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Fluid Identities: Toward a Critical Security of Water

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Graduate Program in Political Science
A thesis submitted in partial fulfillment of the requirements for the degree in Doctor of
Philosophy
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FLUID IDENTITIES: TOWARD A CRITICAL SECURITY OF WATER

MONOGRAPH

by

Cameron Harrington

Graduate Program in Political Science

A thesis submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy

The School of Graduate and Postdoctoral Studies
The University of Western Ontario
London, Ontario, Canada

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Abstract

Water wars are coming! Water is the defining security threat of the 21st century! The future belongs to the water-rich! These types of warnings are frequently proclaimed, urging attention to looming water conflict, which will occur as stores of freshwater diminish in both quality and quantity. Yet the issue of water security is far more complex than as an inevitable source of future violent conflict. Water is a central component to all aspects of life and planetary health and thus it contains within it a multiplicity of social and political meanings, pivotal to our understandings of security. This dissertation begins with an acknowledgment that conceptions of security are conditioned by larger understandings of being and reality, and that water security in particular is emblematic of traditional allegiances within the subject of international relations that are resistant to change. At its core, it is designed to answer the question: *What are the relationships between water and security?* It adopts a critical security approach to excavate traditional security narratives and then construct and identify emancipatory visions immanent within relationships over water. It argues that an emancipatory vision of water security that is inclusive, communicative, and cosmopolitan is desirable and possible in human water relations. It concludes by identifying various contemporary water relationships that offer potential emancipatory appellations of water security.

Keywords

Critical Security Studies, Emancipation, Environmental Security, Hydrosolidarity, Securitization, Water

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This thesis is dedicated to my parents, David and Nancy Harrington.

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1 CHAPTER ONE: Introduction: Water, security, and emancipation

1.1 Introduction

Water wars are coming! Water is the defining security threat of the 21st century! The future belongs to the water-rich! These types of warnings are frequently proclaimed, urging attention to looming water conflict, which will occur as stores of freshwater diminish in both quality and quantity. For the past three decades, the story often told has been one of a “coming anarchy,” where a host of environmental problems, in which water factors significantly, inevitably erodes the state’s capacity to govern.¹ According to this type of interpretation, this will eventually lead to an upswing of violence as states and groups fight over access to and control of dwindling natural resources, while at the same time experiencing their effects as conflict multipliers, coalescing with simmering ethnic and historical tensions.

The persistence of this type of thinking has led to the conclusion that water will drive conflict in the future, and is likely to lead to instability, state failure, and increase regional

¹ Robert Kaplan. “The Coming Anarchy,” *The Atlantic Monthly* 273.2 (1994): 44-77; Michael T. Klare. *Resource Wars: The New Landscape of Global Conflict*, (New York: Metropolitan Books, 2001); Thomas Homer-Dixon. “Environmental Scarcities and Violent Conflict: Evidence From Cases.” *International Security*, 19.1 (1994): 5–40; Thomas Homer-Dixon. *Environment, Scarcity, and Violence*. (Princeton N.J.: Princeton University Press, 1999); Thomas Homer-Dixon. “Terror in the Weather Forecast” *New York Times* 24 April 2007 Online. 14 February 2013. <<http://www.nytimes.com/2007/04/24/opinion/24homer-dixon.html>>; Gwynne Dyer. *Climate Wars* (Toronto: Random House, 2007); CNA, 2007. *National Security and the Threat of Climate Change. Report from a panel of retired senior US military officers*. Alexandria, VA: CNA Corporation, April 2007. Online. 14 February 2013 <<http://www.cna.org/reports/climate>>; Defence Intelligence Agency of the United States (DIA). *Global Water Security: Intelligence Community Assessment*. ICA 2012-08. Washington DC: Government Printing Office, 2012.

tensions.² However, the continued reliance on familiar tropes of water scarcity leading to war and conflict is problematic in a number of ways. First, it ignores the historical record, which displays a distinct absence of water wars.³ Secondly, freshwater scarcity and ecosystem degradation hold far more importance as an inevitable source of conflict than “21st Century oil.” Water is more important than other resources, including oil. As Steven Solomon puts it, “Oil is substitutable, albeit painfully, by other fuel sources, or in extremis, can be done without; but water’s uses are pervasive, irreplaceable by any other substance, and utterly indispensable.”⁴ Thirdly, focusing upon historically absent and hypothetical future water wars obscures the complex relationships individuals, communities, and ecosystems have with scarce water sources; relationships that defy simple classification as competitive and protectionist.⁵ The result is that it diverts attention away from more pressing concerns related to the sustainable management of water resources and the integration of holistic water practices ensuring equitable distribution, which is fundamental to empowering individuals so that they may live a good life. Finally, it reflects an uncritical allegiance to state-centric, traditional security

² DIA, 2012; Ban, Ki-Moon. “Address as prepared for delivery to the Davos World Economic Forum.” *UN News Service* 24 January, 2008. Online. 5 January, 2013. <http://www.un.org/apps/news/infocus/sgspeeches/search_full.asp?statID=177>; Association of American Geographers. “United Nations Secretary General Kofi Annan addresses the 97th Annual Meeting of the Association of American Geographers” [Transcript of speech]. Association of American Geographers. 2001. Online. 5 January, 2013.

³ Aaron T. Wolf. “Conflict and Cooperation Along International Waterways,” *Water Policy* 1.2 (1998): 251-262; Lucia De Stefano, Paris Edwards, Lynette de Silva and Aaron T. Wolf. “Tracking cooperation and conflict in international basins: historic and recent trends.” *Water Policy* 12.6 (2010): 871-88.

⁴ Steven Solomon. *Water: The Epic Struggle for Wealth, Power, and Civilization*. (New York: Harper, 2010): 367.

⁵ Mark Zeitoun, Naho Mirumachi and Jeroen Warner. “Transboundary water interaction II: Soft power underlying conflict and cooperation.” *International Environmental Agreements* 11.2 (2010): 159 - 178

approaches to managing security, approaches that have been clearly ineffective for most individuals on the planet. Narratives that causally link water scarcity and conflict reinforce the deeply embedded assumptions of just what security means (survival) and for whom it exists (states).

Despite the tenuous links between resource exploitation and conflict, there has been a continued tendency to situate resource wars as a prevailing fact of history and an inevitable focus for the future. Various UN organs and institutions have debated the concept of water security. In 2012, it was the subject of a major national security report in the United States.⁶ In 2007, The Government of Australia detailed *A National Plan for Water Security*.⁷ And certainly a large number of think tanks, NGOs, and academic studies have pointed to water as a major threat to security. Much of the talk of water is deeply connected to a growing awareness of the dangers posed by climate change. In February 2013, for just the third time in its history, the United Nations Security Council (UNSC) met to discuss and debate the security implications of climate change. The 2013 meeting was galvanized by an increasing awareness that the frequency and severity of climate change effects, like hurricanes, wildfires, droughts, monsoons, and flooding, required a new sense of urgency. Given the deep connections between climate change security and water security, it is obvious that the issue will be of paramount importance in the coming years.

⁶ United States Office of the Director of National Intelligence. "Global Water Security." Intelligence Community Assessment. ICA 2012-08, 2 February 2012. Online. 1 February 2013. <http://www.dni.gov/nic/ICA_Global%20Water%20Security.pdf>>

⁷ Government of Australia. *A National Plan for Water Security*. Canberra: Parliament of Australia, 2007.

However, there are developments that point to alternative understandings of water security in an international context. In December 2010, the United Nations General Assembly proclaimed 2013 as the United Nations International Year for Water Cooperation.⁸ Launched at UNESCO headquarters in Paris on 11 February 2013, there are four messages of the International Year: The first is that water cooperation is crucial for poverty alleviation, and social equity; the second, that there are tangible economic benefits; the third, that it protects water resources and the environment from degradation and overuse; and perhaps most importantly, that water builds peace.⁹ Such timing is reflective of a growing awareness that water is a central component for sustainable development, including the eradication of poverty, the improvement of human health and well-being, and for the achievement of the Millennium Development Goals. It also suggests the growing weight of a counter-narrative to the dominant water wars thesis: one that recognizes water as having the potential to bridge divides and encourage cooperation. Such an acknowledgment is crucial in an increasingly vulnerable age; where the challenges of meeting rising water demand are exacerbated by degraded and dwindling water resources.

There are 276 international river basins in the world today and 148 riparian countries. 80 percent of the world's freshwater originates in basins that traverse through more than one

⁸ United Nations General Assembly. "International Year for Water Cooperation, 2013 (A/RES/65/154)." *United Nations* (20 December, 2010)

⁹ Gretchen Kalonji. "Editorial: We shall sink or swim together." *A World of Science* UNESCO, 11.2 (2013): 3.

country and approximately 2.75 billion people live within transboundary river basins.¹⁰ The sheer number of people and countries that are directly impacted by transboundary water relationships makes the stakes all the more important. Yet for all of the debilitating fears of potential conflict, there is only anecdotal evidence to suggest that water has ever directly led to war. In fact, cooperation is far more common. The most comprehensive study of water conflict and cooperation ever undertaken found

The incidence of acute conflict over international water resources is overwhelmed by the rate of cooperation. The last 60 years (1948-2008) have seen only 44 acute disputes (those involving violence), 30 of which occurred between Israel and one of its neighbours. The total number of water-related events between nations of any magnitude is also weighted towards cooperation: 759 conflict-related events versus 1705 cooperative ones, implying that violence over water is neither *strategically rational, nor hydrographically effective, nor economically viable*.¹¹

The UN's designation of 2013 as "The International Year for Water Cooperation" may have few tangible effects in alleviating water problems. It is also unlikely that the designation itself will be successful in overcoming the intuitive sense that the less water there is, the more valuable it becomes and the more probable it is that people will fight over it. But it does point to something important - the sense that alternative conceptions of water security are not only possible, but also necessary in an age where climate change, resource exploitation, and the continuation of volatile regional disputes threaten

¹⁰ Lucia De Stefano, James Duncan, Shlomi Dinar, Kerstin Stahl, Kenneth Strzepek and Aaron T. Wolf. "Mapping the Resilience of International River Basins to Future Climate Change-Induced Water Variability." *Water Sector Board Discussion Paper Series* The World Bank 15 March 2010.

¹¹ Annika Kramer, Aaron T. Wolf, Alexander Carius, and Geoffrey D. Dabelko. "The key to managing conflict and cooperation over water." *A World of Science* UNESCO, 11.2 (2013): 7. [Emphasis added]. See also Aaron T. Wolf. "Conflict and Cooperation Along International Waterways."

to undermine human potential and environmental sustainability. It is at this juncture that this dissertation hopes to add significantly.

1.2 Problem Question

Robert Cox claims that, “ontology lies at the beginning of an inquiry. We cannot define a problem in global politics without presupposing a certain basic structure consisting of the significant kinds of entities involved and the form of significant relationships among them...There is always an ontological starting point.”¹² It is true that the continued frequency of popular warnings that privilege Malthusian concerns over dwindling water supplies and increasing human needs reflect deeper-rooted philosophical allegiances. When a wide range of world leaders, including the past three UN Secretary Generals, at one point or another, raise dire warnings of impending violence over water, they are reflecting long-held assumptions about the purpose and possibilities of international security, itself symptomatic of much deeper beliefs. When the United Kingdom’s Secretary of State for Energy and Climate Change, Ed Davey, warned an audience in 2013 that “water wars are just around the corner,”¹³ he was not simply reporting facts, but was signalling a commitment to water security defined and held within a traditional ontological interpretation of state self-preservation, political enmity, and human control over nature.

¹² Robert Cox. “Towards a posthegemonic conceptualization of world order: reflections on the relevancy of Ibn Khaldun.” *Approaches to World Order* R.W. Cox and Timothy Sinclair (Cambridge: Cambridge University Press, 1996): 144.

¹³ Fiona Harvey. “Water wars between countries could be just around the corner, Davey warns.” *The Guardian* 22 March. Online 7 February 2013.
<<http://www.guardian.co.uk/environment/2012/mar/22/water-wars-countries-davey-warns>>

The resilience of the traditional interpretations of water security prepares the way for a particular comprehension of the problem, as well as arranges the types of responses considered appropriate. Water security is, in this regard, illustrative of what Horkheimer and Adorno referred to as a “corrosive rationality” that binds existence with repetition. In their reading, reason becomes locked in instrumental terms, in the service of domination and control, rather than in progress or emancipation. In modern terms, an idea of inevitability sets in because that *which is* sets the boundaries of possible experience. These boundaries work to reflect and replicate the essence of the existing order – characterized as cyclical motion, fate, domination of the world, and the renunciation of hope.¹⁴ Reason and logic, the foundations of the enlightened spirit, become reduced to instruments of purposes, used to determine the prospects for either survival or doom. The rigid dualistic formulation expels actual *thought* from its methods of logic.¹⁵

The consequences are extensive. Western social science, based upon the division of fact and value is meant to describe reality without making any judgments. But because this division rests upon an instrumental conception of rationality, the knowledge derived from it is used to control and exploit rather than for freedom or emancipation.¹⁶ Rationality in this regard is blindly applied with little capacity to think about its ends or its relationship to the specific character of the objects studied, or for that matter, the subjects observing the phenomena. Rationality replaces critique with affirmation, and as a result, truth

¹⁴ Max Horkheimer and Theodor Adorno, *Dialectic of Enlightenment*. Ed. Gunzelin Schmid Noerr, Trans. Edmund Jephcott (Stanford: Stanford University Press, 2004): 20.

¹⁵ Horkheimer and Adorno, 23.

¹⁶ Columba Peoples, “Theodor Adorno,” *Critical Theorists and International Relations*, Eds. Jenny Edkins and Nick Vaughan-Williams, (London: Routledge, 2009): 13.

evaporates.¹⁷ Social institutions and processes appear as self-directing and autonomous rather than as something actually directed by humans.

The starting point of this dissertation then is an acknowledgment that conceptions of security are conditioned by larger understandings of being and reality, and that water security in particular is emblematic of traditional allegiances within the subject of international relations that are resistant to change. It takes this critical observation and extends it to examine the possibilities for emancipation in water security. At its core, it is designed to answer the question: *What are the relationships between water and security?*

It approaches this question with two central objectives: First, by combining analytical reasoning and normative theorizing it seeks to excavate the complex relationships individuals and political communities have with scarce water sources; relationships that defy simple classification as competitive and protectionist. An individual's connection with water, a unique and essential resource, is characterized by a wide and shifting confluence of personal and social needs and identities. Thus, the dissertation aims to reveal and examine how various security discourses are prevalent in the ways people manage their relationships with water, and more broadly, with each other. It does so by focusing on the prospects for change in international relations, and by detailing the ways in which myths (e.g. "great debates," "water wars") work to condition that which is possible in security.

Second, it aims to further the contemporary debates on the nature and characteristics of critical security theory by providing a sketch of water security as emancipation. To date,

¹⁷ Horkheimer and Adorno, xviii.

the concept of emancipation has been left theoretically and empirically adrift in critical security accounts, rendering its usefulness suspect and leaving it open to sustained critique.¹⁸ This dissertation provides one of the first useful examples of the way in which the concept of security as emancipation can be analytically and normatively valuable in relation to an absolutely essential resource, highlighting the concept of emancipation's new potential in a real-world application. It provides a vision of emancipation in water security by focusing on three interrelated criteria: inclusion, communication, and cosmopolitanism.

The central argument of the dissertation is that security as emancipation is desirable and possible in human relations over water. The basis of this argument is founded on the reality that,

Water is an essential resource required for sustaining life and livelihoods: safe water is required for drinking, hygiene and providing food; and adequate water to produce energy and support economic activities such as industry and transportation. Water in the natural environment ensures the provision of a multitude of ecosystem services to meet basic human needs and support economic and cultural activities. For too long water has been an issue that is at once everywhere and nowhere...¹⁹

¹⁸ Hayward Alker. "Emancipation in the 'Critical Security Studies' Project." *Critical Security Studies and World Politics*. Ed. Ken Booth (Boulder CO: Lynne Rienner Publishers, 2005): 189-205; Mark Neocleous. *Critique of Security*, (Montreal: McGill University Press, 2008); João R Nunes. *Rethinking Emancipation in Critical Security Studies*, PhD thesis University of Wales – Aberystwyth, 2010. Online. 17 February 2013 <http://cadair.aber.ac.uk/dspace/handle/2160/7179?show=full>; João R Nunes. "Reclaiming the Political: Emancipation and critique in security studies," *Security Dialogue*, 43.4 (2012): 345-361.

¹⁹ World Water Assessment Programme (WWAP). "The United Nations World Water Development Report 4: Managing Water under Uncertainty and Risk." (Paris: UNESCO, 2012): 23.

This pivotal insight, from the 2012 World Water Development Report (WWDR), compels us to consider water as a critical natural resource upon which *all* social and economic activities and ecosystem functions depend. The subject of security, traditionally understood, is unable to fully account for the range of uses, meanings, and functions of water, frequently placing it within a dominant narrative of state security, and avoiding the implications of water insecurity upon individuals. Traditional security paradigms that focus upon always-over-the-horizon, existential, threats to the state, are fundamentally ill-equipped to solve the myriad problems of water insecurity in the twenty-first century. The 2012 WWDR concludes, “Greater recognition is needed of the fact that water is not solely a local, national or regional issue that can be governed at any of those levels alone. On the contrary, global interdependencies are woven through water...”²⁰ The echoes of this are to be found in the insights of critical security studies. As Ken Booth reminds us, “In the first truly global age the answers to the questions about security must begin by being global.”²¹

1.3 Scope of Analysis

This dissertation offers a critical perspective on water security. It seeks to interrogate and uncover traditional allegiances held by security practitioners and scholars and understand how and why these allegiances contribute to problematic understandings of vulnerabilities related to water security. It begins with the critical observation that ontology lies at the beginning of inquiry. As such, it devotes considerable space to investigating the way in which understandings of being and reality work to condition

²⁰ WWAP, 23.

²¹ Ken Booth, *Theory of World Security* (Cambridge: Cambridge University Press, 2007): 90.

dominant attitudes towards water and security. That said, there are necessary limitations to the following analysis that must be acknowledged. There is neither space nor would it be appropriate here to provide an in-depth examination into the very ontology of humanity and its material relation to water. Such an undertaking is beyond what is attempted, though the dissertation does focus on aspects of those ontological and epistemological issues. Overall, the aims here are more modest. This dissertation is primarily meant to offset particular understandings of water security that privilege conflict over cooperation, state sovereignty over human and ecological needs, and instrumental rationality at the expense of reflexive understanding. It argues that water is a profoundly connective and supportive substance that disrupts the conventional boundaries of human life through its physical and social properties. Extending this reasoning and focus allows for the potential reimagining of security in equally profound ways. The chapters that follow accept this premise, but focus more attention on the conventional ways water is principally conceived: as something over which people fight, and as something over which people negotiate its distribution in fair and unfair ways. This is a deliberate decision meant to limit the scope of analysis to a manageable form. It would be unwise to open the dissertation up to such a wide expanse of possible inquiry – into the very ontology of humanity and its relation with water. A much narrower focus on particular strains of security studies is offered instead. This more managed focus produces pointed adjustments to discourses of security, while showing appreciation for larger questions that must necessarily be here left unanswered.

1.4 Methodology

A section on methodology is warranted. Despite some notable exceptions, there has been a distinct lack of critical approaches that disrupt the political, economic, and security

frameworks that have given rise to environmental problems and vulnerabilities.²² The dissertation seeks to help fill this gap by exploring how the concept of security is mutable and how water security itself can be situated as a progressive concept of hope. To put it simply, an analyst's theoretical and epistemological position selects the choice of methods deemed appropriate. With few exceptions, environmental conflict scholars rely upon a positivist epistemology that takes its cues from the natural sciences.²³ This means that most environmental security work relies upon quantitative approaches. On the subject of water security, some of the most well-known and cited studies attempt to make causal connections between water and conflict by cross-referencing large statistical data sets on freshwater availability with incidents of intrastate and interstate armed conflicts.²⁴

But, as Rita Floyd points out,

The predictive value of this type of analysis is unclear for at least two reasons. First, environmental change endlessly creates a new context for social behaviour and therefore the future is always unlike the past. Second, the density of connection in the human world suggest to many analysts that outcomes will tend to be more comparable to the non-linear models of quantum physics than the linear models of

²² A small number of these exceptions include, Jon Barnett. *The Meaning of Security*. (London: Zed Books, 2001); Robin Eekersley. *Environmentalism and Political Theory: Toward an Ecocentric Approach* (Albany, NY: SUNY Press, 1992); Simon Dalby. *Environmental Security*. (Minneapolis: University of Minneapolis Press, 2002); Matt McDonald. *Security, the environment, and emancipation: contestation over environmental change*. (New York: Routledge, 2011).

²³ Rita Floyd. "Analyst, theory and security: a new framework for understanding environmental security studies." *Environmental Security, Approaches and Issues* Eds. Rita Floyd and Richard A. Matthew (New York: Routledge, 2013): 24.

²⁴ Thomas Homer-Dixon. *Environment, Scarcity, and Violence*. (Princeton N.J.: Princeton University Press, 1999); Aaron T. Wolf. "Conflict and Cooperation Along International Waterways." *Water Policy* 1.2. (1998): 251-262.

Newtonian physics. These reasons also explain why study results often are not easy to replicate with new data.²⁵

Positivism assumes a social world that is observable and replicable through falsifiable studies. In contrast, critical methodologies rely upon a reflectivist position: the world is given through our methods of studying it. In this way, the social world cannot (and should not) be studied the same way as the natural world. Social and political life is too messy. While exhibiting methodological pluralism, all critical inquiries start from a position of self-doubt or a tendency towards self-undermining.²⁶ They are inherently skeptical that the researcher is a value-free vessel for unattached observation. This creates a necessary openness to research and a reluctance to design programmatic research designs, for fear of closing off innovation, discovery, or most importantly, emancipation. Instead of the positivist belief in the separation of the object and the subject studying it, the critical tradition highlights the idea of the theorist as practitioner. One of the aims of inquiry is to develop *praxis*, borne of a commitment to not only identify issues of concern, but to contribute to their undoing. Matt McDonald, drawing upon Andrew Linklater, suggests that a critical theoretical approach “requires engaging with normative, sociological and praxeological questions that combine a focus on the composition of the ideal, the context of political action, and the feasible means of action or possibilities for

²⁵ Floyd, Analyst, theory and security: a new framework for understanding environmental security studies,” 24-25.

²⁶ Mark B. Salter. “Introduction.” *Research Methods in Critical Security Studies: An Introduction* Eds. Mark B. Salter, and Can E. Mutlu. (New York: Routledge, 2013): 2.

realizing the ideal. The praxeological dimension is advanced through the method of immanent critique.”²⁷

In approaching the central questions of water security the dissertation thus employs the method of immanent critique. This is defined as a method of critique used to locate the emancipatory potential embedded in existing social and political orders.²⁸ Essentially, it uses a critique of concepts to obtain a critique of the real experience which is already sedimented in those concepts.²⁹ Immanent critique rejects the notion that present situations reflect a timeless pattern and focuses instead on ‘subjugated’ voices to produce alternative understandings of security. The theorist acknowledges how a particular time and historical context is necessary to explain the origins, development, institutions, and the possibilities for change. By weaving a conceptual net that suspends the object ‘momentarily’ it can reveal the processes at work, including the ways in which it is potentially becoming.³⁰ It is put to use here to identify conceptions and practices of water security that transcend traditional understandings of security. This is important in chapter two specifically, where analyses of traditional discourses, literature, ideologies, and practices, are used to show the historical and conceptual inconsistencies that create such problematic understandings of security and environmental change. Immanent critique exposes the internal contradictions of seemingly intractable water conflict in politically

²⁷ McDonald, *The Environment, Security, and Emancipation*, 90.

²⁸ Christopher S. Browning, and Matt McDonald. “The Future of Critical Security Studies: Ethics and the Possibility of Security.” *European Journal of International Relations* First published on 27 October 2011: 14.

²⁹ Simon Jarvis. *Adorno: A Critical Introduction*. (Cambridge: Polity Press, 1998): 6

³⁰ Andrew Biro. *Critical Ecologies: The Frankfurt School and Contemporary Environmental Crises*. (Toronto: University of Toronto Press, 2011): 123

volatile regions. These contradictions are the fault lines where alternative visions of security can be identified, empowered and amplified.

Chapters five and six reflect the praxeological focus of immanent critique by constructing a sketch of emancipatory water security built on the pillars of inclusion, communication, and cosmopolitanism, and then searching for those identifying features in contemporary water security practices. This form of analysis arises from the idea that even the bleakest situations have within them the possibilities of a better life. We are not doomed to repeat the failures of the past. Or, as Max Horkheimer argues, “Man can change reality, and the necessary conditions for such change already exist.”³¹ Chapter six presents a case that hydrosolidarity is one of the overlooked discourses of contemporary water politics. It argues that hydrosolidarity, in various institutionalized forms, can provoke radically new understandings of water security as emancipation. It does so by pointing out the tensions, inconsistencies, and, contradictions of traditional water security. All told, the dissertation relies upon a practice-orientated theory, capable of proposing scenarios and critical methods for citizen deliberation, all in the service of building what Richard Wyn Jones refers to as “concrete utopias.”³²

1.5 Definitions

It is useful here to clarify many of the terms and concepts that will be used throughout the dissertation.

³¹ Max Horkheimer, quoted in Booth, *Theory of World Security*, 250.

³² Richard Wyn Jones. *Security, Strategy and Critical Theory*, 76-78. See also Oliver Escobar. “The Dialogic Turn: Dialogue for Deliberation.” *In-Spire: Journal of Law, Politics, and Societies* 4.2 (2009): 43.

1.5.1 Traditional Security

“Traditional” security is perhaps most succinctly summed up by Stephen Walt as “the study of the threat, use, and control of military force.”³³ It refers to a wide span of approaches to security that employ an instrumental logic derived from a rationalist epistemology. It is exemplified in the broad range of studies that holds assumptions of actor rationality, self-interest, and value-maximization.

1.5.2 Critical Security

“Critical” security refers to a wide range of approaches that take as starting points a self-reflective awareness to produce research that critiques the status quo, rather than simply trying to explain and understand it. It is heavily indebted to the tradition of critical theory, most actively associated with the Frankfurt School of the 1930s. Nancy Fraser observes that no one has improved upon Marx’s definition of critical theory as “the self-clarification of the struggles and wishes of the age.”³⁴ While the ideas of critical security have percolated for decades, it was not until 1997 that Keith Krause and Michael C. Williams issued their now-famous call to reconsider the concepts and methodologies traditionally employed in security studies.³⁵ They argued that rethinking security required “making the definition of the *political* a question, rather than an assumption.” Thus

³³ Stephen Walt. "The Renaissance of Security Studies" *International Studies Quarterly* (1991): 212.

³⁴ Nancy Fraser. “What’s critical about critical theory?” *Feminism as Critique*. Eds. Seyla Benhabib and Drucilla Cornell (Minneapolis: University of Minnesota Press, 1986): 31.

³⁵ Keith Krause and Michael C. Williams, Eds. *Critical Security Studies: Concepts and Cases* (London: Routledge, 1997).

critical security is premised on the political nature of security – how understandings and practices of security affect social relations and the political order itself.³⁶

1.5.3 Traditional vs. Critical Security

Reflecting an essentialized security foundation, both traditional and critical approaches begin from the idea of security as the absence of threat. But from there the approaches diverge almost immediately. Their perceptions of security are contingently based; that is, they are not logically necessary. From similar starting points, traditional approaches focus on protection through the use of power, while critical theorists focus on shared vulnerabilities and the emancipation of the individual through “the extension of dialogic possibilities in the contemporary world order.”³⁷ In each case, security *becomes* security, or security is *understood* as security, but through two distinctly different political readings of the term. In traditional approaches this means that security conforms to the “real side of politics,” that is, as policy action in an unchanging international sphere, where states are the only significant actor and their relations are naturalized mainly because they are structurally pre-determined.³⁸ It is different from critical approaches that argue that traditional views on security, the state, and the international system are historically conditioned, socially constructed, value-laden, and remiss at questioning the naturalness of the prevailing order. Instead critical theory problematizes the contemporary world order and the power relations that characterize it on the grounds that they both solidify and perpetuate exploitative social relations. According to this point of

³⁶ Nunes, 2012, 347.

³⁷ Kimberly Hutchings, *International Political Theory*, (London: Sage, 1999), 138.

³⁸ Hutchings, 28.

view, there is nothing organic to, or necessary within, human relations to suggest that the existing system of exploitative social relations is a fixed and necessary historical creation. Rather it represents but one particular socio-historical interpretation of reality.³⁹ To sum up, as Timothy Sinclair maintains, traditional theory “assumes the functional coherence of existing phenomena, critical theory seeks out the sources of contradiction and conflict in these entities and evaluates their potential to change into different patterns.”⁴⁰

1.5.4 Emancipation

Emancipation is a complicated and thorny concept - one that has received relatively minor attention despite being a central component of critical security. Its pursuit is the central intent of scholars who adhere to the Frankfurt School model of critical theory and it provides the necessary impetus for the construction of alternative, progressive, security discourses and practices. Indeed, while critical theory itself encompasses hugely diverse approaches, the linkage among all critical theory is “the emancipatory intent.”⁴¹ This dissertation relies upon the definition put forth by Ken Booth, perhaps the most prominent theorist of the “Welsh School” of security studies. He conceives of emancipation as “the philosophy, theory, and politics, of inventing humanity.”⁴² This deliberately obscure definition holds within it the possibility of progress, but it is a view of progress that is both dynamic and reversible. This dissertation relies significantly on

³⁹ David Ingram, *Critical Theory and Philosophy*, (St. Paul: Paragon House, 1990), 110.

⁴⁰ Timothy J. Sinclair. “Beyond international relations theory: Robert W. Cox and approaches to world order.” *Approaches to World Order* Eds. Robert W. Cox, and Timothy J. Sinclair. (Cambridge: Cambridge University Press, 1996): 6.

⁴¹ Stephen Eric Bronner. *Of Critical Theory and its Theorists* (Oxford UK: Blackwell, 2001).

⁴² Booth, *Theory of World Security*, 112.

the Welsh School, principally its commitment to critiquing state-centrism in security studies and its normative appeals for emancipation as a guide in theory and practice. An emancipatory vision of security is holistic, non-statist, and de-emphasizes the use or threat of force. The practical fulfillment of security as emancipation requires the freeing of individuals from arbitrary structures preventing them from living as they would otherwise wish.⁴³ It entails overturning structures of oppression or exclusion. Its principal characteristics are that it is radically cosmopolitan; predicated on the rights and needs of the most vulnerable; and that the means envisaged to achieve or preserve 'security' will not deprive others of it.⁴⁴ Given that individuals' experiences of security and insecurity are heavily tied to their access to water resources, it is logical to situate the critical concept of emancipation as a rejoinder to traditional, dominant security discourses.

1.5.5 Emancipatory Water Security

The vision of water security put forth in this dissertation relies upon an integrative understanding of the problem and possibilities that water security offers, and is derivative of the insights of critical security. It argues for an emancipatory security of water that is dependent upon an inclusive morality, a communicative rationality, and cosmopolitan ethics. Water security becomes then much more than adequate access to quality water supplies, though this is certainly a prerequisite. It entails a political understanding of water security that unshackles the barriers to inclusion, communication, and refrains from barring others from also exercising their rights. Thus, emancipatory water security is

⁴³ Ken Booth. *Theory of World Security*; Richard Wyn Jones. *Security, Strategy and Critical Theory* (Boulder, CO: Lynne Rienner Publishers, 1999).

⁴⁴ Matt McDonald. *Security, the Environment, and Emancipation: Contestation Over Environmental Change* (New York: Routledge, 2011): 7-8.

defined herein as, *the process of securing vulnerable populations from the structural violence caused by the political, social, and natural impediments to adequate water supplies needed for a good life, while simultaneously ensuring the means by which water security is achieved does not also deprive others of it nor degrade affected ecosystems.* This definition is designed as a targeted and practical application of Ken Booth's deliberately obtuse vision of emancipation as "the philosophy, theory, and politics of inventing humanity." It de-privileges the dominant actors of traditional security, and places the overriding focus of security on individuals and communities (and the natural environment upon which they rely) who suffer the most from inadequate water supplies. It is thus able to provide an actionable theory of water security, providing both intellectual coherence and practical guidance for designing future institutional and governance architecture that alleviate suffering. By reframing water security along individual lines, it can provide agency-possessing actors and those who challenge them with a reference point: *are the policies currently in practice and are the policies envisioned for the future able to alleviate human suffering and ecological degradation caused by water insecurity?*⁴⁵ To answer these pivotal questions, emancipatory water security, as defined, relies upon the development of three central criteria that can help alleviate human suffering and which are also reflective of the overall spirit of emancipation in critical security studies. They are inclusion, communication, and cosmopolitanism. All three criteria are explored at length in chapter five, which seeks to

⁴⁵ Those approaching the problems of food security from a critical point of view are also asking similar questions. See Benjamin Shepherd. "Thinking Critically About Food Security." *Security Dialogue*. 43.3 (2012): 206.

balance Booth's emancipatory approach with a pragmatic application, all the while avoiding schematic, instrumental blueprints.

1.5.6 Water Stress, Water Scarcity, Water Security

Given the frequency with which the terms are employed in the dissertation it is useful to elaborate upon what is meant by water stress, water scarcity, and water security. The relationship between them is one that is often assumed to be interchangeable, though in reality, they remain distinct. The prolific Swedish hydrologist, Malin Falkenmark, has most succinctly defined water stress. Her Falkenmark Water Stress Indicator labels a country or a region as water stressed if its annual water supplies dip below 1,700 cubic metres (m³) per person per year. Water scarcity occurs when water supplies fall below 1,000 m³ per person per year.⁴⁶ That said, given the range of agricultural and industrial practices and expectations throughout the world, it is not especially useful to assign a specific value to water scarcity or stress. Water scarcity is best understood simply as “imbalances between availability and demand.” When demand outstrips supply, water scarcity occurs. Contributing factors include “the degradation of groundwater and surface water quality, intersectoral competition, and interregional and international conflict.” Altogether, water scarcity is most often an issue of poverty.⁴⁷ Water stress represents the effects of water scarcity or shortage including growing conflict between users and competition for water, declining standards of reliability and service, harvest failures and

⁴⁶ Chris White. “Understanding water scarcity: Definitions and Measurements.” *Global Water Forum* 7 May 2012. Online 20 February 2013 <http://www.iwmi.cgiar.org/news_room/pdf/Understanding_water_scarcity.pdf>

⁴⁷ Food and Agricultural Organization of the United Nations (FAO). “Hot Issues: Water Scarcity” *FAO WATER* 2013. Online 20 February 2013. <<http://www.fao.org/nr/water/issues/scarcity.html>>

food insecurity.⁴⁸ Water security, is perhaps the most difficult to pinpoint. Cook and Bakker write, “Framings of water security are by no means consistent and tend to vary with context and disciplinary perspectives on water use.”⁴⁹ There are both broad and narrow approaches to defining the concept. The most commonly used broad-based definition comes from the Global Water Partnership. In 2000, at the Second World Water Forum, it defined water security as a central goal “...where every person has access to enough safe water at affordable cost to lead a clean, healthy and productive life, while ensuring the environment is protected and enhanced.”⁵⁰ This implies a central preoccupation with watershed management (for “life”), and demands adequate water quantities and quality for human and ecosystem needs. More narrow formulations often focus on the differentiated sectoral needs. The UN Food and Agriculture Organization (FAO) defines water security in direct connection with food security, arguing it is the ability to provide adequate and reliable water supplies to meet agricultural demands.⁵¹ The British non-governmental organization (NGO), WaterAid, conducted a literature review of the field, and found that most definitions of water security relate to food security, essentially asking - do we have enough water to grow the food we need?⁵²

⁴⁸ FAO. “Coping with water scarcity: An action framework for agriculture and food security.” *FAO Rome*, 2013. Online 20 February 2013 <www.fao.org/docrep/016/i3015e/i3015e.pdf>

⁴⁹ Christina Cook, and Karen Bakker. “Water security: Debating an emerging paradigm.” *Global Environmental Change* 24 (2012): 96.

