successful he or she must accurately follow the rules of a securitizing speech act, that is, pose an issue as an existential threat to a target audience and emphasise the need for immediate counter-action. He or she must also have sufficient social standing to be perceived by a majority of people to be well informed and speaking the truth. It is for this reason that evangelicals wearing billboards proclaiming ‘The End Is Nigh’ do not generate extraordinary responses – the public do not attribute sufficient weight to their words to act upon them.

The focus of the facilitating conditions given by the CS is primarily linguistic. The contention is that if an actor holding the requisite social standing poses an existential threat in the necessary terms then any issue can be transformed into a security issue. Security is, as such, understood as a “self-referential practice” (Waever, 1995: 55). However, the linguistic enunciation of a threat is not the be-all-and-end-all of a successful securitization. In order for an audience to accept the staging of an existential threat and respond accordingly there must be an extra-linguistic quality to

the securitizing move to buttress the securitizing actor's claims because "language does not construct reality; at best it shapes our perception of it" (Balzacq, 2005: 181). Thierry Balzacq has emphasised the need for an external reality to corroborate a securitizing move on the grounds that securitization is an "intersubjective" process (Buzan *et al.*, 1998: 30). If an intersubjective agreement between actor and audience regarding the status of an issue as an existential threat is to be reached – and mobilization to occur accordingly – there must be some evidence to persuade the audience that they are in mortal peril and extraordinary measures are merited as a result. Therefore, even if the actor says the right things from the requisite social position "[t]he fact is, to move an audience's attention toward an event or development construed as dangerous, the words of a securitizing actor need to resonate with the context within which his/her actions are collocated" (Balzacq, 2005: 182)¹³.

As a result of this belief Balzacq draws a distinction between 'institutional' and 'brute' threats. Institutional threats are "mere products of communicative action between agents" whilst brute threats possess an extra-linguistic validity and "do not depend on language mediation to be what they are – hazards for human life" (2005: 181). Balzacq expresses a view that the external reality of a threat is a vital factor in achieving a successful securitizing move. If the audience perceives that there is no 'brute' reality at the base of securitizing claims they are unlikely to be moved to mobilize against the supposed threat. This suggestion has crucial implications for the environmental sector. If securitization is to occur there must be some evidence to

¹³ The original set of facilitating conditions outlined by the CS do touch upon this in noting that "[i]t is more likely that one can conjure a security threat if certain objects can be referred to that are generally held to be threatening" (Buzan *et al.*, 1998: 33). They may, however, be guilty of underestimating the importance of concrete, extra-linguistic aspects of securitization.

prove to the audience that environmental degradation, in all of its forms, represents an imminent existential threat. If it is not seen as doing so, the incentive for them to mobilize is absent, and the framing of an issue in security terms will not fulfil its performative function and alter social conditions.

Whilst it is not up for debate that environmental degradation represents an objective threat to human existence, it is also true that this threat entirely evades perception in everyday life. Environmental threats therefore do not sit easily with Balzacq's categories of 'institutional' and 'brute' threats. They at once fit into neither and both of these brackets because whilst they are at base brute threats in that they "do not depend on language mediation to be what they are – hazards to human life" (Balzacq, 2005: 181), environmental threats *do depend on language mediation to become perceptible* as hazards to human life. Due to the fact that successful securitization is intersubjective, especially in the environmental realm, it is the perceptibility of threats that counts, and not their objective reality. Ulrich Beck has claimed that "if people experience risks as real, *they are real* as a consequence" (1992b: 77, emphasis in original). The converse is also true; if people do not *experience* risks as real then they are, to all intents and purposes *not real* as a consequence. The environmental threat is not for the most part *experienced* as real and, therefore, the facilitating conditions of securitization – in the form of the external context necessary to corroborate truth claims – are not fulfilled. The reason that the environment may not be perceived as a 'real' existential threat is that it operates at too great a spatial and temporal distance from the audience of securitization (the citizens of industrialised nations) for them to feel that their lives are truly at risk.

