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**CRITICAL ENVIRONMENTAL
SECURITY: RETHINKING THE LINKS
BETWEEN NATURAL RESOURCES
AND POLITICAL VIOLENCE**

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CHAPTER 3

WHAT ARE WE REALLY LOOKING FOR? FROM ECO-VIOLENCE TO ENVIRONMENTAL INJUSTICE

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Introduction

The literature on eco-violence and environmental conflict, and its future as an interdisciplinary sub-field, has a foundational problem if it is really based on the study of violence. This is because there is no accepted definition of violence itself, and because the use of the term for any purpose other than strictly observing harm is misleading, especially if it is employed as a dependent variable (and it almost invariably is). However, there are conceptions of violence which are very useful indeed to ponder as they relate to the work of those studying eco-violence. In particular, the divide between agential and structural violence is pertinent, and I suggest that there are various forms of ecocide which illustrate the dubiousness of their analytic separation (much in line with most resolutions, however unsatisfactory, of the agent-structure debate within International Relations (IR)). I then proceed to suggest that the theme of justice is as, if not more, important as the theme of violence in this work. Scarcity may cause conflict which is manifested in violence. Of course, violence may result in environmental degradation, which in further turn leads to conflict, and I have referred elsewhere to the image of a circle of ecocide derived from this empirically observable chain of events.¹

But I will argue here that environmental justice is, in fact, a better conceptual vantage point to look for the trouble we seek when examining the links between environmental issues and anthropocentric violence. While interpersonal and other forms of agential violence take place in all contexts, our concern is much more oriented toward structural violence which is shaped by the processes (including agential violence) which contribute to environmental degradation. It is, admittedly, too easy to say that violence, or even the more limited term *political violence*, is best viewed as injustice (or, rather, that injustice, or more specifically environmental injustice, is violence, or eco-violence). But I will end there regardless, with a plea for further reflection on how we can breathe normative life into our collective project. This is not an innovative intervention so much as a call back to basics.

Of course, common sense would dictate that war and extreme exploitation cannot be non-violent, but there is much less consensus about the acceptability of such strategic or instrumental

violence (means versus ends arguments) and how all this relates to nature and ecology. Even this brief discussion makes it clear that consensus would be impossible to achieve.² We face the additional question, however, of how all this relates to the environment, and to a political geography of violence. I should be clear at the outset that even the less direct terminology often employed – ‘environmentally-induced conflict’ – is regarded by many as “fundamentally flawed, as it relies on preconceived causalities, intermingles eco-centric with anthropocentric philosophies, and neglects the motivations and subjective perceptions of local actors.”³ Yet it does direct our attention toward possible links between violence and environmental degradation, which is obviously an important association if we value either human life or nature (or both), so we had better have some sort of common understanding about what the former term means. I will begin however with what I would argue it does not mean.

Nature is Violent: Eco-violence as Order and Scarcity as Causal

I will do my best to dispense with the idea ‘nature is violent’ first, as it holds little promise for advancing human or environmental security, but, a short leap from Garrett Hardin’s 1968 “The Tragedy of the Commons,”⁴ does push us closer to what I consider a vulgar social Darwinism fixated on fantasies about population control. Invasive species, predatory killers, the stalking lioness, the battling rams, bloodthirsty bats, flesh-tearing sharks, there is no shortage of film footage here, much of it genuine but much more orchestrated to accommodate the camera. The water hole goes dry and all predatory bets are off. And of course there is Adolf Hitler’s famous statement about the cruelty of nature, which has resonated since Treblinka and Auschwitz changed (almost) everything; Friedrich Nietzsche’s discussion of the will to power, shallowly interpreted; and the need to cull herds on occasion and slash and burn for the sake of future generations of genetic winners. Eco-violence is not a problem, inherently, and it is often a good thing, and not only because of its evolutionary inevitability. After all, if the spectre of eco-violence can add prescriptive urgency and pragmatic value to the promotion of environmental protection, and it can help raise the awareness needed to save our own species from destroying the nest.

I would not venture into the hostile arena of debate over original sin, socio-biology, or psychoanalysis without several years more reading as protective clothing. However, I will argue that this perspective is, thankfully, the antithesis of the normative project which animates most research in the area of environmental crises and social conflict today. Though it may well be that “[w]e and the beasts are kin,”⁵ the ethical questions raised by invasive species offer an interesting example of how futile a perspective which equates us with them actually is. While they are certainly problematic for the indigenous species they overcrowd, overshadow, devour, or out-mate, this does not mean bio-invaders have anything but the best of intentions – survival. It is difficult to pin moral agency on them, even for the most bio-centric of thinkers. However, they are often the result of either accidental or purposeful introductions by human beings (usually through trade and tourism, but also often through military activity⁶). We routinely speak of responsibility, negligence, even malfeasance, in this respect. At the same time of course we have a vested interest in protecting ourselves from microbial invasions and this extends to the protection of local ecosystems from exogenous bio-

assault. (Though many technical responses to bio-invasion are quite ecocidal in nature, they are deemed by most observers to serve a greater good.) We may revert to petri-dish ethics in relation to human population movements, but the array of moral ascriptions is hardly uniform. Moral agency remains both foundational and optically fundamental.