⁵⁰ Global Water Partnership (GWP). *Towards Water Security: A Framework for Action*. (GWP. Stockholm, 2000)

⁵¹ FAO Land Division Water Development. *New Dimensions in Water Security: Water, Society and Ecosystem Services in the 21st Century*. (Rome, FAO, 2000)

⁵² WaterAid. *Water Security Framework*. (London, WaterAid, 2012): 6.

1.6 Chapter Outline

This dissertation is divided into two broad sections. The first – chapters two, three, and four – undertake a sustained critique of the traditional concepts inherent in accounts of international relations, international security, and environmental security. These chapters, while each standing alone, work together to lay the groundwork for the second section of the thesis – chapters five and six – which builds a framework for emancipatory water security. It builds this framework in chapter five, and then identifies hydrosolidarity in chapter six as an emancipatory potential embedded in contemporary water security. A more thorough outline of each chapter is useful to situate the reader moving forward.

Chapter two, “Historical Paradigms in International Security” characterizes theoretical complacency as prevalent in the study and construction of what is generally labeled “traditional” approaches to security. It does so by questioning the myth of tradition that permeates traditional security studies. It argues that “historical geographies”, such as the “The Great Debates” misrepresent the diversity of experiences related to security and are too easily employed to justify contemporary policies. It furthers this line of thinking by revisiting the Kuhn/Popper debate on the nature and resilience of particular paradigms. The central line of argument is that the disciplines of international relations/international security have clung to contradictory and obscure myths of tradition, to damaging effect. In other words, scholars of international relations have, “little practice in imagining what it considers *impossible things.*”⁵³ It argues though that water security may be demonstrative of a Kuhnian paradigm shift, showing what was thought to be permanent is in fact alterable.

⁵³ Brincat, 585.

Chapter three, “Water Wars and Environmental Security,” reviews the literature on environmental and water security. It begins by delineating the onset and subsequent four phases of environmental security literature, emphasizing the deepening moves apparent in the latest, fourth stage of environmental security. It does so with a critical awareness also apparent in chapter two, that delineating vast bodies of literature into uniform phases comes with its own set of problems. It then discusses the history of the concept of water wars and their use as a “hegemonic concept” and examines the discursive use of water wars as a legitimating force for traditional security studies. Much of the traditional water security literature follows the same trajectory as the broader environmental security literature. It evokes a picture of water as a dwindling natural resource that has the potential to act as a threat multiplier in an age of climate insecurity and domestic upheaval in a warming world. In response, a normative and theoretical critique is offered that disputes the usage of the water wars discourse and lays the groundwork for the theory building of emancipatory water security in chapter five.

Chapter four, “Water Securitization in the Anthropocene” argues that the securitization framework of the Copenhagen School is useful for analyzing when water becomes designated as a threat using security language. Despite its analytical use however, the Copenhagen School puts forth a flawed reading of security, one that is largely inspired by the work of the twentieth century German Jurist Carl Schmitt. This reading is increasingly incoherent, in an ecological age when the distinction between exception and the rule is blurred. Chapter four provides an extended case study of the securitization of the Nile River Basin region, and the ways in which securitization is used to justify a security logic predicated on the threat of water wars and conflict. In the end, it argues for a deeper understanding of security, away from the securitization thesis and its Schmittian

definition of “security as extremity.” It does do so by arguing that the use/misuse of “securitization” as an employable theoretical construct replicates problematic understandings of security and fails to bring us closer to understanding its diverse nature, especially as it relates to water.

Chapter five, “Towards an Emancipatory Security of Water: Inclusion, Communication, and Cosmopolitanism,” marks the beginning of the second section of the dissertation. It explores the idea that water can act as a progressive site for the articulation of emancipatory policies based upon cosmopolitan ethics. It asks the question, “What does an emancipatory security of water look like?” The chapter answers by constructing an “emancipatory security of water” that has three defining features: inclusion, communication, and cosmopolitanism. These three features are identified as central because they represent an ethically viable approach to water conflict and degradation in the twenty-first century. Without some combination of all three features it is difficult to envision the future looking anything other than a worsening reflection of the present. The idea in this chapter is not to provide a rigid policy blueprint for scholars and practitioners, but a process-oriented vision that is mutable and open to adaption, provided the principles remain.

Chapter six, “Hydrosolidarity: the Ethics of Water Security,” isolates Swedish hydrologist Malin Falkenmark’s concept of hydrosolidarity as a promising alternative to traditional water security discourses. It provides a historical overview of the concept of hydrosolidarity, originally used as the ethical component to the dominant water management paradigm, Integrated Water Resources Management (IWRM). It then examines the promise and perils of IWRM, arguing that despite some promise, the

scientific and technical rationality at its heart is being overemphasized at the expense of normative judgments. The chapter's final section analyzes the potential of Global Water Solidarity, a United Nations Development Programme-led initiative, to act as an immanent representation of emancipatory water security.

1.7 Anticipated Contributions

This thesis presents an overview, assessment, and reconsideration of water security. Stemming from dissatisfaction with the continued intransigence of conventional approaches to water security, it seeks to recast water security using emancipation as its ordering principle. The commitment to emancipation as an ordering concept for future water security practices is not without potential problems, as the following chapters will show. However, it does provide some measure of theoretical sophistication and should help push forward actionable designs for future security policies that take human suffering and structural violence seriously.

This thesis is primarily theoretical. Its validity will rest on the internal consistency of its core propositions and the existing literature upon which many of its arguments are based. Empirical illustrations are offered, particularly in chapters four and six. These are done in the service of crafting a legitimate critique of existing approaches and in building a critical security of water. Arising from a critical theoretical stance, there are justified hesitations to construct schematic blueprints that should be adhered to by water officials and communities. That said, this thesis is committed to a form of praxis, of actively thinking about and acting in the world. By contributing a detailed emancipatory

framework this thesis can offer valued insight into how to think about, and respond to ongoing human and ecological suffering related to water.

2 CHAPTER TWO: Historical Paradigms in International Security

2.1 Introduction

Susan Strange, writing almost two decades ago, argued, “social scientists, in politics and economics especially, cling to obsolete concepts and inappropriate theories.”⁵⁴ This observation guides the next chapter, which produces an immanent critique of the historical and conceptual trajectory of the broad program of International Security Studies (ISS). It argues that Kuhnian paradigm shifts are indeed possible; international security is constantly vulnerable to change and to the usurpation of dominant ontologies. Moreover, it maintains the concept of water security is at the forefront of a contemporary paradigm shift – away from Westphalian notions of state-centrism and exclusionary binaries of inside/outside, friend/enemy – towards critical ontologies of emancipation.

The overall critique lays out the inconsistencies of traditional accounts of the field of international relations and security and argues for a better appreciation of the concept of change in ISS. The intention is to acknowledge the space for alternative theorizing in the field, which bring forth multiple visions of security. Such a maneuver is crucial for later attempts in the manuscript to outline an emancipatory security of water. It begins first by isolating and disrupting the “myth of tradition” that continues to order international relations and international security studies as a whole. It then re-examines the Kuhn-

⁵⁴ Susan Strange. *The Retreat of the State: The Diffusion of Power in the World Economy*. Cambridge: Cambridge University Press, 1996): 3

Popper debate in the philosophy of science to highlight the impact that shared beliefs of an academic community have in conditioning orthodoxy, rather than critically examining or altering the foundations of their knowledge. All told, most approaches to security fail to adequately account for the possibility of change on an ontological and epistemological level. The result then is the continued prevalence of analyses that replicate conventional, approaches to security that cannot envision alternative transformations that may further emancipatory change. This commitment to reproduction brings us no closer to solving the complex problems of water scarcity and degradation for individuals and communities. Later chapters in this dissertation will examine the extent of alternative possibilities in water security and detail emancipatory opportunities that provide models of hope and progress.

2.2 The Story of Security Studies

The story of security studies mirrors the discipline of international relations (IR) in its attachment to a set of foundational myths. As a subset of IR it may come as little surprise that international security studies (ISS) largely depends on a linear history of itself to organize and order its arrival and evolution as an academic field of study. The historical trajectory of IR is often taught to students as a series of “great debates,” between idealism and realism, traditionalism and behaviouralism, the inter-paradigm debate, and the positivist-post-positivist debate. The disagreements historically arising within the discipline have been used as the principal signposts through which students can most easily absorb the complexities associated with its thematic evolution. It makes for a good story, and thus a generally effective pedagogic device. The creation of the great debates mythology has been used to impart a sense of tradition in IR. James Der Derian has pointed out that “the power of a tradition lies in its ability to condense and simplify this

complexity into uniform, teachable expressions...”⁵⁵ The danger is that the prevailing reliance on tradition allows for a naturalizing history of international relations that makes it difficult, even heretical to “think the unthought.”⁵⁶

In much the same way, ISS has developed its own attachments to historical myth making, fashioning a narrative that is an enabling gateway for students to begin to understand its agendas of study. A typical account of ISS begins by acknowledging its relatively recent addition as a sub-discipline of political science in general, IR in particular. Perfunctory historical accounts hold the discipline as emerging with the onset of nuclear-age international politics. Accordingly, ISS arose from a new need by governments and militaries to plan strategically during peacetime – fusing military power and political purpose.⁵⁷ The end of World War Two, with the division of the world into two competing super power systems, and the eventual nuclear stalemate between the U.S. and USSR, created a new, diffuse, influence for non-military strategic planners. According to most historical overviews it was at the end of World War Two where the field of study recognized as ISS first emerged. The new possibility of influence in the late 1940s and early 1950s experienced by civilian experts in social science and physicists was the result of a new acceptance of a wider understanding of “security”, beyond simply war and defence. Security studies (at this point, probably more aptly referred to as “strategic

⁵⁵ James Der Derian. “Introducing Philosophical Traditions in International Relations.” *Millennium* 17 (1988): 190.

⁵⁶ Der Derian, 190.

⁵⁷ Colin S. Gray. *Strategic Studies and Public Policy: The American Experience* (Lexington: University of Kentucky Press, 1982): 1.

studies”) entered a “golden age” of influence from 1955-1965.⁵⁸ During this time, it concentrated almost exclusively on great power politics and nuclear deterrence. The inclusion of civilians into strategic planning during the war paved the way for this “golden age” of security studies. The war made clear that the potential for destruction was now too important to be left to the generals. Individuals not previously commissioned to be included in the corridors of military power and strategy were able to exert a new and unique influence upon warfighting and the pursuit of strategic advantage. The nature of the Cold War, and the intensity of the conflict absent of direct military confrontation, was conducive to the inclusion of both military and non-military aspects of the generalized subject.⁵⁹

Increasingly events in the Third World began to disrupt and reorient strategic studies analyses. The oil crisis in the early 1970s and the defeat of American forces in Vietnam generated new doubt about the utility of force and the ability of third world cartels to weaken the Western economy. The 1980s saw a rise of new studies in security that questioned the traditional approaches and sought to widen the scope of threats under review and to deepen the meaning of security. The end of the Cold War produced an invigorated debate between and amongst traditionalists, and those who sought to widen and deepen the traditional ISS framework. The inclusion of new topics such as the environment, terrorism, poverty, AIDS, and immigration in security studies was vigorously debated, and was responsible for disrupting traditional security studies’

⁵⁸ Stephen Walt. “The Renaissance of Security Studies.” *International Studies Quarterly* 35.2 (1991): 211-239.

epistemological and methodological coherence. Today, the story of security studies is one of multiple approaches and meanings. And, depending on whom you ask, the expansion of security studies into new and diverse approaches has further enriched the understanding of threat, or has produced an incoherent and ineffective field of study, removed from the reality of contemporary international affairs.⁶⁰

A similar approach orders the intellectual history of international relations. As the story goes, IR, first coined over two hundred years ago by Jeremy Bentham, began as an academic discipline with the endowment of the Woodrow Wilson Chair at the University of Wales, Aberystwyth, in 1919 in a noble attempt to differentiate the study of war and peace from other disciplines like history and economics, with which it was usually lumped. It was believed that rigorous inquiry into the relations between states was necessary to assuage the human impulse to war. The level of devastation wrought by the First World War compelled academics and policy makers to commit to correct the errors, miscalculations, and distrust created by historical international interaction. The pursuit of scholarly inquiry for this central aim was intended to be an important contribution to state

⁶⁰ A brief survey of sources that contribute to this debate include: Barry Buzan and Lene Hansen. *The Evolution of International Security Studies*. (Cambridge: Cambridge University Press, 2009). David Baldwin. "Security Studies After the Cold War." *World Politics* 48.1 (1995): 117-148; Ken Booth, "Security and Self: Reflections of a Fallen Realist." *Critical Security Studies: Concepts and Cases*. Eds. Keith Krause and Michael C. Williams. (Minneapolis: University of Minnesota Press, 1997), 83-120; Patrick M. Morgan. "Liberalist and Realist Security Studies at 2000", *Critical Reflections on Security and Change*. Eds. Stuart Croft and Terry Terriff. (London: Frank Cass 2000), 39-71; Steve Smith. "The Increasing Insecurity of Security Studies: Conceptualizing Security in the Last Twenty Years." *Critical Reflections on Security and Change*, Eds. Stuart Croft and Terry Terriff (London: Frank Cass 2000): 72-101.; Steven E. Miller, "International Security at Twenty-Five: From One World to Another", *International Security* 26.1 (2001): 5-39.; Barry Buzan, "Peace, Power, and Security: Contending Concepts in the Study of International Relations." *Journal of Peace Research*, 21.2 (1984): 109-125; John Garnett, "Strategic Studies and its Assumptions." *Contemporary Strategy: Theories and Policies*. Eds. John Baylis, Ken Booth, John Garnett, and Phil Williams, (London: Croom Helm, 1975): 3-21.

relations. The idealist impulse in the first years of IR as a formal academic discipline was thus a strong component in its institutionalization.

However, the onset of World War Two produced a significant disruption in the broad idealist project. E.H. Carr, in his opus, *Twenty Years' Crisis*, published in 1939, produced a seemingly devastating critique of idealism arguing that it was unable “to provide any absolute and disinterested standard for the conduct of international affairs.”⁶¹ Instead of idealist attachments to unknowable and unreachable utopias, what Carr and others envisioned was much further attention to ‘what is’ before turning to ‘what ought to be.’ While Carr himself eschewed crude commitments to empiricism (‘the facts of history never come to us as pure...they are always refracted through the mind of the recorder’⁶²) his book was “the first to grapple with a range of international matters in the spirit of science...of detached enquiry stripped of the liberal rationalist teleology that subconsciously infused virtually all works on the subject of the period.”⁶³ This turn in IR arrived at a specific time and in a specific context – as a response to the perceived failure of liberal internationalist approaches that relied heavily on an absolutist morality that believed reality could be transformed by an act of will.⁶⁴ The emergence of *The Twenty Years' Crisis* in 1939, at the onset of another catastrophic world war, seems to suggest that it was stimulated by the failure of both policy and analysis. The book was a

⁶¹ E.H. Carr. *The Twenty Years' Crisis, 1919-1939: An Introduction to the Study of International Relations* (London: Macmillan, 1939): 87.

⁶² E.H. Carr. *What is History?* (Basingstoke: Palgrave, 2001): 17.

⁶³ Peter Wilson. “E.H. Carr’s *The Twenty Years' Crisis*: Appearance and Reality in World Politics.” *Politik* 12.4 (2009): 24.

⁶⁴ Peter Wilson, “The Myth of the First Great Debate” *Review of International Studies* 24.1 (1998): 1.

remarkable achievement in that it bridged together diplomacy, security, war, and policy prescription. Authors as diverse as Kal Holsti, James Dougherty and Robert Pfaltzgreff, Michael Banks, J. Ann Tickner, James Der Derian, and Chris Brown have all, at one point or another, worked to consolidate a view that the theory of realism defeated utopianism/idealism/liberal internationalism.⁶⁵

The arrival of the Cold War and the beginning of the second great debate saw IR scholars move away from traditional interpretivist methods and embrace the move made by most North American social scientists towards the methods proposed by rational choice theory. Rational choice theory examines the behaviour of actors (whether they be individuals, states, companies, etc) under the assumption that these actors are rational, self-interested, and value maximizing.⁶⁶ The third discipline-defining debate occurred between neoliberals and neorealists and is often referred to as “the inter-paradigm debate.”⁶⁷ Finally, the fourth debate, first arriving in the mid-late 1980s, occurred between

⁶⁵ Kal J. Holsti, “Scholarship in an era of anxiety: the study of international politics during the Cold War” *Review of International Studies* 24.1 (1998): 17-46; James E. Dougherty and Robert L. Pfaltzgraff. *Contending Theories of International Relations: A Comprehensive Survey*. (New York: Harper and Row, 1990): 6-7; Michael Banks. “The Inter-Paradigm Debate.” *International Relations: A Handbook of Current Theory*, Eds. Margot Light and A.J.R. Groom. (Boulder, CO: Lynne Rienner, 1985): 10; J. Ann Tickner. “Hans Morgenthau’s Principles of Political Realism: A Feminist Reformulation.” *Millennium: Journal of International Studies* 17.3 (1988): 433; Steve Smith. “Paradigm Dominance in International Relations: The Development of International Relations as a Social Science.” *Millennium: Journal of International Studies* 16.2 (1987): 192; Steve Smith. “The Self-Images of a Discipline: A Genealogy of International Relations Theory.” *International Relations Theory Today*. Eds. Ken Booth and Steve Smith. (Oxford: Polity, 1995): 14.; James Der Derian. “Introduction: Critical Investigations.” *International Theory: Critical Investigations*. Ed. James Der Derian (Basingstoke: Macmillan, 1995): 1.; Chris Brown. *Understanding International Relations*. (Basingstoke: Macmillan, 1997): 30.

⁶⁶ Thomas Schelling, Daniel Ellsberg, and Mancur Olsen are generally regarded as the “first wave” rational choice theorists in ISS. Stephen M. Walt, “Rigor or Rigor Mortis? Rational Choice and International Security” *International Security* 23.4 (1999), 8.

⁶⁷ Yosef Lapid. “The Third Debate: On the Prospects of International Theory in a Post-Positivist Era.” *International Studies Quarterly*, 33 (1989): 235–54; Emanuel Adler. “Seizing the Middle- Ground: Constructivism in World Politics.” *European Journal of International Relations*. 3:3 (1997): 319–63.

positivists and post-positivists. It dealt with themes like meta-scientific units, the concern with underlying premises and assumptions, and saw a drift to methodological pluralism.⁶⁸

There are genuine problems in producing unified intellectual histories of IR and ISS. It replicates the dominant normative position of a few theoretical approaches, legitimating their presence and value, while simultaneously ignoring and devaluing the plurality of voices that have offered cogent alternative interpretations. Beyond that, it presupposes a coherence and continuity within a specific theoretical paradigm that avoids critically investigating the differences across time and space. Despite what many writers in IR/ISS would have us believe it is not at all self-evident that Thucydides, Machiavelli, and Carr occupy a genuine historical pattern of thought. Arising across many centuries, and in vastly different contexts, it is more appropriate to speak of the “intellectual history” of IR/ISS through nebulous connections between authors and not through a uniformity of thought. The traditional approach is misleading and generally legitimates and validates the interests of the presenting authors instead of performing a true uncovering of the past. Brian Schmidt expertly argues this line of reasoning in his critique of the historiography of academic IR. He argues that there have been two pervasive intellectual errors in most historical studies of IR. The first is the confusion between an analytical and historical tradition. The second is the mistaken premise that events in world politics have had a

⁶⁸ Yosef Lapid, “The Third Debate: On the Prospects of International Theory in a Post-Positivist Era”, *International Studies Quarterly* 33 (1989): 239; Steve Smith, Ken Booth, and Marysia Zalewski, Eds. *International Theory: Positivism and Beyond* (Cambridge: Cambridge University Press, 1996.)

determinative and causal effect upon the development of the discipline.⁶⁹ Schmidt looks to K.J. Holsti's important survey of IR, *The Dividing Discipline*, first published in 1986, as an expert example of the power that the myth of tradition holds upon many IR theorists. While acknowledging that international theory was in disarray during the fourth debate in the mid-1980s, enabling new conceptions and images of the world to emerge⁷⁰, Holsti frames this "disarray" as a "breakdown" of a dominant realist paradigm that extended back to Hobbes, Rousseau and Bentham and forward to modern authors like Carr, Martin Wight, and Hans Morgenthau. In so doing, Schmidt argues that Holsti produces a generally false sense of coherence and continuity.

The disrupted, incongruent history of ideas that marks the development of IR and ISS has been generally overlooked for the sake of clean and demarcated lines of progression and development. The ubiquity of the linear narrative results in the historicity of the genealogical relationship being taken as given, with rarely any demonstration of the accuracy of its connections. One can then see that the use and reliance on grand narratives obfuscates what are principally analytical traditions rather than historical ones. As Schmidt writes, "the primary concern of many of the disciplinary histories of international relations is really to say something authoritative and critical about the field's current or desired character."⁷¹ To participate in the idealization of the past is to utilize one of the many disciplinary tools that help maintain the fatalist logic that seemingly

⁶⁹ Brian Schmidt. "The Historiography of Academic International Relations." *Review of International Studies* 20.4 (1994): 349-367.

⁷⁰ K.J. Holsti, *The Dividing Discipline*, 1

⁷¹ Schmidt, 357.

dominates both IR and ISS.⁷² Narratives that stretch IR back to Ancient Greece, or to the beginning of the Cold War nuclear rivalry between the US and USSR ‘naturalize categories of identity’. It tells us about the expected character of the discipline, privileging particular ontologies of power and individualism.⁷³ Isolating Thucydides as the father of IR claims the preeminent position for realism, only to be reinforced by the historical inclusion of such theoretical “heavyweights” as Machiavelli and Hobbes into the historical narrative.⁷⁴ All of this ignores the myriad ways that an author as seemingly canonical as Thucydides can be interpreted. Richard Ned Lebow’s *The Tragic Vision of Politics* (2003) and *A Cultural History of International Relations* (2005) have recast Thucydides through the lens of tragedy and honour.⁷⁵ For him, the Ancient Greek world can be generally reduced to the role that honour played. This is a much more optimistic (though still weary of the ‘tragic’ nature of the human condition) interpretation of Thucydides that would likely appear unfamiliar to most students of conventionally-taught

⁷² In 1990 Hayward Alker wrote an influential article using “reflectively-oriented modes of historical-cultural inquiry” to reinterpret Giambattista Vico, Marx, and Weber, away from a purely rationalist account. See Hayward Alker, “Rescuing ‘Reason’ From the ‘Rationalists’: Reading Vico, Marx, and Weber as Reflective Institutionalists.” *Millennium*. 19 (1990): 161-184.

⁷³ It is commonplace now to present evidence of realist misreadings of Thucydides. A small sampling of sources include: David Bedford and Thom Workman, “The Tragic Reading of Thucydidean Tragedy”, *Review of International Studies* 27.1 (2001): 51-67; Laurie M. Johnson Bagby, “The Use and Abuse of Thucydides in International Relations, *International Organization* 48.1 (1994): 131-153; and Peter J. Ahrens Dorf, “Thucydides’ Realistic Critique of Realism”, *Polity*, 30.2 (1997): 231-265.

⁷⁴ Richard Ned Lebow and Barry S. Strauss. *Hegemonic Rivalry: From Thucydides to the Nuclear Age* (London: Blackwell Publishers, 1991); Daniel Garst, “Thucydides and Neorealism.” *International Studies Quarterly* 33.1 (1989): 3-27; Per. Jansson. “Identity-Defining Practices in Thucydides’ History of the Peloponnesian War.” *European Journal of International Studies* 3.2 (1997): 147-165; Jonathon Montan, “Thucydides and Modern Realism.” *International Studies Quarterly* 50.1 (2006): 3-26; David Welch. “Why International Relations Theorists Should Stop Reading Thucydides.” *Review of International Studies* 29.3 (2003): 301-319.

⁷⁵ Richard Ned Lebow. *The Tragic Vision of Politics: Ethics, Interests, and Orders* (New York: Cambridge University Press, 2003); Richard Ned Lebow, *A Cultural Theory of International Relations* (New York: Cambridge University Press, 2005).

IR.⁷⁶ In this reading of Thucydides, humans are able to adapt and learn from art, history, and experience. Indeed, it is not difficult to find examples from the ancient world that privilege other sets of principles, separate from realism and power politics. In the second century BC, the Greek historian Polybius chronicled Rome's rise to power in forty books that came to be known as *The Histories*. Book VI on the Roman Constitution argues that Rome was not simply dependent on power for its hegemonic position, but also derived authority from the strengths of its political structure and mixed constitution.⁷⁷ This parallels modern liberal theory, specifically the general character of the democratic peace thesis in its emphasis on internal political structure playing an important role in foreign and military policy. It also frees us from the misguided assumption that the ancient world only exhibits the 'timeless' character of realism. Overall though, it is wrong to paint complex ancient writers like Polybius with contemporary brushes; their ideas are often multifaceted, exhibiting characteristics that are both present and absent modern theories of IR/ISS. But, Polybius's ancient moral judgments,

Are deeply expressive of a concern for the maintenance of ethical behaviour in a difficult and complex world...Polybius's desire for the 'improvement of his audience was not limited to the creation of more pragmatically efficient decisions makers – although of course he had much to say in that direction. Rather, Polybius also hoped that those who studied his *Histories* would emerge with a firm determination to live their lives nobly – according to the • .

⁷⁶ Richard Ned Lebow, "Tragedy, Politics, and Political Science" *International Relations* 19.3 (2005): 329-336.

⁷⁷ Polybius. *The Histories*. Trans. Robin Waterfield. (Oxford: Oxford University Press, 2010).

We might also ask “why Thucydides?” or “why Polybius?” The traditional approaches to international relations derive their authority from proving the enduring connections across space, time, and context. But by consulting ancient western authors and interspersing interpretations of their general themes, traditional IR writers create a thematic vacuum that subsumes alternative readings and explanations of international relations and security. Readers of the Melian Dialogue can easily be led to assume that international relations has always been and must always be primarily concerned with the relations between great powers in the international system. This trajectory from Ancient Greece to modern times then becomes a linear historical narrative that understands international relations primarily in terms of successive struggles between great powers and the rise and fall of powerful states.⁷⁸ If, as Kenneth Waltz points out, “a general theory of international politics is necessarily based on great powers,”⁷⁹ then traditional international relations and security studies must necessarily be Eurocentric, because, well that is where we find all the “great powers.” The regrettable downside is that traditional IR and ISS become characterized by historical geographies that reproduce a set of Eurocentric categories and assumptions; this, instead of a more appropriately nuanced understanding of the mutual constitution of European and non-European worlds, and their joint role in producing history.⁸⁰ The question then might rightfully be asked why non-Western historical social practices are predominantly underrepresented? Why Thucydides

⁷⁸ See for example Robert Gilpin. *War and Change in World Politics*. (Cambridge: Cambridge University Press, 1981); Paul Kennedy. *The Rise and Fall of Great Powers: Economic Change and Military Conflict from 1500-2000*. (London: Fontana, 1989); John Mearsheimer, *The Tragedy of Great Power Politics*. (New York: W. W. Norton, 2003).

⁷⁹ Kenneth Waltz, *Theory of International Politics* (New York: McGraw-Hill, 1979), 13.

⁸⁰ Tarak Barkawi and Mark Laffey, “The Post-Colonial Moment in Security Studies,” *Review of International Studies* 32(2) 2006: 330.

and not Sun Tzu? Why the Melian Dialogue and not the Analects of Confucius? The seventeenth century Japanese guide *A Book of Five Rings* by Miyamoto Musashi might teach us as much as Carl von Clausewitz or Antoine-Henry Jomini about military strategy. Muhammad ibn al-Hasan al-Shaybani wrote his Islamic treatise on the international law of nations, *Kitab al-Siyar al-Kabir* (or Shaybani's *Siyar*), hundreds of years before Grotius and other European thinkers, yet is conspicuously left out of most traditional studies of IR.⁸¹ What this points to is the perpetuation of a historical tradition in IR/ISS that fails to adequately interrogate the limits of its theoretical boundaries in any sustained way. This is because in traditionalist approaches to IR and ISS, the disciplinary boundaries are made possible, and reinforced by, discursive practices that animate a select few canonical texts as the lightning rods for acceptable analogy and the limits of appropriate criticism. The result of this is the stagnant and unreflective privileging of ontologies that fail to fully manage the complexities related to perceptions of security.

Of course it would be foolish to diminish the profundity or significance of what may be conveyed by ancient and modern canonical authors. Writers like Thucydides, Hobbes, Machiavelli, and others selected to be the bearers of a timeless wisdom have much to teach us. Despite that they may only be true progenitors of a specific "reality" of their own time and context (male, European), their thoughts on life, community, peace, and war, can help better inform our own modern conceptions and policies related to security. But we would be well served to appreciate that the particular *meaning* of the historical text cannot help but be shaped by our contributions to the readings. Our own discourses,

⁸¹ Muhammad ibn al-Hasan al-Shaybani, *The Islamic Law of Nations Shaybānī's Siyar* Trans. Majid Khadduri (Baltimore: The Johns Hopkins Press, 1965).

interests, histories, goals, and idiosyncrasies influence what we choose to decipher. This understanding stands in direct contrast to traditional approaches to security, which follow the logic that Raymond Aron explicated in 1969: “strategic thought draws its inspiration each century, or rather at each moment of history, from the problems which events themselves pose.”⁸² The traditional problem-solving approach to security, as explained by Aron, relies upon an implicit assumption that facts, both historical and contemporary, speak for themselves. They are to be uncovered by observers and put to use in describing new emerging phenomena or problems. The security analyst can then through observation and reasoning secure a conceptual grasp and locate it within a particular philosophical tradition, or identify it as an important theoretical lacuna, to be filled primarily through empirical testing or logical reasoning. Essentially this approach collapses knowledge and belief into a single form.

In response to this, some, such as David Welch, tell us that the task of the security theorists and practitioner is then, “to discipline the activity in such a way that we minimize our own contributions.”⁸³ Welch believes that while we may never discover the essential truth of an author, we still are able to learn *something*. Another way of putting it is that while we may not find the *essence*, we can still view *patterns*. This is not a terribly convincing argument. Patterns are generally put to use to simplify and generalize a complex range of knowledge. Their usage eschews the more troubling and daunting incoherence and indeterminacy that can be found existing at any given time and space.

⁸² Raymond Aron, “The Evolution of Modern Strategic Thought: Problems of Modern Strategy.” *Adelphi Papers* 9.54 (1969): 7.

⁸³ Welch, 312.

Our continued search for transhistorical truths in traditional IR and ISS can generally only amount to a particular contemporary understanding of a particular event, author, or grand work. It is not possible to fully understand the essence of a particular author or event in the past. This is because escaping the web of interconnections between the realm of the political and the identity of the individual is a rather impossible task. Rather we are better served if we succumb to the understanding that our identities create the lenses through which we view international relations and security.⁸⁴ As sociologists have shown, these identities are not derivative of a fixed human nature, but rather the product of social construction – a mixture of our own genetic makeup and the social structures in which we exist.

Attempting to mitigate the effects of the self in analyzing and ordering the study of security is a losing battle, one that can have damaging consequences for both the object and subject of security. Writing in the 1950s, historian Herbert Butterfield deplored the use of history in providing a “heroic narrative”, in which the past was made to speak for the present.⁸⁵ For him, uncovering histories that yield lessons for the present was the result of the contemporary makeup of the historian’s mind. Thus history for Butterfield was an ongoing process, with interpretation ever evolving. He writes, “The best any of us can do at a given moment only represents the present state of knowledge in respect of the

⁸⁴ Ken Booth. “Security and Self: Reflections of a Fallen Realist.” *Critical Security Studies: Concepts and Cases*. Eds. Keith Krause and Michael C. Williams, *Critical Security Studies: Concepts and Cases*. (London: Routledge, 1997): 88.

⁸⁵ Herbert Butterfield. *History and Human Relations*. (New York: Macmillan, 1952): 11-17.

subject with which we are dealing.”⁸⁶ This is because the past consists solely of isolated facts that can only be ordered by those interpreting them from the present. Michael Oakeshott explained this lucidly when writing, “the past in history varies with the present, rests upon the present, is the present.”⁸⁷ In other words, the past cannot exist independently of the present. And the present is never separate from the subject. Thus, the use of analyses for formulating and justifying present policies related to security is a dangerous exercise because it relies upon a *construction* of truth. And this construction is not an infallible tower; it is dependent on the facts, values, and experiences of its builders, the authors. The truth claims posited can never be demonstrably shown; they can only be inferred from available evidence.

Brian Schmidt has argued that with regard to international relations, “instead of a history that traces the actual lineage of scholars who self-consciously and institutionally understood themselves as participating in the academic discourse of international relations, we are presented with an idealized version of the past in the form of a tradition stretching from Ancient Athens to the present.”⁸⁸ What it leads to is the reification of structural analyses that are unreflective, uncritical and hardly close to showing a

⁸⁶ Butterfield, quoted in William Bain “Are There Any Lessons in History? The English School and the Activity of Being a Historian”, *International Politics* 44 (2007) 519. Bain points out that Butterfield’s position was somewhat contradictory; though he accepted that a historian’s present state of knowledge informed his/her notion of history, he still regarded the historian and history as being independent of one another. Bain, 520.

⁸⁷ Michael Oakeshott, quoted in Bain, 523.

⁸⁸ Schmidt, 359.

historical truth.⁸⁹ The “epic renderings” of the field’s history may be rhetorically effective but it obscures its disciplinary function, bringing us no closer to its past and present characters.⁹⁰ An artificially constructed tradition helps create the conditions for action that are fixed on power and order, limiting the possibility for emancipatory change. Instead of enabling true security for the individual, traditional uses of history in ISS work mainly to falsely objectify the security dilemma, whereby one actor’s security must lead to another’s insecurity. There are alternative approaches to the way we might use the “ancients,” the “fathers,” or the “traditional” study of security without simply reducing it all to caricatures of ancient realism proving a timeless quality for privileged disciplinary theories. This is not to diminish the depth of thought that such authors present but is rather to convey that totalizing histories of IR and ISS can mislead students and practitioners into theoretical complacency and impose practical limitations on implementing security practices. It seems that to participate in this tradition is to enter “into a debate the terms of which have been largely set beforehand.”⁹¹

⁸⁹ In this regard the myth of the great debates in IR has compelled the most viscerally negative reactions. See Duncan Bell. “Political theory and the functions of intellectual history: A response to Emmanuel Navon.” *Review of International Studies*. 29.1 (2003): 151-160; Lucian M. Ashworth. “Did the Realist-Idealist Great Debate Really Happen? A Revisionist History of International Relations.” *International Relations* 16.1 (2002): 33-51; Brian C. Schmidt. “On the History and Historiography of International Relations.” *Handbook of International Relations* Eds. Walter Carlsnaes, Thomas Risse, and Beth A. Simmons. (London: Sage, 2012); Joel Quirk and Darshan Vigneswaran. “The Construction of an Edifice: The Story of a First Great Debate.” *Review of International Studies* 31.1 (2005): 89-107; Ole Wæver, “The Speech Act of Realism: The Move That Made IR,” in Nicolas Guilhot ed., *The Invention of International Relations Theory: Realism, The Rockefeller Foundation, and the 1954 Conference on Theory* (New York: Columbia University Press, 2011).

⁹⁰ See: Michael C. Williams. “Rousseau, Realism, and *Realpolitik*,” *Millennium* 18 (1989): 185-203; Andrew Hurrell. “Kant and the Kantian Paradigm in International Relations.” *Review of International Studies* 16.3 (1990): 183-205.

⁹¹ Sheldon Wolin, quoted in John Vincent. “The Hobbesian Tradition in Twentieth Century International Thought.” *Millennium* 10.2 (1981): 91.

2.3 Science, Change, and Critique in International Security: Ducks and Rabbits

The outset of this chapter has sought to characterize theoretical complacency as prevalent in the study and construction of what are generally labeled “traditional” approaches to security. This complacency manifests itself in an uncritical acceptance of a monological approach in international relations and international security studies. The previous section used immanent critique – a historically specific, self-reflexive critique of society - to justify the blurring of disciplinary boundaries of security. The intention has been to pave the way for a critical theory of water security with emancipatory intent. For critical water security to offer progressive alternatives that alleviate suffering – to remain optimistic – it must first allow for the possibility of change. These possibilities derive from disruption of the conceptual principles and standards of an object (international security) on its own terms. As the thesis unfolds it will become clear how the implications and consequences of traditional approaches to security are broadly negative for water security.