Barry Buzan has noted that “[i]nsecurity is often associated with proximity” (Buzan *et al.*, 1998: 11), because when things are close to us they are in a position to do us damage. When they are distant we feel safer. As such, the range of a threat from its target plays a crucial role in perception of threat intensity (Buzan, 1991: 134). This can be split into two sub-categories: temporal and spatial range. Temporally, a threat which is not imminent will generate less concern. Therefore, the fact that environmental threats will not bare their teeth until well into the next generation stands as perhaps the greatest barrier to their potential securitization. For example, Mathews (1989:170) notes that it would take a half metre sea-level rise to displace 16 percent of the population of Bangladesh. However, at present rates such a rise would take 100 years to materialize (Worldwatch Institute, 2004: 84). This timescale is illustrative of other dimensions of the environmental threat. For a further example take the fact that temperature increases of “a few degrees Celsius” would have a serious detrimental impact on the global food supply (IPCC, 2001: 11). However, according to United Nations statistics a rise of this level is likely to take until 2100 to be realised (UNEP: 2001). The message here is that the risks associated with environmental degradation are extremely long-term, so much so that natural causes will have accounted for many of the earth’s present inhabitants long before the fullest impacts of environmental come to fruition. As Beck has noted modern ecological risks “signify a future which is to be prevented” (1992b: 33). This will stand as a significant barrier to mobilization, for people are likely to be more willing to fight against a concrete present than a possible future¹⁴.

¹⁴ One attempt to counteract the invisibility of environmental hazards is the move to demonstrate the role of environmental factors in conventional violent conflict (Myers, 1993; Trombetta, 2004; Gleick, 1989, 1991). Whilst the direct risks from the environment may not be perceptible as threats due to their diffuse and distanced nature the logic runs that if it can be shown that environmental factors – such as resource scarcity – are contributing to conflict in the here and now then it will be easier to demonstrate the all too real security impacts of environmental degradation and, thereby, generate political action in

Meanwhile, those threats which may have an impact in the foreseeable future are spatially distanced from those with the greatest hand in causing them, the citizens of industrialised nations. As Barnett highlights “[t]he causes and effects of environmental degradation are spatially differentiated” (2001: 12-3) in the regard that the industrialised world which is responsible for the majority of the damage to the environment does not bear the brunt of the repercussions. The Intergovernmental Panel on Climate Change have confirmed this assertion in noting that “[t]he impacts of further changes in climate extremes are likely to fall disproportionately on the poor” (IPCC, 2001: 6). This poses problems, for a threat which does not endanger one’s own life but that of a distant stranger is far less likely to precipitate corrective measures. As Andrew Linklater has noted, when environmental harm is inflicted on people in remote locations “[d]istant observers may feel pity for them but this may not lead to political action” (2006: 121).

The crux of the matter is that for the majority of the world’s citizens – and especially those in industrialised nations – the environment does present itself as an *imminent* existential threat. There is little danger that environmental degradation will interfere

response. Two major objections to this strategy can be expressed. The first relates to its determinism. Environmental factors will not cause war unless there is a pre-existing appetite for conflict, for as Selby has observed “wars are always about politics” (2003: 50). Distorting this fact in the attempt to generate increased environmental concern has the negative impact of hindering a more accurate understanding of the roots of violent conflict (Levy, cited in Homer Dixon *et al.*, 1996: 59-60). For further critiques of the environment-conflict thesis see also Deudney, 1995: 213; Barnett 2001: 50-70; Levy, 1995a; Trompe: 1996. More disconcertingly, this move may prove detrimental to the attempt to devise appropriate solutions to environmental problems. Securitization along “non-environmental lines” (Buzan *et al.*, 1998: 83) is likely to invoke a response along non-environmental lines. Emphasising the contention that the environment can lead to violent conflict gives the military greater scope to legitimise their involvement in environmental matters, and risks producing “militarized environment” rather than “green security” (Kakonen, 1994). Given the concerns enumerated in chapter one about the involvement of the military in environmental matters, it should be clear that any strategy which makes this a more likely possibility is to be deeply questioned. Even if it could be proved that environmental factors contributed to violent conflict it is not clear that securitization along these grounds would be beneficial to environmental causes. In sum, the use of the environment-conflict thesis to aid securitizing moves is firstly dubious and secondly unhelpful.

with daily activities or kill us in our footsteps. Therefore, the extra-linguistic ‘brute’ element of threat necessary to ensure successful securitization is absent in the environmental case. If environmental degradation expressed itself by wiping out a couple of hundred citizens in daily shelling attacks the incentives to take corrective action would be evident. It does not. It does not express itself at all. Contemporary ecological risks “completely escape human powers of direct perception” and depend upon “the ‘sensory organs’ of science – *theories, experiments, measuring instruments* – *in order to become interpretable as hazards at all*” (Beck, 1992b: 27). Science can tell us that the environmental degradation will do untold damage in the future. It can also employ models and experiments to predict more accurately what this damage might look like and how it may unfold. But this is no substitute for present and physically tangible evidence of an existential threat. In a mobilization race between a shell landing outside one’s window and a newscast detailing scientific predictions of future destruction the victor is clear.