In short, human history (and thus its natural history as well) moves along a continuously evolving path constituted by competing conceptions of justice, not just pecking orders and harem maintenance. Certainly, violence has been a central feature in the journey. Yet this does not preclude thinking outside the limited confines of the neo-Malthusian box of presumptions based on eco-scarcity, especially if it avoids what I refer to as the ‘optical demographic dilemma.’ Blaming population growth for global environmental problems is too easy, ignoring it is too ridiculous. Blaming it is in itself an injury to the human rights and dignity of those people living in overcrowded areas, and its ancillary solutions, including birth control and other depopulation measures, are hardly without their own controversial conceptual frames and historical records of unjust application. But, even if imbalances of wealth and power are taken into account, there is little doubt that population is a factor that cannot be overlooked by conflict analysts.⁷

More to the point perhaps, scarcity itself is not a trustworthy independent variable. As Ken Conca and Jennifer Wallace suggest, “much of the ecoconflict literature has invoked ‘scarcity’ without paying attention to how social relations create the conditions for resource capture or other forms of social scarcity.” Conversely, “the precise mechanisms by which resource wealth may induce or sustain violence remain disputed.”⁸ Other studies have suggested there is limited explanatory power to “eco-scarcity theory,” but poverty and “dysfunctional institutions” remain central independent variables.⁹ Another widespread assumption – that conflict over natural resources is key to explaining the “new wars” (i.e., civil wars involving a broad range of stakeholders we want to distinguish from the decolonization phase) – has also hit obstacles when subject to empirical analysis. Heinz Welsch for example found that resource conflict did matter, but that the “negative effect of agricultural resources on conflict probability is almost twice as large as the positive effect of mineral resources.”¹⁰ In other words, scarcity matters, but more in terms of agricultural productivity as a mitigating factor than mineral wars as a causal factor. To be fair to Thomas Homer-Dixon’s work, he is well aware of the variations on the theme, and I am certainly not equating the scarcity agenda with social Darwinism.¹¹ Nor do I wish to enter an empirical debate at this stage but merely to accentuate the fact that, while humans are likely to fight over diminished life-sustaining resources, basing an entire subfield of scholarly enquiry on this easy presumption does not provide us with any prescriptive value other than the obvious need to avoid situations where life-sustaining resources are threatened with extinction (an imperative already dictated either by the quest for survival or humanitarian concern). We still need an overarching view of what constitutes violence and justice to give this analytic context and normative animation.

Agential and Structural Eco-violence

The widely-referenced World Health Organization (WHO) definition of violence is emblematic of an agential position. The WHO states that violence is “[t]he intentional use of physical force or

power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, mal-development or deprivation.”¹² The key word here, of course, is *intentional*. Structural understandings of mass atrocities often split on this point, since not all participants are intending the effected outcome of the event. Interpersonal violence

refers to violence between individuals, and is subdivided into family and intimate partner violence and community violence. The former category includes child maltreatment; intimate partner violence; and elder abuse, while the latter is broken down into acquaintance and stranger violence and includes youth violence; assault by strangers; violence related to property crimes; and violence in workplaces and other institutions.¹³

Collective violence “refers to violence committed by larger groups of individuals and can be subdivided into social, political and economic violence.”¹⁴

There are at least three subtypes of agential eco-violence, or purposeful infliction of harm on ecosystems: ecocide; ecological sabotage; and the deliberate or neglectful harm of animals. I will not expand on the last since this falls within the category of psychopathic behaviour and/or is a manifestation of the food industry which, while quite violent to some, is considered quite routinized and even beneficial to others. The animal rights literature is vast, challenging and beyond the scope of this paper.¹⁵ Elsewhere I have explored both maximalist and minimalist definitions of ecocide.¹⁶ The maximalist definitions include everything from driving SUVs, flying to academic conferences, and eating dubiously farmed salmon. The minimalist definitions refer exclusively to the deliberate destruction of nature as part of a military strategy aimed not at destroying nature, but at subjugating an enemy.¹⁷ This is classic agential violence (regardless of the ‘just war’ question) in which ecosystems suffer, but the end result is of course the prolonged suffering of human populations, and thus an act of indirect collective violence is also committed. In between we have military preparation, which was an especially deleterious activity during the heights of the Cold War and remains a significant factor today, especially if we include incidentals such as greenhouse gas emissions resulting from military production, weapons shipments, problems related to stored toxic wastes, and others. Ecological sabotage refers largely to terrorist activity (conducted by individuals, states, or other actors) designed to harm or frighten human populations, but the term is often used to refer to the actions of radical ecologists who resort to the sabotage of property to protect the natural environment itself.