It is here that the concept of change becomes important. While one must be wary not to mischaracterize traditional approaches to security through the use of straw-man caricatures, there remains an allegiance within academia and policy-making circles to a mythologized culture of “strategy”, dependent upon social constructions of the past for legitimation. The “one-eyed science”⁹² this generates prioritizes and privileges one particular branch of scholarship using history and science as validation. What is needed, as Rosenau argued over two decades ago, is for us to “jailbreak” our intellectual

⁹² Susan Strange *The Retreat of the State: The Diffusion of Power in the World Economy*. (Cambridge: Cambridge University Press, 1996): 195.

equipment and look for new ways to interpret the world.⁹³ In such spirit, what is attempted here is an approach to water security that relies on communicative rather than instrumental logic; one that pursues a more inclusive discussion and a more critical engagement with important and venerable traditions in international security, rather than a valorization of an evolutionary history that rationalizes traditional approaches and obscures the very real possibilities for emancipatory change.⁹⁴

It is clear that the historical dominance of traditional forms of security analysis belies the abundant diversity of approaches to understanding security. Despite the fact that in the last three decades, IR/ISS have experienced a significant deepening and widening in approaches, it is apparent that the traditional paradigm maintains a particular resilience. Traditional ISS (as a more-or-less uniform approach) is dependent upon a particular reading of human affairs that privileges a rational accumulation of knowledge, put to use to solve contemporary problems.⁹⁵ In so doing it maintains a particularly strong grip on the principles of acceptable scholarship. Because the ontological and epistemological assumptions implicit in traditional security studies create the conditions by which the world is ordered, it constitutes its own set of shared understandings that render critical analysis as inconsequential, illegitimate, or downright dangerous.⁹⁶ Or, to use Holsti's

⁹³ James N. Rosenau, *Turbulence in World Politics*. (Princeton, NJ: Princeton University Press, 1990): Chapter two.

⁹⁴ Der Derian, 190.

⁹⁵ See Michael Joseph Smith. *Realist Thought from Weber to Kissinger*. (Baton Rouge: Louisiana State University Press, 1986); Waltz. *Theory of International Politics*; Neta Crawford. "Once and Future Security Studies." *Security Studies* 1.2 (1991): 283-316.

⁹⁶ Perhaps the most notable of this type of critique is Robert Keohane. "International Institutions: Two Approaches." *International Studies Quarterly* 32.4 (1988): 379-96.

terms, “today, traditional concepts act as ontological blinders rather than as aids to understanding.”⁹⁷

2.4 Kuhn, Popper, and “Paradigm Shifts”

One of the more familiar charges against critical security studies is that it maintains a naïve attachment to the potential for change. It is necessary then, if we are to create a theoretically and methodologically strong critical research project, to develop a good understanding why it is so hard to unseat commonly held assumptions. Thus it is worthwhile to focus some brief attention on the Kuhnian-Popper debate on the resilience and revolution of scientific paradigms. This is undertaken to better understand the base structure of scholarship and policy that maintains an allegiance to traditional approaches. Multiple authors in IR have highlighted the importance of the concept of change. Holsti points out that, despite change being crucial for distinguishing different IR theories, it remains undertheorized. He writes, “In International Relations we do not have even the beginning of a consensus on what constitutes change or transformation in political life.”⁹⁸

A longer examination of Kuhn’s sociology of science is provided because he is so useful for critical theorists interested in the evolution of academic disciplines. But a brief look at the Kuhn-Popper debate also allows us to upset the traditional narrative of their disagreement, which generally divides Kuhn and Popper along reflectivist-realist axes. The truth though is more complex, demonstrating both convergences and divergences between the authors and their ideas. The principal aim of this discussion is to continue

⁹⁷ K.J. Holsti, “The Problem of Change in International Relations Theory.” *Institute of International Relations*. Working Paper No. 26 (Vancouver: The University of British Columbia. December 1998): 3.

⁹⁸ Holsti, “The Problem of Change in International Relations Theory,” 2.

unseating the logic of static paradigms in IR, so that we may move forward in upcoming chapters to develop visions of a radically emancipatory and open future for water security. It is a final precursor to the last section of this chapter, which describes the historical and contemporary literature one might broadly categorize as traditional water security, showing both the problems and potential for a project of emancipatory water security in relation to the traditional record.

Thomas Kuhn's enunciation of scientific paradigms provides useful insight to understanding the resilience of traditional approaches to security. This, despite the fact that Kuhn himself was skeptical about the transferability of his concepts of paradigms from natural sciences to social sciences. Kuhn believed that social sciences were often dominated by "overt disagreements" about "the nature of legitimate scientific problems and methods"⁹⁹ This was contrasted with the natural sciences, where the fundamentals failed to evoke the same level of controversy. According to Kuhn, social scientists are misconstruing his ideas if they take from him "the view they can improve the status of their field by first legislating agreement of fundamentals and then turning to puzzle solving."¹⁰⁰ While it is true that the discipline of international security has not reached a similar stage of development comparable with the natural sciences, Kuhn - and the lively debate he spawned on the nature of discovery and the role of thought communities - can provide us with analogies to the roots of scientific controversies.¹⁰¹ Kuhn was able to

⁹⁹ Thomas Kuhn. *The Structure of Scientific Revolutions*. (Chicago: The University of Chicago Press, 1996) x.

¹⁰⁰ Kuhn, *The Structure of Scientific Revolutions*, 52.

¹⁰¹ Nelson W. Posby. "Social Science and Scientific Change: A Note on Thomas S. Kuhn's Contribution," *Annual Review of Political Science* 1(1) 1998: 206.

level a significant critique of positivist science through his development of the notions of scientific revolutions and paradigms. Kuhn's classic work, *The Structure of Scientific Revolutions*, first published in 1962, is considered one of the most important modern books dealing with the process of intellectual discovery. In it he argued against the classic model of positivism (what he termed "normal science"), which describes (and prescribes) knowledge production as a cumulative process of discovery that gradually brought researchers to the truth. The positivist approach to science develops theories and conclusions by testing and measuring observable phenomena. It seeks the continual extension of scientific knowledge through increasingly precise conclusions. However, for Kuhn, "normal science does not aim at novelties of fact or theory..."¹⁰² Instead, positivism is considered successful when it finds none. Kuhn believed that science should not accurately be seen as a cumulative process, but one that undergoes a series of stages. This schematic description of scientific development and evolution can be summarized by the following scheme:

*Pre-science – normal science – crisis – revolution – new normal science – new crisis*¹⁰³

Normal science first exists in *pre-paradigm* form, which transitions into a definable *paradigm* following the acceptance by the scientific community of a disciplinary matrix of conceptual frames, experimental procedures, and acceptable solutions. Normal science proceeds to "puzzle-solve" within a so-called paradigm until the emergence of periods of

¹⁰² Kuhn, *The Structure of Scientific Revolutions*, 245

¹⁰³ A.F. Chalmers. *What is This Thing Called Science?*, 3rd Edition (Indianapolis: Hackett, 1999), 108.

crises, caused by alternative candidates.¹⁰⁴ These periods of crises represent the ‘extraordinary’ final stage that can occur within normal science - the *paradigm shift* - that arises to radically alter basic assumptions about the previously accepted paradigm.

The study of shifts in scientific paradigms is important because it sheds light on the impact the shared beliefs of an academic community can have on conditioning orthodoxy, rather than critically examining or altering the foundations of their knowledge. The epistemological commitments to normal science held by the community within a paradigm are reinforced by particular assumptions of how ‘reality’ is structured. While the aim of positivist experiments is explicitly one of discovery, and thus by extension, one of knowledge disruption, this is rarely the case. Kuhn writes “the scientific enterprise as a whole does from time to time prove useful, open up new territory, display order, and test long-accepted belief. Nevertheless, *the individual* engaged on a normal research problem *is almost never doing any one of these things.*”¹⁰⁵ Instead, the assumptions, rules, and world-views, are reinforced by social incentives perpetuated by scientific authority, existing both in administrative and ideational capacities. The first accepted paradigm holds accepted ideas about the valid equipment, vocabulary, and skills, needed to produce legitimate scientific results. According to Kuhn, this “professionalization leads, on the one hand, to an immense restriction of the scientist’s vision and to a considerable resistance to paradigm change. The science has become increasingly rigid.”¹⁰⁶ These impediments to scientific change contravene the positivist

¹⁰⁴ Kuhn, *The Structure of Scientific Revolutions*, 70.

¹⁰⁵ Kuhn, *The Structure of Scientific Revolutions*, 38.

¹⁰⁶ Kuhn, *The Structure of Scientific Revolutions*, 64.

commitment to objective knowledge creation. Instead of a gradual and smooth transition from one paradigm to another emerging from a set of superior scientific results, what is required is a ‘gestalt’ switch – a revolutionary re-ordering of individual conceptions of the world. Deliberation and interpretation, the hallmark characteristics of positivistic science, can only articulate a paradigm; they cannot alter it. Interpretations must be logically or gradually linked to the old experiences of the paradigm. Because of this, the technique of scientific interpretation is incapable of producing a new paradigm. Instead, what are required are the “flashes of intuition” that transform old experiences and transform them to a new bundle of experiences – and thus a new paradigm - separate from the one preceding it. When a paradigm shift occurs, the severity of the change that occurs within the researcher defies rational explanation. One might compare it to a religious conversion. Kuhn writes, “in so far as their only recourse to that world is through what they see and do, we may want to say that after a revolution scientists are responding to a different world...*what were ducks in the scientist’s world before the revolution are rabbits afterwards.*”¹⁰⁷

In 1965, Imre Lakatos, a colleague of the philosopher of science Karl Popper, organized a conference at the University of London aimed at the exchange of ideas between Popper and Kuhn and their respective supporters. The contents of this debate were published in 1970 under the title *Criticism and the Growth of Knowledge*. Popper is best known for *The Logic of Scientific Discovery*, a publication first translated into English in 1959, in which he developed the thesis of “falsifiability.” Falsifiability is a method used to judge the validity of a truth claim. For Popper, science should not attempt to “prove” a

¹⁰⁷ Kuhn, *The Structure of Scientific Revolutions*, 111. [Emphasis added]

knowledge claim is true but rather should constantly subject it to systematic attempts to falsify it. The deductive principle of falsifiability compels scientists to “test the consequences of their general knowledge claims in particular cases by issuing predictions that can be contradicted by the findings of empirical research.”¹⁰⁸ Popper argued, contra Kuhn, that researchers are incentivized to produce positive findings, preferably paradigm-altering ones – and this leads to a breakdown in scientific method. Knowledge, however accumulates through falsification. What is needed is the continuous replication of a study, testing whether new results confirm the original theories. If the original findings are falsified, that is if the evidence does not support the theory, then it is scrapped and a new theory with better explanatory power is developed in its place. The cumulative falsification of theories produces knowledge. If researchers do not pursue falsification then incorrect findings are often blindly accepted without the vigorous retesting necessary.

The debate between Popper and Kuhn concerned three central differences in their philosophies. The existence and role of normal science; the role played by sociological and psychological factors in the development of scientific knowledge; and the manner in which scientific change occurred. Both philosophers agreed that something called “normal science” could be identified and that its allegiance to orthodoxy is troubling.

¹⁰⁸ Steve Fuller. *Kuhn Vs. Popper: The Struggle for the Soul of Science* (Cambridge: Icon Books, 2003): 25. Fuller’s book represents a significant historical polemic that turns the conventional “story” of the Kuhn-Popper on its head. Fuller argues vociferously against “reputational entrepreneurs” who portray Kuhn as a “hero” and Popper as a “villain.” Instead, Kuhn is portrayed not as a hero of democratic science, but rather a deeply conservative scientist, wedded to institutional orthodoxy. Popper is seen not as a dogmatic defender of the scientific establishment, but as a scientific existentialist, in the vein of Bertrand Russell, who saw normal science as a moral failure. This contrasts with most contemporary accounts of the debate.

However Kuhn saw this allegiance as an inescapable and endemic characteristic, while Popper believed it to be the product of bad teaching and indoctrination.

Their second disagreement concerned the extent that sociological and psychological factors played in the growth of scientific knowledge. Kuhn argued that social and psychological factors embedded in the minds of individuals who share a paradigm assist that growth. The logic of scientific discovery was not as important in the development of knowledge as was often assumed. Popper countered by attacking the spurious scientific nature of factors such as sociology and psychology. For him, relying on unfalsifiable phenomenon such as history, sociology, or psychology to account for paradigm shifts could easily be misused to legitimate uncritical, totalitarian truth claims?

In the last major difference, Kuhn argued that a revolutionary gestalt switch was more often the cause of paradigm shifts, and that this turnover could not be evaluated rationally, because paradigms are necessarily *incommensurable*. Popper did agree that the smooth transition from one scientific paradigm to another was rare, but that did not mean that the new theories produced could not be evaluated equally and critically. He argued that not only did commensurability exist between old and new paradigms, but that dialogue, debate, and rational comparisons were all required to offset scientific dogmatism.¹⁰⁹

Kuhn and Popper's discussion on the sociology of knowledge can be useful here in two significant and interrelated ways. First, it provides a lucid and penetrating interrogation of

¹⁰⁹ M.G. Narasimhan, "The Popper-Kuhn Debate on the Nature of Scientific Development" *Resonance* 2(2) 1997, 4.

knowledge paradigms, particularly the nature of their persistence, and the pitfalls that arise with an allegiance to this persistence. A theme up to this point of the chapter has been that continued allegiances to the notion of uniform paradigms within international security studies stifle the possibility of an emancipatory agenda. Second, the debate between Kuhn and Popper also neatly demonstrates the tendency (discussed earlier in the chapter) to create uncritical mythical narratives that simplify complex arguments and debates, often reducing them to caricatures used to satisfy particular knowledge claims. It is useful to examine both benefits more closely.

Regarding the first use, Kuhn and Popper present differing approaches to understanding paradigms. Both though are able to convey how the creation of paradigm mentalities within international security studies obscures the multitude of voices that actually exist. Kuhn believed that paradigms are formed when a tightly bound and highly invested research community adopts the same world-views and methods, usually after a major scientific discovery. It seems obvious that distinct research communities within ISS continually reinforce separation along paradigmatic lines. The reduction of true multiplicity to seemingly incommensurable “paradigms” (e.g. traditional vs. critical security studies) impedes the acceptance of more nuanced studies that might derive insights unencumbered by theoretical singularity.

The reification of singular paradigms allows researchers to order their research via a strict coded narrative. Parameters are established that create expectations of acceptable theoretical insight. These parameters operate to create communities of identity, often exclusionary and hostile to alternative approaches. The presence of these communities may be convenient and reassuring, but it can hardly bode well for theoretical pluralism.

For instance, operating within the so-called realist paradigm allows researchers to automatically operate with useful assumptions such as the existence of states operating as unitary actors in an anarchic international structure, (neatly separated from domestic politics), and forever struggling for power. Indeed, it has been claimed that realism is the only theory within IR that could be recognized as a theory by philosophers of science.¹¹⁰ According to this view, “theories” put forth by other schools in IR are often only interpretations. Kenneth Waltz has said, “Interpretations and explanations are plentiful; theories are scarce.”¹¹¹ This type of thinking is typical of the Kuhnian-inspired realist paradigm. As Thomas Walker has eloquently pointed out, according to this logic, “any criticism of a theory becomes pertinent only when it is packaged with a new research program that can subsume its standing rival.”¹¹² The result is that singular paradigms are continually reinforced and reproduced - reduced to waiting for revolutionary gestalt switches - all at the expense of critically examining how different viewpoints might be better compared or combined.

The Kuhn-Popper discussion can also illuminate our understanding here in another way. Kuhn should not simply be seen by critical theorists as the preeminent legitimating scientific philosopher, arguing passionately for interpretive science that is at once radical, open, and democratic. He may have indeed re-affirmed that science is better seen as a historically situated social practice, but he also did so without jeopardizing rational

¹¹⁰ John Vasquez. *The Power of Power Politics: From Neoclassical Realism to Neotraditional* (New York: Cambridge University Press, 1998).

¹¹¹ Kenneth Waltz. “Interview With Ken Waltz.” *Review of International Studies* 24 (3) 1998: 386.

¹¹² Walker, 442.

choice in science. His postscript to the second edition of *The Structure of Scientific Revolution* directly confronts the charges against him of relativism, subjectivism, and normativity by highlighting how he used methods of historical description to reconceptualize, not refute, rational choice theory.¹¹³ Likewise, Popper is too often crudely characterized (both by critics and defenders) as a conservative defender of a rigid positivism. Popper exhibited a more nuanced view of science and epistemology, accepting non-foundational claims against objectivity, while also safeguarding rationalism. He wrote in 1932,

Science does not rest on a bedrock. Its towering edifice, an amazingly bold set of theories, rises over a swamp. The foundations are piers going down into the swamp from above. They do not reach a natural base, but...one resolves to be satisfied with their firmness, hoping they will carry the structure...*The objectivity of science can be bought only at the cost of relativity.*¹¹⁴

There is not enough space to adequately excavate the Kuhn-Popper debate and the insights it provides into the resilience of academic paradigms and the dangers of historical myth making. But what is important is to further develop the notion that their ideas are at once convergent, divergent, critical, and traditional. Kuhn and Popper, while often placed at philosophically opposite ends of the spectrum, display similar attachments to modified conventionalism and anti-foundationalism. While critical theorists often reserve Kuhn as the legitimating force in philosophical science, Popper's political

¹¹³ Kuhn, *The Structure of Scientific Revolutions*, 195.

¹¹⁴ Karl Popper, quoted in Malachi Hacoen. "Critical Rationalism, Logical Positivism, and the Poststructuralist Conundrum: Reconsidering the Neurath-Popper Debate." *History of Philosophy of Science*. Eds. Michael Hiedelberger and Friedrich Stadler, (Dordrecht: Kluwer Academic Publishers, 2002), 307. [Emphasis added]

philosophy was able to preserve the emancipatory potential that arose from the late enlightenment. While grand, progressive narratives, such as the ones produced by Kuhn were often the targets of criticism from Popper, he retained hopes for progress and freedom, and eschewed any finality through empirical evidence.¹¹⁵ And in contrast to predominant Kuhnian charges, Popper did not propose simply a cold rationality that pledged allegiance to logical analysis. What Popper's falsifiability sought was a critical attitude, which he felt was crucial to rational discourse.¹¹⁶ This critical attitude must be adopted to emphasize multiple theories and methods (though falsifiability must remain the cornerstone). The pluralism, criticism, embrace of anomalies, and the desire to see even the most corroborated theories challenged, comes across as closer to critical theory than a call for detached rationalism. That Kuhn and Popper retain distinct separation as preeminent philosophers of the science of reflectivism and rationalism speaks to the hold that community identities have on theoretical disciplines, ISS being no exception.

The impact all this has for this study is to reaffirm the commitment to carefully interrogating established practices in order to reveal and uncover the dangers that a dominant theoretical framework, like realism, may pose to establishing a radical and emancipatory form of water security. Kuhn and Popper both offer significant insight for this study. Kuhn brings us closer to understanding the seeming incommensurability of paradigms and the hostility to change that arise amongst their practitioners. He teaches us that scientific rationality is often a cloak used to disguise the important role that human filters may play in the way facts and events are understood. Popper allows us to open up

¹¹⁵ Hacothen, 319.

¹¹⁶ Mark Amadeus Notturmo. *On Popper*. (Belmont Calif: Thomson/Wadsworth, 2003): 279.

paradigms for vigorous theoretical debate. This encourages a cross-pollination of ideas, theories, and methods, absent of scientific dogmatism. What can emerge from such a view is a humble theoretical inquiry that speaks less of absolutes, and more of relative pluralities.

2.5 Conclusion

Beginning with the foundation – with a conceptual analysis – will be a recurring theme of this study. Without the continual disruption of the disciplinary norms of international security the substantive problems of research and policy will remain unsolved and likely to persist. As David Baldwin has pointed out “conceptual clarification logically precedes the search for the necessary conditions of security, because the identification of such conditions presupposes a concept of security.”¹¹⁷ However, a conceptual analysis, while important, cannot on its own bring us closer to an emancipatory security of water. Later chapters will further develop the empirical and theoretical observations necessary for a clearer picture of the potential emancipatory alternatives that water security demonstrates.

One of the arguments put forth here is that international water security can demonstrate a potential Kuhnian paradigm shift. While alternatives to dominant paradigms are always present, and confrontation is inevitable, IR/ISS have clung to myths of tradition that are monolithic and reductive. Duncan Bell eloquently summarizes the problems of the “great debate” narrative:

¹¹⁷ David Baldwin. “The Concept of Security.” *Review of International Studies* 23.1 (1997): 8.

...The 'debates' are illusory anachronisms, based on an inaccurate interpretation of the scope, coherence and interests of the field. In the traditional historiography of IR, they serve as *post hoc* legitimating devices for the construction of a narrative about the progressive evolution of theoretical inquiry: first the supine idealists were defeated by the practical realists, then the sloppy historians were vanquished by the rigorous behaviourists and the discipline evolved into the hard-headed social scientific enterprise that exerts such power today. Or so the story goes.¹¹⁸

The effects of this 'story' are real. The dominance of these traditions grounds conventional understanding of rationality, knowledge, and 'human nature.' But, as both Kuhn and Popper are able to show, the always-present ontological struggles demonstrate that potentiality and change are at once immanent and possible. The task of the following chapters is to show shifts in the traditional paradigm of security, using the issue of water as the guiding signpost by which we might arrive at a more inclusive, communicative, and cosmopolitan world.

¹¹⁸ Bell, 154.

3 CHAPTER THREE: Water Wars and Environmental Security

3.1 Introduction

Chapter two outlined the ways in which international relations as a discipline is wrought with allegiances to traditional and totalizing discourses of security. It used immanent critique to isolate the multiple contradictions of the subject of international relations and argued that forms water security may be emblematic of paradigmatic change in the discipline. This chapter expands on this critique by offering a literature review of environmental security, and a tracing of the academic and popular fascination with the “water wars” narrative. It argues that there is compelling evidence to support a nuanced view of water as a driver of both conflict and cooperation. Despite this, water remains a securitized resource, and water wars remain a hegemonic concept, used as a perpetuating myth to service a broader vision of security as exclusion and enmity. These ideas, which begin in this chapter as a literature review, are given further attention in the following chapter, which examines ongoing securitizations of water in the Nile Basin during the Anthropocene, a geologic epoch of human dominance and an age of constant exception.¹¹⁹

¹¹⁹ The Anthropocene denotes the contemporary geological epoch. It is so named because the geological makeup of earth systems are now defined by humanity’s impacts. See: Will Steffen, Jacques Grinevald, Paul Crutzen, and John McNeill. “The Anthropocene: conceptual and historical perspectives.” *Phil. Trans. R. Soc. A.* 369 (2011): 842-867

It is impossible to overstate the importance of water. Beyond the biological and ecological functions, it occupies a place of spiritual importance across religions. Religious texts from all over the world isolate water as the pre-eminent physical and symbolic matter by which all life can be accounted. As the Koran says, “by means of water, we give life to everything.” The Sanskrit text Mahabharata (XII.83-4) describes water’s central position: “The creator first produced water for the maintenance of life among human beings. The Water enriches life and its absence destroys all creatures and plant-life.”¹²⁰ In Western thought, the four elements – fire, water, air and earth – have played an intrinsic part in the development of philosophy since before Socrates, and in the creation of Christian traditions. Further, water is used as potent symbol of distinct qualities and powers in Christianity – as channels of purification, purgation, and penalty.¹²¹ There can be no doubt that water is one of the central pillars upon which human society is founded – both literally and symbolically. Taken together with the centrality of water as the conduit of life-giving materials, we arrive at the conclusive statement that water holds within it the entirety of existence. To say as much may appear hyperbolic, but to acknowledge water’s supreme importance allows one to properly account for the vast array of approaches that investigate its multiple purposes and identities.

¹²⁰ Quoted in Terje Tvedt and Terje Oestigaard. “A History of the Ideas of Water: Deconstructing Nature and Constructing Society.” *A History of Water Series II, Volume I: Ideas of Water from Ancient Societies to the Modern World*. Eds. Terje Tvedt and Terje Oestigaard. (London: I.B. Tauris, 2010): 1.

¹²¹ Terje Oestigaard. “Purification, Purgation and Penalty: Christian Concepts of Water and Fire in Heaven and Hell.” *A History of Water Series II, Volume I: Ideas of Water from Ancient Societies to the Modern World*. Eds. Terje Tvedt and Terje Oestigaard. (London: I.B. Tauris, 2010): 299.

One such approach is to locate issues of water within discussions of security. Doing so has particular consequences that will be explored in this chapter and the next. The potential inclusion of environmental issues in security studies has caused significant debate within the discipline over the past three decades. The end stages of the Cold War seemingly allowed for the opening up of security mindsets to engage with national security threats stemming from elsewhere than the military buildup of Soviet forces. That said, the broadening of included threats to be studied largely remained within a static purview of state security. To this day there continues to exist significant support and hesitation to place the broad category of the environment within the realm of security studies. There are various fears that doing so may obfuscate the logical clarity and policy relevance of a rigidly defined discipline, or that it may lead to erroneously and dangerously placing the environment along a military-security axis that causes more harm than good. These hesitations are disparate in reasoning but they are representative of a particular understanding of what security means and how it is used.

If the security analyst focuses on water as a driver of violent conflict – as a “threat multiplier” – then the concept of security is left relatively unchanged. The central dependent variable remains violent conflict and the implications lead to securitization. However, if the analyst works from a broader understanding of ecological security, then environmental stress is most important in terms of its human and ecological impacts. The implications are significant; they compel a reordering of the “modus operandi” in water

policies, and it becomes possible to include sustainable water management as a security imperative.¹²²

This fundamental point is reinforced here in this thesis. If our understanding of security starts from a place of contingency then it becomes impossible, indeed imperative, to pursue an emancipatory vision that promotes ethical and effective policies of water management.

The next section proceeds with an appreciation of the contingent nature of security by undertaking a brief genealogy of environmental security, suggesting that environmental security can be radically altered depending on the context. The chapter concludes with an investigation into the hegemonic concept of water wars.

3.2 The Four Phases of Environmental Security

It would prove to be an impossible task to adequately account for the story of environmental security here in these few pages. It is more useful to briefly sketch the general historical trajectory of understanding environmental security. It is also readily acknowledged that historical “trajectories” are necessarily partial and can never truly account for the wide range of approaches and analyses that have been produced that deal with the subject. The literature review is a heuristic tool used to critically examine the three broad stages of environmental security research that have existed to this point.¹²³

¹²² Dimitrov, 685.

¹²³ Carsten Rønnfeldt. “Three Generations of Environment and Security Research.” *Journal of Peace Research* 34.4 (1997): 473-482.

3.2.1 The First Generation of Environmental Security

The first generation, arising in the final years of the Cold War, can be characterized by Richard Ullman's criticism of the narrowness of national security. In his article "Redefining Security", Ullman argued that "defining national security merely (or even primarily) in military terms conveys a profoundly false image of reality...First, it causes states to concentrate on military threats and to ignore other and perhaps even more harmful dangers...And second, it contributes to a pervasive militarization of international relations that in the long run can only reduce global security."¹²⁴ Other influential articles included Jessica Tuchman Mathews' "Redefining Security,"¹²⁵ Norman Myers' "Environment and Security,"¹²⁶ Gwyn Prins' "Politics and the Environment,"¹²⁷ and Ian Rowlands' "The Security Challenges of Global Environmental Change."¹²⁸ This 'stage' made the case for placing the environment within the national (i.e. U.S.) security discourse, arguing that wars over scarce resources and social breakdowns caused by environmental decay were imminent. The most popular and influential of these narratives was Robert Kaplan's "Coming Anarchy" thesis, which was explicated in a number of popular publications. It echoed the dangers posed by the confluence of environmental collapse and the anarchic international system.¹²⁹

¹²⁴ Richard H. Ullman. "Redefining Security." *International Security* 8.1 (1983): 129.

¹²⁵ Jessica Tuchman Mathews. "Redefining Security." *Foreign Affairs* 68.2 (1989): 162-177.

¹²⁶ Norman Myers. "Environment and Security." *Foreign Policy* 74 (1989): 23-41.

¹²⁷ Gwyn Prins. "Politics and the Environment." *International Affairs* 66.4 (1990): 711-730.

¹²⁸ Ian Rowlands. "The Security Challenges of Global Environmental Change." *The Washington Quarterly* 14.1 (1991): 99-114.

¹²⁹ Robert Kaplan. "The Coming Anarchy," *The Atlantic Monthly* 273.2 (1994): 44-77; Robert Kaplan. *The Coming Anarchy* (New York: Random House: 2000).

Policymakers followed up these warnings about the dangers posed by environmental scarcity by academics during the end of the Cold War. The 1987 Brundtland Commission formally named the World Commission on Environment and Development (WCED) published its final report, “Our Common Future” in 1987. The report explicitly defined “sustainable development”, providing its base as an important and frequently used concept in subsequent environmental analyses. Mikhail Gorbachev took a lead role in isolating the environmental as a matter of high politics. His famous speech to the 43rd General Assembly of the United Nations in 1988 named environmental protection as too important to place within a rigid ideological interpretation, a repetition of previous proposals produced by think tanks such as the Worldwatch Institute.¹³⁰ The first phase of environmental security held the nation-state as its ultimate referent object, and was primarily concerned with the protection of the state from the dangers of a newly-broad set of threats emerging at the end of the Cold War.

3.2.2 The Second Generation of Environmental Security

The second phase of environmental research arose in the early 1990s principally from Thomas Homer-Dixon, and his “Toronto Group.”¹³¹ They sought to provide an empirical research agenda that deviated from the first generation of environmental scholars, which was criticized for too often engaging in polemics at the expense of falsifiable findings. The two questions Homer-Dixon sought to answer were: 1) does environmental scarcity

¹³⁰ Lester R. Brown. “Redefining National Security.” *Worldwatch Paper #14* (Washington: Worldwatch Institute, 1977).

¹³¹ For an overview and summation of the work of the Toronto School see Thomas Homer-Dixon, and Valerie Percival. *Environmental Scarcity and Violent Conflict: Briefing Book*. (Toronto: University of Toronto Project on Environment, Population, and Security, 1996).

contribute to violence in developing countries? And 2) if so, how?¹³² He concluded that environmental scarcity did indeed lead to violent conflict. This conflict tended to be persistent, diffuse, and sub-national. Finally, conflict over resource scarcity would likely increase sharply in the following decades.¹³³ A Swiss group of researchers led by Günther Bächler also produced studies on environmental conflict. These empirical investigations argued that environmental conflicts had a high potential of occurrence, though they might come in different forms (ethnopolitical, demographically-caused migration, international water-related, and global conflicts) and were dependent upon multiple factors (discrimination against actors in vulnerable areas who have a high level of capital dependence on the natural environment.)¹³⁴ The Swiss studies differentiated from Homer-Dixon and his Canadian researchers by focusing not simply on scarcity, environmental stress, and conflict, but also on the conflict resolution outcomes.¹³⁵ Eventually these arguments began to be adopted into the national security agenda, and were echoed by the writings of prominent journalists and academics that emphasized the

¹³² Rønnfeldt, 475.

¹³³ Thomas Homer-Dixon. "Environmental Scarcities and Violent Conflict." *International Security* 19.1 (1994): 39.

¹³⁴ Günther Bächler. "Why Environmental Transformation Causes Violence: A Synthesis." *Environmental Change and Security Project Report* 4 (Spring 1998): 24-44.

¹³⁵ Simon Dalby, Hans Günter Brauch, and Úrsula Spring. "Environmental Security Concepts Revisited During the First Three Phases (1983-2006)." *Facing Global Environmental Change: Environmental, Energy, Food, Health, and Water Security Concepts*. Eds. Hans Günter Brauch, Hans Günter Brauch, Úrsula Oswald Spring, John Grin, Czeslaw Mesjasz, Patricia Kameri-Mbote, Navnita Chadha Behera, Béchir Chourou, Heinz Krummenacher. (Berlin: Springer Berlin Heidelberg, 2009): 782.

seemingly stark possibilities that resource scarcity and environmental stress would threaten the sovereignty of the state.¹³⁶

3.2.3 The Third Generation of Environmental Security

The third generation of environmental security research emerged in the mid-to-late 1990s partly in response to the explicitly causal links between resource scarcity and conflict highlighted in the earlier phases. Scholars such as Gleditsch¹³⁷, Levy¹³⁸, Wolf¹³⁹, Dimitrov, and Dalby all sought to broaden the scope of independent variables beyond simply resource scarcity, and to include a bigger-picture approach that took stock of a number of sociological, psychological, and political factors. They also left open the dependent variables – violent conflict or cooperation. Research projects were pursued primarily in Europe and North America. These included The Global Environmental Change and Human Security (GEHS) project; the Swiss project on Research Partnerships for Mitigating Syndromes of Conflict Change; The Scientific Advisory Council on Global Environmental Issues of the German Government; and The Transboundary Freshwater Dispute Database created by Aaron Wolf at Oregon State University. The policy community also began to more vigorously examine the role of the environment in conflict situations. In 1999, a NATO (Committee on the Challenges of Modern Society

¹³⁶ Robert Kaplan. “The Coming Anarchy.” *Atlantic Monthly*, 273:2 (1994): 44-76; Starr. “Water Wars”; Peter H. Gleick. “Water and Conflict: Freshwater Resources and International Security.” *International Security* 18.1 (1993), 79-112.

¹³⁷ Nils Petter Gleditsch. “Armed Conflict and the Environment: A Critique of the Literature.” *Journal of Peace Research* 35.3 (1998): 381-400.

¹³⁸ Marc A. Levy. “Is the Environment a National Security Threat?” *International Security* 20.2. (1995): 35-62.

¹³⁹ Aaron T. Wolf. “Conflict and Cooperation Along International Waterways.” *Water Policy* 1.2. (1998): 251-262.

(CCMS)) project jointly undertaken by the US Department of Defence and the German Ministry of the Environment concentrated on the issue of environmental security within NATO countries.¹⁴⁰ Since then, NATO's Science for Peace and Security division has continued to sponsor selected projects examining "other threats to security", including natural disasters, manmade pollution and ecoterrorism, protecting fragile ecosystems, water resources management, and energy-related research and development.¹⁴¹

In addition, individual scholars such as Aaron Wolf, Geoffrey Dabelko, and Radoslav Dimitrov examined the tendency to associate environmental stress with inter-state and intra-state conflict. Wolf wrote in 1998 that, "The patterns described...suggest that the more valuable lesson of international water is, as a resource whose characteristics tend to induce cooperation and incite violence only in the exception."¹⁴² Jon Barnett argued that in previous examinations the environment becomes little more than another avenue of distrust and violence between state actors, driven by the imperatives of the anarchic global system.¹⁴³ He wrote "in short, in describing a world of 'coming anarchy', the environment-conflict literature prepares for the reification of this possible world. In this respect the environment-conflict thesis is notable both for the way it justifies the defence of northern interests, and for the way it obscures northern complicity in the generation of

¹⁴⁰ Kurt M. Lietzmann and Gary D. Vest. Eds. *Environment and Security in an International Context*. Report No. 232 (Brussels: Committee on the Challenges of Modern Society, 1999). Online. 5 January 2013. <www.denix.osd.mil/.../Environment-and-Security-in-an-International-Context.pdf>

¹⁴¹ NATO Science for Peace and Security (SPS), "Selected Projects Funded by NATO" 16 December 2011. Online. 5 January 2013. <http://www.nato.int/science/studies_and_projects/nato_funded/index.htm>

¹⁴² Wolf, "Conflict and Cooperation Along International Waterways," 261.