It is my claim that the lack of physical evidence of environmental destruction in the everyday lives of industrialised citizens is what has prevented successful securitization and concomitant mobilization in the environmental realm. As the CS note, the mobilization element of securitization stems from the panic politics induced by the fear for one’s continued existence. The environmental threat does not obviously threaten the future existence of individuals, but is posed as threat only on the basis of scientific evidence. As such “most of the [environmental] threats are too distant to lead to securitization. Environmental issues often point to an unspecified, relatively remote future and therefore involve no panic politics. It is assumed that it hardly matters whether we act now or next year” (Buzan et al., 1998: 82-3). This

assumption stems from the fact that there are no visible physical repercussions for not acting now. Without these repercussions it becomes possible to ignore and overlook the significance of scientific evidence about the environmental threat and the need to take corrective action is not recognised.

The Environment and Distant Suffering

The fact that knowledge of environmental vulnerability does not arrive in the physical form of a clear and present danger in our everyday lives but in the scientific form of predictions of future destruction means that environmental harm can be conceived of as a form of distant suffering. Whilst we may be able to accept that environmental degradation poses a threat to *someone*, it is too distant and diffuse to be perceptible as a threat to ourselves. Those who will be subject to the fullest impact of environmental degradation are future generations and distant strangers. To further explore how this fact stands as a barrier to successful securitization and the reordering of society along environmental lines it is instructive to compare the environmental threat to other examples of distant suffering. This comparison can help to explain in greater depth the seeming lack of interest in taking environmentally corrective action and may provide important insights into the various merits of future environmental policy.

For the inhabitants of industrialised nations rarely a news cycle goes by without reports of atrocities on a gross scale afflicting distant individuals. Examples abound in recent times, with the famines in Somalia throughout the 1990s and the Rwandan genocide in 1994 being particularly prescient cases. In both instances large-scale human suffering was both widely reported and widely overlooked, in as much as

remedial action was not forthcoming. As with the environment, examples of distant suffering frequently fail to yield anything resembling an extraordinary response among distant observers, a fact which has prompted Andrew Linklater to restate Adam Smith's bleak observation that "a man who cannot sleep because 'he will lose his little finger to-morrow...will snore with the most profound security over the ruin of a hundred million of his brethren', provided that he never sees them" (cited in Linklater, 2006: 122)¹⁵. The clear, if extreme, message underlying this statement is that humans have an ability to overlook suffering unless it afflicts, if not them directly, at least those close to them. If the suffering of individuals does not interfere with the everyday activities of observers then little is done to address harm. Awareness is present among observers but because they themselves are not threatened and forced into action by the physical stimulus of existential peril it becomes all too easy to overlook the harm that is being done, or will be done, to others.

Stanley Cohen has explored the theme of how the process by which instances of distant suffering are overlooked operates. He identifies the condition of "implicatory denial" (2001: 9) to describe the state of mind adopted by individuals which allows them to ignore large-scale suffering as a personal defence mechanism for coping with the shame and anxiety raised by reality. Under this form of denial people can be perfectly aware of an ongoing atrocity, yet choose not to realise and act upon the demands that the atrocity makes on them; "[k]nowledge itself is not an issue, but doing the 'right' thing with knowledge. These are matters of mobilization, commitment and involvement" (2001: 9). So whilst the facts of a case might not be actively contested "[t]he significance of the reality is not recognised...[such denials]

¹⁵ Linklater also notes Hume's observation that "not only is sympathy with 'persons remote from us much fainter than with persons near and contiguous'; it is invariably 'much fainter than our concern for ourselves'" (Linklater, 2006: 122).

evade the demand to respond by playing down the acts seriousness or by remaining indifferent ('it doesn't concern me...why should I care?')" (Cohen, 2001: 22). Cohen notes that implicatory denial occurs less frequently in situations where one is proximate to suffering and is able to feel, smell, touch and physically experience the suffering because "[t]his dense picture is quite unlike the flat, one-dimensional information (headline, soundbites and fifty-second TV clips) we receive about foreign places" and that "...channels of information like a TV news item or an Amnesty leaflet can easily be deleted or isolated. We turn off the television, throw away the leaflet and return to daily life" (Cohen, 2001: 19, 160).