The study of ecocide in particular needs a resurgence, despite spiking after the US Vietnamese campaign as a justice issue and photos of burning oil wells in Iraq. While most of the eco-violence literature has focused on the Homer-Dixon route (also referred to as the Toronto School in some publications, which may be a first in IR for Canada, although Robert Cox’s work has generated such city-based recognition), or “whether and why environmental scarcity, abundance, or dependence might cause militarized conflict, less research has focused on the environmental impacts of violent conflict, war or military activities.”¹⁸ Post-conflict analysis has certainly provided empirical evidence of the environmental costs of war. The United Nations Environment Program (UNEP) Post-Conflict and Disaster Management Branch has identified numerous sources of concern in the 17

states it has been charged with investigating, from depleted uranium weaponry in Iraq and Bosnia and Herzegovina to hazardous wastes in Somalia to illegal forestry to Afghanistan.¹⁹ As well, we are moving much closer to an established body of literature on the impact of the ecological costs of displacement resulting from warfare, including competition over local resources between refugees and host communities.²⁰ This includes of course the long-term psychological damage caused by displacement from traditional lands, which “harms the ecological self and therefore creates an internal sense of alienation,”²¹ further blending the line between agential and structural violence.

It is a fine line, indeed, between the two, especially for social scientists looking at events/ contexts from afar. It is less fine, no doubt, to those in the immediate grip of agential violence, but they would themselves no doubt often refer to the injustice of the situation to contextualize it. One of the foremost theorists on structural violence, Johan Galtung, paints a “violence triangle” which consists of direct violence (an event), cultural violence (a permanent phenomenon, as it only changes as cultures change) and structural violence (a process, which fluctuates with power shifts).²² He argues that “violence can start at any corner in the direct-structural-cultural violence triangle and is easily transmitted to the other corners.”²³ Violence is defined as “avoidable insults to basic human needs, and more generally to life, lowering the real level of needs satisfaction below what is potentially possible.”²⁴ The key word here may be well be *avoidable*. Again, this raises justice-related questions, since we would not have a concept of justice if we assumed that injustice was unavoidable. Furthering the theme, Peter Uvin argues that “the concept of structural violence draws our attention to unequal life chances, usually caused by great inequality, injustice, discrimination and exclusion and needlessly limiting people’s physical, social and psychological well-being.”²⁵ And Radhika Coomaraswamy, quoting Govind Kelkar, in reference to gender-based violence, notes that

A narrow definition of violence may define it as an act of criminal use of physical force. But this is an incomplete concept. Violence also includes exploitation, discrimination, unequal economic and social structures, the creation of an atmosphere of religiocultural and political violence. While violence against women is part of general violence found in the social structures such as class, caste, religion and ethnicity, and in the way the state controls people, it also encompasses aspects of structural violence and forms of control and coercion exercised through hierarchical and patriarchal gender relationships in the family and society.²⁶

Robert Audi argues that what Newton Garver defines as “quiet institutional violence” (such as systemic social inequalities) should not be defined as violence because “it confuses the issue to use the emotively loaded word ‘violence’ when the grievance can be better described and treated under another name”, such as inequality, because “misnaming the disease can lead to the use of the wrong medicine – or none at all.”²⁷ I would humbly suggest that our concern with the nexus linking environmental and social conflict should similarly move us away from confusing the occurrence of agential violence and the impacts of structural violence with a mythical separate category labelled ‘co-violence.’ If John Keane’s critique of Galtung’s definition of structural violence as coming to “resemble an injustice detector” instead of being a concrete definition²⁸ is meaningful, it begs the question ‘so what?’ And why would we not include violence against nature itself within our analytical realm? The meaning of violence itself is framed by dominant elites who control media

outlets, educational systems and life opportunities of vulnerable populations. Sharon Ridgeway and Peter Jacques refer to the 1994 Zapatista uprising in Chiapas, Mexico, in this light: the uprising was violent, but the poverty and marginalization which preceded it was not, since it was structural and thus not ‘direct’ violence.²⁹ Of course, widespread sympathy for the Zapatistas was perhaps evidence of the widespread recognition of the pernicious nature of structural violence in the first place, as well as its ecological impacts. Yet the support was only a major factor after the violent response to the demands of the North American Free Trade Agreement (NAFTA) became a mass media event. Surely the outrage over the response of Burma’s military government to Cyclone Nargis, and the revealed helplessness of the Haitian people following the recent earthquake there, can serve as other prominent examples.

Environmental Injustice and Systematic Eco-violence

Only by defining eco-violence as environmental injustice do we capture both the agential and structural violence, with or without direct intent, described above, while emphasizing the importance of links between humans and ecosystems, differentiated spatial and virtual communities, and universal needs and individual responsibilities. Of course, environmental justice has been defined in competing fashions as well³⁰ but the crux of the concern here is that certain populations (or individuals) are more likely to be harmed by or suffer the risks associated with environmental problems than others, and this social question needs rectification if we are to deal effectively with those problems. In a concise survey of GIS-related efforts to provide empirical data on this barometer of fundamental inequality, Juliana Maantay defines environmental injustice as the “disproportionate exposure of communities of color and the poor to pollution, and its concomitant effects on health and environment, as well as the unequal environmental protection and environmental quality provided through laws, regulations, government programs, enforcements and policies.”³¹ Let us add violence to this equation: agential, when deliberate harm is caused to ecosystems, as well as structural, as when oppressed people suffer disproportionately when environmental conditions worsen by indirect change. Philippe Le Billon (2001), for example, writes of the vulnerability resulting from resource dependence (rather than conventional notions of scarcity or abundance) and the opportunities it presents to those prone towards violent assertion of their superiority (including opportunities of armed insurgency).³²