¹⁴³ Jon Barnett. "Destabilizing the Environment-Conflict Thesis." *Review of International Studies*. 26.2 (2000): 271-288.

the very environmental problems scripted as threats.”¹⁴⁴ Writing in 2002, Radoslav Dimitrov looked at how the construction of security can impact the way in which water is managed. Dimitrov begins with the qualifying statement that, “the way we think affects what we do, and ideas condition behaviour,” and he argued for a deeper interrogation of how the multiple meanings of environmental security impacts our management of water.¹⁴⁵ For Dimitrov, the “failure to recognize the multiplicity of competing notions of security, precludes proper analysis of the dissimilar goals of water management that each discourse precipitates.”¹⁴⁶ This was an important insight because it allowed for an appreciation of the power the concept of water security holds in creating the policy outcomes that are so important for alleviating suffering and conflict. Thus, for Dimitrov, it is possible “to analyze the changes in ‘water security’ policies and institutions that can be expected from embracing a certain conception of environmental security and from positioning ‘water’ within it.”¹⁴⁷ In contrast to this manuscript’s relatively hopeful outlook, Dimitrov concluded on a skeptical note. For him, the different forms of water security emanating from different understandings of the security problematique are often contradictory and incompatible. “The mere possibility that different dimensions of security are mutually incompatible and that pursuing them simultaneously is impossible bodes ill for human society.” This conclusion belies some important theoretical developments in the fields of environmental security over the last decade since the

¹⁴⁴ Barnett, “Destabilizing the Environment-Conflict Thesis,” 287.

¹⁴⁵ Radoslav Dimitrov. “Water, Conflict, and Security: A Conceptual Minefield” *Society and Natural Resources: An International Journal* 15.8 (2002): 680.

¹⁴⁶ Dimitrov, 679.

¹⁴⁷ Dimitrov, 681.

publication of the article, and an increasing knowledge of the global geophysical connections that bind human actions together in the Anthropocene, the geologic era of human dominance.

However, Dimitrov's social-discursive model of security showed how the operational concepts of water are conditioned by the practices that they themselves guide. In contrast to the prevailing two phases of environmental security scholars, Barnett, Dabelko, Wolf, and Dimitrov focused extensively on re-situating the environment-conflict nexus. Wolf studied the links between water stress and conflict and concluded that the hype surrounding "water wars" is unfounded; that there is a prevailing "myth" of ever-future, over-the-horizon conflict over dwindling resources, which is simply not borne empirically.¹⁴⁸ Rather the opposite is true: water has the potential to bridge divides amongst disparate riparian owners, across regions, and borders.

The third phase of environmental research represented a significant progression in terms of opening the literature to a diversity of approaches and methods. Prof. Simon Dalby *et al* write that "what emerged in this debate...was a recognition that environmental change and resource scarcity and degradation was less likely to lead to international war than had been supposed in the first phase."¹⁴⁹ The literature in the third debate as it relates to water

¹⁴⁸ Aaron T. Wolf, Shira Yoffe & Mark Giordano. "International Waters: Identifying Basins at Risk", *Water Policy* 5.1 (2003): 29-60. Indeed, Thomas Homer-Dixon echoed the same sentiments in his 1995 op-ed for the Canadian newspaper, *The Globe and Mail*. He wrote: "our research shows that the story is different for renewables like cropland, forests, fish, and fresh water. It is hard to find clear historical or contemporary examples of major war motivated mainly by scarcities of renewables...This sensationalism distracts the public's attention from the real results of water scarcity. Shortages reduce food production, aggravate poverty and disease, spur large migrations, and undermine a state's moral authority and capacity to govern." Thomas Homer-Dixon. "The Myth of Global Water Wars." *The Globe and Mail* [Toronto] 9 November 1995.

¹⁴⁹ Dalby, Brauch, and Spring, 782.

exhibited a remarkable diversity, at least in comparison to earlier stages. The three editions of the World Water Development Report, released by UNESCO in 2003 (“Water for People, Water for Life”), 2006 (“Water: A Shared Responsibility”), and 2009 (“Water in a Changing World”), displayed a novel appreciation of the potential for cooperative resource and conflict management that hitherto had been marginalized in policy circles to accounts of transboundary dangers and potential water conflict.

The third phase was a shift from the first two phases of literature that emphasized environmental scarcity and degradation as a likely cause of national insecurity in the waning years of the Cold War and in its immediate aftermath. In the late 1990s and into the first decade of the twenty first century, the subject opened to allow for a diversity of approaches that included analyses from geography.¹⁵⁰ Notions of environmental security were no longer restricted to state collapse or national conflict over scarce resources. Of course, while discussions of national security remained important, there began to emerge a new appreciation of the social effects of environmental change and the policy dilemmas that emerge in their wake. In terms of water security these new changes in thinking allowed for broader discussions away from more traditional preoccupations, such as how to avert water wars and ensure water scarcity would not lead to violent conflict. Instead a plurality of studies emerged that focused on the wide range of causes of insecurity and violence as well as the wide effects of water scarcity. More broadly, during the third phase there were attempts to broaden the notions of environmental security, away from the simplistic potential for conflict over dwindling resources. While overall, there remained an analytical commitment to the nation-state as the ultimate referent of study,

¹⁵⁰ Ibid.

some studies argued for taking a human security approach to the environment, arguing for greater attention to the effects of water security on individuals, and the need for “environmental diplomacy.”¹⁵¹ This was clearly connected to the growing popularity of the human security concept during the late 1990s.

3.2.4 A Fourth Phase of Environmental Security?

Influential water conflict studies such as The Transboundary Freshwater Dispute Database have been instrumental in producing new ways of thinking about water security in particular and have helped some to argue we are currently witnessing the beginnings of a fourth phase of environmental security literature. Spring, Brauch, and Dalby argue that this new phase should encompass much more than previous stages, and seek to include human, environmental, and gender-related security, as well as peace research. They write,

This phase, we argue, needs to build on the first three phases of environmental security research...It requires distancing security analysis from some of traditional assumptions in international relations thinking and focusing more explicitly on the specific contexts where people, especially socially vulnerable groups and their social networks, are insecure.¹⁵²

The call by Spring, Brauch, and Dalby for a widening and deepening of the referent object of security in the fourth phase of the environmental security literature is a theme that echoes throughout this dissertation. While their reliance on securitization as a

¹⁵¹ Michael Renner. *Fighting for Survival: Environmental decline, social conflict, and the new age of insecurity*. New York: Worldwatch Institute, 1997.

¹⁵² Úrsula Oswald Spring, Hans Günter Brauch and Simon Dalby. “Linking Anthropocene, HUGE and HESP: Fourth Phase of Environmental Security Research.” *Facing Global Environmental Change: Environmental, Energy, Food, Health, and Water Security Concepts*. Eds. Hans Günter Brauch, Hans Günter Brauch, Úrsula Oswald Spring, John Grin, Czeslaw Mesjasz, Patricia Kameri-Mbote, Navnita Chadha Behera, Béchir Chourou, Heinz Krummenacher. (Berlin: Springer Berlin Heidelberg, 2009): 1278

normative concept to be pursued may be questioned, the authors nonetheless have isolated some key components that can better inform contemporary environmental security analyses. They believe that new environmental security studies should include societal, human, and gender-related accounts. As well, new sectoral approaches that incorporate water, food, health, and livelihood security are seen to be more helpful to the deep range of environmental concerns within a unified framework of study. To pursue each sector without an appreciation of the interconnections that define them would leave environmental security studies insufficiently nuanced and help condition responses unable to cope with the scope and scale of global environmental change. The fourth phase aims to widen its understanding of security beyond a narrow focus on the nation-state and include global, regional, societal, community, family, and human levels of organization. What is sought, essentially, is an appreciation of the environment as a holistic and inclusive factor in human affairs. In sum, if a fourth generation fully emerges it will be normatively and analytically strengthened if it offers more inclusive, and expansive understandings of the relationship between the environment, security, and individuals. This means contributing deeper knowledge of the deep and complex interconnections associated with the emerging “Anthropocene,” where conceptual separation between humans and the environment is incoherent and ineffective. It is hoped that the continued evolution of scholarship will produce multiple visions of environmental security that can help provide us with the “shared contexts of our insecurities.”¹⁵³

¹⁵³ Spring, Brauch, and Dalby, 1279.

3.3 Water Wars

If we are to utilize the organizing benefits of isolating four phases of environmental security literature, (given this thesis' critical analysis of mythmaking in IR, this may in fact be troublesome), we should understand that water security itself has existed as a corollary subset within each phase. For instance, Dimitrov's social-discursive model discussed earlier showed how the different ways in which security is understood has a direct impact on the ways in which water is framed and how policies are developed in response. To date there has been a dominant (though not exhaustive) conceptual allegiance to traditional forms of security, which focuses on states, national security, and violent conflict. The dominant construction has been to view water either as a potential cause of future wars, or at the very least, a "threat multiplier" by adding stress to already vulnerable and volatile situations. This is most ably shown in the "water wars" narrative.

A wide and still-growing literature on "water wars" has sought to examine the causal relationship between environmental stress and armed conflict. This has been an extension of earlier analyses that first sought to examine how resource limits influence political decision-making. The first issue of the *Journal of Conflict Resolution*, published in 1957, contained an article by Sprout and Sprout that examined the various ways in which the environment influenced political behaviour. Sprout and Sprout presented a rather compelling argument that "environmental factors become related to the attitudes and decisions which comprise a state's foreign policy only by being perceived and taken into account in the policy-forming process...In policy-making, as we have stressed before,

what matters is how the policy-maker imagines the milieu to be, not how it actually *is*.¹⁵⁴ Thus, while they qualify the content effects that the environment may have on the decision-making process, there is no doubt that environment itself helps compel the decisions in the first place. Sprout and Sprout's behaviouralist analysis is certainly a product of its intellectual era, but their conclusions can be seen as the precursor to much of the environmental security literature produced since the end of the Cold War. When they conclude "the ecological viewpoint and frame of reference...provide a fruitful approach to the analysis of foreign policy and the estimation of state capabilities," it is not a far stretch to see the intellectual connections with modern environmental security as it is most often understood.¹⁵⁵ In this sense, ecological processes, combined with behavioural and other approaches to decision-making, help students and analysts better comprehend the perception of capability and necessity in state decisions.

The tracing of contemporary environmental security through four broad phases, and back to authors such as Wittfogel and Sprout and Sprout is useful in confirming the intellectual hegemony that state-centrism has enjoyed when it comes to analyzing environmental processes. The literature on water corresponds in a relatively similar fashion to broader analyses of environmental security. The most pressing concern within water security literature and the broader public discourse have been how shared water might lead directly to wars between states. This seems to have begun in the mid 1980s, when a range of new publications began to emerge. These works initiated a still-running debate

¹⁵⁴ Harold Sprout and Margaret Sprout. "Environmental Factors in the Study of International Politics", *Journal of Conflict Resolution*. 1.4 (1957): 318.

¹⁵⁵ Sprout and Sprout, 327.

whether a causal link can be drawn between water scarcity and water wars. It is an overstatement to point to one particular source as inspiring the debate, but the publication in 1984 of Naff and Mason's edited volume *Water in the Middle East: Conflict or Cooperation?* was highly influential in creating the narrative for the next decade on water's potential for sparking interstate war. Their case studies of the Jordan, Litani, Euphrates, Shatt al-Arab, Orontes, and Nile rivers found that international conflict over water was frequent in the Middle East. They state in their introduction:

Water in the Middle East is also a conflict-laden determinant of both the domestic and external policies of the region's principal actors. As water shortages occur and full utilization is reached these policies tend to be framed more and more in zero-sum terms, adding to the probability of discord.¹⁵⁶

For them the Jordan River system was historically the most prominent flashpoint for conflict. It had seen more severe international conflict over water than any other river system in the Middle East. Along with the Jordan though, the Euphrates and the Nile were also seen as open to conflict. They felt that the fundamental reasons for such conflict were two-fold: 1) the already-present high levels of international tension and hostility in the region; 2) the progressively deteriorating water situation. Because of these two reasons, there was little "slack" in the system and water resources had become increasingly zero-sum and important strategically.¹⁵⁷ The conclusions they reach, that water has "been seen as the primary strategic factor behind the political and military

¹⁵⁶ Thomas Naff and Ruth C. Mason. Eds. *Water in the Middle East Conflict or Cooperation?* (Boulder Col: Westview Press, 1984): 1.

¹⁵⁷ Naff and Mason, 53.

maneuvering in the Middle East,” led the intellectual charge throughout the 1980s – the decade designated by the UN as the “Water Decade.”

Following Naff and Mason a plethora of new investigations began to repeat, if not confirm, the link between resource scarcity and violent conflict. Some of the most influential water wars literature include John K. Cooley’s 1984 *Foreign Policy* article¹⁵⁸, Joyce Starr’s 1991 article in *Foreign Policy*¹⁵⁹, Starr and Stoll’s 1988 book¹⁶⁰, Bulloch and Darwish’s 1993 book on looming water wars in the Middle East¹⁶¹, Biswas’ 1994 book on Middle Eastern water politics¹⁶², Remans 1995 article “Water and War,”¹⁶³ and article and a book from Soffer¹⁶⁴, and Amery’s 2003 article in *Geographical Journal* on wars over water in the Middle East context.¹⁶⁵ It is worth noting that each source listed here writes extensively of war over water in the context of the Middle East. In particular, wars involving Israel and its neighbours are returned to again and again as representative of the causal link between water and war. In Westings’ 1986 edited volume, various

¹⁵⁸ John K. Cooley. “The War Over Water,” *Foreign Policy* 54 (Spring 1984): 3-26.

¹⁵⁹ Starr, *Water Wars*. 17-36.

¹⁶⁰ Joyce R. Starr and Daniel Stoll. *The Politics of Scarcity: Water in the Middle East*, (Boulder, Col: Westview Press, 1988).

¹⁶¹ John Bulloch, and Adele Darwish. *Water Wars: Coming Conflicts in the Middle East*. (London: St. Edmundsbury Press, 1993).

¹⁶² Asit K. Biswas. Ed. *International Waters of the Middle East From Euphrates-Tigris to Nile*. (Oxford: Oxford University Press, 1994).

¹⁶³ Wilfried Remans. “Water and War,” *Humantäres Völkerrecht* 8.1 (1995): 1-14.

¹⁶⁴ Arnon Soffer. “The Litani River: Fact and Fiction.” *Middle Eastern Studies*, 30.4 (1994): 963-74; Arnon Soffer. *Rivers of Fire The Conflict over Water in the Middle East*. (Oxford, UK: Rowman & Littlefield, 1999).

¹⁶⁵ Hussein A. Amery. “Water Wars in the Middle East: A Looming Threat.” *Geographical Journal* 168.4 (2002): 313-323.

authors point to water as the causal factor in the 1967 Arab-Israeli war and Israel's 1982 invasion of Lebanon.¹⁶⁶ Indeed, the idea that control over dwindling water resources was the primary motivator for Israeli military actions between 1967-1982 was developed during the 1980s both in academic literature and the popular press.¹⁶⁷ Others have also added their voices to the crises associated with water scarcity, though they often take a broader definition of what is meant by "war," than some of the more extreme warnings. Authors as diverse as Marc De Villiers¹⁶⁸, Vandana Shiva¹⁶⁹, Diane Raines Ward¹⁷⁰, and Peter Annin¹⁷¹ all have authored books provocatively titled after 'water wars.'

The causal link between water and war was generally left unchallenged for much of this phase of water security literature. Instead of questioning the basic assumptions propelling their analyses, authors continued to sound ominous warnings about the perilous state of water resources and their potential for igniting armed interstate war. The end of the Cold War and the broadening of security threats helped sustain the narrative, which advanced only in the sophistication of their empirical studies. Falkenmark's 1989 article on dwindling water resources in Africa is emblematic of the trend to fix empirical limits

¹⁶⁶ Arthur H. Westing. *Global Resources and International Conflict: Environmental Factors in Strategic Policy and Action*. (Toronto: Oxford University Press, 1986)

¹⁶⁷ Jerome Delli Priscoli and Aaron T. Wolf. *Managing and Transforming Water Conflicts*. (Cambridge: Cambridge University Press, 2009): 12.

¹⁶⁸ Marc De Villiers. *Water Wars: Is the World's Water Running Out?* (London: Weidenfeld & Nicolson, 1999).

¹⁶⁹ Vandana Shiva. *Water Wars: Privatization, Pollution, and Profit*. (Cambridge, MA: South End Press, 2002).

¹⁷⁰ Diane Raines Ward. *Water Wars: Drought, Flood, Folly, and the Politics of Thirst*. (New York: Riverhead Books, 2002).

¹⁷¹ Peter Anin. *The Great Lakes Water Wars*. (Washington D.C.: Island Press, 2006).

illustrating different stages of water scarcity and their associated dangers. Her influential water stress index sought to answer just how many people a flow unit of water could sustain. This Malthusian analysis supposed that as populations increase and their standards of living improve, the available amount of renewable water inevitably decreases. The index she produced concluded that a country is said to be “water stressed” if it experiences less than ca 1,700 cubic metres (m³) per capita/year; when the figure is less than ca 1,000 m³ per capita/year, a country experiences “water scarcity”; and when a country experiences per capita availability below 500 m³ per capita/year, it is past “the water poverty line” or “beyond the water barrier.”¹⁷² While Falkenmark is more concerned with the dwindling water availability for vulnerable populations and the effects on socioeconomic development than in the prospect of water wars, her indices have been frequently used to gauge the likelihood of conflict in areas experiencing acute water shortages. Sandra Postel’s seminal 1992 work, *Last Oasis* published by the Worldwatch Institute¹⁷³, and Tom Gardner-Outlaw and Robert Engelman’s 1997 report for Population Action International¹⁷⁴ both explicitly rely on the water stress index, as do other works. As Leif Ohlsson writes, “this kind of index is foundational to the common alarms of risks for water wars. Since the available amount of renewable water is fixed, the conclusion is almost inevitable: As populations grow and per capita demands grow

¹⁷² Malin Falkenmark. “The Massive Water Scarcity Now Threatening Africa: Why Isn’t It Being Addressed?” *Ambio* 18.2 (1989): 112-118.

¹⁷³ Sandra Postel. *Last Oasis*. (New York: WorldWatch Norton, 1992).

¹⁷⁴ Tom Gardner-Outlaw and Robert Engelman, *Sustaining Water, Easing Scarcity: A Second Update*, (Washington DC: Population Action International, 1997).

even faster, states will be forced into a logic of fighting for more water.”¹⁷⁵ And indeed these types of conclusions seem to have been the norm when examining the first generation of water security literature, just as this was the norm in the broader environmental security literature.

The Malthusian approaches to water security adopted by many authors necessarily draw an upsetting picture of resource scarcity leading to war. Many authors propounding water wars theses derived their logic from Thomas Malthus’ *Essay on the Principle of Population* (1798), which stated that resource scarcity resulting from demographic increases inevitably lead to famine or conflict. One of the most widely cited examinations of resource scarcity and international conflict, Arthur Westing’s 1986 volume *Global Resource and International Conflict*, already briefly discussed, propagates the Malthusian view of resource scarcity and war. He writes, “Demands on the land, fresh waters, and other natural resources of the earth are growing rapidly owing to the rapid increases in human aspirations...This dilemma suggests that natural resources have the potential for playing an even more important role as a cause of war in the future than they have in the past.”¹⁷⁶ Joyce Starr best articulated the classic Malthusian case for water wars in 1991. More nuanced (what Martin Kipping calls Neo-Malthusian) analyses still link water scarcity with conflict but as an indirect cause via its socio-economic consequences like decreasing agricultural productivity or overall economic decline. The work of Thomas

¹⁷⁵ Leif Ohlsson. “Water Conflicts and Social Resource Scarcity.” *Physics and Chemistry of the Earth, Part B* 25.3 (2000): 216.

¹⁷⁶ Arthur Westing. “An Expanded Concept of International Security.” *Global Resources and International Conflict*. Ed. Arthur Westing. (Oxford: Oxford University Press, 1986): 183.

Homer-Dixon can be regarded as Neo-Malthusian.¹⁷⁷ Nils Petter Gleditsch described the basic causal chain for Malthusian analyses as:

Population growth/high resource consumption per capita → deteriorated environmental conditions → increasing resource scarcity → harsher resource competition → greater risk of violence¹⁷⁸

There may be disagreement over the number of causal mechanisms and their basic order, but these analyses remain beholden to an instrumental logic that restricts the potential for alternatives to war and conflict. The ultimate attachment to Malthusian concerns lays the groundwork for predictions about conflict, though rarely have these predictions been derived from convincing empirical data demonstrating the causal factor of the environment in past wars and interstate conflicts. It is safe to conclude that water security literature in the 1980s and early 1990s, following the first two generations of the broader environmental security literature, was strongly pessimistic.

Literature critical of these approaches to environmental security began to emerge in response. These criticisms principally arose with skepticism about the integration of the environment with security, displaying a naivety about the scale of environmental destruction and its effects. The general trend in critique was that the widening of security to include the environment would dilute the cohesion of studies on security and was more

¹⁷⁷ Martin Kipping. "Can 'Integrated Water Resources Management' Silence Malthusian Concerns? The Case of Central Asia." *Facing Global Environmental Change: Environmental, Energy, Food, Health, and Water Security Concepts*. Eds. Hans Günter Brauch, Úrsula Oswald Spring, John Grin, Czeslaw Mesjasz, Patricia Kameri-Mbote, Navnita Chadha Behera, Béchir Chourou, Heinz Krummenacher. (Berlin: Springer Berlin Heidelberg, 2009): 712.

¹⁷⁸ Nils Petter Gleditsch. "Armed Conflict and the Environment: A Critique of the Literature," 383.

the result of environmentalist rhetoric than of demonstrable links. Daniel Deudney echoed many other traditional security analysts when he argued that expanding national security to include the environment was inappropriate and misleading. In his 1991 article, “The Case Against Linking Environmental Degradation and National Security,” he writes that combining national security and environmental risks would create “a conceptual muddle, rather than a paradigm or world-view shift – a *de-definition* rather than a *re-definition* of security. If we begin to speak about all the forces and events that threaten life, property, and well being (on a large scale) as threats to our national security, we shall soon drain the term of any meaning.”¹⁷⁹ However, while Deudney initially appears to fall into a traditional security regression of isolating the state as the referent object of security, he does in fact adopt a more nuanced approach. He believes that linking the environment within national security would deprive the potential for thinking alternatively about the creative and interdependent responses necessary for positive solutions to a global problem. He writes,

If in fact resolution of the global environmental problem, and particularly the global climate change problem, requires great, even unprecedented, types of international cooperation, then nationalist sentiment and identification is a barrier to overcome. Thus thinking of national security as an environmental problem risks undercutting both the globalist and common fate understanding of the situation and the sense of world community that may be necessary to solve the problem.¹⁸⁰

¹⁷⁹ Deudney, “The Case Against Linking Environmental Degradation and National Security,” 465.

¹⁸⁰ Deudney, 468.

Along with Daniel Deudney, Marc Levy also produced one of the earliest critical reactions to linking the environment with security concerns. In his 1995 article, “Is the Environment a National Security Issue?” he writes “the political threat from environmental degradation (involving environmental refugees, resource wars, and so on) is at once both the weakest substantive threat to U.S. security and the strongest intellectual challenge to the field of security challenges.”¹⁸¹ Levy thinks that instead of attempting to stretch environmental concerns into the realm of high politics, it would be better for environmentalists to gain support for their cause by engaging with environmental degradation on the level of low politics. Levy’s article has not fared well with age. His contention that the links between environmental and security values are simply rhetorical acts by environmentalists, and that the optimal response to the dangers of environmental degradation would be a combination of “prevention, adaptation, and ‘letting nature take its course,’” exhibits a striking naivety. While he does carve some space for climate change to be included in security discourse, he does so only because of its potential economic effects and the potential loss of American lives.¹⁸² Considering that in 2007 the UN Security Council, under the leadership of the United Kingdom, affirmed that climate change is one of the most significant threats to humankind, Levy’s separation of the environment from traditional security seems wholly lost from the reality of the past twenty years.¹⁸³

¹⁸¹ Levy, “Is the Environment a National Security Issue?” 36.

¹⁸² Levy, “Is the Environment a National Security Issue?” 53.

¹⁸³ United Nations Security Council. “Letter dated 5 April 2007 from the Permanent Representative of the United Kingdom of Great Britain and Northern Ireland to the United Nations addressed to the President of the Security Council” (S/2007/186). *United Nations* (17 April 2007).

With that, the security literature emerging in critical response to the Malthusian warnings of environmental security was astute in casting a critical eye to the more dire warnings concerning threats of state collapse and international war and conflict. Deudney's Cornucopian approach, which emphasized human inventiveness, the economic diversification of states away from resource dependency, and falling commodity prices, presented a compelling counter to the Malthusian analyses of environmental security like Thomas Homer-Dixon, Joyce Starr, and Richard Ullman.¹⁸⁴ The problem with such accounts was that they failed to critically analyze a number of disparate variables that influence the way security is thought of in the first place. That the first two generations (and many of their critics) largely ignored contextual analysis of specific political, economic, cultural, and gender issues left open only the continued reification of state-centric security, generally built upon realist assumptions and a rigid adherence to empiricist methodology. Nils Petter Gleditsch's comprehensive literature review, written in 1998, reflected on the broad literature produced to that point, indicating nine common problems. The isolated problems that Gleditsch focused on relate to an overall absence of solid evidence and a lack of systemic research on the effect of resource or environmental factors on armed conflict.¹⁸⁵ Despite Gleditsch producing a significant and useful summation of environmental security to that point, he failed to engage the parameters by which we view security itself. His critique never broached the subject of security, for whom, by whom? His final call – for a Correlates of War project for the environment – is

¹⁸⁴ Bjorn Lomborg's controversial 2001 book *The Skeptical Environmentalist* also pointed to the importance that technological innovations can have on alleviating the problems related to environmental degradation. Bjorn Lomborg. *The Skeptical Environmentalist*. ((Cambridge: Cambridge University Press, 2001).

¹⁸⁵ Gleditsch, 387.

a strikingly uncritical approach to viewing the environment and security. However, as the literature progressed into a new, third, phase, the conditions by which security and the environment were viewed expanded, indicating a departure from the first two stages, which tried to empirically demonstrate the connections (or lack thereof) between the environment and conflict.

The third phase, discussed briefly already, includes a number of different approaches to environmental security. According to Dalby, Brauch, and Spring, it included analyses of global change that are more closely linked to larger concerns of human security.¹⁸⁶ Water security analyses arising in the late 1990s reflect this trend, and they began to incorporate broader frames of reference, specifically focusing on cooperative management of water resources. In particular, the work of Aaron Wolf, Director of the Program in Water Conflict Management and Transformation and the Transboundary Freshwater Dispute Database, has been a catalyst for shifting the analytical focus away from Malthusian concerns of over-the-horizon conflict. His extensive work, investigating the reality of historic water conflict, shows empirically that only a handful of minor skirmishes occurred over water in the twentieth century, and that no war over water has ever occurred in history. Instead, cooperation over shared waterways is closer to the norm. His conclusions are that along shared waterways, cooperative interests consistently outweigh conflict. In the end, war over water is “neither strategically rational, hydrographically effective, nor economically viable.”¹⁸⁷ Wolf’s findings, while unique in their

¹⁸⁶ Dalby, Brauch, and Spring, 387.

¹⁸⁷ Aaron T. Wolf. ““Conflict and Cooperation Along International Waterways.” *Water Policy* 1.2 (1998): 261.

completeness and methodological vigor, have been confirmed in other analyses, including works by Jerome Delli Priscoli,¹⁸⁸ Undula Alam,¹⁸⁹ Wolf, Yoffe, and Giordano,¹⁹⁰ Yoffe, Wolf, and Giordano,¹⁹¹ and Yoffe *et al.*¹⁹² The findings stand in direct contrast to the first generations of environmental security and water security. The water wars rationale, almost always focusing on the region of the Middle East, argues that given water's critical importance to a country's survival, if there is scarcity amidst a wider conflict and if enemy states rely upon shared water resources, each country will seek to ensure that it retains adequate access, even resorting to armed conflict. In other respects, the desire to maintain control over dwindling water resources may well compel states to act aggressively in maintenance of that strategic upper hand. It seems logical and highly plausible to many that each country's water supply is so important that it would be willing to wage war to safeguard its supply.¹⁹³

The Malthusian logic that permeates such analyses is clear. When demand outstrips supply, states will go to war with their competitors to ensure sufficient access to a vital

¹⁸⁸ Jerome Delli Priscoli. "Water and civilization: reframing the debate on water and conflict." Paper presented at the IXth World Water Congress, Montreal, QC, Canada. 1997.

¹⁸⁹ Undula Alam. "Questioning the water wars rationale: A case study of the Indus Waters Treaty" *The Geographic Journal*. 168.4 (2002): 341-353.

¹⁹⁰ Aaron T. Wolf, Shira Yoffe, and Mark Giordano. "International Waters: Identifying Basins at Risk." *Water Policy*. 5.1 (2003): 29-60.

¹⁹¹ Shira B. Yoffe, Aaron T. Wolf, and Mark Giordano. "Conflict and cooperation over international freshwater resources: indicators of basins at risk." *Journal of the American Water Resources Association*. 39.5 (2003): 1109-1126

¹⁹² Shira B. Yoffe, Greg Fiske, Mark Giordano, Meredith Giordano, Kelli Larson, Kerstin Stahl, and Aaron T. Wolf. "Geography of international water conflict and cooperation." *Water Resources Research*, 40.5 (2004): 1-12

¹⁹³ Peter Gleick. "An introduction to global water issues." *Water in crisis: a guide to the world's fresh water resources*. Ed. Peter Gleick. Oxford University Press, New York, 1993, 3-12

resource such as water. One should understand water wars as international wars that are fought for reasons related to access to water. This separates water wars from mere water-related conflicts within countries and the use/denial of water as a weapon of war.

The water wars narrative has been invoked numerous times, though it was proclaimed most often in academic, policy, and journalistic circles in the 1980s and 1990s.¹⁹⁴ During this time, many studies on water and specifically the region of the Middle East based their evidence on future predictions of impending water wars, due to occur because of urbanization, industrialization, population growth, consumerist economic development, and increased agricultural irrigation.¹⁹⁵ The “hydraulic imperative” theory of water being the motivating factor for Middle Eastern conflict was proclaimed often and repeated in

¹⁹⁴ Asit K. Biswas. “Water Development and Environment.” *Water Resources: Environmental Planning, Management, and Development*. Ed. Asit K. Biswas. (New York: McGraw-Hill, 1997); 1-35; Malin Falkenmark and Gunnar Lindh. “Water and Economic Development.” *Water in Crisis: A Guide to the World's Fresh Water Resources*, Ed. Peter Gleick. (New York: Oxford University Press, 1993): 80-91; Peter Gleick. “Water and Conflict: Fresh Water Resources and International Security,” *International Security* 18.1 (1993): 79-112; John Waterbury. “Between Unilateralism and Comprehensive Accords: Modest Steps Toward Cooperation in International River Basins.” *International Journal of Water Resources Development* 13.3 (1997): 279-89;

¹⁹⁵ Alan Richards and John Waterbury. *A Political Economy of the Middle East*. 3rd Edn (Boulder Col: Westview Press, 2007); Thomas Naff and Ruth Matson, Eds, *Water in the Middle East: Conflict or Cooperation?* (Boulder Col: Westview Press, 1984); Starr and Stoll. *The Politics of Scarcity: Water in the Middle East*; Ewan W. Anderson. “Water: the next strategic resource.” *The Politics of Scarcity: Water in the Middle East*. Eds. Joyce Starr and Daniel Stoll. (Boulder Col: Westview Press): 1-21; Natasha Beschoner. *Water and Instability in the Middle East*. Adelphi 273, (1992); John Bulloch and Adel Darwish. *Water Wars: Coming Conflicts in the Middle East*. (London: Victor Gollancz, 1993); Nicholas Guyatt. *The Absence of Peace: Understanding the Israeli-Palestine Conflict*. London: Zed Books, 1998; Thomas Naff. “Conflict and Water Use in the Middle East.” *Water in the Arab World; Perspectives and Prognoses*. Eds. Peter Rogers and Peter Lydon (Boston MA: Harvard University Press, 1994): 253-84; Marwan Haddad and Numan Mizyed. “Water Resources in the Middle East: Conflicts and Solutions.” *Water Peace and the Middle East: Negotiating Resources in the Jordan Basin*. Eds. J.A. Allen and J.H. Court (London: Tauris Academic Studies, 1996): 3-17; Arnon Medzini, “Water conflicts in the Middle East.” *Water Policy: Allocation and Management in Practice*. Eds. Peter Howsam and Richard C. Carter (London: E and FN Spon, London): 267-74; Arnon Sofer. *Rivers of Fire: The Conflict Over Water in the Middle East*. (Lanham MD: Rowman and Littlefield, 1999); Hussein Amery. “Water Wars in the Middle East: A Looming Threat.” *The Geographical Journal*, 168.4 (2002): 313-323.

both academic and popular presses. Authors as diverse as Thomas Homer-Dixon¹⁹⁶, Sandra Postel¹⁹⁷, and Peter Gleick¹⁹⁸ have all (to varying degrees) proclaimed the likelihood of future conflicts being fought over water. Though Homer-Dixon and Gleick did in fact argue for a tempered outlook on the prospect of future water wars, they still managed to situate water resources as a site of future contestation, especially in vulnerable areas. Gleick wrote that

Tensions appear likely in parts of southern and central Asia, central Europe, and the Middle East...in certain regions of the world...water is a scarce resource that has become increasingly important for economic and agricultural development. In these regions, water is evolving into an issue of “high politics,” and the probability of water-related violence is increasing.¹⁹⁹

Citing Falkenmark, he argued that if water provides a source of economic or political strength then (much like other resources like oil and other minerals) ensuring access to it provides a justification for going to war, and supply systems can become a goal of military conquest.²⁰⁰ Gleick was careful to not explicitly predict ‘water wars’ between state actors. However, his analyses consistently signaled out water as a source to be fought over at various levels, including local, subnational, and international levels. Writing in 2005, Gleick argued that, “Where water is scarce, competition for limited

¹⁹⁶ Thomas Homer-Dixon. “Environmental Scarcities and Violent Conflict: Evidence From Cases”; Thomas Homer-Dixon. “Strategies for studying causation in complex ecological–political systems.” *Journal of Environment and Development*. 5.2 (1996): 132–148.

¹⁹⁷ Sandra Postel. *Pillar of Sand: Can the Irrigation Miracle Last?* (New York: Norton, 1999).

¹⁹⁸ Peter Gleick. “Water and Conflict: Fresh Water Resources and International Security.”

¹⁹⁹ Gleick, “Water and Conflict: Fresh Water Resources and International Security,” 80.

²⁰⁰ Gleick, “Water and Conflict: Fresh Water Resources and International Security,” 84.

supplies can lead communities, economic groups and even nations to see access to water as a matter of political concern. Conflict can easily arise because political borders rarely coincide with watershed boundaries.”²⁰¹ Gleick’s prolific scholarly output and authoritative knowledge of transboundary water issues marks him as one of the foremost experts on the subject of water and conflict. Yet often he falls back upon what are by now the familiar clichés of impending water conflict. Even when qualified by less alarmist rhetoric, this furthers perceptions that water primarily exists as an international security issue as a “threat multiplier,” because it either exacerbates simmering tensions between homogenous states or because it will be used as a weapon of war.

The problem, as Aaron Wolf has pointed out, is a lack of evidence. Libiszewski and Wolf have both produced extensive studies that conclude water scarcity has never been a cause of any Arab-Israeli war.²⁰² A critical review of the water wars literature reveals that many of the studies are actually more acutely tied to “political tensions or stability rather than about warfare, or about water as a tool, target, or victim of armed conflict – all important issues, just not the same as “water wars.”²⁰³

It would be an overstatement to say whether there is one conclusive answer to the “debate” over the likelihood of water wars. Yet it is possible to conclude that there is indeed a burgeoning literature that examines water from an altogether different

²⁰¹ Peter Gleick. “Freshwater and Foreign Policy: New Challenges.” *Great Decisions*. (New York: Foreign Policy Association, 2005): 97.

²⁰² Stephan Libiszewski. “Water disputes in the Jordan basin region and their role in the resolution of the Arab–Israeli conflict.” *Occasional Paper*, 13. (Zurich: Center for Security Studies and Conflict Research, 1995); Aaron T. Wolf. *Hydropolitics along the Jordan River: Scarce water and its impact on the Arab–Israeli conflict*. (Tokyo: United Nations University Press, 1995).