The condition of implicatory denial would appear to be highly relevant in the environmental sector. We have reached a stage where few people could claim to be unaware of the dangers posed by environmental degradation, yet the response to this new awareness has been distinctly underwhelming. The evidence of environmental hazards is not contested¹⁶, but the implications of the evidence are ignored, in as much as corrective action is not taken. As Brown notes "the urgency of the crisis seems hardly to have been noticed by the general public...somehow it seems not to apply to them" (Brown. 1996: 1). Ten years after Brown made this claim it still appears to hold true. Comparing the environmental sector to other forms of distant suffering can draw out an explanation for the failure of the environmental threat to mobilize a large-scale response. To all intents and purposes environmental hazards can be conceived of as examples of distant suffering because the harm is not directed at us and the only

¹⁶ There is now almost universal agreement in the scientific community that environmental degradation is both real and man made. Discussion relates only to the scale and scope of the problem. The few voices of dissent arise from those with vested interests. An example here is a series of adverts run in the United States and produced by the Competitive Enterprise Institute which seek to discredit claims about climate change. The Institute is funded by the oil industry, and has received over £800,000 in funding from Exxon Mobil (Buncombe: 2006).

evidence we see of it comes from media reporting, government papers and scientific claims – all just as flat and one-dimensional as with any other case of distant suffering, and just as easily overlooked. As such, attempts to motivate a sufficient degree of desire to address environmental hazards may be stymied by an equivalent of what Andrew Linklater has referred to as “the tyranny of distance” (2006: 109)¹⁷. As a general rule, unless humans themselves are in mortal peril and their everyday lives are interrupted as a result, relatively little is done to stop suffering. Citizens of industrialised nations do not have their everyday lives interspersed with evidence of environmental destruction that can be felt, touched or smelled, but come to know about the threat only via what Beck has called “second-hand non-experience” (1992a: 71) such as news reports and scientific claims. These can be ignored and overlooked in just the same way as evidence of temporally present but spatially distanced suffering is frequently overlooked.

The preceding comparison between the environmental threat and other instances of distant suffering reinforces the claim that the distant nature of the environmental threat may preclude successful securitization and mobilization in the environmental realm. It appears that a populace must feel subject to a clear and present danger, an imminent existential threat, before they will be spurred into a response that transcends normal politics and alters social relations. The environmental risk does not imbue audiences with this feeling because while it is at base a brute threat “[w]e do not receive continual reminders of the danger from everyday experience” (1992: 2). Evidence suggests that where everyday experience of suffering is absent individuals

¹⁷ Linklater uses the term to refer to the propensity for geographical distance to hamper the development of truly cosmopolitan sentiment. It applies in the environmental case because the distance of environmental impacts from contemporary industrial societies hampers the development of environmental concern and corrective action.

exhibit a persistent capacity to overlook the implications of factual evidence of harm and lapse into inaction.

In sum, I have claimed that it is the very nature of the environmental threat which explains the failure of the conjunction of environment and security to mobilize an extraordinary response. There is no reason to think that should the correct institutional channels be established or the threat be elucidated frequently enough that this situation will change¹⁸. The logic underlying this claim is that the purely locutionary act of labelling the environment as a security issue does not automatically guarantee that an extraordinary response will follow. Rather, the performative capacity of security to mobilize is only attained as the result of a complex political process. A deeper reading of speech-act theory reveals that a rhetorical label (such as “environmental security”) will not bring about a change in the world until the illocutionary and perlocutionary components of the speech act have also been completed. This, in turn, depends on the speaker’s ability to convince the audience of the validity of his or her truth claims, in this case the reality of an impending existential threat. As such, ‘security’ will not fulfil its performative capacity until the audience are convinced that the actor’s use of the word security is justified and an extraordinary response on their part is merited. For this to happen there must be some extra-linguistic dimension which convinces the audience that they are indeed in mortal danger. This is lacking in the environmental case. As such, further attempts to

¹⁸ Indeed, repeated presentation of the environment as a threat in the absence of physical evidence of this threat in the present could prove counterproductive. Susan Moeller has explored how the repeated reporting of distant suffering does not have the effect of breeding interest or action, but of draining individual’s capacity to feel emotionally moved by suffering (Moeller, 1999). Andrew Linklater references this thesis in noting that “the repetition of media images of remote suffering can do more to dull the sense than to spark humanitarian involvement” (Linklater, 2006: 122). Extrapolating from existing incidences of distant suffering it is possible to contend that the same logic applies in the environmental arena and, therefore, that saturation coverage of environmental threats is to be approached with caution.

securitize in the environmental realm are likely continue to be met with failure until such a time as the citizens of the industrialised world are struck by physical destruction which can be clearly shown to stem from anthropogenically produced environmental degradation¹⁹.