Maantay’s definition is typical of the American environmental injustice movement, much of which has been focused on race as determinative factor.³³ While it would be problematic to speak categorically of an environmental justice *movement*, the last several decades have seen the rise of increased concern over the fairness implications of pollution in particular, and in both the Northern and Southern Hemispheres, and in both the East and West, before and especially after the advent of what Ulrich Beck has famously referred to as the “risk society” where risk producers suffer less than risk victims, or those more vulnerable to its deleterious effects.³⁴ The pursuit of environmental justice is associated with achieving inter-generational justice and inter-species justice, but it is mostly associated with “debates about distributional inequalities and the actions needed to address them.”³⁵ Definitions vary, but it is considered “the fair treatment and meaningful involvement of all

people regardless of race, colour, national origin or income, with respect to the development, implementation and enforcement of environmental laws, regulations and policies.”³⁶ More succinctly, it is defined as the “just distribution of environmental goods and bads among human populations.”³⁷

Much of the literature links racism with differentiated environmental policy, while some borrows from feminist literature³⁸ and some is more driven by concerns with income and class. When taken as the critical examination of norms, it is fair to say that applying the concept to an international perspective that is enhanced by various critical theories of global politics is an obvious step, one already taken by many analysts concerned about the long-term impact of colonialism and imperialism, the cultural impact of market economies, the effects of various forms of discrimination on life opportunities, the environmental impact of globalization, the necessity of social networking innovations³⁹ and a plethora of other questions. I add political ecology to this formula, which seeks to understand, in the words of Nancy Lee Peluso and Michael Watts, “ways that specific resource environments (tropical forests or oil reserves) and environmental processes (deforestation, conservation, or resource amelioration) are constituted by, and in part constitute, the political economy of access to and control over resources.”⁴⁰ Obviously, the environmental justice approach is based largely on the conceptual acceptance of structural violence as both cause and outcome of inequality. This mirrors the “environmental conflict thesis” put forth best by political ecologists, perhaps best summarized by Paul Robbins, and takes us back to Homer-Dixon’s discussion of resource capture:

Increasing scarcities produced through resource enclosure or appropriation by state authorities, private firms, or social elites accelerate conflict between groups (gender, class, or ethnicity). Similarly, environmental problems become ‘socialized’ when local groups secure control of collective resources at the expense of others by leveraging management interventions by development authorities, state agents, or private firms. So too, existing and long-term conflicts within and between communities are ‘ecologized’ by changes in conservation or resource development policy.⁴¹

So we are to some extent back to human rights (social responsibility, equity) and this concerns not only present rights (including entitlements and obligations), but must reflect past justice issues and possible future scenarios, which raises untidy questions about the applicability of reparations and inter-generational justice recently explored by international environmental ethicists such as Steve Vanderheiden.⁴² Indeed, spurred by the climate change debate – where an international dialogue is unavoidable – many authors are treating eco-politics as an aspect of environmental justice, at the local to global levels.⁴³

Though some deep ecologists and animal welfarists remain critical of the anthropocentrism of international human rights law,⁴⁴ it is fairly widely accepted that the right to a safe environment is a fundamental human right. As Dinah Shelton suggests, a human rights approach to environmental protection seeks “to ensure that the natural world does not deteriorate to the point where international guaranteed rights such as the rights to life, health, property, a family, a private life, culture, and safe drinking water are seriously impaired. Environmental protection is thus instrumental, not an end in itself.”⁴⁵ However, one can position this in opposite terms, suggesting the “legal protection of human rights is an effective means to achieving the ends of conservation and environmental

protection.”⁴⁶ Water is of course a prime example. Access to clean water is often recognized as a human right of the first order. Its denial, whether through occupation, usurpation, or privatization, is at the root of an increasingly visible if politically limited water justice movement. Thus arguments, for example, for an international agreement that explicitly guarantees water as a universal human right in order to reduce looming water-related conflicts.⁴⁷

If environmental justice has become a major normative force today, we are equally concerned with environmental rights (including animal welfare) as factors proscribing certain types of human behaviour, and prescribing obligations towards those most affected. “These claims may be based either upon the specific attribution of responsibility to the countries of the North for the carbon emissions which are responsible for global warming, or upon a human rights-based claim that the wealthy must assist those who are at risk of large-scale rights deprivation and are effectively unable to help themselves” such as tropical islanders displaced by rising sea levels.⁴⁸ The failure to pursue environmental justice at an international level can only lead us further on the path towards a world defined by *bio-apartheid*, a systemic physical separation of people who have suffered the deleterious impacts of the health threats related to climate change, infectious diseases and even the malnourishment resultant from absolute poverty, from those with the means to escape these threats to human security, who are free to roam wherever their transnational capital can take them. This may or may not involve the application of military power to maintain such separation. It may or may not overlap with religious war, and it may or may not assume a visibly racial character.