²⁰³ Priscoli and Wolf, 12.

perspective from past interpretations. “Water peace” literature has grown in recent years, and encompasses a major academic sub-field of water security. In what has grown to become a landmark study, Wolf’s 1998 article, “Conflict and Cooperation Along International Waterways”, found that there have been hardly any water wars in all of human history. In findings derived from Oregon State University’s Transboundary Freshwater Dispute Database (TFDD), Wolf explained that a systematic study of the interstate interactions over water reveals a history more replete with cooperation than conflict. Wolf, and his team of researchers, using a comprehensive dataset that identified 412 crises for the period 1912-1994, found only four disputes where water was partially a cause. They broadened the scope to include a total of seven “incidents” where water may have been an independent variable influencing armed aggression, only to find that in three of these incidents no shots were fired. Wolf concluded that “As near as we can find, *there has never been a single war over water.*”²⁰⁴ Instead of the interstate violence that has been consistently forecasted, the study, building upon earlier evidence compiled by Wolf²⁰⁵ and Hamner and Wolf²⁰⁶, found that cooperation along shared waterways is historically far more common. This has again been confirmed in subsequent findings by Wolf and others.²⁰⁷ Instead of wars over water, which are not “strategically rational,

²⁰⁴ Wolf. “Conflict and Cooperation Along International Waterways.” 255. Italics in original.

²⁰⁵ Aaron T. Wolf. “International water conflict resolution: lessons from comparative analysis.” *International Journal of Water Resources Development*. 13.3 (1997): 333-366.

²⁰⁶ Jesse Hamner and Aaron Wolf. “Patterns in international water resource treaties: the Transboundary Freshwater Dispute Database.” *Colorado Journal of International Environmental Law and Policy*, 1997 Yearbook. 1997.

²⁰⁷ Aaron T. Wolf. *Transboundary Waters: Sharing Benefits, Lessons Learned*. Thematic Paper, (Bonn Freshwater Conference, Bonn Germany November, 2001); Aaron T. Wolf. *Conflict and cooperation: Survey of the past and reflections for the future*. (Geneva: Green Cross International, 2002); Aaron T. Wolf,

hydrographically effective, or economically viable,” states have endeavored to find common ground when it comes to shared waterways. Wolf’s team identified 3,600 treaties that have been signed over different aspects of international water (400 in the twentieth century alone.) This stands in stark contrast to the water wars literature that was commonplace in the early 1990s.

The data produced by TFDD has had a major impact on how water can be seen alternative to the prevailing discourses that place water scarcity in the context of war and violent conflict. Indeed, Phillips *et al.* write that: “It is rare that findings within social science produce instant paradigm shifts. However, with the surprising results from The Transboundary Freshwater Dispute Database disclosing that there have hardly been any ‘water wars’ in human history, the tables were turned almost overnight.”²⁰⁸

New emphasis on the potential for water to bridge political and psychological divides has recently emerged in the wake of the quantitative studies produced by Wolf and others. Many studies produced in the last decade have emphasized the cooperative side of water

Annika Kramer, Alexander Carius, and Geoffrey D. Dabelko. “Managing Water Conflict and Cooperation.” *Worldwatch Institute, State of the World 2005: Redefining Global Security*. (Washington DC: Worldwatch Institute, 2005); Anthony R. Turton. “Water wars in Southern Africa: Challenging Conventional Wisdom.” *Water Wars: An Enduring Myth or Impending Reality?* Eds. Hussein Solomon, and Anthony R. Turton. (Durban: Accord Publishers, 2000): 35-65; Anthony R. Turton. “Water and State Sovereignty: The Hydropolitical Challenge for States in Arid Regions.” *Conflict Prevention and Resolution in Water Systems*. Ed. Aaron Wolf. (Cheltenham, England: Edward Elgar, 2002): 516–533; Anders Jägerskog. *Why States Cooperate over Shared Water: The Water Negotiations in the Jordan River Basin*. (Department of Water and Environmental Studies, Linköping University, Sweden. 2003).

²⁰⁸ David Phillips, Marwa Daoudy, Stephen McCaffrey, Joakim Öjendal and Anthony R. Turton. *Transboundary Water Co-operation as a Tool for Conflict Prevention and Broader Benefit Sharing*. (Stockholm, Ministry of Foreign Affairs Sweden, 2006): 25.

politics.²⁰⁹ A few authors point to “discourses of cooperation”²¹⁰ and “rising spirals of benevolent relations”²¹¹ instead of once-familiar discourses of conflict or spirals of insecurity. They contend that conflict over water – whether violent or not – is a rarity at the shared basin level. This new emphasis on the counter-hypothesis – that water scarcity can lead people to cooperate – is representative of a larger trend within environmental security studies. As chapter one of this dissertation showed, it is not without significance that the UN has declared 2013 the International Year of Water Cooperation.

The speculative theorizing often at the root of early forms of environmental security has become less commonplace – at least when it comes to predicting future water wars. Instead, a teleological approach to the environment and cooperation has assumed a much more prominent place in academic studies. This approach has emphasized the discourse of cooperation and challenged sovereignty and the privileging of independent national development priorities.²¹² This has contributed to the emergent fourth phase of environmental security literature, discussed earlier in this chapter, which links together

²⁰⁹ Jonathon Chenworth. “Key Issues and trends in water policy literature.” *Water Policy* 14.6 (2012): 1047-1059; A. H. Conley, and P. H. van Niekirk. “Sustainable management of international waters: The Orange River case.” *Water Policy*, 2 (2000), 131–149; Peter Huisman, Joost de Jong, and Koos Wieriks. “Transboundary cooperation in shared river basins: Experiences from the Rhine and North Sea.” *Water Policy*, 2 (2000), 83–97; N. Kliot, D. Shmueli, and U. Shamir, “Institutions for management of transboundary water resources: Their nature, characteristics and shortcomings.” *Water Policy*, 3,(2001), 229–255; C.W. Sadoff, and D. Grey, “Beyond the river: the benefits of cooperation on international rivers.” *Water Policy*, 4 (2002): 389–403.

²¹⁰ Alan Nicol. “The dynamics of river basin cooperation: The Nile and Okavango basins.” *Transboundary Rivers, Sovereignty and Development: Hydropolitical Drivers in the Okavango River Basin*. Eds. Anthony R. Turton, P.J. Ashton, and E. Cloete. Pretoria: African Water Issues Research Unit, and Geneva: Green Cross International, (2002): 167-186.

²¹¹ Phillips et.al, *Trans-boundary Water Co-operation as a Tool for Conflict Prevention and Broader Benefit Sharing*, 26; Jägerskog, *Why States Cooperate over Shared Water: The Water Negotiations in the Jordan River Basin*.

²¹² Nicol, 167-8.

human, environmental, and gender security and peace research.²¹³ Some, such as Spring, Brauch, and Dalby are hopeful that this new phase in the literature will be more comprehensive, and better integrate physical and human sciences in ways that “neither focus on states on the one hand, or environmental causes as a simple variable on the other.” This new type of ecological thinking should focus on adaptability, resilience, and interconnection: “understanding security in contrast to earlier formulations assuming central control and violence as the essence of security.”²¹⁴

Many of these authors are careful to temper any undue enthusiasm for water to act as a magical panacea, curing international conflict. The intent is rather to present a fuller picture of the complex interactions that surround shared management of water resources. It is clear that water contains the potential to destabilize international relations, but it seems far more appropriate to speak of the consequences related to its unequal access, rather than competition over water resources.²¹⁵ The authors writing on water as part of the new phases of environmental literature are more reluctant to produce extensive conclusions about either the inevitability of conflict or the likelihood of cooperation. It is clear that expanding the scope of analysis beyond conflict and war and including cooperation and negotiation has allowed for a wider range of approaches to water security. These new approaches often incorporate different facets of the relationship between water, conflict, and cooperation. Recent studies have highlighted the role of

²¹³ Spring, Brauch and Dalby, 1277.

²¹⁴ Spring, Brauch, and Dalby, 1294.

²¹⁵ Peter H. Gleick. Ed. *The World's Water 2011: The 7th Biennial Report on Freshwater Resources*. New York: Island Press, 2004.)

water regimes in facilitating hydrosolidarity²¹⁶, the potential for spillover effects of water cooperation²¹⁷, the role of the poor and the implications for water management institutions in future water related conflict²¹⁸, and the coexistence of conflict and cooperation in transboundary water interaction.²¹⁹ This is only a small sampling to demonstrate the diversity of the latest stage of water security literature. As was discussed at some length in the previous chapter, the reduction of a whole scope of environmental security studies to singular paradigms is a misleading discursive tactic that obscures a consistently complex literature. Nevertheless there is some value in producing some synthesis of the literature because it can shed some light on the new approaches that have arisen in response to previous empirical findings and theoretical advancements. It is clear that there exists a highly complex and diverse literature investigating the myriad political and environmental issues associated with the management of water. The debate over whether water wars will occur seems to have muted in recent years (at least in academic circles), with a larger focus on how states cooperate over shared water resources. And while it is accepted that states often cooperate in the field of water resource management, we should heed various warnings that there still remains rapidly increasing demands for

²¹⁶ Julia Wunderer. "The Central Asian Water Regime as an Instrument for Crisis Prevention." *Facing Global Environmental Change: Environmental, Energy, Food, Health, and Water Security Concepts*. Eds. Hans Günter Brauch, Hans Günter Brauch, Úrsula Oswald Spring, John Grin, Czeslaw Mesjasz, Patricia Kameri-Mbote, Navnita Chadha Behera, Béchir Chourou, Heinz Krummenacher. (Berlin: Springer Berlin Heidelberg, 2009): 739-748.

²¹⁷ Arun P. Elhance. "Conflict and Cooperation Over Water in the Aral Sea Basin," *Studies in Conflict and Terrorism* 20.2 (1997): 207-218.

²¹⁸ Jannik Boeson and Helle Munk Ravnborg, Eds. "From Water 'Wars' to Water 'Riots' – Lessons From Transboundary Management," *DIIS Working Paper no 2004/6: Proceedings of the International Conference*. (Copenhagen: DIIS, 2003).

²¹⁹ Mark Zeitoun and Naho Mirumachi. "Transboundary Water Interaction I: Reconsidering Conflict and Cooperation." *International Environmental Agreements* 8.4 (2008): 297-316.

strategic access to water by certain co-riparian states, which is caution against complacency.²²⁰

What the debate over water wars shows is that in academic circles there currently exists a high degree of skepticism over the potential of water to act as a primary causal variable driving states to war. Yet there still remains a popular discursive reliance on the familiar perceptions of future water conflict. Most academic studies dismiss the notion that wars over water will dot the geopolitical landscape of the twenty-first century. Yet, we are often reminded by journalists and policymakers to expect increasing conflict in response to rising demand and dwindling resources. The nexus between water and impending conflict, drawn from Malthusian assumptions, is repeated and reiterated in the popular media. A Google search of “Water Wars” typically returns over 213,000,000 hits.

Further, the message being constructed and conveyed in many analyses and statements by international experts is that the world is on the verge of a major water quantity and quality crisis. Arising from these truly dire warnings are a number of predictions from influential individuals that the world could experience future conflicts over water. As mentioned earlier, the last three UN Secretary Generals have all warned of water wars. The most provocative, and widely cited warning comes from Ismail Serageldin, former Vice President of the World Bank, who stated in 1995 that, “if the wars of the Twentieth

²²⁰ Phillips *et al.* *Trans-boundary Water Co-operation as a Tool for Conflict Prevention and Broader Benefit Sharing*, 26.

Century were fought over oil, the wars of this century will be fought over water.”²²¹

Phillip Stucki writes:

The new perspectives on the nexus between water scarcity and potential conflicts (also called ‘water peace’ literature) were very successful in academic circles, and can be said to currently represent an epistemic consensus. However, not much has changed outside of the scientific debate. In March 2001, UN Secretary-General Kofi Annan still warned of future water wars. In the media, the fear of water wars is still expressed regularly, and little can be found concerning the cooperative potentials in dealing with water scarcity.²²²

That the popular discourse is still flooded with warnings about water wars, despite the shift in academic circles towards a more holistic, integrative, approach towards water and security, points to the resiliency of hegemonic concepts. It seems safe to conclude that following the findings of the TFDD and subsequent analyses trumpeting water as a path to peace, the academic “debate” is no longer entirely relevant. However, articles still appear regularly in reputable news organizations proclaiming the need to develop coherent responses to water and resource scarcity, lest it push states or groups to violent conflict, or worse, war.²²³ Thus, given this apparent disconnect between solid academic consensus against the likelihood of water wars and popular retention of the water war

²²¹ Barbara Crosette. “Severe Water Crisis Ahead for Poorest Nations in the Next Two Decades,” *The New York Times*. 10 August, 1995, Section 1, p. 13.

²²² Phillip Stucki. “Water Wars or Water Peace: Rethinking the Nexus between Water Scarcity and Armed Conflict” *Programme for Strategic and International Security Studies* PSIS Occasional Paper 3. (Geneva, PSIS, 2005): 11-12.

²²³ Steve Connor. “Thirsty World Faces War Over Water.” *The Independent*. 21 March 1999. Online. 5 January 2013. <<http://www.independent.co.uk/news/thirsty-world-faces-war-over-water-1082108.html>> accessed 4 March 2011; Jeffrey Sachs. “Stemming the Water Wars.” *The Guardian*. 26 April, 2009. Online. 5 January 2013. <<http://www.guardian.co.uk/commentisfree/cif-green/2009/apr/26/water-shortage>> Gethin Chamberlain. “India Prays for Rain as Water Wars Break Out.” *The Guardian* 12 July, 2009. Online. 5 January 2013. <<http://www.guardian.co.uk/world/2009/jul/12/india-water-supply-bhopal>>

narrative it is useful to briefly make mention of the coercive power that the concept maintains.

Julie Trottier first applied (without explicitly defining) the idea of hegemonic concepts to water wars in a 2003 article commissioned by UNESCO. Trottier explained that the best way to understand the continued application of discursive concepts such as “water wars” (and conversely “water peace”) is to return to Gramsci’s idea of hegemony. Hegemony might be understood as a consensual form of power. Thus, power in a hegemonic form marginalizes coercive forms of power that are applied to historically specific social classes. This opens up the role for new social bases of power, principally civil society. Gramsci believed that a fuller notion of the state was required to fully comprehend its administrative, executive, and coercive apparatuses. This enlarged definition of the state included the hegemonic structures of civil society, which helped establish limits of political action. Dominant social groupings arranged in the church, the educational system, the press, and other institutions, established these limits of acceptable political action in historical terms. Robert Cox explains that these social groups must be considered as part of the state, and should be used for the purpose of evaluating its broad political structure, extending into the powerful realm of ideas.²²⁴ Certainly Gramsci himself clarified how the modern “night-watchman state” blends civil society with political society through the diffusion of hegemonic persuasion. He wrote, “Certain elements that fall under the general notion of the state must be restored to the notion of civil society (in the sense, one might say, that state = political society + civil society, that

²²⁴ Robert W. Cox. “Gramsci, Hegemony, and International Relations.” *Millennium: Journal of International Studies*. 12.2 (1983): 164.

is, hegemony protected by the armour of coercion).”²²⁵ The implication here is that the state is able to function as an image of the non-state, by relying upon the expressions of civil society to peacefully coerce men and women to accept its laws.

The intellectual stratum that carries forward hegemonic ideas often does so by picking up ideas that originate from prior eras and revolutions.²²⁶ Various members of national and international society carry these ideas, once held as self-evident, forward in new patterns of emulation. The diffusion of norms is one of the primary processes through which hegemony operates. For its purposes here, the concept of water as a causal variable affecting war and/or conflict seems to remain a “hegemonic concept” in that it retains vitality in popular discourse, despite being largely proven false or misleading. While academic consensus will always (and should always) remain elusive, there is little debate anymore on the validity of future water wars, at least conventionally understood. Instead, concerns are more likely to be voiced over the “water riots,”²²⁷ the use of water for facilitating cooperation, human water security (and water rights), and other forms of “new security thinking” in inter-state and intra-state water relations.²²⁸

²²⁵ Antonio Gramsci. *Prison Notebooks Vol III*. Edited and Translated by Joseph A. Buttigieg. (New York: Columbia University Press, 2007): 75.

²²⁶ Cox, 170.

²²⁷ Boeson, and Ravnborg.

²²⁸ Jan Selby. “‘New Security Thinking’ In Israeli-Palestinian Water Relations.” *Facing Global Environmental Change: Environmental, Energy, Food, Health, and Water Security Concepts* Eds. Hans Günter Brauch, Hans Günter Brauch, Úrsula Oswald Spring, John Grin, Czeslaw Mesjasz, Patricia Kameri-Mbote, Navnita Chadha Behera, Béchir Chourou, Heinz Kruppenacher. (Berlin: Springer Berlin Heidelberg, 2009): 623-631.

3.4 Conclusion

Much of the popular literature exploring water and security approaches the problem strategically; the debate centres on the nature of the looming threat of water scarcity and how states should best respond. This dissertation moves elsewhere, not strictly concerning itself with strategy but rather with how the securitization of water itself might engender policies that view water scarcity as a potential threat to states. It thus problematizes the prevailing statist ontology that underpins the majority of security studies. It is a critique that extends beyond just empirical studies of water conflict or water war. It is important to explore not only the historical and contemporary political terrain of water security, but also the conceptual sites in which the production of the possibility of “security” occurs. This chapter presented a brief overview of the various stages of environmental security literature, including the shift in academic thinking towards water as an instrument compelling negotiation and cooperation, while dually containing the power to facilitate conflict. It ended with a brief look at the power of water wars as a hegemonic concept, existing independently within popular discourse due to a normative appeal for engagement with water scarcity through the lenses of traditional security. While this chapter has avoided producing an overtly critical appeal, it has sought to provide the foundation for a deeper line of critique that questions statist political ontology and the obstacles that are posed by its conceptions and representations of sovereignty, and identity – the holders of life seemingly pre-existent and requiring security.

To re-state the implications of this analysis more clearly, all this means that the re-articulation of security as a performative act laden with power can help us understand that water scarcity exists within a normalizing discourse allowing for extraordinary modes of

control and exclusion. To extend this control over a fundamental human right such as water - one that holds both ecological and spiritual importance - poses significant obstacles to peace and development. The next chapter seeks to build upon this conceptual history and examine how ongoing water securitizations require the realignment of water security theory away from enmity, exclusion, and exception.

4 CHAPTER FOUR: Water Securitization in the Anthropocene

4.1 Introduction

This chapter confronts the concept of water securitization in the Anthropocene. The Anthropocene is the contemporary geologic epoch, which is defined by humanity's impacts on the earth's systems.²²⁹ The chapter acknowledges that while the securitization approach has generated important and wide-ranging insights into the problems of water and environmental security, it never truly excavates the traditional, Schmittian-inspired, logic of security that define it in terms of exclusion and distrust. In *analytical* terms, securitization is useful in explaining how water becomes defined in terms of security. However, the concept rigidly adheres to a static, statist notion of security, which is particularly problematic in an age of global change caused by human actions.

Given that the concept of securitization represents a zenith of constructivist security insight, it is important to question its adherence to an unchanging form of security. Thus, this chapter reviews the basics of the Copenhagen School approach before turning its attention to the case of the Nile River basin, one of the most successfully securitized water regions in the world. The Nile River basin is the site of historical and ongoing securitizations, despite periods of both conflict and cooperation. As it stands today, the region is consistently framed as the site of future water wars, which works to obscure the emancipatory potential latent in complex water relationships. It is argued that securitization is insufficient for understanding the multifaceted realities and possibilities

²²⁹ Will Steffen, Jacques Grinevald, Paul Crutzen, and John McNeill. "The Anthropocene: conceptual and historical perspectives," 842.

that water (and the wider environment) provides because it relies upon the singular security concept that privileges the preservation of the territory and sovereignty of the nation-state from militaristic threats, to the detriment of alternative readings of security that seek to create the conditions for the emancipation of individuals from structural oppressions. This argument represents an attempt to begin relocating security to the realm of individuals and their natural environments, which is beneficial for broadly comprehending the complex relationships between water, human, and non-human life, and which will be explored at greater length in the chapters to follow.

4.2 Securitization: Speech acts and the construction of security

By labeling something a security issue, it becomes one. This is the heart of securitization. Since its most thorough explication by Buzan, Waever, and de Wilde in 1998, the concept of securitization has received significant attention within security studies. In the same way that constructivism has proven to be an attractive “middle-ground” for security scholars, securitization approaches are able to utilize insights from critical approaches like post-structuralism as well as from more traditional security areas, such as neo-realism. Indeed, the connection between constructivism and the concept of securitization is fairly explicit; Buzan and Waever have said so themselves: “Our securitization approach is radically constructivist regarding security.”²³⁰

²³⁰ Barry Buzan, Ole Wæver, and Jaap de Wilde. *Security: A New Framework for Analysis*. (Boulder: Lynne Rienner Publishers, 1998): 204.

The following section lays out the “Copenhagen School” approach and argues that a critical security of water stands to benefit conceptually from its varied insights. In particular, it can help in understanding the process of broadening security, and the ways in which issues (if not the concept of security itself) become intersubjectively defined as *security* issues in speech and practice. However, as will be made clear, the Copenhagen School essentializes security as state-centric focusing almost exclusively on threats to and defence of the state. It thereby fails at the task of deepening security, which the emancipatory approach attempts. As a result, while securitization is a process that remains analytically important, its normative deficiencies are significant enough to warrant caution and reflection.

The name “Copenhagen School” was coined by Bill McSweeney in a 1996 critical essay titled “Identity and Security: Buzan and The Copenhagen school.”²³¹ To use the moniker is to refer to a broad program of study that is built around three main ideas: 1) securitization 2) sectors and 3) regional security complexes. In general, securitization is the most important of the three ideas, as it forms the meta-theoretical framework of the School.²³²

The academics belonging to the Copenhagen school of security studies such as Barry Buzan and Ole Wæver have been credited with forming the concept of securitization.

²³¹ Bill McSweeney. “Identity and Security: Buzan and the Copenhagen School.” *Review of International Studies*, 22.1 (1996): 81-93.

²³² Ole Wæver. “Aberystwyth, Paris, Copenhagen: New ‘Schools in Security Theory and their Origins Between Core and Periphery.” Paper presented at the annual meeting of the *International Studies Association*, Montréal, March 17-20, 2004: 8.

While its ideas bounced around in numerous precursory publications²³³ The Copenhagen school of security studies is most coherently articulated in *Security: A New Framework for Analysis*, written by Barry Buzan, Ole Wæver, and Jaap de Wilde in 1998. In it, the authors spend significant time defining and marking securitization as an important form of rhetorical structure and practice. They begin with the constructivist insight that, “Security can never be based on the objective reference that something is in and of itself a security problem. That quality is always given to it in human communication.”²³⁴

Securitization is defined as the intersubjective establishment of an existential threat with a saliency that is judged to have substantial political effects.²³⁵ They write that to securitize an issue takes the politics of it beyond the established rules of the game and frames the issue either as a special kind of politics or as above politics. When an issue is securitized it is “presented as an existential threat, requiring emergency measures and justifying actions outside the normal bounds of political procedure.”²³⁶

The process of securitization, or bringing an issue into the security framework, requires a level of state mobilization that would otherwise not be called upon to address the issue. As such, the state plays a central role. It addresses the identified threats by eliminating

²³³ Ole Wæver, Barry Buzan, Morton Kelstrup and Pierre Lemaitre. *Identity, Migration, and the New Security Agenda in Europe*. (London: Pinter, 1993); Ole Wæver. “Securitization and De-securitization,” *On Security*. Ed. Ronnie D. Lipschutz. (New York: Columbia University Press, 1995), 46-86; Barry Buzan. *People, States, and Fear: An Agenda for International Security Studies in the Post-Cold War World*. 2nd ed. (London: Lynne Rienner, 1991).

²³⁴ Barry Buzan and Ole Wæver. “Slippery? contradictory? sociologically untenable? The Copenhagen school replies.” *Review of International Studies* 23.2 (1997): 246.

²³⁵ Buzan *et al*, 1998, 25.

²³⁶ Buzan *et al*, 23-24.

the chance that such threats would successfully overthrow the state and its apparatuses. It legitimizes the use of force and opens the way for the state to mobilize or take special power – e.g. using conscription, secrecy, and other means only legitimate when dealing with ‘security matters’.²³⁷

Securitization scholars look to discourse to understand how certain issues become security issues. In essence, securitization is a speech act.²³⁸ By exploring the discursive nature of the object in relation to conflict through analyses of particularly employed rhetorical and semiotic structures, one may determine what allows intended audiences to tolerate violations of rules that would otherwise have been obeyed.²³⁹ It must be noted that, echoing trends in social science towards a “linguistic turn” this baseline assumption relies upon a *performative* understanding of discourse, instead of a *representational* view. By saying the words of security something is done. It is clear that a sentence like “Water is a major security problem in our country’ does not have the same effect as a sentence like, “An apple falls from the tree.” The former sentence has a performative force.²⁴⁰ Uttering security is an act itself. Securitization does not point to an object that is *real*; rather it actually performs to make an object an existential threat.²⁴¹ This is a clear,

²³⁷ Buzan *et al*, 24.

²³⁸ Buzan, Wæver, and de Wilde rely heavily upon John Austin’s insights, who wrote that speech acts are performative utterances, whereby in saying something, something is done (e.g. betting, marriage, etc). See John Austin. *How To Do Things With Words*. 2nd ed. Eds. J.O. Urmson and Marina Sbisa. (Cambridge MA: Harvard University Press, 1975).

²³⁹ Buzan *et al*, 25.

²⁴⁰ Jef Huysmans. “Defining Social Constructivism in Security Studies. The Normative Dilemma of Writing Security.” *Alternatives: Global, Local, Political*, 27.1 (2002): 45.

²⁴¹ Barry Buzan. “Rethinking Security After the Cold War.” *Cooperation and Conflict*, 32.1 (2001): 14.

constructivist reading of security, one that consciously avoids an objectivist account of security threats. For the Copenhagen school, security is dependent on its successful construction in discourse.²⁴²

At its most fundamental, securitization is the process by which something becomes designated in security language. The designation of the threat determines how we think. And, as Simon Dalby has argued, how we think, “leads not only to how we act politically, but also to our understandings of who we are, what we value, and what we are prepared to countenance to protect our self-preferred identity.”²⁴³ For scholars of the Copenhagen school, the articulation of threat and security structures the social practices that follow.²⁴⁴

According to the Copenhagen school, these issues/threats are not objective. Rather, “security is what states make of it.”²⁴⁵ The task is “not to assess some objective threats that ‘really’ endanger some object, rather it is to understand the process of constructing and designating a shared understanding of what is to be considered and collectively responded to as a threat.”²⁴⁶ What is most telling for securitization theorists is how some

²⁴² Barry Buzan and Lene Hansen, *The Evolution of International Security Studies*, (Cambridge: Cambridge University Press, 2009), 213.

²⁴³ Simon Dalby. *Environmental Security* (Minneapolis: University of Minneapolis Press, 2002): xxx.

²⁴⁴ Holger Stritzel. “Towards a Theory of Securitization: Copenhagen and Beyond.” *European Journal of International Relations* 13.3 (2007): 360.

²⁴⁵ Barry Buzan and Ole Wæver. *Regions and Powers. The Structure of International Security*. (Cambridge: Cambridge University Press, 2003): 48.

²⁴⁶ Ole Wæver. “Aberystwyth, Paris, Copenhagen: New ‘Schools in Security Theory and their Origins Between Core and Periphery,” 9.

things are (or are not) designated as a “threat.” And while it seems as though concentrating on the designation of threats creates an open view of security – allowing for a substantial widening of security – the Copenhagen school is in fact able to limit the widening of security. It is able to do so because it identifies the most common securitizing actors as “political leaders, bureaucracies, governments, lobbyists, and pressure groups.”²⁴⁷ Securitization is limited to the construction of the threat and thus the holders of security are those who are placed in a privileged position of construction: The securitizing actors are the ones with the power and capacity to declare a referent object as existentially threatened. The objects in question, determined by the securitizing actor, are unsurprisingly middle-range (state-based), or macro (structural), that affect the international system.²⁴⁸ The authors claim that security is socially constructed becomes reduced to the Schmittian logic of executive unilateralism, which focuses on the actions of leaders placing themselves and their actions above the law, as part of the exception necessary for emergency politics. The result of this is to reaffirm the status quo of security despite the Copenhagen school’s novel commitment to a non-objectivist view of security through “speech acts.” The logic here is built on the assumption that there are reasonable and knowable ideas of “normal” politics and security in the first place. Given the speed and rate of environmental change in the Anthropocene, the effects of a global “War on Terror” now well into its second decade, and the spread of political upheaval

²⁴⁷ Buzan *et al*, 40.

²⁴⁸ Barry Buzan and Ole Wæver. “Macrosecuritization and Security Constellations: Reconsidering Scale in Securitization Theory,” *Review of International Studies*, 35.2 (2009): 253-276.

across the globe, it may be more apt to view the modern age as one of constant exception.²⁴⁹

It seems insufficient then to limit to security to such a reductionist framework, where non-state actors are given short shrift in terms of their material power to securitize (a reasonable claim), but more importantly, where states themselves are the moral arbiters of security based upon their abilities to enact emergency politics. From a normative position, the Copenhagen school contributes to the perpetuation of a security logic built upon a static, objectivist understanding of security as state-led and maintained. If, as earth systems approaches remind us, “nonlinearities are the rule not the exception...in the Anthropocene Era,” then it becomes illogical to rely upon the Schmittian logic at its heart.²⁵⁰ Schmitt’s seemingly prescient adage, “Sovereign is he who decides upon the exception,” may no longer apply.²⁵¹

4.3 The Securitization of Water

²⁴⁹ Some of the most interesting work on securitization has come from studies on the securitization of migration, a topic which is becoming increasingly prescient with the increase of ‘climate refugees.’ See: Jef Huysmans. *The Politics of Insecurity: Fear, migration and asylum in the EU*. (London: Routledge, 2006); Jef Huysmans. “The European Union and the Securitisation of Migration,” *Journal of Common Market Studies*. 38.5 (2000): 751-77; Ayse Ceyhan and Anastassia Tsoukala. ‘The Securitisation of Migration in Western Societies: Ambivalent Discourses and Policies,’ *Alternatives*, 27 (2002): 21-39; Scott D. Watson. *The Securitisation of Human Migration*. Ph.D Thesis, University of British Columbia, 2006.

²⁵⁰ Will Steffen. “The Anthropocene, global change and sleeping giants: where on Earth are we going?” *Carbon Balance and Management*. 1.3 (2006): n. page. Online. 27 May 2013. <<http://www.cbmjournals.com/content/pdf/1750-0680-1-3.pdf>>

²⁵¹ Carl Schmitt. *Political Theology: Four Chapters on the Concept of Sovereignty*, translated by G.Schwab. (Cambridge, MA: MIT Press, 1985 [1922]).

In the context of securitization the water wars hypothesis can offer a robust picture of the development, perpetuation, and the limitations of linking water and security. The remainder of this chapter offers a view of water securitization in the Middle East and North Africa (MENA) region and concludes by critiquing the Copenhagen School approach and paving the way for the emancipatory theory of water advanced in the next chapter.

Water crosses national boundaries, its uses are diverse, measurements are unreliable, and it lacks definitive legal generalizations. Adding to the complexity is the tripartite process of increasing water demand, decreasing water supply, and deteriorating water quality. Collectively these problems have led to an increased desire to tie water with security. In effect, water is experiencing ongoing processes of securitization.

The Copenhagen school is careful to point out that securitization works differently in different sectors (politics, religion, health, the environment) and across different scales.²⁵² However, there are three constant aspects of the securitizing speech act: a securitizing actor, a referent object to be securitized, and an audience that accepts (or rejects) the securitizing move.²⁵³ The outcome of securitization – whether successful or not – depends on the acceptance or rejection of the speech act by an audience. In the case of water, successful securitization has occurred primarily through various interpretations of the water wars hypothesis, perpetuated by political elites and reported by the media. The

²⁵² Roxanna Sjöstedt. “Health issues and securitization: HIV/AIDS as a US national security threat.”

Securitization Theory. Ed. Thierry Balzacq. London: Routledge, 2010): 150–69; Buzan and Wæver, 2009.

²⁵³ Alexander Kelle. “Securitization of Public Health: Implications for Global Health Governance and the Biological Weapons Prohibition Regime.” *Global Governance*. 13 (2007): 218-219.

most prevalent understanding of the hypothesis is that states will do anything, even wage war, to secure access to, or preserve, dwindling water supplies. A “hydrological imperative” compels states that suffer from water shortages to act aggressively against neighbouring countries. A milder form of this thesis, put forth by academics like Thomas Homer-Dixon and Peter Gleick, posits that while water alone is unlikely to serve as a *casus belli* between nations it may strain existing tensions through multiplier effects, like increasing competition for arable land, displacing drought-affected rural populations, and creating environmental refugees.²⁵⁴

Numerous high-level reports from state agencies and intergovernmental organizations have highlighted the security implications brought by environmental issues, and water in particular. In 2012, The US National Intelligence Council’s National Intelligence Estimate, which is a high-level intelligence product, released “Global Water Security,” a detailed assessment of how water and sanitation might impact US security interests. It concluded that over the next decade, while water-related state-on-state conflict is unlikely, “water problems will contribute to instability in states important to US national security interests.”²⁵⁵ Likewise, the United Nations frequently warns that countries experiencing acute water shortages are threats to the international system because of the

²⁵⁴ David Katz. “Hydro-Political Hyperbole: Examining Incentives for Overemphasizing the Risks of Water Wars.” *Global Environmental Change* 11.1 (2011): 14; Thomas Homer-Dixon. “Environmental Scarcities and Violent Conflict: Evidence From Cases.” *International Security*. 19.1 (1994): 5-40; Peter Gleick. “Environment and Security: The Clear Connections.” *The Bulletin of Atomic Scientists* 47.3 (1991): 17–21.

²⁵⁵ United States Office of the Director of National Intelligence. “Global Water Security.” Online. 1 February 2013. <http://www.dni.gov/nic/ICA_Global%20Water%20Security.pdf>

undue social stresses they create. Former UN Secretary Generals have in the past proclaimed the high potential for water violence. Boutros Boutros Ghali told the US Congress that, “the next war in the Middle East will be fought over water, not politics.”²⁵⁶ Kofi Annan suggested that “fierce competition for freshwater may well become a source of conflict and war in the future.”²⁵⁷ Current UN Secretary-General Ban Ki-moon has also highlighted reports that environmental changes, including droughts “are likely to become a major driver of war and conflict.”²⁵⁸ These conclusions voiced by high-ranking public officials and state administrations contribute to the widespread belief - prevalent in public discourse - that water scarcity will lead to an increase of violent conflict, of “water wars.”

Support for the water wars thesis is infrequent in academia, but government officials, business leaders, and the media often repeat its warnings.²⁵⁹ Past heads of state like Anwar Sadat of Egypt, King Hussein of Jordan, and Israeli Prime Minister Ariel Sharon

²⁵⁶ BBC News. “Talking Point: Ask Boutros Boutros Ghali.” *BBC News*. 10 June 2003. Online 5 February 2013. <http://news.bbc.co.uk/2/hi/talking_point/2951028.stm>

²⁵⁷ Association of American Geographers “United Nations Secretary General Kofi Annan addresses the 97th Annual Meeting of the Association of American Geographers” [Transcript of speech]. Association of American Geographers 2001. Online. 20 April 2008 <<http://www.aag.org/News/kofi.html>>

²⁵⁸ Ban Ki-moon. Address to the United Nations International School – UN Conference on “Global Warming: Confronting the Crisis. 2007. Online. 6 February 2013 <http://www.un.org/apps/news/infocus/sgspeeches/search_full.asp?statID=70>

²⁵⁹ As explained in earlier chapters, most studies that provide empirical evidence for the water wars thesis are focused on the Middle East: Kevin Freeman. “Water Wars? Inequalities in the Tigris-Euphrates River Basin.” *Geopolitics* 6.2 (2001): 127-140; Arun Elhance. *Hydropolitics in the Third World: Conflict and Cooperation in International River Basins*. (Washington, DC: United States Institute of Peace Press, 1999); John Bulloch, and Adele Darwish. *Water Wars: Coming Conflicts in the Middle East*. (London: St. Edmundsbury Press, 1993); Miriam R. Lowi. *Water and Power: the Politics of a Scarce Resource in the Jordan River Basin*. (Cambridge, MA: Cambridge University Press, 1993).

have all warned about the likelihood of water wars.²⁶⁰ In March 2012, the UK Secretary of State for Energy and Climate Change alerted a conference of high ranking politicians and diplomats that, “Countries have not tended to go to war over water, but I have a fear for the world that climate instability drives political instability...The pressure of that makes conflict more likely.”²⁶¹ He continued, “Where the risk of conflict already burns brightly, it will focus the flame.”²⁶² These interpretations offer similar conclusions: water could be an important variable in historical cases of conflict. As its strategic value rises with its scarcity, the world is likely to see an increase in water-related conflict.