3.2 - Implications for the Environment-Security Enterprise

If the claim that linking the environment to security will not generate the extraordinary response which is sought holds firm, it has potentially large implications for the ongoing academic pursuit of developing effective environmental policies. Up until now there has been a reluctance to abandon the ‘security’ label in the environmental field because of the belief that to do so would be to sacrifice security’s ability to generate swift and effective environmental action. As such, Trombetta has noted that “desecuritization in the case of the environment is problematic because it can be considered as synonymous with depoliticization and marginalization” (2004: 122). Dalby meanwhile, has expressed a preference for handling the environment within a security framework because of his view that alternatives such as peace, justice, sustainability and ecology lack “a wide enough cultural resonance to be useful mobilizing concepts” (1992a: 122). The message is clear: security must be retained because of its power to mobilize. However, as I have attempted to show, security may not carry its mobilization potential into the environmental realm because the environmental realm does not corroborate moves which attempt to stage the environment as an existential threat.

¹⁹ Gwyn Prins has noted similar themes in referring to the “environmental catch-22”; due to the long-term gestation period of environmental threats “by the time they are unambiguously overt, things have gone too far to retrieve the situation” (1993: 189-90).

This undercuts that validity and worth of the attempt to manipulate security into a more environmentally amenable concept. If security does not offer the prospect of swift mobilization in the environmental sector then there appears to be little logic behind the move to tie environmental concerns into the security framework at all, for the “[l]inkage to security promises no benefits but risks” (1995: 51). The risk is that the notion of ‘environmental security’ will import the unhelpful associations outlined in chapter one remains, yet this is not tempered by the mobilization potential that makes the move worthwhile. Ole Waever has highlighted that “[c]entral to the arguments for the conceptual innovation of environmental or ecological security is its mobilization potential” (1995: 63). If, as I have claimed, the notion of ‘environmental security’ will not unlock the mobilization potential of security due to the distant nature of the environmental threat then the entire project of linking the environment to security can be considered to be fatally flawed.

From one perspective the contention that environmental concerns will fail to mobilize swift action could be considered as an unwelcome setback for the project to develop immediate environmental solutions. However, viewed differently this contention represents an opportunity to move beyond the academic stalemate and begin developing effective environmental solutions which eschew the security framework altogether. This needn’t be a setback, but may form the foundation of a more long-term and environmentally responsive set of policies. As Levy has claimed “there is no evidence that labelling [a] problem as a security threat adds any value to our ability as a society to respond effectively” (1995: 47). In this vein he considers the global response to ozone depletion, which was handled not as a security issue but “a more mundane public health and chemical hazard problem” (1995: 47). In order to meet the

challenge of reducing the atmospheric concentration of chlorofluorocarbons (CFC's) which were depleting the ozone layer, and thereby increasing the risk of skin cancer at an alarming rate, a program of international diplomacy was undertaken. The ensuing Montreal Protocol in 1987 achieved a commitment to halve CFC emissions from all major producers, and 1990 amendments virtually eliminated CFC emissions from all major *and potential* producers. CFC levels are now at a stable level and replacements for their function have been found. As such, the management of ozone depletion under a public health and chemical hazard framework "is widely considered a success story" and it is not clear what "would have [been] gained by considering the ozone depletion problem as a security problem" (Levy, 1995: 50). This example shows that there are alternatives to casting the environment in security terms, and, more importantly, that these alternatives can be successful. In light of my contentions I would argue that academic attention should turn to developing similar solutions for other aspects of environmental vulnerability rather than attempting to squeeze the environment into a security framework to which its nature and needs are ill fit.

CONCLUSION

Linking the environment to the concept of security is at first glance an appealing tactic in the attempt to mobilize an extraordinary response to environmental vulnerabilities. However, deeper analysis reveals this rhetorical strategy to be riddled with pitfalls. Initial concerns that the notion of security would import unsuitable mindsets into the environmental arena were met with the proposal that the concept of security could be fundamentally reinterpreted in order to make it more responsive to environmental demands. I have claimed that the rationale underlying this move is fundamentally flawed. The desire to cling to security stems from a wish to retain the mobilization potential of security, yet insufficient consideration has been given to what it is that imbues security with the performative capacity to mobilize extraordinary responses. I have claimed that this stems not from the mere pronunciation of 'security' but from a complex set of political processes which are contingent upon the ability to demonstrate to those one seeks to mobilize that they are subject to an imminent existential threat which warrants immediate evasive and corrective action. The environment does not provide concrete evidence of an existential threat because the impacts of environmental degradation are spatially and temporally distanced from the everyday experiences of citizens of industrialised nations. In light of this fact it becomes easy for individuals to overlook factual scientific evidence of the threat posed by environmental degradation in the same way that they are able to overlook more conventional examples of distant suffering.