I would suggest that a variety of factors make the consideration of *global environmental justice* the new ethical frontier, the nexus between ecological thought and international relations theory we need to further develop and promote in order to avoid the complete dissolution of global society today. Significantly, global environmental justice is not merely related to the mitigation of the anthropomorphic causes of climate change, bio-diversity loss, toxic pollution, or the oceans crisis. It also demands that adaptation measures undertaken by states and other actors do not further marginalize already vulnerable groups, and that their voice is heard in the precautionary balance sheet. This does not, of course, negate the fact that some extreme weather events, infectious diseases, genetic mutations and other manifestations of environmental problems will ultimately affect both rich and poor. But they most certainly will not be similarly or equally affected so long as the former have adequate resources and the latter have little but communal ties to assist them.⁴⁹ Surely the lesson of Hurricane Katrina, which after all affected one of the most prosperous and powerful states in the international system today, is that poverty kills. In a text that should prove to be a must-read for anyone concerned with climate change policy, J. Timmons Roberts and Bradley Parks offer widespread evidence that this is the case on the global level as well.⁵⁰

Indeed, environmental justice, as a theme and a movement, is in danger of extinction as ‘climate justice’ pushes it out of public view.⁵¹ This is in my view unfortunate, not only because of the tenuous analytic nature of links between climate change and violence, its inevitable securitization, the perpetually inconclusive nature of efforts at global climate change policy and governance, and the debate over the scientific validity of the more distressing geophysical predictions, but because there are so many other issues (albeit interlinked) that demand attention.⁵² This in no way diminishes what should be vigilant concern about, and research into, the links between climate change and environmental justice, from the phenomenon of environmental refugees and migrants⁵³ to the

cultural impact of rapid changes in local ecosystems. Rafael Reuveny argues that environmentally-induced migration can lead to conflict when it is coupled with competition over scarce resources, ethnic tensions between groups, distrust between migrants and host communities, and the presence of socio-economic “fault lines” or “auxiliary conditions” such as political instability.⁵⁴ These are certainly, as Jon Barnett and W. Neil Adger argue, human security concerns of the first order.⁵⁵ But they are also social and environmental justice issues, since they involve vulnerability, unequal power relationships, and potential avenues toward emancipation from these conditions. As Oli Brown, Anne Hammill and Robert McLeman argue in the African context, the degree to which climate change will actually result in violent conflicts depends upon “a given area’s susceptibility to conflict and the capacity of the population to adapt to changing conditions.”⁵⁶ Similarly, Idean Salehyan argues that it is not environmental factors alone that can predict conflict, but instead it is “the *interaction* between environmental and political systems [that] is critical for understanding organized armed violence.”⁵⁷ Environmental justice also allows us to focus on situations and events that are not within the usual humanitarian intervention context. Most instances of what is traditionally considered eco-violence would escape the ‘responsibility to protect’ (R2P) doctrine, which demands “genocide, war crimes, ethnic cleansing and crimes against humanity” before intervention occurs, although there is some room to manoeuvre within all of these categories.

A final reason to focus on environmental (in)justice is that it provides a normative platform from which we can move on to concrete unapologetic policy prescriptions to remedy situations where chronic inequality or sudden catastrophe has ensured ongoing harm to vulnerable populations. Recent events in Haiti certainly underscore this point, whether viewed from country-specific or global lenses. While the more traditional eco-violence literature typically leads to calls for greater state capacity to ‘manage’ situations, environmental justice concerns typically advocate more fundamental shifts in power relations and access to natural resources. Although such calls can be unrealistic and even counter-productive if they challenge the entire status quo, if articulated in a measured manner they can be quite reasonable demands based on the enlightened self-interest of all stakeholders. Of course, some of the self-anointed clergy of the more radical branches of the movement would consider this a sacrilegious concession to the rich and greedy. But as political ecology continues its evolutionary curve toward mainstream social significance, and yet capitalism continues to prove its resilience despite economic crises and technological change, it seems much more like the art of the possible than the clarion call for a global revolution the poor will continue to die waiting for.

Conclusion

This essay has made several points relevant to the study of eco-violence and environmental conflict. First, it is very difficult to arrive at anything even approaching a widely shared conception of what, precisely, violence means as an operable term in social science. The distinct explications put forth in the essay are but a few of the competing understandings. If we cannot arrive at a common definition, then it is better to embrace a wider concept, such as environmental justice. Second, the proposition that nature itself is violent and, therefore, violence attributed to environmental problems

is natural also, does little to enhance our understanding of eco-violence and in fact serves to legitimize forms of structural violence and delegitimizes contemporary human rights norms. Third, agential violence committed with specific intent to harm the environment (or willful negligence) can be observed throughout history, and constitutes a violation of environmental justice. Fourth, structural violence that persists over time and that either results in the degradation of environmental conditions or leads to situations where agential/instrumental violence is employed is also a violation of environmental justice. It follows that we should be looking for environmental injustice if we wish to examine the links among ecological conditions, power and anthropocentric violence, not just as possible predictors of the latter, but as evidence of them.