4.4 Water Securitization in the MENA Region: The Nile River Basin

Unsurprisingly, the most resilient and successful examples of water securitization are found in the MENA region. The focus on water security in the MENA region is intrinsically tied up with the reality of demographic changes and economic development, together with continued political tension and absolute water stress. The Nile River Basin offers a fairly succinct example of the processes and effects of water securitization in the

²⁶⁰ Katz, 14; Hussein A. Amery. “Water Wars in the Middle East: A Looming Threat.” *Geographical Journal* 168.4 (2002): 313-323); Ariel Sharon, and David Chanoff. *Warrior: The Autobiography of Ariel Sharon*. (New York: Simon and Schuster, 1989); Joyce R. Starr. “Water Wars.” *Foreign Policy* 82 (1991): 17-36.

²⁶¹ Fiona Harvey. “Water wars between countries could be just around the corner, Davey warns.” *The Guardian* 22 March. Online 7 February 2013. < <http://www.guardian.co.uk/environment/2012/mar/22/water-wars-countries-davey-warns>>

²⁶² Edward Davey. “Edward Davey Speech to Climate and Resource Security Dialogue for the 21st Century conference.” Climate and Resource Security Dialogue for the 21st Conference. London, UK. 22 March 2012. Online 7 February. < <https://www.gov.uk/government/speeches/edward-davey-speech-to-climate-resource-security-dialogue-for-the-21st-century-conference>>

region. It can also demonstrate how the concept of securitization faithfully recreates the story of security as being defined by enmity, competition, and perpetual threat of conflict.

The Nile River Basin (See figure 1), covering 10 percent of the African continent, has always been an important artery for the lifeblood of the region. The Nile is the longest river in the world at 6850 km²⁶³, but its overall volume is incredibly small. Its annual discharge is only 6 percent of that of the Congo. It has two main tributaries: the White Nile, originating from Lake Victoria in east central Africa, and the Blue Nile, sourced from the highlands of Ethiopia. From their confluence, the river flows northwards into Egypt and out into the Mediterranean Sea. Because of the length of the river, regional climatic changes and developmental disparities are significant. The tributaries begin in humid conditions, in areas with annual rainfalls of 1200-1500 mm.²⁶⁴ However, the downstream portion of the river flows northward through the Sahara desert. Thus, for half of its journey, the Nile travels through countries that have effectively no rainfall and close to 80 million people in the downstream areas depend exclusively on the Nile for their water supply.²⁶⁵

²⁶³ There is some disagreement from some Brazilian researchers who claim the Amazon is longer.

²⁶⁴ Food and Agricultural Organization of the United Nations (FAO). *Synthesis Reports: FAO-Nile Basin Project*. (Rome, FAO, 2011): 4.

²⁶⁵ David Michael, Amit Pandya, Syed Iqbal Hasnain, Russell Sticklor, and Sreya Panuganti. "Water Challenges and Cooperative Response in the Middle East and North Africa." *The Brookings Project on U.S. Relations with the Islamic World: 2012 U.S.-Islamic World Forum Papers* (Washington DC: Brookings, November 2012): 16



Figure 1: The Nile Basin²⁶⁶

The world's first civilizations grew out of the Nile River Basin over 4 millennia ago, and it continues today to drive the social, political and, economic identities of its inhabitants. Eleven countries share the basin with 200 million people inhabiting the Nile Basin itself

²⁶⁶ Thomson Reuters Foundation. "Water Scarcity: Conflicts on Interest." 2012. Online. 13 February 2013. <<http://www.trust.org/documents/water-conflict-map.pdf>>

and 370 million living in the countries that share it.²⁶⁷ This represents almost 40 percent of Africa's population. Overall, the region is one of the poorest in the world, characterized by weak institutions, armed strife, and political instability. All of this is intensified by a population growth projected to be between 61-82 percent by 2030.²⁶⁸ The disparities among the social and environmental geographies contribute to the overall stress placed on this crucial waterway. The downstream riparians, because their societies have used the Nile for thousands of years, have “developed a sense of entitlement and have adopted the principle of ‘prior utilization’, which gives the right of use to the first user.”²⁶⁹ Two countries – Egypt and Sudan – comprise 98.7 percent of the basin's irrigated lands.²⁷⁰ Adding to the complexity is the fact that the Nile Basin is home to some of the poorest countries in the world. Taking out Egypt and Kenya, the remaining 9 basin countries are classified by the United Nations as “least developed.” Almost 100 million residents live on less than a dollar a day. The humanitarian crises created by the HIV/AIDS epidemic, severe waterborne diseases and malaria, as well as violent interstate and intrastate conflict further compound this debilitating poverty.²⁷¹

The deep complexities of the Nile River Basin – power and geographic asymmetries, variability caused by climate change, competing water uses, pervasive poverty and

²⁶⁷ These include Rwanda, Burundi, Democratic Republic of the Congo, Tanzania, Kenya, Uganda, Eritrea, Ethiopia, Sudan, South Sudan, and Egypt.

²⁶⁸ FAO. Population Prospects in the Nile Basin.” *Information Products for Nile Basin Water Resources Management*. Online. 8 February 2013 <<http://www.fao.org/nr/water/faonile/index.html>>

²⁶⁹ FAO, *Synthesis Reports: FAO-Nile Basin Project*, 2011: 5.

²⁷⁰ Michael, Pandya, Hasnain, Sticklor, and Panuganti, 16.

²⁷¹ Ashok Swain. “Mission Not Yet Accomplished: Managing Water Resources in the Nile River Basin.” *Journal of International Affairs* 61.2 (2008): 203.

underdevelopment, institutional inefficiency and corruption, infrastructure deficiencies, and political and ethnic volatility – contribute to its persistent characterization as a likely site for future water wars. Authors like Bulloch and Darwish, Waterbury and Whittington, Klare, and Shiva, have all used the Nile Basin to further the narrative that water wars will break out over use of the Nile.²⁷² UNESCO’s former Director-General Federico Mayor, directly referred to the Nile when he claimed that “More than petrol and land, it is over water that the most bitter conflicts of the near future may be fought.”²⁷³

The whole Nile Basin is securitized, though it is most formally oriented around Egypt and Sudan, which together use 94 percent of the river’s water. Because of Egypt’s geographical deficiencies (it is 97 percent desert), it is forced to into an extreme reliance upon the waters of the Nile. Essentially, all of its domestic food, water, and power come from the Nile. Thanks to a generous allotment of water from the 1959 Nile Waters Agreement between Egypt and Sudan, Egypt has been able to maintain a hegemonic position in the region and thrive in the absence of anything close to native water abundance. However, the overall water picture remains difficult for Egypt. Its current

²⁷² Robin Clarke. *Water: the international crisis*. (London: Earthscan, 1991); Peter Gleick. “Water and conflict.” *International Security* 18.1 (1993): 79–112; Ashok Swain. “Water scarcity: a threat to global security.” *Environment & Security* 1.1 (1996): 156–172; Bulloch and Darwish. 1993; John Waterbury and Dale Whittington. “Playing Chicken on the Nile? The Implications of Microdam Development in the Ethiopian Highlands and Egypt’s New Valley Project,” *Natural Resources Forum* 22.3 (1998): 155-163; Michael T. Klare, *Resource Wars: The New Landscape of Global Conflict*. (New York: Henry Holt and Company, 2001); Vandana Shiva. *Water Wars: Privatisation, Pollution, and Profit*. (Cambridge, Mass: South End Press, 2002).

²⁷³ Federico Mayor, quoted in Olaf Westermann, “Interstate Collaboration, Local Conflicts and Public Participation in the Nile River Basin.” *From Water ‘Wars’ to Water ‘Riots’? – Lessons from Transboundary Water Management*. Danish Institute for International Studies Working Paper, no. 2004/6 Eds. Jannick Boeson and Hell Munk Ravnborg. (Copenhagen: Danish Institute for International Studies, 2003): 113-114.

renewable water resources stand at 706 m³ per capita, leaving the country classified as “water poor”,²⁷⁴

Sudan, the largest country in Africa, is also highly dependent upon the Nile. Its average annual rainfall is 416 mm, but this number obscures the high variance in geographical climate. Its north is essentially bone-dry with an average annual rainfall of 25 mm, while the tropical rain forests of the south accumulate 1,600 mm per year. The erratic nature of rainfall means that Sudan is highly dependent upon the Nile. Total water withdrawal is estimated at 37 km³, with the country being allocated 18.5 km³/year from the 1959 Nile Waters Agreement. Of the 37 km³ withdrawn, 36 km³ is used by agriculture, which contributes 90 percent of the country’s non-oil export earnings.²⁷⁵ It is clear that the Nile River Basin is of existential importance to the peoples of Sudan and Egypt.

It is rather remarkable that the creeping securitization of the Nile River Basin, especially in the context of Egypt and Sudan, has occurred in a period when relationships among Nile Basin countries have transitioned from “competition to cooperation.”²⁷⁶ The period immediately after the signing of the 1959 Nile Waters Agreement was defined by a new post-colonial reality. British colonialism in the region brought with it an attempt to exert hegemonic control over the basin, and ensure uninterrupted downstream flow. As the colonial period faded, riparian countries were mostly preoccupied with state-level

²⁷⁴ Michael, Pandya, Hasnain, Sticklor, and Panuganti, 17.

²⁷⁵ FAO. *Sudan: Country Profile*. Food and Agriculture Organization of the United Nations. 2005. Online. 9 February 2013. < http://www.fao.org/nr/water/aquastat/countries_regions/SDN/index.stm>

²⁷⁶ Jutta Brunnee and Stephen J. Toope. “The Changing Nile Basin Regime: Does Law Matter?” *Harvard International Law Journal* 43.1 (2008): 137. 122–131.

struggles for self-determination. The colonial legacy has loomed large over negotiations of the Nile ever since. Most countries in the basin did not win their independence until the 1960s, leaving them absent from the initial allocation discussions. This has led to some countries, like Ethiopia arguing for a new treaty to replace the Nile Waters Agreement, because it was never party to it. Indeed, “riparian cooperation in the Nile basin is essentially a post-colonial phenomenon, enormously influenced and somehow predetermined by the hydrological and hydro-political legacies of the colonial era.” The period between 1959 and 1999 was generally defined by competition and little cooperation over the Nile Basin. Mekonnen argues that, “hegemonic control and competition, which constituted the central preoccupation of the colonial powers,” was replicated by the newly independent riparians, which were distrustful of one another, lacked integrative activities, and demonstrated highly disparate interests.²⁷⁷

The generally competitive nature of riparian relationships lasted until 1999 when a new cooperative venture, the Nile Basin Initiative (NBI), was launched. Until then there had been no joint management, or coordinated planning and development of the Nile.²⁷⁸ However, with the creation of the NBI, it was hoped that a new era would emerge. In some respects, it has led to a shift in the tone and the substance of state-to-state relationships along the Nile. Officially designed to, “achieve sustainable socio-economic development through the equitable utilization of and benefit from the common Nile Basin

²⁷⁷ Dereje Zeleke Mekonnen. “The Nile Basin Cooperative Framework Agreement Negotiations and the Adoption of a ‘Water Security’ Paradigm: Flight into Obscurity or a Logical Cul-de-sac?” *European Journal of International Law* 21.2 (2010): 424.

²⁷⁸ Brunnee and Toope, 137.

water resources,”²⁷⁹ the NBI now comprises all eleven countries in the Nile Basin. Perhaps its most lasting impact will be encouraging the active inclusion and participation of Ethiopia, which until then had been long been resentful of its lack of involvement in decision-making and the small percentage of its water use, despite 85 percent of the Nile’s water originating there. All the key actors are engaged in the NBI, and the initiative is careful to facilitate both technical and political dimensions of the Basin’s management. Its central element, the Strategic Action Program (SAP), is made up of two complementary programs, the Shared Vision Program, and the Subsidiary Action Program. The SVP, supported by UNDP, was completed in 2009 and was comprised of eight basin-wide programs to build trust, confidence, and capacity building. The Subsidiary Action Program is more investment-oriented, encouraging projects that are trans-boundary and that contribute to poverty alleviation, reverse environmental degradation, and promote socio-economic growth in the riparian countries.²⁸⁰ It continues today.

Since its inception in 1999 the NBI has always been viewed as a transitional mechanism, working as a capacity-builder towards a more comprehensive water management regime, one that would replace the 1959 Nile Waters Agreement. Until that time comes, the NBI has made substantial progress in promoting dialogue, cooperation, and opportunities for management. It has implemented eight major projects with a total value of \$900 million,

²⁷⁹ Nile Basin Initiative. “About the NBI.” Online. 9 February 2013. <
http://www.nilebasin.org/newsite/index.php?option=com_content&view=section&layout=blog&id=5&Itemid=68&lang=en>

²⁸⁰ Nile Basin Initiative. “About the NBI.” Online. 9 February 2013. <
http://www.nilebasin.org/newsite/index.php?option=com_content&view=section&layout=blog&id=5&Itemid=68&lang=en>

and has 13 projects under preparation, with a projected value of \$7-11 billion.²⁸¹ All told, the NBI has been a hopeful sign that potential volatilities over shared water resources could be transformed through stakeholder involvement into a catalyst for cooperation.

The Nile Basin Initiative demonstrates some innovative solutions that promote good stewardship and fair allocation, and there has been no outbreak of armed conflict between riparians. However, despite this, the NBI has not been successful in preventing the continued securitization of the Nile. In this respect it offers a helpful explication of the potential and limits of securitization theory in a water context. Despite the goodwill sought by the NBI, water relationships between its members continue to be strained and antagonistic. This antagonism is reflected by the processes of water securitization undertaken by important actors in the region. Indeed, the specific security rhetoric employed by the region's leaders highlights the state's existential survival, priority of action, and urgency, and often works to obscure some of the (albeit minor) progress towards cooperation in the water politics of the region.²⁸²

One of the principle catalysts sustaining the securitization of water in the Nile Basin region was the decision by a breakaway group of Nile Basin countries (Ethiopia, Rwanda, Uganda, Kenya, and Tanzania) to sign a new water distribution framework agreement to replace the 1959 Nile Waters Agreement. The 2010 Entebbe Agreement prevents countries from using the Nile in ways that would harm downstream states, but does so in a way that removes Egypt's absolute veto over upstream projects. It reflects

²⁸¹ Nile Basin Initiative. "About the NBI."

²⁸² Stritzel, 360.

the relative economic and political stability experienced by upstream riparians, which is now being used to challenge the historical hydro-hegemony of Egypt and Sudan. Ethiopian President Meles Zenawi in a combative interview with Reuters, demonstrated this growing confidence, declaring that, ““I am not worried that the Egyptians will suddenly invade Ethiopia. Nobody who has tried that has lived to tell the story. I don’t think the Egyptians will be any different and I think they know that.””²⁸³ Unsurprisingly the Entebbe Agreement led to strong condemnations from Egypt, Sudan, and South Sudan. When Ethiopia signaled its intention to pursue the Entebbe Agreement, the Egyptian water minister, Mahmoud Abu-Zeid described it as an “act of war.”²⁸⁴ The Sudanese water minister, Kamal Ali Mohamed, said his country would stop co-operating with the NBI. “We are freezing activities regarding the NBI until these issues, these legal implications, are resolved.”²⁸⁵ To date, the Entebbe Agreement has remained a divisive thorn in the side of the hegemonic downstream riparians. Adding to the new volatility of the Nile Basin, have been the regional upheavals emanating from the Arab Spring and the overthrow of the Mubarak regime in Egypt. This has seemingly weakened the Egyptian position in the region, and created significant challenges for the health of the NBI. While it still meets regularly, and it recently agreed on a new five-year plan, the prospects for a comprehensive agreement suitable for all countries in the Nile Basin seems far off.

²⁸³ Quoted in Al Jazeera. “Ethiopian PM warns of Nile War.” *Al Jazeera*. 24 November 2010. Online. 26 May 2013. <<http://www.aljazeera.com/news/middleeast/2010/11/20101124152728280839.html>>

²⁸⁴ Jason Vasager. “Storms lie ahead over future of Nile.” *The Guardian (UK)*. 13 February 2004. Online 24 May 2013. <<http://www.guardian.co.uk/environment/2004/feb/13/water.internationalnews>>

²⁸⁵ The Guardian (UK). “Nile nations stand firm in water row.” 27 June 2010. Online 10 February 2013. <<http://www.guardian.co.uk/environment/2010/jun/27/nile-water-pact>>

The Nile Basin is one of the preeminent case studies of water securitization in the world. While no overt water wars have occurred, government officials, along with regional and international media, have contributed to a consistent perception of emergency. The rhetoric employed has frequently invoked security as the primary motivator and concern of the state actors in the region. The statement by the ancient historian Herodotus that “Egypt is the Nile and the Nile is Egypt,”²⁸⁶ is indicative of the popular perception that still exists in that country. It is not surprising then that the Egyptian government has often characterized upstream development of the Nile’s water as a substantial national security threat, and it has consistently threatened to go to war to protect its hegemonic control of the water.²⁸⁷ In 1979, Egyptian President Anwar Sadat proclaimed that, “water was the only matter that could take Egypt to war again.”²⁸⁸ In 1991, President Hosni Mubarak declared to both Ethiopia and Sudan he was ready to use force to protect Egypt’s access to the Nile’s water.²⁸⁹ The Ethiopian Prime Minister, Meles Zenawi responded to these threats with assurances that, “there is no earthly force that can stop Ethiopia from benefiting from the Nile” and that, “We [Ethiopia] will use the Nile waters within our territory. We will not go to war unless they [Egypt] prevent us from using it.”²⁹⁰ Even relations amongst the dominant regional riparians, Egypt and Sudan have been volatile.

²⁸⁶ Quoted in Paul F. Gemmill. “Egypt is the Nile.” *Economic Geography* 4.3 (1928): 295.

²⁸⁷ M. El-Fadel, Y. El-Sayegh, K. El-Fadl, and D. Khorbotly. “The Nile River Basin: A Case Study in Surface Water Conflict Resolution.” *Journal of Natural Resources and Life Sciences Education* 32 (2003): 115.

²⁸⁸ Starr, “Water Wars”: 19.

²⁸⁹ BBC News. “Middle East Analysis: The Politics of Water.” BBC News. 16 March 1999. Online 10 February 2013 <http://news.bbc.co.uk/2/hi/middle_east/297164.stm>

²⁹⁰ Meles Zenawim, quoted in Olaf Westermann, 121.

There are reports that in 1994, Egypt devised plans (later aborted) to deploy fighter jets to bomb Khartoum, where a dam was being built.²⁹¹ These examples follow the basic logic of exceptionality contained in the Copenhagen school's conception of security. Executive unilateralism proclaims the urgency of the situation and is often powerful enough to be reported and repeated and, in the case of the Nile region, it becomes accepted by the audience.

Another potent factor contributing to securitization in the region is the recent decision by Ethiopia to construct the largest dam in Africa. "The Great Ethiopian Renaissance Dam," (GERD) at a cost of 4.5 billion dollars (all supplied by the Ethiopian government), will primarily be used for hydropower, producing 15,000 GWh annually by mid-2017.²⁹² It will also create the largest water-body in Ethiopia, twice the size of its largest natural lake, Lake Tana.²⁹³ The created reservoir will have a volume of 1.3 times the annual flow of the Blue Nile.²⁹⁴ The Ethiopian government has offered assurances the mega-project will benefit the wider region: it claims it will be able to produce clean and cheaper energy for export and it will be able to better manage water flow season-to-season, thereby reducing the threat of flooding, especially in Sudan.²⁹⁵

²⁹¹ El-Fadel *et al.*, 115.

²⁹² Ethiopian Government Communication Affairs Office. The Grand Ethiopian Renaissance Dam: Benefit and Scale. 18 October 2012. Online. 26 May 2013. <<http://bit.ly/111UfQs>>

²⁹³ Abdel Abate. "Is Egypt About to bomb Ethiopian dams?" *Africa Review*. 25 October 2012. Online. 26 May 2013. <<http://www.africareview.com/Opinion/Is-Egypt-about-to-bomb-Ethiopian-dams/-/979188/1597926/-/vnmdivoz/-/index.html>>

²⁹⁴ International Rivers. *Field Visit Report: GERD Project*. (International Rivers: August 2012): 3.

²⁹⁵ Yacob Arsano. "Progress and Prospects for Cooperation in the Nile Basin." *Chatham House Africa Programme Meeting Summary*. 5 October 2012. Online 26 May 2013. <<http://www.chathamhouse.org/sites/default/files/public/Research/Africa/051012summary.pdf>>

Unsurprisingly, the decision to construct the dam has been met with skepticism and fear, particularly by the traditionally dominant upstream hegemony and their allies. In a February 2013 meeting of the Arab Water Council, the Saudi Arabian Deputy Defence Minister, Prince Khalid Bin Sultan, argued that attempts by Nile basin countries to reallocate Nile water shares via the GERD were “a real threat” to Egyptian and Sudanese national security. He claimed that if the dam collapsed, “Khartoum would be drowned completely and the impact will even reach the Aswan Dam.” He speculated that the decision to build the dam so close to the Sudanese border (12 km away) “is for political plotting rather than economic gain.” Ratcheting up the rhetoric beyond the level of national security, the Prince accused the Ethiopian government of wanting to harm all Arab peoples: “There are fingers messing with water resources of Sudan and Egypt which are rooted in the mind and body of Ethiopia. They do not forsake an opportunity to harm Arabs without taking advantage of it.” Concluding, he declared “The establishment of the dam means full Ethiopian control of every drop of water... The information is alarming and it is important that we do not underestimate the danger at the moment and its repercussions in the future.”²⁹⁶

A few months prior to the Prince’s enflaming rhetoric, unverified reports emerged that Egypt and Sudan may have agreed to build an Egyptian airbase in Darfur, which would be used to strike Ethiopia and the GERD if diplomatic negotiations broke down over fair

²⁹⁶ Quoted in “In unusual rebuke, Saudi Arabia accuses Ethiopia of posing threats to Sudan and Egypt.” *Sudan Tribune*. 27 February 2013. Online 26 May 2013. <<http://www.sudantribune.com/spip.php?article45666>>

use of the Nile.²⁹⁷ The report was officially denied by Cairo, and Nairobi sought to defuse tensions by refusing to comment. Adding fuel to the tensions, in June 2013, Egyptian politicians were caught on live TV discussing various strategies that would aggressively thwart Ethiopia's continued development of the GERD. The strategies, aired across the region and reported in international news outlets, included backing Ethiopian rebels or using its intelligence services to destroy the dam (or at least giving the impression they were willing to).²⁹⁸ The continued expression of highly volatile rhetoric in the context of shifting regional power dynamics has led to the evolution of a highly securitized space. Egyptian officials have even recently used the technique of narrative counter-factual in the service of securitization. After Ethiopia announced its plans for the GERD, shortly after the Egyptian revolution in 2011, an unnamed international official proclaimed that "If Mubarak was still in power today, it would have been the beginning of a water war." This was duly reported in the *Financial Times*, which, after describing the various cooperative mechanisms in place along the Nile River, ended its story on the heightened tensions in an all-too-familiar tone: "The Nile's water wars may merely be on hold."²⁹⁹

²⁹⁷ Al Arabiya News. "Egypt, Sudan could seek military action over Nile; Wikileaks." *Al Arabiya News*. 12 October 2012. Online 25 May 2013. <<http://english.alarabiya.net/articles/2012/10/12/243396.html>>

²⁹⁸ Hamza Hendawi. "Egyptian politicians suggest attacking Ethiopia over Nile dam." *Toronto Star*. 3 June 2013. Online 24 June 2013. <http://www.thestar.com/news/world/2013/06/03/egyptian_politicians_suggest_attacking_ethiopia_over_nile_dam.html>

²⁹⁹ Katrina Manson. "Nile Dam: Water wars averted for now." *Financial Times*. 19 June 2012. Online 10 February 2013. <<http://www.ft.com/intl/cms/s/0/1f820ab2-b608-11e1-a511-00144feabdc0.html#axzz2Ke9WZsYH>>

The threat of overt violence is indeed real. Thomas Homer-Dixon pointed to the Nile as one of the few cases in the world where the necessary conditions exist for water wars to break out. He wrote,

In reality, wars over river water between upstream and downstream neighbors are likely only in a narrow set of circumstances: the downstream country must be highly dependent on the water for its national well-being; the up-stream country must be threatening to restrict substantially the river's flow; there must be a history of antagonism between the two countries; and, most importantly, the downstream country must believe it is militarily stronger than the upstream country.

The Nile is an obvious example that fulfills these conditions. And “sure enough,” from Anwar Sadat, to Boutros-Boutros Ghali, to Mubarak, to Zenawi, to Kamal Ali Mohamed, the placement of water at the centerpiece of national security has been a consistent theme.

Securitization theory offers important insight into the security dynamics of the Nile Basin, and into the politics of water more generally. Remembering that the central concern for securitization theorists is to illustrate the performative power of speech acts, it is able to show how the complex web of historical relationships between state actors in the Nile region has come to be dominantly defined by specific security logic. The act of labeling control of the Nile and its acceptance by a significant audience (both internal and external to the region) has allowed for water to become defined as an existential threat to the state. The performative power of the speech acts, the speech act as *event*, has been enough to move the issue from the realm of ‘normal politics’ to a politics of extraordinary measures, in this case through threats and preparations for war. The

resonance of these securitized speech acts has coincided with shifts in the traditional power relations that have characterized the region since the original 1959 Nile Waters Agreement. Egypt has been weakened by the Arab Spring revolution. Sudan, under constant international pressure and the weight of economic sanctions, was unable to prevent the secession of its southern half into the newly formed country of South Sudan. In comparison, the countries of the Entebbe Agreement, in particular, Ethiopia, have experienced economic growth and relative stability. This has contributed to new initiatives that challenge the traditional downstream hydro-hegemony and basin-wide securitization.

The case of water securitization along the Nile Basin provides a concrete example of the multi-layered ways in which water becomes designated and framed in a particular security language. It seems that the historical experience has been for the hydro-hegemonic powers in the region (Egypt and Sudan) to consistently securitize the issue of the Nile in order to assert their dominance and preserve the favourable status quo. By directly framing any changes that would alter the dominant power imbalance in the region as an existential threat, they are able to justify aggressive, confrontational rhetoric and action as necessary reaction in the face of such “emergencies.” The result then is that the issue of water security in the Nile basin region becomes one marked by exceptionality, a particularly realist proposition, and one which seemingly avoids the reality that the securitization of the Nile has been ongoing for decades, and is therefore not really “exceptional” at all. Despite all the goodwill and hope that followed the creation of the cooperation-focused Nile Basin Initiative, relations between states over

water remain largely securitized, displaying a familiar pattern of threats, distrust, emergency planning, and fiery rhetoric. Is the response then to argue for “desecuritization” – a de-escalation of the issue, so that it may be tackled by normal political negotiations? Many authors believe so.³⁰⁰ Such moves may indeed prove analytically useful, but as the next section will argue, it is more likely to reaffirm a particularly negative reading of security: whereby security becomes something to be avoided. The politics of securitization that are embedded in this context constrain the possibility for transcendence. Because securitization remains largely ambivalent about the concept of security, limiting it to a static understanding of threats and defence, securitization is an instrument of a political ethic, and therefore capable of transformation.³⁰¹ The question then is how might it be possible to envision and understand water security along multiple axes?

4.5 Securitization and Desecuritization

When a securitization is successful, it means the audience has accepted it. Successful securitization entails the suspension of the normal rules of the game, and the implementation of emergency measures. Connecting the issue of water with this concept of security is tempting because it can be an effective way to dramatize and mobilize

³⁰⁰ Stefan Deconinck. “Security as a threat to development: the geopolitics of water scarcity in the Nile Basin.” *Focus Paper*. 13. (Brussels: Royal High Institute for Defence, 2009): 1-14; Abadir M. Ibrahim. “The Nile Basin Cooperative Framework Agreement: The Beginning of the End of Egyptian Hydro-Political Hegemony.” *Missouri Environmental Law and Policy Review*. 18.2 (2011): 284-312.

³⁰¹ Michael C. Williams. “Words, Images, Enemies: Securitization and International Politics,” *International Studies Quarterly*, 47.4 (2003): 524.

action against environmental problems. The idea might well be to place water scarcity and degradation on an appropriate level of importance, whereby it becomes an essential pursuit. But as Ole Wæver rightly points out, “the practices resulting from the slogan might lead to an inappropriate social construction of the environment as a threat/defense problem.”³⁰² The danger is that these states of exception may become commonplace or even permanent. It is because of these associated dangers that the Copenhagen school so often argues that securitization must be avoided and claims to security must be limited. In its stead, they advocate for desecuritization. According to Wæver, desecuritization is a process whereby issues lose their “securityness” and where issues no longer present a threat to a particular actor.³⁰³ It is the fading away of one particular issue or actor. “At some point, certain ‘threats’ might no longer exercise our minds and imaginations sufficiently and are replaced with more powerful and stirring imageries.”³⁰⁴ In effect, a speaker suggests that a particular issue no longer constitutes a threat, or at least an existential threat. Desecuritization moves issues downward from the realm of security into the realm of public political discourse, and into normal modes of negotiation and settlement.³⁰⁵ Wæver points out, “In some democratic perspective, ‘desecuritization’ is probably the ideal, since it restores the possibility of exposing the issue to the normal

³⁰² Wæver, “Securitization and De-securitization,” 65.

³⁰³ For an extended discussion on the various ways to interpret desecuritization, see Juha A. Vuori. “Religion Bites: Falungong, securitization/desecuritization in the People’s Republic of China.” *Securitization Theory* (New York: Routledge: 2011), 186-212, especially 190-193.

³⁰⁴ Andreas Behnke. “No way out: desecuritization, emancipation and the eternal return of the political – a reply to Aradau.” *Journal of International Relations and Development* 9.1 (2006): 65.

³⁰⁵ The desire to reduce security claims may seem contradictory, given that the Copenhagen school has so often been credited with opening up space for a widening of security. Buzan *et al* addressed this in *Security: A New Framework for Analysis*: 209-212.

haggling and questioning of politicization...”³⁰⁶ In the context of the Nile Basin, the attempts to renegotiate antagonistic water relationships via the NBI could be viewed as attempts to desecuritize water.

The hope is that desecuritization can appease critics from both critical and traditional security camps. On the one hand, it limits the scope of threats that should be tackled by the state and its security apparatuses, thus placating traditionalists who wish to protect the sanctity of their preferred vision of security as state security. On the other hand, desecuritization shares with critical theorists an aversion to the militarization of issues, and calls for problems to be dealt with through negotiation, compromise, and dialogue. However, the Copenhagen school’s “preference”³⁰⁷ for desecuritization struggles to offer a coherent alternative, nor a normatively superior position. Primarily this is because desecuritization is built upon the same exceptional and exclusionary logic that underpins securitization. It would be wrong then to assume that the Copenhagen school’s advocacy for desecuritization can alleviate the many obvious problems of water securitization, whether in the Nile Basin, or elsewhere.³⁰⁸

³⁰⁶ Ole Wæver, “The EU as a security actor: reflections from a pessimistic constructivist on post-sovereign security orders.” *International Relations Theory and the Politics of European Integration*. Eds. Morton Kelstrup and Michael C. Williams. (London:Routledge, 2000): 251.

³⁰⁷ Wæver’s usage of “preference” points to a belief that desecuritization puts forth a position of “asecurity”

³⁰⁸ Claudia Aradau. “Security and the Democratic Sense: Desecuritization and Emancipation.” *Journal of International Relations and Development*. 7.4 (2004): 388-413. For a thoughtful and critical reply, see Rita Taurek. “Securitization Theory and Securitization Studies,” *Journal of International Relations and Development*, 9.1 (2006): 53-61.

While the Copenhagen school's desire to avoid militarizing issues is indeed compatible with an emancipatory approach, it does not absolve it from the acute criticism leveled by theorists like Ken Booth, who claim that that "the central themes of securitization and desecuritization are state-centric, discourse-dominated, and conservative."³⁰⁹ The constructivist lens upon which the Copenhagen school relies does not adequately interrogate how we might unmake ideas and practices of security, and take stock of ones that create space for radically democratic and emancipatory approaches. In its desire to remain simply an analytical tool, deprived of any political motives, the Copenhagen school subordinates ethical/moral consequences in lieu of providing coherence to the processes of speech acts and the series of extraordinary practices that accompany them.

Desecuritization, at least as envisioned by Wæver,³¹⁰ signals an attachment to a view of security as resistance to a threatening other, which is reliant upon the same Schmittian configuration of security as its securitization opposite and remains prevalent in traditional security discourses. And as the CASE Collective has pointed out, the fact that desecuritization seeks to retrieve the "normality of politics" implies quite enormous assumptions about what can be thought of as the objective socio-political (presumably liberal-democracy) order within which an issue should reside.³¹¹ By seeking a return to

³⁰⁹ Ken Booth. "Beyond Critical Security Studies." *Critical Security Studies and World Politics*. Ed. Ken Booth. (Boulder: Lynne Rienner Publishers, 2005): 271.

³¹⁰ For his most thorough explications of the still under-theorized concept of desecuritization, see Wæver, "Securitization and Desecuritization," and Ole Wæver. "The EU as a Security Actor: Reflections from a Pessimistic Constructivist on Post-Sovereign Security Orders." *International Relations Theory and the Politics of European Integration: Power, Security and Community*. Eds. Morten Kelstrup and Michael C. Williams (London: Routledge, 2000): 250–94.

³¹¹ CASE Collective. "Critical Approaches to Security in Europe: A Networked Manifesto," *Security Dialogue*, 37.4 (2006): 455. For a more thorough argument that the Copenhagen school's conception of security is necessarily tied to liberal-democratic practices see: Juha Vuori. "Illocutionary Logic and Strands

“normal politics,” the Copenhagen school retreats from actively interrogating the shifting and context-driven spheres of exception and rule. Thus, despite being considered revolutionary in its articulation of a constructivist logic of security threats – whereby security is what we make of it – the Copenhagen school still relies upon a fixed, traditional understanding of security. This (in part) fails to adequately match the complexity of the social dynamics of security.³¹²

This fixed vision of security inherent within the Copenhagen school approach has been the basis for some of the most thorough critiques of the securitization approach. Felix Ciut points out that the meaning of security can vary contextually, and as a result the concept of securitization provides a contradictory answer to its own question of “what is security?” For Ciut, “securitization theory urges the analyst not to engage in the evaluation of security issues qua security issues (whether ‘real’ or ‘unreal’), since this is decided by the actors who decide to securitize or not these issues.” But securitization by its very nature provides benchmarks that allow actors to determine whether policies are about security, because “security is what fills the criteria of securitization and *nothing*

of Securitization: Applying the Theory of Securitization to the Study of Non-Democratic Political Orders.” *European Journal of International Relations*. 14.1 (2008): 65-99.

³¹² There are a number of influential and high-quality articles that tackle the various ways in which the Copenhagen school relies upon under-theorized notions of a statist process of securitization/desecuritization, though few are concerned with the normative dimensions of this adherence. For exceptions to this tendency, see Rita Floyd. “Towards a Consequentialist Evaluation of Security: Bringing Together the Copenhagen and Welsh Schools of Security Studies.” *Review of International Studies* 33.2 (2007): 327-250; Didier Bigo, “Globalized (In)Security: The Field and the Ban-opticon.” *Terror, Insecurity, Liberty: Illiberal Practices of Liberal Regimes after 9/11*. Eds. Didier Bigo and Anna Tsoukala. (London: Routledge, 2006): 5-49; Mark B. Salter. Securitization and Desecuritization: A Dramaturgical Analysis of the Canadian Air Transport Security Authority.” *Journal of International Relations and Development*. 11.4 (2008): 321-349.

else.”³¹³ These actors carry with them specific beliefs about the nature of security, ones that delineate ethical boundaries of obligation and consideration. But these approaches that tout a necessary opposition to a threatening other are not inevitable, as later chapters will reveal.