Norman Myers has noted, with a hint of despair, that “[w]ere environmental problems to strike us like a heart attack, we would rush our eco-systems into intensive-care units and have them restored. Instead they are like a cancer, quietly undercutting our

foundations, unseen and unresisted” (Myers, 1993: 28). These words adeptly capture the at once challenging and frustrating nature of environmental hazards. *Were* environmental problems to strike contemporary society with bouts of destruction on a regular basis the mobilization potential of security could be easily unlocked because those called upon to mobilize would be in no doubt of the need to do so in order to save their own lives. The fact that environmental problems *do not* strike society, but are recognisable only through scientific formulations explains why the presentation of the environment as a security issue has failed, and will continue to fail, to produce large-scale mobilization. The very nature of the environmental threat – distant and diffuse – precludes successful securitization and renders the rhetorical use of the notion of ‘environmental security’ to generate an extraordinary response a practical impossibility. Whilst some may see this as a detrimental development in the quest to address environmental vulnerability this may not be the case. Lothar Brock has asked the devastatingly simple question “why need we stick to the term security at all?” (Brock, 1991: 418). Until now the answer to this question has stemmed from the desire to cling to the mobilization potential of security. The claim that security will not import its performative capacity into the environmental realm erases the need to cling to security and stands as a route to unlocking the intellectual impasse surrounding the conceptual connection of environment and security. In so doing it also serves to clear the way for the conception of effective environmental solutions which transcend the security framework.

BIBLIOGRAPHY

Adorno, T. & Horkheimer, M. (1973) *Dialectic of Enlightenment* (London: Allen Lane)

Aradau, C. (2001) 'Beyond Good and Evil: Ethics and Securitization/Desecuritization Techniques', *Rubikon e-Journal*, retrieved on 24 July 2006 from: <http://venus.ci.uw.edu.pl/~rubikon/forum/claudia2.htm>

Arthur, C. (2004) 'Global Warming Is As Big A Threat To The World As Terrorism', *The Independent*, 27th May 2004. Retrieved on 19th July 2006 from: <http://news.independent.co.uk/environment/article62288.ece>

Austin, J.L (1975) *How To Do Things With Words* (Oxford: Oxford University Press)

Baldwin, D. (1997) 'The Concept of Security', *Review of International Studies* 23(1): 5-26

Balzacq, T. (2005) 'Three Faces of Securitization: Political Agency, Audience and Context', *European Journal of International Relations*, 11(2): 171-201

Barnett, J. (2001) *The Meaning of Environmental Security* (London: Zed Books)

BBC News Report (2006) 'Climate Chaos: Bush's Climate of Fear', retrieved on 23rd August 2006 from: <http://news.bbc.co.uk/1/hi/programmes/panorama/5005994.stm>

Beck, U. (1992a) *Risk Society: Towards a New Modernity* (London: Sage)

Beck, U. (1992b) 'From Industrial Society to Risk Society: Questions of Survival, Social Structure and Ecological Enlightenment', *Theory, Culture and Society*, 9(1): 97-123

Beck, U. (1995) *Ecological Politics in an Age of Risk* (Cambridge: Polity Press)

Booth, K. (1991a) 'Security & Emancipation', *Review of International Studies*, Vol. 17(4), pp.314-326

Booth, K. (1991b) *New Directions in Strategy and Security* (London: Harper Collins)

Booth, K. (1995) 'Human Wrongs and International Relations', *International Affairs*, Vol. 71(1), pp. 103-126

Brock (1991) 'Peace Through Parks: The Environment On the Peace Research Agenda', *Journal of Peace Research*, 28(4): 407-23

Brown, L. (1977) 'Redefining National Security', *Worldwatch Paper 14* (Worldwatch: Washington)

Brown, N. (1989) 'Climate, Ecology, Security', *Survival*, 31(6): 519-532

Buncombe, A. (2006) 'TV ads That Doubt Climate Change Are 'Misleading'', *The Independent*, 25th May 2006. Retrieved on 10th July 2006 from: <http://news.independent.co.uk/environment/article571678.ece>

Buzan (1991) *People, States and Fear: An Agenda for International Studies in the Post-Cold War Era* (Harlow: London)

Buzan, B. (1997) 'Rethinking Security After The Cold War', *Cooperation and Conflict*, 32(1): 5-28

Buzan, B., Waeber, O., de Wilde, J. (1998) *Security: A New Framework For Analysis* (London: Lynne Rienner)