If eco-violence is seen as transgressions of environmental justice, we are able to adopt a more concrete program of analysis and emancipation. We are able to limit the scope of enquiry and yet raise its implications. We are able to wed humanitarianism and environmentalism. Otherwise, given its causal limitations, I am not sure the eco-violence/eco-conflict literature achieves much beyond observational interest. The fixation on observed violence, or predictions thereof, so sexy in the twilight of the Toronto studies, certainly turned the Bill Clinton-Al Gore crank. But we need to fixate on something with broader applicability, less definitional and causal uncertainty, and greater humanitarian resonance, and that is environmental injustice.

Notes

- * I am grateful to Mariel Angus, Concordia MPPPA student, for research assistance.
1. Peter Stoett, *Human and Global Security: An Exploration of Terms* (Toronto: University of Toronto Press, 2000).
 2. For a very good anthology on the meaning of violence (sans Hannah Arendt, who should also be consulted), see Vittorio Bufacchi (ed.), *Violence: A Philosophical Anthology* (New York: Palgrave Macmillan, 2009).
 3. Tobias Hagmann, "Confronting the Concept of Environmentally Induced Conflict," *Peace, Conflict and Development*, Vol. 6 (2005), p. 2.
 4. Garrett Hardin, "The Tragedy of the Commons," *Science*, Vol. 162 (1968), pp. 1243-8.
 5. Ernest Seton, *Wild Animals I Have Known* (New York: Scribners, 1898), p. 12; see also Barbara Noske, *Beyond Boundaries: Humans and Animals* (Montreal: Black Rose, 1997).
 6. See Peter Stoett, "Conceptual and Governance Challenges," *Environmental Politics*, Vol. 16, No. 3 (2007), pp. 433-452.
 7. Ridgeway and Jacques go so far as to argue that the standard to approach to "environmentally-induced regional conflict ... posits population growth as the primary cause of environmental scarcity and/or degradation, which then results in violence." I am not sure this is an accurate characterization, however. Sharon Ridgeway and Peter Jacques, "Population-conflict Models: Blaming the Poor for Poverty," *The Social Science Journal*, Vol. 39 (2002), p. 599.
 8. Both quotations are from Ken Conca and Jennifer Wallace, "Environment and Peacebuilding in War-torn Societies: Lessons from the UNEP's Experience with Postconflict Assessment," *Global Governance*, Vol. 15, No. 4 (2009), p. 488.
 9. Ole Magnus Theisen, "Blood and Soil? Resource Scarcity and Internal Armed Conflict Revisited," *Journal of Peace Research*, Vol. 45 (2008), pp. 801-818.

Chapter 3: What are We Really Looking For?

10. Heinz Welsch, "Resource Abundance and Internal Armed Conflict: Types of Natural Resources and the Incidence of 'New Wars,'" *Ecological Economics*, Vol. 67 (2008), p. 503.
11. The most damning indictment of Thomas Homer-Dixon's work is certainly the excellent Nancy Lee Peluso and Michael Watts text (2001), and in particular the chapter by Betsy Hartmann (2001). Although the book did not make a big splash in the waters of IR studies (unsurprisingly, given its emphasis on political ecology, agrarian studies, and anthropology), it remains largely unanswered. Thomas Homer-Dixon, "Environmental Scarcities and Violent Conflict: Evidence from Cases," *International Security*, Vol. 19, No. 1 (1994), pp. 5-40; Thomas Homer-Dixon, *Environment, Scarcity and Violence* (Princeton: Princeton University Press, 1999); Nancy Lee Peluso and Michael Watts (eds), *Violent Environments* (Ithaca: Cornell University Press, 2001).
12. World Health Organization, "World Report on Violence and Health: Summary," Geneva, WHO, 2002, p. 4.
13. *Ibid.*, pp. 5-6.
14. *Ibid.*, pp. 5-6.
15. See Tom Regan, *The Case for Animal Rights* (Berkeley: University of California Press, 1983).
16. See Stoett, *Human and Global Security*.
17. Note the significant ecological footprint of going to war/occupation. According to *The Economist*, "American forces consume more than 1m [one million] gallons of fuel a day in Afghanistan, and a similar quantity in Iraq," and the British army "Calculates that it takes seven gallons of fuel to deliver one gallon to Afghanistan." "Greenery on the March," *The Economist Technology Quarterly*, 12 December 2009, p. 3.
18. Sanjeev Khagram and Ali Saleem, "Environment and Security," *Annual Review of Environment and Resources*, Vol. 31 (2006), p. 395.
19. See Conca and Wallace, "Environment and Peacebuilding in War-torn Societies."
20. Adrian Martin, "Environmental Conflict Between Refugee and Host Communities," *Journal of Peace Research*, Vol. 42, No. 3 (2005), pp. 329-346.
21. Rajmohan Ramanathapillai, "Modern Warfare and the Spiritual Disconnection from Land," *Peace Review*, Vol. 20, No. 1 (2008), p. 114.
22. Johan Galtung, "Cultural Violence," *Journal of Peace Research*, Vol. 27, No. 3 (1990), p. 294.
23. *Ibid.*, p. 298.
24. *Ibid.*, p. 292.
25. Peter Uvin, *Aiding Violence: The Development Enterprise in Rwanda* (Connecticut: Kumarian Press, 1998), p. 105. Uvin offers a sophisticated concision, but neglects ecology. He states "For poor people, meaningful development is not simply about increases in income but also about improved access to the means of production; reduction in insecurity and vulnerability, and the creation of a sustainable and hopeful future; empowerment through participation, justice, freedom, and access to information and education; overcoming physical weakness through access to health and nutrition; and social relations characterized by human dignity, cooperation, and a sense of equity...[the] systematic absence [of these processes] for certain groups, especially under conditions of macroeconomic growth, can be called structural violence." Uvin, *Aiding Violence*, p. 107.
26. Radhika Coomaraswamy, "Some Reflections on Violence Against Women," *Canadian Women Studies / Les Cahiers de la Femme*, Vol. 15, No. 2 & 3 (1995), p. 21; quotation is from Govind Kelkar, "Stopping the Violence Against Women: Fifteen Years of Activism," in M. Schuler (ed.), *Freedom from Violence* (New York: UNIFEM, 1992).
27. Robert Audi, "Violence, Legal Sanctions and Law Enforcement," in S. M. Stanage (ed.), *Reason and Violence: Philosophical Investigations* (Oxford: Basil Blackwell, 1974), pp. 37-38.