4.6 Schmitt, Security, and the Exception in the Anthropocene

Where the Copenhagen School falls noticeably flat is in its failure to deeply probe the underlying construction of security itself. This obscures the inherent power dynamics that comprise the political choices made in deeming an issue appropriate for securitization or desecuritization. Beyond simply a novel way of theorizing the importance of how the discourse of security matters, it involves a political reading of security itself. These political choices according to the Copenhagen School revolve around a specific understanding of security, itself representative of a specific understanding of identity.³¹⁴ The German political philosopher and jurist Carl Schmitt is instrumental to the political readings of politics and security put forth by the Copenhagen School. Michael C. Williams has addressed the Schmittian connection, describing the form of security put forth by the Copenhagen School as one dependent upon politics of exclusion and emergency. He writes that, “the identification of ‘security’ with a logic of existential threat and extreme necessity” mirrors “the intense condition of existential division, of

³¹³ Felix Ciută “Security and the Problem of Context: A Hermeneutical Critique of Securitization Theory,” *Review of International Studies*, 35.2 (2009): 303. . [Emphasis in original]

³¹⁴ Michael C. Williams, “Identity and the Politics of Security,” *European Journal of International Relations* 4.2 (1998): 204-225.

friendship and enmity, that constitutes Schmitt's concept of the political.³¹⁵ According to Schmitt's philosophy of political realism, government action is grounded upon the constitution of the political through the passage to the limit. In other words, governments can derive order and authority through the specific techniques of securitization whereby the fear of violent death and destruction become paramount. This reading of security has dramatic implications. It identifies the distinction between friend and enemy, inside and outside, as the fundamental principle that allows political authority to integrate otherwise free individuals into a political community.³¹⁶ The repercussions of this matter significantly because it attaches security practices to a rigid dichotomy of identity. This is useful for Buzan, Wæver, and others subscribing to the Copenhagen School, because it coincides with their desire to incorporate identity into security analyses – one of the more important post-Cold War developments in security studies. But this dichotomy is problematic. The political identification used in securitization maintains a clear and distinct dialectic between inside and outside, between friend and enemy. As Huysmans writes,

Securitization here sets a dialectic of self and other at work, in which the other transforms into an enemy defining the self and grounding the dialectic in expectations of violence. In other words, the community of friends comes into existence precisely as a reaction to the representation of an enemy. This rationality of government subjugates the dynamics of association and

³¹⁵ Michael C. Williams. "Words, Images, Enemies: Securitization and International Politics," 515.

³¹⁶ Jef Huysmans. "The Question of the Limit: Desecuritisation and the Aesthetics of Horror in Political Realism," *Millennium: Journal of International Studies*, 27.3 (1998): 575.

disassociation among friends to the manufacturing and mediation of relations of enmity and distrust.³¹⁷

For Schmitt, the “political” is “the most intense and extreme antagonism, and every concrete antagonism becomes much more political the closer it approaches the most extreme point, that of the friend-enemy grouping.”³¹⁸ In essence, individuals only become politicized once they are positioned within a friend-enemy dichotomy, with the survival of the newly identified group at stake. The fundamental division provides the Copenhagen School with the basis for viewing securitization as the decision to mobilize political groupings over an issue with enough passion and intensity to act in exceptional, often violent ways. The generally negative view of security that Schmitt held is clearly visible in the Copenhagen School’s calls for desecuritization. They believe that security is a dangerous concept, to be invoked only with care and restraint. In effect they are arguing for a stable, tolerant, and negotiated settlement on issues, rather than emergency measures that curtail individual political liberties. This is a particularly salient issue with regards to the water sector because, as Buzan and Wæver are careful to point out, securitizing the environment can have problematic side effects.³¹⁹

But, as this dissertation shows, there is nothing inevitable about this particular reading of security and human political identity. Examples of alternative conceptions of identity and

³¹⁷ Huysmans. “The Question of the Limit, Desecuritisation and the Aesthetics of Horror in Political Realism,” 577.

³¹⁸ Carl Schmitt, quoted in Michael C. Williams, “Words, Images, Enemies: Securitization and International Politics,” 515.

³¹⁹ Buzan *et al.* 29.

security that emphasize inclusive, cooperative, and non-threatening relationships with others abound. Emancipatory water security is committed to certain aspects of desecuritization – negotiation, deliberation, communication, and an avoidance of threats and violence. Beyond that, the two approaches remain largely disconnected, because emancipation offers a more humble and critical approach to security that encourages the continual pursuit of a positive form of security, rather than fight for its avoidance, as desecuritization advocates. This will be further explicated in later discussions on the embedded potential within water security to offer the hope of resistance to, and emancipation from, limited understandings of security and identity traditionally seen as narrow, fixed, timeless and apolitical. Though the Copenhagen School is able to offer analytical guidance to the process of the designation as a security issue, it fails to excavate the deeply-held attachment to an objective understanding of the concept of security. Given its analytical focus and the lack of a critical investigation into the concept of security, the Copenhagen School has been criticized for being distinctly divided from emancipatory security, if not wholly incommensurable.³²⁰

The connections between water and conflict have been made so consistently, forcefully, and authoritatively that an ongoing process of securitization is readily apparent. There is no clearer example than in the Nile Basin. And as the resilience of the water wars thesis in the region indicates, the prospects for desecuritization appear dim; water has consistently been tied to a vision of security as exception. But if we are to take the insights of earth system scientists seriously, then we need to better attach to security theories and practices the idea we are living in an age of constant flux. It is incoherent to

³²⁰ Taurek, “Securitization Theory and Securitization Studies,” 53-61

speak of our age absent exception. The scale of earthly human impacts is only now being appreciably understood, and it is becoming clear that the effects are profound, pervasive, and accelerating further change. The Nobel Prize winner Paul Crutzen and his colleague Eugene Stoermer formally introduced the term “Anthropocene” in 2000, to describe the growing impact of human activities on earth and atmosphere, at all scales, including the global scale. They wrote, “it seems to us more than appropriate to emphasize the central role of mankind in geology and ecology by proposing to use the term ‘Anthropocene’ for the current geological epoch.”³²¹ The ramifications of this declaration are immense and are only now being appreciably introduced into security studies. Simon Dalby is one security theorist who has begun to think of what it means to think of security in the Anthropocene. He writes,

The Anthropocene formulation makes it clear that humanity is now a major force shaping the biosphere. It challenges the Malthusian formulation because it shows the connections that cross boundaries while also showing that many of the poor and marginal are made so by the environmental processes of the global economy. Consequently security and modern identity must be fundamentally rethought...Putting people rather than states at the heart of the analysis is a HUGE task, but one that is necessary to challenge attempts on the part of the prosperous to maintain their privileges in the face of the needs of the poor.³²²

Dalby retains some faith in the securitization framework; in fact, he speculates that we might be reaching the point where the environment should be securitized (in the short

³²¹ Paul J. Crutzen, and Eugene F. Stoermer. “The Anthropocene.” *IGBP Newsletter* 41. (2000): 17.

³²² Simon Dalby. *Security and Environmental Change*. (Cambridge: Polity Press, 2009): 170.

run), if only to set societies on a more sustainable path. In the Anthropocene, the exception no longer holds. The binary logic that reduces water resources to “threat/defence” or “secure/insecure” significantly obscures alternative articulations of security, limiting the emancipatory potentials embedded within the complex social relations that surround the issue of water scarcity.

It should be acknowledged that to focus on the content of security is helpful in many respects. It allows issues that often exist outside the scope of traditional security analyses to be brought under scrutiny. This can have tangible benefits in raising public awareness into the myriad experiences of security, beyond simply traditional threats of armed conflict. However, for all the benefits to be derived from securitization/desecuritization – presenting limits to the “excessive widening” of security, the successful fusion of neorealist and poststructuralist approaches to security, and its clear research program – there are numerous and important limitations that limit its usefulness in developing an emancipatory security of water. Using securitization to broaden our understandings of security is to privilege the characterizations of people and environmental degradation (to highlight only two examples) as threatening to traditional life. This does not get us closer to solving the dilemmas of our common age, only reinforcing a status quo vision that lacks a clear application for the most vulnerable of our common human society.

The process of securitization, and our understanding of it relies upon a static, unchanging view of security – one that at its heart “finds something to do with defence and the state.”³²³ Because the securitization thesis consistently focuses on the designation of

³²³ Wæver. “Securitization and Desecuritization,” 47.

threat, there is a tendency to avoid examining the construction of security itself, and therefore privileging the content of security, over its very meaning.³²⁴

The securitization thesis tells us that the owners, or the agents, of “security” are almost solely political leaders who speak fearfully of security to their domestic audience. To raise an issue up to a level of existential importance requires a degree of mobilization only held by those with significant authority and power. Situating acts of securitization in the hands of leaders, bureaucracies, lobby groups, and pressure groups, can only help but maintain a view of security that privileges notions of statism, survival, threats, and defence as its guiding ontology. It leaves the audience passive in the construction of *security* – active only in its acceptance (or rejection) of a threat, but not of security itself. Furthermore, given the incredible discursive power available to those in positions of authority, they often resort to utilizing language that place people (e.g. upstream water-seekers), organizations (e.g. stakeholders), or things (e.g. environment degradation) as “threats” to be dealt with using existing security practices. Thus, rather than focusing on those people who suffer the harshest consequences of securitizing moves (in this context access to adequate water supplies), it is individuals or groups who are often reduced to being designated as the threat itself.

³²⁴ Matt McDonald. “Securitization and the Construction of Security.” *European Journal of International Relations* 14.4 (2008): 578.

4.7 Conclusion

This chapter focused on the Copenhagen School approaches to security and their relationship to water security. It described the ongoing process of securitization in the MENA region, specifically in the volatile Nile Basin. Finally, it argued that these new theoretical approaches have been important in showing how the concept of security can be broadened in scope yet remains silent on the ethical-normative dimensions of the construction of security as a concept. This has significant implications, because as the CASE Collective reminds us, “How security is defined conditions what is considered as insecurity (risk, threat).”³²⁵

The securitization framework developed by Buzan and Wæver is useful for illuminating the expressions of - and responses to - many varied issues, including water. It met one of the key criticisms of post-Cold War security scholars by limiting the excessive widening of security. And by its description of the intersubjective nature of the concept of security it was able to introduce important theoretical tools to illuminate incidences of securitization and desecuritization. Ultimately though, the Copenhagen School’s understanding of security is based upon a particular tradition of international relations and security that does not escape the logic of exclusion and an attachment to defining security as “panic politics.”³²⁶ It thus anchors itself to a particular interpretation of the meaning of security, seemingly to avoid rendering the security concept incoherent. As Jef Huysmans has written, “the rhetorical structure upon which the intelligibility of security depends is the fixed point – the threats, the units, the agents fluctuate but the signification

³²⁵ CASE Collective, 457.

³²⁶ Buzan *et al*, 34.

of security remains.”³²⁷ For the Copenhagen school, to speak security is to make security. This approach fails to push deeper and excavate the security logic that is embedded in the rhetorical structure – how and why the speaker and audience understand a language as security language. The underlying logic of security is not an object of research for the Copenhagen school.

This has particular consequences for responses to ongoing water insecurity in the Anthropocene. It means the continuation of business-as-usual, offering little hope to break out of contemporary traps of vulnerability. Acknowledging the power of the water wars discourse, as the Copenhagen school does quite expertly, is only one aspect of the overall picture; acknowledgment only gets us so far. To deny its ethical-normative implications is to again cede the ontological vision of security as survival and exclusion. To do so, “retrieves the ordering force of the fear of violent death by a mythical replay of the variations of the Hobbesian state of nature.”³²⁸ A response to this, offered in the following chapters, is to re-orient the conception of water security towards one that is under continued dialogical critique, with an emphasis towards emancipatory goals. This means that water security might be seen in conceptual and practical terms as something shifting, context-dependent, and capable of producing emancipatory outcomes for those most vulnerable to the vagaries of the international system of states. In contrast to totalizing statist discourses, to provide a critical rendering of water security would be to, as James Der Derian writes, “...reinterpret – and possibly reconstruct through the

³²⁷ Jef Huysmans. “Revisiting Copenhagen: Or, On the Creative Development of a Security Studies Agenda in Europe.” *European Journal of International Relations*. 4.4 (1998): 500.

³²⁸ Claudia Aradau, quoted in Taurek, “Securitization Theory and Securitization Studies,” 56.

reinterpretation – a late modern security comfortable with a plurality of centres, multiple meanings, and fluid identities.”³²⁹

Upcoming chapters attempt to build a critical-water security approach that can offer continued, varied guidance toward a deeper understanding of the nature of the problem of water insecurity. Such an approach may also help move toward the greater emancipation of individuals and communities *through* a progressive security rather than avoiding it (as the Copenhagen school would have us do through desecuritization) and relying upon its strict definition as survival. The principal concern must be to examine who security is for, and what does it do?

³²⁹ James Der Derian. “The Value of Security.” *On Security*. Ed. Ronnie D. Lipschutz. (New York: Columbia University Press, 1995): 26.

5 CHAPTER FIVE: Toward an Emancipatory Security of Water: Inclusion, Communication, and Cosmopolitanism

5.1 Introduction

As the last chapter showed, an ongoing process of water securitization is occurring in many places around the world. There is a dominant view of water as a dwindling natural resource that has the potential to act as a threat multiplier in the Anthropocene, an age of constant climate insecurity and domestic upheaval in warming world. This view admits that while it is difficult (perhaps impossible) to find a major conflict precipitated over water resources, water is often an important variable in conflict and is emblematic of the increasing importance of environmental factors going forward in the twenty-first century. Against this background, the next two chapters sharply shift the trajectory of water security towards a critical engagement with its emancipatory characteristics. It explores the idea that water can act as a progressive site for the articulation of emancipatory policies based upon cosmopolitan ethics. While a great number of analyses and policies on water security utilize insights from traditional international security (either explicitly or implicitly), none have yet actively demonstrated how the twin concepts of emancipation and cosmopolitanism are immanent in global relations over water resources. The succeeding chapter - chapter six - will more fully elucidate the emancipatory interest in water security through a focus on the cosmopolitan ethics of hydrosolidarity present in contemporary water practices. The current chapter seeks to theoretically bind emancipation with water security. It does so by first providing the conceptual foundations for re-orienting security along a critical theory axis. It then examines emancipation as the unifying intent upon which all critical theories rely. There

exist many variations of critical theory that illustrate significant differences among authors. The commitment to emancipation is the single unifying factor between them. While the first generation of Frankfurt School theorists grew increasingly pessimistic about the possibilities for emancipatory social change, they also knew that enlightenment contains within it the perpetual possibility of change. The analysis here draws from this insight to pursue a vision of water security that does not seek to escape the concept of security altogether, but to critique it, so as to reveal the progressive spirit of emancipation immanent within discourse and practice. The chapter concludes by describing the varied set of understandings employed by different actors in the construction of security over water. This will act as a precursor to a longer discussion in the next chapter on the relationships individuals and communities have over shared water - relationships which empower security visions absent of the prevailing logic of exclusion and enmity.

The benefits of linking the concept of emancipation with water have already been mentioned in earlier chapters. However, a more explicit attempt will be made here to point to the important junctures where relationships over water display emancipatory alternatives to traditional discourses of security. There are significant implications that arise from this. By identifying the junctures where water coalesces with marginalized individuals and communities to help articulate different interpretations of security, it becomes possible to decentre the analytical and prescriptive situation of the state, thereby suspending assumptions about traditional hierarchies of values and issues in international security.³³⁰ This, it is argued, has both analytical and normative value. In terms of

³³⁰ Robert Boardman, "Environmental Discourse and International Relations Theory: Towards a Proto-Theory of Ecosation." *Global Society* 11.1 (1997): 42.

analytical benefit, the critical approach elaborates a wide range of relationships that individuals and communities exhibit over shared waterways. This creates better analyses of “water security” by making it clear that traditional approaches - with their focus on state and system level interactions – are not sufficient for explaining the existing and potential effects of freshwater scarcity on individuals and communities. Political responses and approaches to the issue of water scarcity would indeed be well served to take heed of the elaboration of critical water security found in this chapter. Given that many new and innovative approaches to water management depend upon holistic values and rely upon interdependent, cross-sectoral cooperation (Integrated Water Resources Management – IWRM - being only one, albeit controversial example), the non-statist and cosmopolitan ethics at the heart of critical security analyses seem exceedingly prescient and appropriate for study.

As myriads of studies show, the global environmental situation in the early twenty-first century displays crises on a scale not yet experienced in human history.³³¹ The interrelated nature of the epochal, structural, and decisional crises, require new and radical responses that push development of a world security. It is in such political arrangements, underscored by ethical attachments, that we are best able to achieve

³³¹ There are thousands of publications from which to choose to illustrate this statement. Some recent sources include: United Nations Environment Programme (UNEP), *Keeping Track of Our Changing Environment*, UNEP, 2012. Online 21 November 2012. <http://www.unep.org/geo/pdfs/Keeping_Track.pdf>; World Meteorological Organization, “The State of Greenhouse Gases in the Atmosphere Based on Global Observations through 2011,” *WMO Greenhouse Gas Bulletin* No. 8, 19 November 2012. Online. 22 November 2012. <http://www.undp-aap.org/sites/undp-aap.org/files/GHG_Bulletin_No.8_en.pdf>; World Meteorological Organization, “WMO statement on the status of the global climate in 2011.” World Meteorological Organization. 2012. Online. 22 November 2012 <http://www.wmo.int/pages/publications/showcase/documents/WMO_1085_en.pdf>; Pacific Institute, *The World's Water: The Biennial Report on Freshwater Resources*, Vol. 7, (Washington D.C.: Island Press, 2011.)

‘security’ without depriving others of it.³³² A water security developed to meet both human and environmental needs, through a form of cosmopolitan ethics, is one component of a global response to shared threats and vulnerabilities. It adds to a growing literature that seeks to *identify* alternatives to security characterized as statist, militaristic, and exclusionary, and to *shift* dominant discourses and practices of security in emancipatory directions. This chapter and the one that follows it contribute to these dual aims by demonstrating that progressive change in water management policy must consistently rely upon the opening up of dialogic space to include multiple actors engaging and contesting the dominant values that privilege business-as-usual. It is through this diffusion of power to marginalized individuals, so often left out of discussions of security, that it becomes possible to remove the arbitrary, oppressive, structural constraints that limit human potential and contribute to the processes of environmental degradation.

The next section develops a three-pronged approach to emancipatory water security. Inclusion, communication, and cosmopolitanism are isolated as the primary building blocks for emancipatory water security. These three characteristics coalesce in various forms in historical and contemporary water relations and show that water security can be a positive force. Chapter six shows how hydrosolidarity has emerged in a variety of ways to offset neo-Malthusian concerns about water scarcity and violence. But to understand how and why these three characteristics produce emancipatory water security, it is necessary to spend more time dissecting their constituent parts. Taken together, chapters

³³² Booth, *Theory of World Security*, 427;

five and six outline a framework for understanding how water can provide a unique and compelling avenue for the emergence of progressive security discourses and practices.

5.2 Three Components of Emancipatory Water Security

Claiming emancipation as the core aim of water security is a difficult and confusing task, but it is also one that can provide us with a more robust understanding of the politics of security. Clearly, as has been carefully demonstrated, to view emancipation as a utopian panacea for the ill effects related to environmental scarcity and security misses the point. The reliance on emancipation here is meant to present a vision of transformative action without necessarily producing a detailed moral/legal framework, which often overlooks the constant flow and change of individual and group identities and the resulting social norms. To present such a framework also runs the risk of imparting an external, idealized vision of the world divorced from contemporary political and social contexts.³³³ An emancipatory security of water therefore cannot present a schematic design for better water institutions or negotiations. What it can do is produce an understanding of the possibilities for progressive change, a vision of normatively better linkages between environmental scarcity and security that are inclusive, communicative, and cosmopolitan. In this sense it does marry theory with action.

Matt McDonald has previously outlined the characteristics of generalized emancipatory security as: concerned with overturning structures of oppression or exclusion; radically cosmopolitan; predicated on the rights and needs of the most vulnerable; and ensuring

³³³ McDonald, *Security, the Environment, and Emancipation*, 163.

that the means envisaged to achieve or preserve ‘security’ will not deprive others of it.³³⁴ McDonald’s characteristics are all compatible with the vision outlined here. But what specifically does an emancipatory security of water look like? The rest of this chapter will answer this question. There are unique qualities to water security that precipitate a more refined vision of the ways in which emancipation can overcome the deficiencies of other traditional and critical approaches. In essence, an emancipatory water security consists of three interrelated central components: 1) *It is inclusive*. Traditional political analyses and approaches to water security often view it as a site of timeless, conflictual, and necessarily exclusionary relations, where individuals, groups, and most importantly, states, battle over control of the dwindling resource. Such attitudes were clarified in chapter three. Inclusion is meant to promote a model whereby excluded groups, such as women, subordinated classes, racial, national, and ethnic minorities are incorporated into discussions and decisions about water security. Of course a focus on inclusion does not deny the existence of difference; rather it embraces it. The recognition of difference is central to a permanent openness to dialogue, which connects us to the second component of emancipatory water security.³³⁵ 2) *It is communicative*. Drawing heavily from the insights of Andrew Linklater, himself an intellectual devotee of Habermas, an emancipatory water security relies upon a discourse theory of morality, whereby individuals are granted the right to participate in decisions that may affect them adversely. The basis for this morality comes from an understanding of the individual subject as a social being who “gains self-understanding simultaneously with the

³³⁴ McDonald. *Security, The Environment and Emancipation*. 115

³³⁵ Andrew Linklater. “Dialogic Politics and the Civilizing Process.” *Review of International Studies*. 31.1 (2005): 144.

understanding of others through communicative practice.”³³⁶ A permanent openness to dialogue is necessary for the equitable management of shared water resources, especially as new and unexpected changes occur to available water sources (most notably from climate change) and the political structures which currently manage them. By eliminating the structural constraints that inhibit active participation in decision-making procedures, progress is made towards the critical pursuit of the constant enlargement of freedom.³³⁷ 3) *It is cosmopolitan.* The necessary corollary to the first two components of emancipatory water security is the expansion of the moral community of stakeholders. A view is taken towards a post-sovereign understanding of political identity, whereby individual allegiances and understandings are not reducible to a homogenous localism, but exhibit cultural pluralism and heterogeneity. The focus on cosmopolitanism here as “interactive universalism” entails a reconfiguration of political and ethical boundaries away from established borders towards a more globally-oriented space where no clear lines can be drawn between inside and outside, domestic and foreign. There is a universal recognition of individuals to be consulted in the decisions which affect them. This allows for greater inclusion and dialogue among human beings to express shared water concerns and vulnerabilities. The normative requirement here is an epistemological shift towards an understanding of shared reality, whereby individuals treat one another as equals, rather than as competitors or threats. This undercuts the traditional focus on national self-interest as the ordering dimension of environmental security.

³³⁶ Brian Jacobs. “Dialogical Rationality and the Critique of Absolute Autonomy.” *Critical Theory: Current State and Future Prospects*. Eds. Peter Uwe Hohendahl and Jamie Fisher (New York: Berghahn Books, 1995): 143.

³³⁷ Linklater, “Dialogic Politics and the Civilizing Process,” 142-143.

It is necessary to expand upon each characteristic to advance the argument that emancipation best positions individuals to recover their voices as important stakeholders in water security and creates the conditions for more harmonious and ethical relations over water.

5.3 Inclusion

The issue of inclusion is a crucial component of any critical security, and it remains essential to an emancipatory water security. It is the building block for a process-based approach to water security that is communicative *and* cosmopolitan.³³⁸ Inclusion allows for a radical opening of the normative space of security by blurring the distinctions between insider and outside, citizen and non-citizen, self and other. To reach this opening critical water security must approach inclusion by way of a constitutive-relational theory of identity. Such a theory upsets the essentialized notions of identity that lead to a dualistic logic of self/other, which confirms and replicates difference rather than acceptance and understanding. A constitutive-relational theory of identity views self and group identities as constituted by the multiple and overlapping social relations that make up their experiences. Identity is relational rather than essential. By removing the false dichotomies from identity we can move to an understanding of inclusion that promotes a politics of recognition whereby all parties affected by water scarcity are provided with fairness and political opportunity.³³⁹ From this notion of inclusion stem the remaining

³³⁸ In this regard issues of security become sites of deliberation and participation. It is necessary to understand there are important differences between participatory and deliberative forms of democracy; the two concepts are not one and the same.

³³⁹ There is a rich theoretical movement that examines much more precisely the politics of recognition. See Charles Taylor. *The Malaise of Modernity*. (Concord Ont: Anansi Press, 1991); Charles Taylor. "The Politics of Recognition." *Multiculturalism*. Ed. Amy Guttmann (Princeton N.J.: Princeton University Press,

components of emancipatory security – communication based on dialogical rationality and cosmopolitanism. While the problems inherent in the self/other dichotomy have already been discussed in earlier sections of this dissertation, we can see here how impactful its collapse can be. In security terms it upsets prevailing security ethics that rely upon exclusion and enmity, upon which the Westphalian system of states relies.

Acts of inclusion work in two central ways in the context of security. First, at the individual level, they break down essentialized views of identity, so often the cause of entrenched, intractable, and antagonistic differences. Secondly, at an international level they blur the borders of inside/outside, that fundamental characteristic of the Westphalian view. Together, both ways work to ensure inclusion is a concept necessary to overcome the essential “otherness” emblematic of conventional approaches to water security. An emancipatory water security relies upon a constitutive-relational theory of identity. It highlights the *constitutive* nature of identities such as the self and the other. This can be used to challenge the disciplining narrative of separation that comprises so many security relations. The result is that individuals can and do see their own self-fulfillment in the inclusion of others’ wants and desires. As critical philosopher Jacques Rancière reminds us, the concept of emancipation does not mean a radical secession of marginalized groups to form a counter-hegemonic bloc, but rather the recognition of marginalized groups as members of a common world. He writes, “Self-emancipation is not secession, but self-affirmation as a joint-sharer in a common world, with the assumption, appearances to the

1994): 25-75. Nancy Fraser, and Axel Honneth. *Redistribution or Recognition: A political-philosophical exchange*. (London: Verso, 2003).

contrary notwithstanding, that one can play the same game as the adversary.”³⁴⁰ The implication here is that individuals can pursue their full possibilities - can pursue emancipation - by including others, even their adversaries.

The notion of inclusion here derives from a constitutive-relational theory of identity. In this reading, identity is not so much the result of shared biological attributes from birth and shared social understandings but is derived from experience. In other words, identity is not something fixed by Mother Nature or a god, but is constituted by relationships with others. According to Charles Taylor, identity is partly shaped by recognition, its absence, or by the misrecognition, of others.³⁴¹ The character and constitution of identity is determined by the interactions between individuals and groups, the “stylized repetition of acts,” as Judith Butler terms it.³⁴² Such a theory dismantles the separation between self and other, seeing identities as socially situated and relationally constituted.³⁴³ In their interactions the self and other work to constitute each other’s reality, and thus determine its ontological status. This contrasts the essentialized notion of identity, which holds that individuals and groups demonstrate a unity of attributes.³⁴⁴ The idea of an essentialized identity is easily dismissed by the reality that all social groups include persons who defy

³⁴⁰ Jacques Rancière. *On the Shores of Politics* Trans. Liz Heron (London: Verso, 1995).

³⁴¹ Charles Taylor. “The Politics of Recognition,” 25.

³⁴² Judith Butler. *Gender Trouble: Feminism and The Subversion of Identity*, (New York: Routledge, 1999,)

³⁴³ There are many excellent sources that take a relational understanding of identity and difference. See Iris Marion Young, *Inclusion and Democracy* (Oxford: Oxford University Press, 2000); William Connolly, *Identity/Difference* (Ithaca, NY: Cornell University Press, 1993); Chantal Mouffe, “Democracy, Power and the ‘Political.’” *Democracy and Difference*. Ed. Seyla Benhabib. (Princeton: Princeton University Press, 1996).

³⁴⁴ Diana Fuss. *Essentially Speaking: Feminism, Nature, and Difference*. (New York: Routledge, 1989).

or reject many of the attributes deemed essential for membership within a group. As Iris Marion Young reminds us, “the attempt to define a common group identity tends to normalize the experience and perspective of some of the group members while marginalizing or silencing that of others.”³⁴⁵ In such a view there is a fundamental acknowledgment of social difference even within defined groups, which, though it can lead to more complexity and difficulty in reaching decisions, produces more equitable political processes.

Acknowledging social differences creates an enlarged view of democratic discussion and decision-making. The social differences pointed to here rely upon a conception of identity that is constructed not on the basis of a substantial logic but through a relational understanding with other individuals. This view rejects the idea of difference as a manifestation of self-regarded interest. It entails a commitment to including voices in security discourse from a wide range of actors to encourage a better understanding of the multiple effects water scarcity has on communities and individuals. Including varied perspectives on water from diverse social segments creates security dialogues that see differences as socially situated and relationally constituted. This understanding can lead to normatively and consequentially better policies of water governance so necessary for emancipation and human possibility. The point is not necessarily to pursue formal equality for members of a group or society in decision-making. Rather, inclusive democracy means “explicitly acknowledging social differentiations and divisions and encouraging differently situated groups to give voice to their needs, interests, and

³⁴⁵ Young, 89.

perspectives on the society in ways that meet conditionals of reasonableness and publicity.”³⁴⁶

Understanding the constitutive-relational aspects of identity can exert significant impacts on the representations of inclusion and exclusion that lie at the heart of international relations. On an international level, acts of inclusion uproot the traditional inside/outside dichotomy cemented by the Westphalian system of states. The post-structuralist David Campbell, in his pioneering study of U.S. foreign policy, *Writing Security*, has most ably described the production and effects of security exclusions. In his book, Campbell examines the dangerous political consequences of relying on difference as a basis for exclusion. He writes that “the constitution of identity is achieved through the inscription of boundaries that serve to demarcate an ‘inside’ from an ‘outside,’ a ‘self’ from an ‘other,’ a ‘domestic’ from a ‘foreign.’”³⁴⁷ The constitutive-relational components that upset the notion of an essential and stable identity can carry over to categories such as “nation” or “state.” If identity no longer remains a fixed concept then this opens the door for the destabilization of the inside/outside boundaries that present untenable markers of exclusion in international security. Indeed it opens the door for emancipatory practices of inclusion. Such practices generally improve the quality of life and security of once-marginalized individuals, specifically with regard to water access. This is not to deny the very real power that “imagined communities” hold on people. But when it comes to water, the idea is that the best way to secure it is to begin thinking and acting in ways that

³⁴⁶ Young, 119.

³⁴⁷ David Campbell, *Writing Security*, (Minneapolis: University of Minnesota Press, 1998), 9.

propel a more ethically just community of communities, rather than exclusionary, binary terms like insider/outsider, friend/enemy, etc.

A focus on identity can be used to open up the number of voices seen as legitimate actors in water security. By expanding the range of voices traditionally left outside of security discourse, differences and similarities in language, everyday practices, and social, political, and spiritual understanding can be observed and granted recognition. In this regard water politics become a space for critical interaction between individuals, with states no longer representing the *necessary* ethical arbiters of resource allocation. With the erosion of essentialized identities, the state no longer maintains its position as the only just guarantor of security. This does not result necessarily in the disintegration of statist water politics, but it does open up new conditions of possibility, whereby water security becomes characterized by the dialogical pursuit of emancipation. In fact, the state itself can maintain a dominant position in negotiating allocation and distribution yet still contend with a multiplicity of other actors pursuing alternative forms of security. An emancipatory water security sees discussions over water as enlivened sites of democratic practice when the focus shifts from a raw pursuit of state interest to the expansion of jurisdictions for participation by oppressed and marginalized individuals. It engenders a sense of recognition in the emancipatory vision.³⁴⁸ The inclusion of marginalized voices of individuals is one of the paramount drivers of an ethical and acceptable negotiation of shared water resources. All this is in conjunction with the central argument of enlivening sites of water security with open possibilities of communication, towards a future where

³⁴⁸ Nancy Fraser and Axel Honneth (eds.), *Redistribution or Recognition? A Political-Philosophical Exchange*, Trans. Joel Golb, James Ingram, and Christiane Wilke (London: Verso, 2003).

individuals are freed from arbitrary and oppressive forms of structural and physical violence.

The pivotal question may be asked to what extent the inclusion of marginalized individuals into security discussions opens up space for normatively progressive approaches to managing water resources? In principle, pursuing inclusion is a necessary first step that allows, “differently situated individuals” to understand,

They are nevertheless related in a world of interaction and internal effects that affects them all, but differently. If they aim to solve their collective problems, they must listen across their differences to understand how proposals and policies affect others differently situated. They learn what takes place in different social situations and how social processes appear to connect and conflict from different points of view...Such an enlarged view better enables them to arrive at wise and just solutions to collective problems to the extent they are committed to doing so.³⁴⁹

Developing out of a consciousness that accepts deep fissures in representation, the emancipatory vision expressed here seeks to promote actions of water negotiation that take seriously the wishes and concerns of marginalized populations. It is premised on an observation that water scarcity and exposure to environmental harm are accessible points of solidarity between differently situated individuals. Such an observation must then translate into clear commitments to the pursuit of inclusion, premised upon a constitutive-relational understanding of identity. However, inclusion itself will not ensure emancipatory visions of water security. Inclusion, in a critical theoretical understanding, must reflect a commitment to communication, which, if it is to be conceptually coherent,

³⁴⁹ Young, 118.

is derived from a cosmopolitan ethical viewpoint. The institutional implications of all this are difficult to assuage, but there are indications that some movement towards institutionalized “hydrosolidarity” is achievable. The next chapter will formally discuss this potential. The remaining sections of this chapter will clarify the remaining two components of an emancipatory water security.

5.4 Communication (Dialogical Rationality)

The jump from inclusion to communication is not very great. Working to include all voices within a discussion over shared water entails a commitment to dialogue that can promote the greatest possible freedom for individuals. Such a commitment draws from a deeper epistemological understanding that the mind plays a central role in the construction of reality.³⁵⁰ A communicative rationality stands in opposition to the reliance on scientific techniques or objective analyses of fact to discover the laws of society and nature. Instead, what is sought through immanent critique is the space to collapse the objective self/other distinction and reveal how the contemporary “realities” of international security are mutable and subject to emancipatory change. It was Hegel, and later Marx, who fervently argued that the lines of progress are not drawn by autonomous accumulation of scientific knowledge, but reflect specific human interests and dominant power relations.³⁵¹ In light of this, it is necessary to put forth ideas of communicative

³⁵⁰ Peter L. Berger, and Thomas Luckman. *The Social Construction of Reality*. (Garden City, N.J.: Anchor Book, 1967).

³⁵¹ Hegel’s concern with the origins of self-consciousness in mutual recognition are most fully realized in chapters four and five of *Phenomenology of Spirit*. G.W.F. Hegel. *Phenomenology of Spirit* Trans. A.V. Miller (Oxford: Clarendon Press, 1977). Marx’s critique of Hegel, in which he develops his ideas on the social subject and mutual recognition in a theory of domination, leading to alienation, is found in his 1844 manuscripts. Karl Marx. *Economic and Philosophic Manuscripts of 1844* Trans. Martin Mulligan (Moscow: Progress Publishers, 1959).

rationality and discourse ethics that produce an enlarged mentality that can be a model for interaction with the other, a dialogue that is open to all and governed by principles of equality. Such thinking allows for reflexive actors to engage with a multiplicity of viewpoints, a variety of perspectives, and to acknowledge all the layers of meaning which constitute a situation.³⁵² In this view, emancipation remains the goal, but *process* becomes the key. Processes that emphasize communication, dialogue, and conversation can produce the moral framework for the third pillar of emancipatory water security – cosmopolitanism – because they depend upon a universal principle of reciprocal recognition.

Communication, with an emphasis on dialogue, must be used to overcome disputes and lessen the potential for conflict over shared water. In this regard it is of equal importance as the notions of inclusion and cosmopolitanism for an emancipatory water security. The concept of communication used here is derivative of two central, interrelated ideas of German philosopher Jürgen Habermas: his theory of communicative action, and his moral theory, referred to as “discourse ethics.”³⁵³ The two ideas combine to reinforce emancipatory water security because they point to the necessity of communication and dialogue and the right of all individuals to be *understood*. At the heart of this critique is the understanding that identities and the views of reason that sustain them, are intersubjective and subject to change.