Campbell, D. (1992) *Writing Security: United States Foreign Policy and the Politics of Identity* (Manchester: Manchester University Press)

Cohen, S. (2001) *States of Denial: Knowing About Atrocities and Suffering* (Cambridge: Polity Press)

Conca, K. (1994) 'In The Name of Sustainability: Peaces Studies and Environmental Discourse', in Kakonen, J. (ed.) *Green Security or Militarized Environment* (Aldershot: Dartmouth)

Dalby, S. (1992a) 'Security, Modernity, Ecology: The Dilemmas of Post Cold War Security Discourse', *Alternatives*, 17(1): 95-134

Dalby, S. (1992b) 'Ecopolitical Discourse: 'Environmental Security' and Political Geography', *Progress in Human Geography*, 16(4): 303-322

Dalby, S. (1994) 'The Politics of Environmental Security', in Kakonen, J. (ed.) *Green Security or Militarized Environment* (Aldershot: Dartmouth)

Dalby, S. (1996) 'The Environment as a Geopolitical Threat: Reading Robert Kaplan's "Coming Anarchy"', *Ecumene*, 3(4): 471-496

Dalby, S. (2002) *Environmental Security* (Minneapolis: University of Minnesota Press)

Der Derian, J. (1993) 'The Value of Security: Hobbes, Marx, Nietzsche and Baudrillard', in Campbell, D. and Dillon, M. (eds.) *The Political Subject of Violence* (Manchester: Manchester University Press)

Deudney, D. (1990) 'The Case Against Linking Environmental Degradation and National Security', *Millennium*, 19(3): 461-476

Deudney, D. (1991) 'Environment And Security: Muddled Thinking', *Bulletin Of The Atomic Scientists*, 47(3): 23-8

Deudney, D. (1999) 'Environmental Security: A Critique', in Deudney, D. & Matthew, R.A. (eds.) *Contested Grounds: Security and Conflict in the New Environmental Politics* (Albany: State University on New York Press)

- Dillon, M. (1996) *Politics of Security: Towards a Political Philosophy of Continental Thought* (London: Routledge)
- Dobson, A. (1991) *The Green Reader* (London: Andre Deutsche)
- Dobson, A. (2003) *Citizenship and the Environment*, (Oxford: Oxford University Press)
- Dobson, A. (2006) 'Do We Need (To Protect) Nature?', in J.Huysmans, A. Dobson & R. Prokhovnik, *The Politics of Protection: Sites of Insecurity & Political Agency* (Oxford: Routledge)
- Gleick, P. (1989) 'The Implications of Global Climatic Changes for International Security', *Climatic Change*, 15(1/2): 309-325
- Gleick, P.H. (1991) 'Environment and Security: The Clear Connections', *Bulletin of the Atomic Scientists*, 47(3): 17-21
- Habermas, J. (1986) *Theory of Communicative Action Volume I: Reason and the Rationalization of Society* (Cambridge: Polity Press)
- Hobbes, T. (1991) *Leviathan* (Cambridge: Cambridge University Press)
- Homer Dixon, T.F. (1994) 'Environmental Scarcities & Violent Conflict: Evidence From Cases', *International Security*, 19(1): 5-40
- Homer Dixon, T.F., Levy, M., Porter, G. & Goldstone, G. (1996) 'Environment and Security: A Forum', *Environmental Change And Security Report*, No.2: 19-70
- Homer Dixon, T.F. (1999) *Environment, Scarcity and Violence* (New Jersey: Princeton University Press)
- Huysmans (1998) 'The Question of The Limit: Desecuritisation and the Aesthetics of Horror in Political Realism', *Millennium* 27(3): 569-589
- Huysmans (2002) 'Defining Social Constructivism in Security Studies', *Alternatives* 27 (special edition): 41-62
- Huysmans (1998) 'Security! What do You Mean? From Concept to Thick Signifier', *European Journal of International Relations*, 4(2): 226-255
- Intergovernmental Panel on Climate Change (2001) *Climate Change 2001: Impacts, Adaptation, Vulnerability* (Cambridge: Cambridge University Press)
- Kakonen, J. (1994) (ed.) *Green Security or Militarized Environment* (Aldershot: Dartmouth)
- Kaplan, R. (1994) 'The Coming Anarchy', *The Atlantic Monthly*, 90(2): 44-76