28. John Keane, *Violence and Democracy* (Cambridge: Cambridge University Press, 2004), p. 32.
29. Ridgeway and Jacques, "Population-conflict Models."
30. See David Schlosberg, *Defining Environmental Justice: Theories, Movements, and Nature* (New York: Oxford University Press, 2007).
31. Juliana Maantay, "Mapping Environmental Injustices: Pitfalls and Potential of Geographic Information Systems in Assessing Environmental Health and Equity," *Environmental Health Perspectives*, Vol. 110, No. 2 (2002), p. 161.
32. Philippe Le Billon, "The Political Ecology of War: Natural Resources and Armed Conflicts," *Political Geography*, Vol. 20 (2001), pp. 561-584.
33. See also S. Revi Rajan for a treatment of the concept in a global context with reference to the Bhopal, India, calamity. S. Revi Rajan, "Toward a Metaphysic of Environmental Violence: The Case of the Bhopal Gas Disaster," in Peluso and Watts (eds), *Violent Environments*, pp. 280-398.
34. Ulrich Beck, *The Risk Society: Towards a New Modernity* (Trans. Mark Ritter; London: Sage Productions, 1992).
35. Re inter-generational justice, see, for example, Brenda Almond, "Rights and Justice in the Environment Debate," in D. E. Cooper and J. Palmer (eds), *Just Environments* (London: Routledge, 1995). Re inter-species justice, see Tim Hayward, *Ecological Thought: An Introduction* (Cambridge: Polity Press, 1994); Nicholas Low and Brenda Gleeson, "Situating Justice in the Environment: The Case of BHP and OK Tedi Copper Mine," *Antipode*, Vol. 30, No. 3 (1998), pp. 201-226.
36. Robert D. Bullard, "Dismantling Environmental Racism in the USA," *Local Environment*, Vol. 4, No. 1 (1999), p. 7.
37. Andrew Dobson, *Justice and the Environment: Conceptions of Environmental Sustainability and Theories of Distributive Justice* (Oxford University Press, 1998), p. 20. Of course social ecologists would reject any human hierarchy as part of the problem; justice could only be truly found under anarchic conditions (see Murray Bookchin, *The Ecology of Freedom: The Emergence and Dissolution of Hierarchy* (Palo Alto, California: Cheshire Books, 1982)). Most proponents of environmental justice, however, are not anarchists but would use the state as an agent in the realization of environmental justice claims and any resultant necessary redistribution of wealth. See also Andrew Dobson, *Citizenship and the Environment* (Oxford: Oxford University Press, 2003).
38. Giovanna Di Chiro, "Defining Environmental Justice: Women's Voices and Grassroots Politics," *Socialist Review*, Vol. 22, No. 4 (1992), pp. 93-130.
39. On rhizomatic organizing see David Schlosberg, "Networks and Mobile Arrangements: Organisational Innovation in the US Environmental Justice Movement," *Environmental Politics*, Vol 6, No. 1 (1999), pp. 133-48.
40. Peluso and Watts (eds), *Violent Environments*, p. 5; parenthesis in original.
41. Paul Robbins, *Political Ecology: a Critical Introduction* (Oxford: Blackwell Publishing, 2004), p. 173.
42. Stephen Vanderheiden, *Atmospheric Justice: A Political Theory of Climate Change* (Oxford: Oxford University Press, 2008).
43. See A. Boyle and Michael Anderson (eds), *Human Rights Approaches to Environmental Protection* (Oxford: Clarendon Press, 1998); Tom Athanasiou and Paul Baer, *Dead Heat: Global Justice and Global Warming* (New York: Seven Stories Press, 2002); Timmons Roberts and Bradley Parks, *A Climate of Injustice: Global Inequality, North-South Politics, and Climate Policy* (Cambridge, MA: MIT Press, 2007).
44. See Catherine Redgwell, "Life, the Universe and Everything: A Critique of Anthropocentric Rights," in Boyle and Anderson (eds), *Human Rights Approaches to Environmental Protection*, pp. 71-87.
45. Dinah Shelton, "The Environmental Implications of International Human Rights Tribunals," in Romina

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- Picolotto and Jorge Taillant (eds), *Linking Human Rights and the Environment* (Tucson: University of Arizona Press, 2003), p. 1.
46. Michael Anderson, "Human Rights Approaches to Environmental Protection: An Overview," in Boyle and Anderson (eds), *Human Rights Approaches to Environmental Protection*, p. 3.
 47. See Adam Davidson-Harden, Anil Naidoo and Andi Harden, "The Geopolitics of the Water Justice Movement," *Peace, Conflict, and Development*, Vol. 11 (2007), pp. 1-34.
 48. Henry Steiner, Philip Aston and Ryan Goodman, *International Human Rights in Context: Law, Politics, Morals* (3rd ed.; Oxford: Oxford University Press, 2007), p. 1454.
 49. We should not underestimate the importance of those ties, however. As Michael Thompson puts it, "Environmental security ... is all about solidarities. If the appropriate solidarities are not there, and they are not interacting with one another in appropriate ways, then the pressure-cooker model will be valid." 1999, p. 137.
 50. Roberts and Parks, *A Climate of Injustice*.
 51. See Sonja Klinsky and Hadi Dowlatabadi, "Conceptualizations of Justice in Climate Policy," *Climate Policy*, Vol. 9 (2009), pp. 288-108.
 52. Re links between climate change and violence, see Idean Salehyan, "From Climate Change to Conflict? No Consensus Yet," *Journal of Peace Research*, Vol. 45 (2008), pp. 315-326. Re securitization, see Jon Barnett, "Security and Climate Change," *Global Environmental Change*, Vol. 13 (2003), pp. 7-17; John Podesta and Peter Ogden, "The Security Implications of Climate Change," *The Washington Quarterly*, Vol. 31, No. 1 (2007), pp. 115-138.
 53. Ironically, perhaps, efforts at conserving nature are also possible sources of environmental injustice, and there is a little information on the level of displacement caused by conservation projects, including indigenous and non-indigenous person (see Dan Brockington, Jim Igoe and Kai Schmidt-Soltau, "Conservation, Human Rights, and Poverty Reduction," *Conservation Biology*, Vol. 20, No. 1 (2006), pp. 250-252). For an historical treatment see Rosalind Warner, "The Place of History in International Relations and Ecology: Discourses of Environmentalism in the Colonial Era," in Eric Laferrière and Peter Stoett (eds) *International Ecopolitical Theory: Critical Approaches* (Vancouver: UBC Press, 2006), pp. 34-51.
 54. Rafael Reuveny, "Climate Change-induced Migration and Violent Conflict," *Political Geography*, Vol. 26 (2007), p. 659.
 55. Jon Barnett and W. Neil Adger, "Climate Change, Human Security and Violent Conflict," *Political Geography*, Vol. 26 (2007), pp. 639-655.
 56. Oli Brown, Anne Hammill and Robert McLeman, "Climate Change as the 'New' Security Threat: Implications for Africa," *International Affairs*, Vol. 83, No. 6 (2007), p. 1149. Political geographers Nordas and Gleditsch: "the prospect of human-induced climate change encourages drastic neomalthusian scenarios. A number of claims about the conflict-inducing effects of climate change have surfaced in the public debate in recent years. Climate change has so many potential consequences for the physical environment that we could expect a large number of possible paths to conflict. However, the causal chains suggested in the literature have so far rarely been substantiated with reliable evidence. Given the combined uncertainties of climate and conflict research, the gaps in our knowledge about the consequences of climate change for conflict and security appear daunting." Ragnhild Nordås and Nils Petter Gleditsch, "Climate Change and Conflict," *Political Geography*, Vol. 26 (2007), p. 627. See Emeka Obioha for a Nigerian case study. Emeka Obioha, "Climate Change, Population Drift and Violent Conflict Over Land Resources in Northeastern Nigeria," *Journal of Human Ecology*, Vol. 23, No. 4 (2008), pp. 311-324. Meanwhile Clionadh Raleigh and Hendrik Urdal (2007) conclude that, while "population growth and density are associated with increased risks, the effects of land degradation and

water scarcity are weak, negligible or insignificant. The results indicate that the effects of political and economic factors far outweigh those between local level demographic/environmental factors and conflict,” Clionadh Raleigh and Hendrik Urdal, “Climate Change, Environmental Degradation and Armed Conflict,” *Political Geography*, Vol. 26 (2007), p. 674.

57. Salehyan, “From Climate Change to Conflict?” p. 318.