- Klare, M.T. (2001) *Resource Wars: The New Landscape of Global Conflict* (New York: Henry Holt)
- Knudsen, O. F. (2001) 'Post-Copenhagen Security Studies: Desecuritizing Securitization', *Security Dialogue*, 33(2): 355-368
- Levy, M. (1995a) 'Is the Environment a National Security Issue?', *International Security*, 20(2): 35-62
- Linklater, A. (2006) Cosmopolitanism, in Dobson, A. and Eckersley, R. (2006) (eds.) *Political Theory and the Ecological Challenge* (Cambridge: Cambridge University Press)
- Lipschutz, R.D. (ed.) (1995) *On Security* (New York: Columbia University Press)
- Matthew (1995) 'Environmental Security: Demystifying the Concept, Clarifying the Stakes' in Simmons, P. (ed.) *Environmental Change and Security Project Report*, No.1 (Princeton: Woodrow Wilson Center): 14-23
- Mathews, J.T. (1989) 'Redefining Security', *Foreign Affairs*, 68(2): 162-177
- Mische, P. M. (1992) 'Security Through Defending the Environment: Citizens Say Yes!', in Boulding, E. (ed.) *New Agendas for Peace Research: Conflict & Security Studies Reexamined* (London: Lynne Reinner)
- Moeller, S. (1999) *Compassion Fatigue: How The Media Sell Disease, Famine, War and Death* (New York: Routledge)
- Myers, N. (1993) *Ultimate Security: The Environmental Basis of Political Stability* (New York: W.W. Norton)
- Myers, N. 'The Environmental Dimension to Security Issues', *The Environmentalist*, 6(4): 251-257
- Neocleous, M. (2000) 'Against Security', *Radical Philosophy*, 100: 7-15
- Prins, G. (Ed.) *Threats Without Enemies: Facing Environmental Insecurity* (London: Earthscan, 1993)
- Revelle, R., & Suess, H.E. (1957) 'Carbon Dioxide Exchange Between Atmosphere and Ocean and the Question of an Increase of Atmospheric CO₂ During the Past Decades', *Tellus*, 9: 18-27.
- Selby, J. (2003) *Water, Power and Politics in the Middle East: The Other Israeli-Palestinian Conflict* (London: I.B. Tauris)
- Simon, J.L. & Kahn, H. (1984) *The Resourceful Earth: A Response to Global 2000* (Oxford: Basil Blackwell)

- Stern, E. (1995) 'Bringing the Environment In: The Case for Comprehensive Security', *Cooperation and Conflict*, 30(3): 211-237
- Thomas, C. (1992) *The Environment in International Relations* (London: Royal Institute of International Affairs)
- Trombetta, M.J. (2004) *Inventing Environmental Security: Environmental Discourse and the Transformation of Security Research* (PhD Thesis: University of Wales, Aberystwyth)
- Trompe, H. (1996) 'New Dimensions of Security and the Future of NATO' in de Wilde, J. and Wiberg, H. (eds.) *Organized Anarchy: The Role of Intergovernmental Organizations* (London: I.B. Tauris)
- Ullman, R.H. (1983) 'Redefining Security', *International Security* 8(1): 129-153
- United Nations Environment Program (2001) *Vital Climate Graphics*. Retrieved on 19th July 2006 from: www.grida.no/climate/vital/
- Waever, O. (1995) 'Securitization and Desecuritization', in Lipschutz, R.D. (ed.) *On Security* (New York: Columbia University Press)
- Walt, S. (1991) 'The Renaissance of Security Studies', *International Studies Quarterly*, 35(2), pp. 211-239
- Walker, R.J.B. (2006) 'On The Protection of Nature and the Nature of Protection', in J.Huysmans, A. Dobson & R. Prokhovnik, *The Politics of Protection: Sites of Insecurity & Political Agency* (Oxford: Routledge)
- Westing, A. (1986) *Global Resources and International Conflict: Environmental Factors in Strategic Policy and Action* (Oxford: Oxford University Press)
- Williams, M. C. (2003) 'Words, Images, Enemies: Securitization and International Politics', *International Studies Quarterly*, 47(4): 511-531
- World Commission on Environment and Development (1987) *Our Common Future* (Oxford: Oxford University Press)
- Worldwatch Institute (2003) *Vital Signs 2003-04: Trends That Are Shaping Our Future* (London: Earthscan)
- Wyn Jones, R. (1999) *Security, Strategy & Critical Theory* (London: Lynne Reinner)
- Wyn Jones, R. (2001) (ed.) *Critical Theory and World Politics* (London: Lynne Reinner)
- Wyn Jones, R. (2005) 'On Emancipation: Necessity, Capacity and Concrete Utopias', in Booth, K. (ed.) *Critical Security Studies and World Politics* (London: Lynne Reinner)