³⁵² Benhabib, 52.

³⁵³ Jürgen Habermas. *The Theory of Communicative Action, vol. 1: Reason and the rationalization of society*. Trans. Thomas McCarthy. (Boston: Beacon 1983); Jürgen Habermas. *The Theory of Communicative Action: Lifeworld and System: A Critique of Functionalist Reason*. Trans. Thomas McCarthy. (Boston: Beacon 1983); Jürgen Habermas. *Justification and Application: Remarks on Discourse Ethics*. Trans. Ciaran Cronin. (Cambridge: The MIT Press, 1993)

5.4.1 Strategic vs. Communicative Action:

Deciphering how exactly it is possible to construct non-coercive means of interaction between water stakeholders requires a turn to Habermas. The eminent German philosopher has spent a long lifetime developing a framework whereby actors are able to engage in radically democratic communication, free of domination and force. Such an ideal-type of interaction is crucial for the emancipatory interest forwarded here. Interactions between individuals and groups are, according to Habermas, derived from two central logics: A *strategic* logic and a *communicative* logic. The logic of social action sought in emancipatory security is one based on *communication*, which differs in important ways from strategic, rational-choice based logics that are beholden to “consequentialism.”³⁵⁴ These rational-choice approaches tend to view the interests and preferences of actors as fixed during the communicative process, and base their decisions for communication on the likely consequences to arise. In contrast, the logic of communicative action emphasizes how actors reason through a collective communicative process. In a strategic approach, the interests and preferences of actors are largely derived from their given identities. Communicative approaches highlight how these interests and preferences are intersubjectively created and thus open to dialogue and discursive challenges. In other words, if reason itself is intersubjectively created, as is argued, then the notion of community is also intersubjective. Actors relying on a communicative rationality are not seeking to satisfy their fixed preferences and interests. They are

³⁵⁴ Thomas Risse, ““Let’s Argue!”: Communicative Action in World Politics” *International Organization* 54.1 (2000): 3.

challenging and justifying “the validity claims inherent in them.” As befits Habermas’ focus on reason, participants in a dialogue should be able to give a valid reason for their beliefs. If they cannot, they should be capable of taking points of disagreement into consideration and moving forward in the course of future interaction towards consensus and understanding.³⁵⁵ As the Habermasian IR scholar Thomas Risse explains, it becomes possible for participants engaged in communicative action to “change their views of the world or even their interests in light of the better argument.”³⁵⁶ This is a significant departure from rational-choice approaches because it emphasizes argumentation, deliberation, and reason, rather than strategic emphases on compellence or deterrence. While communicative action is as similarly goal-oriented as strategic action, the attainment of a set of preferred interests is not the objective.

Such a viewpoint has significant implications that can open up space for persuasion and consensus to be obtained through the use of the better argument. If reason, identity, and community are intersubjectively created and sustained, then actors in communication can be convinced that their positions and arguments are wrong, in the face of better, contrary views. Because of the emphasis in communicative action on the tools of argumentation and persuasion, the significant problems of legitimacy and capacity that continue to plague water security perceptions and policies can be overcome. The tools provide the moral and cognitive space for the inclusion of a diversity of viewpoints into discourses of water security. Chapter six will show that in the field of water management, integrated

³⁵⁵ Jürgen Habermas, *Between Facts and Norms: Contributions to a Discourse Theory of Law and Democracy* (Cambridge: MIT Press, 1996): 18.

³⁵⁶ Risse, 7.

water resource management (IWRM), comes close to following the Habermasian communicative rationality by bringing together the multiple actors in a hydrological unit – such as a region, watershed, sub-watershed - to communicate and make decisions.³⁵⁷

5.4.2 Communicative Rationality

Beginning in the 1970s, Habermas undertook a social and linguistic turn in critical theory arguing that linguistic structures underpinned human actions and the desire for understanding. Whereas the first generation of Frankfurt School scholars became entirely circumspect of any emancipatory potential, Habermas took a more optimistic view that human societies could faithfully pursue the emancipatory interest. According to first generation critical theorists like Max Horkheimer and Theodor Adorno, modernity, born from the western Enlightenment, contained within it both the possibility for emancipation and an instrumental rationality that would forever prevent it. The next generation of Frankfurt school theorists, including Habermas, believed that this view lacks nuance and empirical validity. For him, modernity contains within it the possibility for consensus, itself a pre-requisite for what he believes is humanity's emancipatory interest. In particular, this is Habermas' central deviation from earlier generations of critical theory. He argues that language and communication have a liberating potential. In one of his most notable passages Habermas writes, "What raises us out of nature is the only thing we can know: *language*...Our first sentence expresses unequivocally the intention of the universal and unconstrained consensus."³⁵⁸

³⁵⁷ V.S. Saravanan, Geoffrey T. McDonald, and Peter P. Mollinga. "Critical review of Integrated Water Resources Management: Moving beyond polarized discourse." *Natural Resources Forum* 33 (2009): 76.

³⁵⁸ Jürgen Habermas, *Knowledge and Human Interests*. Trans. J.J Shapiro (Boston: Beacon, 1971), 314.

Essentially, Habermas' ideas on communicative rationality help show how modern actors interact with the aim of mutual understanding. For him social interactions display the universalizing norms of discourse, pointing to shared emancipatory interests. These interests are expressed in the "ideal speech situation," or "undistorted communication" when individuals engage with one another absent exogenous factors in efforts to identify the better argument. This type of communication comes by way of a vibrant dialogue within an inclusive public sphere, ensuring that actors are able to satisfy their own needs without inhibiting or damaging the abilities of other to do the same.

The most important point to emphasize is that the rational structure of communication is principally focused on reaching common understanding - a "fusion of horizons (*Horizontverschmelzung*)" – according to German philosopher Hans-Georg Gadamer.³⁵⁹ This emphasizes an intersubjective relationship, where interests and identities are formulated through interaction and dialogue. This directly opposes conventional security approaches that assume an inevitable clash of interests between subjects - where both, subjects and their interests are given.³⁶⁰ The focus on communication and understanding attempts to overcome the problems associated with asymmetries of power and authority in a dyadic relationship of discourse by focusing on how in a process of emancipation "there can be only participants."³⁶¹ This also provides a way out from the pessimism of the first generation of Frankfurt School critical theory, because it shows how

³⁵⁹ Hans-Georg Gadamer. *Truth and Method*. 2nd Rev Ed. Trans. Joel Weinsheimer and Donald G. Marshall. (London: Continuum, 2004).

³⁶⁰ Martin Weber, "The Critical social theory of the Frankfurt School and the 'social turn' in IR," *Review of International Studies*, 31.1 (2005): 197.

³⁶¹ Habermas, *Theory and Practice*, trans. John Viertel, (Boston: Beacon, 1973): 40.

intersubjective relationships overcome instrumental tendencies of modernity, allowing for a rational integration of speakers into communicative, and emancipatory relationships. As Habermas himself explains, “Communication is not merely a matter of transmitting information...but of establishing (or maintaining) a relationship with another person.”³⁶² This relationship helps determine the context in which information between subjects is transferred and where particular meanings are created and understood.³⁶³ Social relationships are not predicated on a totalizing instrumentality, but upon a consensus between all those involved in the communicative process to pursue the ultimate goal of understanding. In such a way then, all knowledge is socialized. The ideal is a “social intercourse free of coercion, in which the self-realization of one party does not have to be bought with the mortification of the other.”³⁶⁴

Acts of communication aim to produce understanding, which is a central component for emancipation. Liberation will not come simply through the expansion of technological rationality and the spread of productive forces; it emerges through a learning process accumulated through communicative action. Habermas writes that “liberation from hunger and misery does not necessarily converge with liberation from servitude and degradation, for there is no automatic developmental relation between the two dimensions...the self-formative process of spirit as well as our species essentially

³⁶² Barbara Fultner, “Communicative action and formal pragmatics,” in *Jürgen Habermas: Key Concepts* Ed. Barbara Fultner (Durham UK: Acumen, 2011): 58.

³⁶³ Charles Taylor, “Interpretation and the Science of Man.” *The Review of Metaphysics* 25.1 (1971): 3-51.

³⁶⁴ Habermas, *Theory of Communicative Action*. Vol. 2, 98.

depends on that relation between labor and interaction.”³⁶⁵ The central idea is that shared understanding is the main desire of participants in a dialogue. Thus, whenever truth claims are made, whether they are normative or empirical, the goal is mutual understanding: “The goal of coming to an understanding is to bring about an agreement that culminates in the intersubjective mutuality of reciprocal understanding, shared knowledge, mutual trust, and accord with one another.”³⁶⁶ The larger critique evident here relates to the failure of conventional social science (including international security studies!) to fully acknowledge the learning potential that is culturally available.³⁶⁷ To summarize: communication and the inherent desire for understanding and consensus through validity claims³⁶⁸ demonstrates the emancipation potential immanent in individual and social behavior.

5.4.3 Discourse Ethics

One of the principal tasks of an emancipatory security of water is to introduce moral approaches to conventional forms of political action. Habermas’ ideas about communicative action are a good start for understanding how there is an ever-present unfulfilled *potential* for emancipation. The second component of communication that must be discussed briefly is the idea of discourse ethics, which is pivotal in forming a

³⁶⁵ Habermas, *Theory and Practice*, 169.

³⁶⁶ Habermas, *Communication and the Evolution of Society*. Trans. Thomas McCarthy (Boston: Beacon, 1979): 3.

³⁶⁷ Habermas. *The Theory of Communicative Action*, Vol. 2, 375.

³⁶⁸ If a speech act is to be considered valid then it must contain within it four “validity-claims”: it must be comprehensible, true, right (i.e. based on a normative value), and sincere. All speech acts, even lies, rely on these presuppositions. The implication is that speakers, even if diametrically opposed in outlook, culture, and values, can still reach consensus on the validity of each other’s speech claims. See William Outhwaite, *Habermas* 2nd Ed. (Cambridge: Polity Press, 2009); 39.

coherent framework of emancipatory water security from the loose strands of a communicative social theory.

It has been shown how communicative rationality - the desire for understanding and consensus – is important for the emancipatory intent. Discourse ethics explains the implications of communicative rationality. These implications are, generally speaking, the creation of models of universal moral reasoning that promote equal conversation between those who are affected by water security (that is to say everyone). The model relied upon here is derivative of Seyla Benhabib’s model of moral reasoning through conversation, “in which the capacity to reverse perspectives, that is, the willingness to reason from the others’ point of view, and the sensitivity to hear their voice is paramount.”³⁶⁹ The goal of conversation in this regard is not consensus but the “anticipated communication with others with whom I know I must finally come to some agreement”³⁷⁰ Such thinking requires a deep-rooted commitment to moral reasoning that is both inclusive and universal.

The attention to morals is important because, as should be clear by now, none of the pressing problems related to water management can be fully separated from deeper moral questions. The deficiencies of contemporary water discourse, practices, and institutions are moral dilemmas. While it is of course logical to argue for more efficient technical arrangements and less bureaucratic institutional features that can alleviate water stress/scarcity, it should be remembered that it is often the *fundamental* nature of

³⁶⁹ Seyla Benhabib, *Situating the Self: Gender, Community, and Postmodernism in Contemporary Ethics*, (New York: Routledge, 1992); 8.

³⁷⁰ Benhabib, 9.

technical arrangements and institutional features which are responsible for hindering the realization of unconstrained communication, of emancipatory security. In this respect, an emancipatory water security must focus on unsettling the preeminence of territorially-defined national sovereignty as the organizing principle of water security towards a broader consensus on sustainable water stewardship. The focus must be on identifying the cleavages inherent within communicative relationships of water that can open space for reaching an understanding on shared, intersubjectively-arrived at ideas of emancipation. Such an endeavor can work by transforming attendant water security concerns of individuals so that they also recognize the larger meaning; an attention to the long-run, rather than short-term payoffs. Such thinking is beholden to an awareness of the ontological underpinnings of human interaction. Habermas writes:

These problems can only be brought to a head by rethinking topics morally, by universalizing interests in a more or less discursive form... It helps to perceive the way one's own interests are bound up with the interests of others. The moral or ethical point of view makes us quicker to perceive the more far-reaching and simultaneously less insistent and more fragile, ties that bind the fate of an individual to that of every other, making even the most alien person a member of one's community.³⁷¹

The idea of discourse ethics sharpens the edge of emancipatory water security by connecting communicative rationality with a universalizing ethical appeal. Discourse ethics in this regard is helpful for delineating how conversations can create an “enlarged thinking” that is necessary to overcome traditional impasses of divergent security

³⁷¹ Jürgen Habermas, 'What Does Socialism Mean Today? The Rectifying Revolution and the Need for New Thinking in the Left', *New Left Review* 183 (1990): 20. (3-21)

interests. Such a conception is derived from Benhabib's reformulation of what Habermas termed the "ideal speech situation." Benhabib does not disagree with Habermas on the importance of ensuring that "the conflicting needs of *all* participants are given their due and can be taken into consideration from the viewpoint of the participants themselves."³⁷² However, she is careful to highlight how Habermas' ideal speech situations do not only recognize the rights of all beings capable of speech to participate in the moral conversation. They also must stipulate how within such moral conversations each participant is accorded the same symmetrical rights to various other speech acts, to initiate new topics, to ask for reflection about the presuppositions of the conversation, etc. She calls this *the principle of egalitarian responsibility*.³⁷³ This implies that a normative principle of universal moral respect ought be employed where individuals "treat each other as concrete human beings whose capacity to express this standpoint we ought to enhance by creating, whenever possible, social practices embodying the discursive ideal."³⁷⁴

Benhabib augments Habermas' discourse ethics by reconstructing it towards a "historically self-conscious universalism" that is attendant to the social and individual contexts which are in play during conversation. The main point of departure, and one that is relevant to an emancipatory security of water, is that consensus itself does lead to truth or even moral outcomes. What is important "is not that everybody could or would agree to the same set of principles, but that these principles have been adopted as a result of a

³⁷² Habermas, *Justification and Application: Remarks on Discourse Ethics*, 49.

³⁷³ Benhabib, 29.

³⁷⁴ Benhabib, 31.

procedure...It is not the *result* of the process of moral judgment which plays a role in its validity, and I would say, moral worth³⁷⁵ What is important is the process. And this process must aim for reasonable understanding about deep moral principles via an open-ended conversation. This reworking of Habermas is useful for promoting a vision of ethical relations that radically questions all procedures of justification including its own, and thus, can create the conditions for a conversation that accepts differing points of view. It is representative of the reflexive understanding of communicative rationality, which, while certainly not politically “neutral,” encourages a plurality of life choices, styles, and many different conceptions of the good.³⁷⁶ The maintenance of the meta-norms of universal respect and egalitarian reciprocity is the aim of a reflexive discourse, one that fully acknowledges the “embedded, contingent, and finite aspects of human beings.”³⁷⁷ Such an approach is pivotal for maintaining open forms of dialogue, premised upon recognition, inclusion, and universalism. This is the essence of the progressive mentality that can lead to emancipatory water security.

If communicative rationality explains how understanding (through discourse) is immanent in social relationships, then discourse ethics explains how such understanding entails respect for one’s conversation partners. The argument of course still begs the question as to who can be considered as a “conversation partner?” Certainly it is no longer appropriate to limit the legitimacy of conversation to bounded communities of states. With the growing acceptance of cosmopolitan norms as a consequence of the

³⁷⁵ Benhabib, 37.

³⁷⁶ Benhabib, 44.

³⁷⁷ Benhabib, 50.

changes wrought by globalization, it becomes possible - perhaps likely - to envision the spread of democratic agreements and laws over shared and unshared waters.

5.5 Cosmopolitanism

To satisfy the demands of the global problems of water security, to help satisfy the emancipatory interest latent in every individual, a conception of cosmopolitan citizenship must be employed. Otherwise one risks replicating the same harm that conventional practices of global security have engendered to date. But on the other hand, by relying upon a normative framework of cosmopolitanism, it becomes possible to tie concepts of inclusion and communication together to form coherent schemata of emancipation and water security. And as the debates on ethics in global politics continue to swirl, a critical conception of cosmopolitanism can help tangibly alleviate suffering by facilitating the emergence of decision-making processes over water that are inclusive and dialogical.

As the previous chapters demonstrate, it should come as no surprise that the blueprint for a critical security of water focuses on the holistic, integrated nature of water vulnerability on individuals and species around the world. In this regard, a cosmopolitanism ethical framework helps highlight the universal dependencies of water by both the human and non-human world.³⁷⁸ Of course this is not to say that vulnerabilities to water scarcity and

³⁷⁸ A caveat is in order here. The framework of emancipatory water security developed here does not wade into the ecological ethical debates which question whether humans should be the primary unit of moral concern. Those who come from a “deep ecology” perspective argue that the non-human world has an intrinsic moral value and in some instances must be valued over human “needs” or “desires.” In political terms, deep ecologists advocate the transformation of anthropocentric societies into eco-centric societies. There is much to be gained from engaging such literature, not least the insights that “the flourishing of human and non-human life on Earth has intrinsic value,” and the “richness and diversity of life forms are values in themselves and contribute to the flourishing of human and non-human life on Earth.” Arne Næss, *Ecology, Community and Lifestyle: Outline of an Ecosphy* Trans. David Rothberg (Cambridge: Cambridge University Press, 1989); 29. See also: Richard Sylvan and David Bennett, *The Greening of Ethics* (Cambridge UK: White Horse Press, 1994); J. Edward de Steiguer, *The Origins of Modern Environmental*

quality are uniform; quite the opposite. Almost 66 percent of Africa is arid or semi-arid and more than 300 of the 800 million people of Sub-Saharan Africa live in a water-scarce environment, defined as having less than 3000 m³ per capita.³⁷⁹ This is a stark contrast to the experiences of water-rich areas, such as Canada, where total renewable water resources are approximately 85,310 m³ per capita.³⁸⁰

Cosmopolitanism is a contested term, with many variations. From a moral standpoint, cosmopolitanism begins with the idea that individual loyalties be tied to a universal human community, rather than strict allegiances only to local or national identifications.³⁸¹ It both harkens back to ancient Greek philosophy and is representative of modern phenomena of globalization. From a cosmopolitan outlook, boundaries, including territorial state borders, require justification, which entails an endless and critical moral conversation.³⁸² In terms of security thinking, cosmopolitanism holds that peace is best achieved through the establishment of a transnational order built on shared

Thought (Tucson: The University of Arizona Press, 2006); Patrick Curry, *Ecological Ethics: An Introduction* 2nd Ed. (Cambridge: Polity Press, 2011).

³⁷⁹ NEPAD (New Partnership for Africa's Development), *Water in Africa: Management Options to Enhance Survival and Growth*, (Addis Ababa, United Nations Economic Commission for Africa (UNECA), 2006.)

³⁸⁰ Food and Agricultural Organization of the United Nations (FAO), *Country Fact Sheet: Canada* (FAO, 2009). As it often is when using statistics, the fuller picture is missed. Reiterating Canada's relative abundance of water overlooks the very real regional disparities of water availability and quality in the country. See John B. Sprague "Great Wet North? Canada's Myth of Water Abundance", *Eau Canada*, Ed. Karen Bakker, (Vancouver: UBC Press, 2007), 23-37; Dan Shrubsole and Diane Draper "On Guard for Thee? Water (Ab)uses and Management in Canada" *Eau Canada*, Ed. Karen Bakker, (Vancouver: UBC Press, 2007), 37-55.

³⁸¹ Martha Nussbaum, "Patriotism and Cosmopolitanism," *For Love of Country: Debating the Limits of Patriotism* Ed. Josh Cohen. (Chicago: University of Chicago Press, 1996): 4.

³⁸² Benhabib, "Democratic Exclusions and Democratic Iterations," 451

moral, legal, and political understandings. It focuses on individuals as the primary unit of moral concern, above states, and other political or ethnic communities. By virtue of their humanity, individuals do share the same political community, in addition to all of the other communities with which they may also identify.

When it comes to water, cosmopolitan ethics offers a conception of water security that focuses on the interconnectedness of the problem and the fact that vulnerabilities and opportunities are shared. It can do so while isolating shared universal interests such as the sustainability of threatened water resources. The last section of this chapter will briefly draw out the central characteristics of a critical cosmopolitanism that coincides with inclusivity and communicative rationality.

There is no question that significant divergences exist across regions and peoples, over a range of historical, political, and sociological factors. But while there exist multiple affiliations individuals cling to, be they familial, religious, ethnic, or political, there are a bundle of needs, desires, and anxieties that define us as common members of the human species. When it comes to water, there are shared vulnerabilities and interests that present a significant rejoinder to the idea of the other as a threatening menace intent on denying the innate right of the self to pursue a secure existence. The self and the other have already been seen as highly-problematic, constructed categories of identity. Emancipatory processes of water security can draw upon the collapse of the self and the other and tell different stories of the necessarily interconnected relations of water. Such interconnections are manifested physically and normatively. Throughout the world there are 263 international river basins shared by 145 countries, representing 45.3 percent of

the Earth's land surface.³⁸³ Since 1820, more than 400 international water agreements have been signed dealing with a range of issues related to water including its equitable use as a limited and consumable resource.³⁸⁴ It seems impossible to think of water in splendid isolation, as something to be controlled independently of the needs and wishes of other, cross-border riparian users. Yet, the state-centric, survivalist, ethics of traditional security approaches consistently revert back to a myopic singularity that extols the virtues of the bounded communities of nation-states. This type of thinking may well be useful in organizing parsimonious accounts of the world, but it has little bearing on the complex and urgent needs of the majority of people around the world. By viewing security as the freeing of individuals from arbitrary constraints on their pursuit of a good life, one seeks out the possibilities for the immanent possible transformations of traditional ontologies of security. Central to these transformations is a re-orientation towards a reflexive ethics that identifies the rights and aspirations of individuals rather than relying solely on the idea of security as the pursuit of the national interest. In this regard cosmopolitanism provides a necessary ethical approach, one that is already embedded in current societal developments over water. As Chris Rumford writes,

Cosmopolitanism requires us to recognize that we are all positioned simultaneously as outsiders and insiders, as individuals and group members, as Self and Other, as local and global. Cosmopolitanism is about relativizing our

³⁸³ Aaron T. Wolf, Jeffrey A. Natharius, Jeffrey J. Danielson, Brian S. Ward, and Jan K. Pender, "International river basins of the world," *International Journal of Water Resources Development*, 15(4), 1999, 387.

³⁸⁴ Meredith A. Giordano, and Aaron T. Wolf, *Atlas of International Freshwater Agreements* (Nairobi, Kenya: UNEP, 2002); 6.

place within the global frame, positioning ourselves in relation to multiple communities, crossing and re-crossing territorial and community borders’.”³⁸⁵

Unsurprisingly there are many variations of cosmopolitanism, each offering a unique perspective on how to best consider the rights individuals share by virtue of being human. The first usage of the term probably comes from ancient Greek and Roman philosophers. The first utterance of a cosmopolitan viewpoint may have come from Diogenes the Cynic, who, when asked where he came from, replied, “I am a citizen of the world [*kosmopolitês*]”³⁸⁶ Moving forward, many Enlightenment thinkers in the eighteenth century referred to conditions and commitments of cosmopolitanism. Immanuel Kant is perhaps best known for his articulation of the principle of “Cosmopolitan Right,” the third article in his Definitive Articles outlined in *Perpetual Peace*. Others who thought of cosmopolitan either as a normative ideal, or an empirical development through the enlightenment and after include, Jeremy Bentham, Thomas Paine, John Stuart Mill and Karl Marx. Clearly it is an old and well-worn path.

Contemporary forms of cosmopolitanism are diverse and can sometimes emphasize competing visions of ethics and political projects. Despite the many different avenues to take in getting to something called cosmopolitanism, all of them are derived from a central concern with the avoidance of unnecessary suffering and projecting visions of

³⁸⁵ Chris Rumford, *Cosmopolitan Spaces: Europe, Globalization, Theory*. (London:Routledge, 2008);14.

³⁸⁶ Diogenes Laërtius, “The Lives and Opinions of Eminent Philosophers: Life of Diogenes” in Paul Halsall, *Ancient History Sourcebook*, Fordham University, 2000. Online. 24 November 2012. <<http://www.fordham.edu/halsall/ancient/diogeneslaertius-book6-cynics.asp#Diogenes>>

institutions that allow for the realization of freedom.³⁸⁷ Some, like Martha Nussbaum, approach cosmopolitanism on moral grounds, refusing to place love of one's country above love of mankind. Others, such as Jeremy Waldron emphasize how national communities, and communities based on ethnic primordialism fail to capture the complexities of human allegiances.³⁸⁸ Such allegiances may be difficult to pin down, but by focusing on the spread of more mundane cosmopolitan norms already existing throughout the world, on matters like currency, banking, aviation, and time zones, one gets the sense that "as lives lived *in the world*, the interaction of people and peoples on the face of the earth is not an anarchy."³⁸⁹ Further still, one may divide contemporary cosmopolitans along a variety of conceptual fault lines, including duty-based,³⁹⁰ utilitarian-consequentialist,³⁹¹ rights-based,³⁹² and contractarian.³⁹³ These approaches

³⁸⁷ James Brassett and Dan Bulley. "Ethics in World Politics: Cosmopolitanism and Beyond?" *International Politics* 44 (1), 2007: 4.

³⁸⁸ Jeremy Waldron. "Minority Cultures and the Cosmopolitan Alternative." *Michigan Journal of Law Reform* 751 (1992): 751-793; Jeremy Waldron, "What is Cosmopolitanism?" *Journal of Political Philosophy*. 8.2 (2000): 227-243.

³⁸⁹ Jeremy Waldron. "Cosmopolitan Norms." *Another Cosmopolitanism*. Ed. Seyla Benhabib (Oxford: Oxford University Press, 2006): 84.

³⁹⁰ Onora O'Neil. *Towards Justice and Virtue: A Constructive Account of Practical Reasoning* (Cambridge: Cambridge University Press, 1996).

³⁹¹ Peter Singer, *One World: The Ethics of Globalization* 2nd edition. (New Haven, Conn: Yale University Press, 2004).

³⁹² Henry Shue, *Basic Rights: Subsistence, Affluence and U.S. Foreign Policy*, 2nd edn, (Princeton: Princeton University Press, 1996); Charles Jones, *Global Justice: Defending Cosmopolitanism*, (Oxford: Oxford University Press, 1999); Thomas Pogge, *World Poverty and Human Rights: Cosmopolitan Responsibilities and Reforms*, 2nd edition, (Cambridge: Polity, 2008).

³⁹³ Charles Beitz, *Political Theory and International Relations*, 2nd edn, (Princeton: Princeton University Press, 1999); Darrel Moellendorf, *Cosmopolitan Justice*, (Boulder: Westview Press, 2002). These labels and authors have been succinctly described in *Ethics and World Politics*, Ed. Duncan Bell, (Oxford: Oxford University Press, 2010).

emphasize different aspects of the cosmopolitan idea (moral, political, cultural), offering unique justifications and conditions to build a more coherent cosmopolitan vision.

The vision of cosmopolitanism articulated here is one indebted to the spirit of critical theory already so thoroughly discussed. It is one that seeks to accept cosmopolitanism as a *process*, (instead of an end outcome or project) oriented towards the construction of new ways of thinking and acting.³⁹⁴ Such a vision can make room for different approaches to water management while still acknowledging the deep unity of purpose needed to ethically evaluate security practices. There are many authors who have already undertaken to expand the ideas of cosmopolitanism by drawing from the insights of critical theory.³⁹⁵ David Held, though not a critical theorist, has provided a definition of “layered cosmopolitanism” that is a useful as a starting point. He writes that cosmopolitanism is,

An ethical approach to political life which champions self-determination and freedom from domination and arbitrary power. Its principles and standards, embedded in democratic public law, provide a framework for cultural diversity

³⁹⁴ Laura Valentini points out that it is possible to argue that, “principles of justice should govern global or near-global social practices, without thereby also implying that democratic egalitarian justice should extend to the world at large.” See Laura Valentini, *Justice in a Globalized Framework: A Normative Framework*. (Oxford: Oxford University Press, 2011): 3.

³⁹⁵ Ulrich Beck. “Toward a new critical theory with cosmopolitan intent.” *Constellations* 10.4 (2003): 453-468; William Connolly. *Pluralism* (Durham, NC: Duke University Press, 2005); Richard Shapcott. *Justice, community, and dialogue in international relations* (Cambridge, UK: Cambridge University Press, 2001); Andrew Linklater. “Political Community and Human Security” *Critical Security Studies* Ed. Ken Booth. (Boulder, CO: Lynne Rienner, 2005): 113-131; Gerard Delanty. Gerard. *The Cosmopolitan Imagination: The Renewal of Critical Social Theory* (Cambridge: Cambridge University Press, 2009).

and individual difference to flourish in a public life marked by deliberation and argument, bounded by legitimate rules and mechanisms of conflict resolution.³⁹⁶

The central precepts of this definition are useful for an emancipatory security of water. It must, at the outset recognize that: 1) all people are morally equal; 2) that arbitrary forms of power/domination are to be avoided and; 3) the necessity of dialogue and inclusion over matters of public importance. The remaining section will build upon these three features of critical cosmopolitanism to build an applicable model suitable for better informing international security discourse and practice over water.

5.5.1 All people are morally equal.

The topic of morality in global security is generally avoided. It is often seen as a dangerous catalyst for projects of imperial intervention or for perpetuating a sense of liberal exceptionalism that is blind to non-western forms of justice (e.g. the “White Man’s Burden”). When morality is spoken of in security discourse, it is often in terms of the “Just War” tradition, intent on finding moral justification for armed intervention and conflict.³⁹⁷ A critical cosmopolitanism is able to bring in deeper questions about morality into discussions of security by highlighting how ethical approaches must shift the unit of concern from states or other particular forms of human association to individuals. This

³⁹⁶ David Held, *Cosmopolitanism: Ideals and Realities*, (Cambridge: Polity Press, 2010), 25. Held’s “layered” vision of cosmopolitanism combines both thick (strong) and thin (weak) distinctions. Such a vision sees cosmopolitanism as providing an overriding frame of reference and a distinctive subset of considerations. In other words cosmopolitanism affirms universal principles, but recognizes that their precise meaning is always uniquely fleshed out in situated discussions. Held, 79.

³⁹⁷ There are of course exceptions to this. Most political philosophers come to the question of war at one point or another of their careers. A small sample of notable contributions include Reinhold Niebuhr, *Moral Man and Immoral Society: A Study in Ethics and Politics*, (New York: C. Scribner’s Sons, 1932); Hannah Arendt, *On Violence*, (New York: Harcourt, 1969); Hannah Arendt, *On Revolution*, (New York: Viking Press, 1963); and Carl Schmitt, *The Theory of the Partisan: A Commentary/Remark on the Concept of the Political*. Trans. A.C. Goodson, (East Lansing: Michigan State University Press, 2004)

entails a commitment to equal moral concern for all human beings, by virtue of their humanness, rather than some other abstract quality.³⁹⁸ It provides the moral basis for shifting the referent object of security away from states to individuals. Such a basis entails a double move. On the one hand it deepens the object of security, down to the individual level. On the other hand, by moving to the level of the individual, one must also broaden the scope to include *all* humans.

From a water security perspective, enshrining the rights of every individual may entail wading into the difficult and complex questions of whether water itself is a human right. The human right to water was recently affirmed by the United Nations General Assembly, which on 28 July, 2010, voted 122-0 (with 41 abstentions) in favour of declaring “the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights.”³⁹⁹ It seems intuitive to declare that water is a human right; it is one of (along with air) the most essential components to life itself. It would thus seem to fall directly under Article 3 of the UN Declaration of Human Rights, which affirms, “Every person has the right to life, liberty, and security of person.”⁴⁰⁰ The Human Rights Council of the UN adopted a resolution on 30 September 2010, affirming that water is a human right, derived from the right to an adequate standard of living, already defined in numerous international human rights

³⁹⁸ Toni Erksine makes a useful distinction that including people in a sphere of moral concern is distinct from equal material condition. See Toni Erksine. *Embedded Cosmopolitanism: Duties to Strangers and Enemies in a World of ‘Dislocated Communities.’* (Oxford: Oxford University Press, 2008).

³⁹⁹ United Nations General Assembly. "The human right to water and sanitation (A/RES/64/292)." *United Nations* (28 July 2010).

⁴⁰⁰ United Nations General Assembly, “*Universal Declaration of Human Rights,*” *United Nations* (10 December 1948). 217A (III).

treaties.⁴⁰¹ On a national scale, many states are now revising their laws and constitutions to explicitly include the right to water.⁴⁰²

Despite this progressive legal shift to declare the universal human right to water and sanitation, the debate continues to rage whether it is appropriate in practical terms to speak of water as a human right. Most of the arguments against declaring the human right to water stem from a belief that it would distort the free markets' abilities to accurately price water; that full market valuation and "cost recovery" is the best method to conserve and distribute water.⁴⁰³ For these proponents, water services and access are best improved not through the discourse of rights, but through economic development. The argument in favour of the human right to water claims water is much more than an economic good; it is a public trust and part of the global commons. Beyond that, it holds significant spiritual and cultural importance that cannot have an appropriate economic value attached to it. On a practical level, there are deep concerns that pricing water will prevent the poorest segments of the population from sufficient access.⁴⁰⁴

⁴⁰¹ United Nations Office of the High Commissioner for Human Rights (UNOHCHR). *UN United to Make the Right to Water and Sanitation Legally Binding*. UN OHCHR, 1 October 2010. Online. 6 July 2012. <<http://www.ohchr.org/en/NewsEvents/Pages/DisplayNews.aspx?NewsID=10403&LangID=E>>

⁴⁰² Centre on Housing Rights and Evictions (COHRE), *Legal Resources for the Right to Water and Sanitation: International and National Standards* 2nd Edition, 2008.

⁴⁰³ David Zetland, *The End of Abundance: Economic Solutions to Water Scarcity* (Aguanomics Press, 2011)

⁴⁰⁴ Karen Bakker. "Paying for water: pricing and equity in England and Wales." *Transactions of the Institute of British Geographers*. 26.2 (2001): 143-162; Patrick Bond. "Water commodification, decommodification narratives: pricing and policy debates from Johannesburg to Kyoto to Cancun and back." *Capitalism Nature Socialism* 15.1 (2004): 7-25.

What the debate over the human right to water demonstrates is a competition over how to adequately define basic rights and what are the proper underlying meanings and values when it comes to water. Pradhan and Meinzen-Dick point out that,

The concept of water rights...does not refer to a single and unitary right but to bundles of rights that vary across property regimes, legal orders, and cultures. Moreover, the bundles of rights are not static, but complex, dynamic, flexible, and subject to change because of ecological, livelihood, knowledge, and social and political uncertainties.⁴⁰⁵

Pradhan and Menzie-Dick illustrate that the contestation over the right to water is multi-faceted and complex. At the heart of the debate is not whether individuals should have access to a sufficient amount of water for their general health and well being, regardless of their ability to pay for it. This is a given that even the staunchest defender of the free market would agree. It is a debate on whether or not the language of rights is the best means by which this base amount is secured. In emancipatory terms, the debate is obscurant because it overlooks the broadly held consensus that water is essential for all humankind, let alone other life forms. A very wide range of international law and government and community practices already explicitly and implicitly support the human right to water for individual needs.

The human right to water is an integral aspect of an emancipatory security of water because it focuses on the *individual*, as a distinct unit of concern, cutting into deeper and more primordial categories of being than contingent political, ethnic, gender, economic,

⁴⁰⁵ Rajendra Pradhan, and Ruth Meinzen-Dick, "Which Rights Are Right? Water Rights, Culture and Underlying Values," *Water Ethics: Foundational Readings for Students and Professionals*. Eds. Peter G. Brown, and Jeremy J. Schmidt. (Washington D.C.: Island Press, 2010): 43-44.

or religious affiliations that individuals themselves may hold. In this regard, the individual remains the central vessel through which ethics, rights and obligations must travel. Security becomes predicated on the successful fulfillment of the rights embedded in individuals, by virtue of their humanness. This distinguishes emancipatory security from other, more traditional interpretations of security that codify multiple objects for ethics in the quest for an elusive, abstract, and artificial “security.” This is most ably displayed in the tensions surrounding the two key pillars of the United Nations progressive rights architecture: the UN Charter, which enshrines the right of state sovereignty, and the UN Declaration of Human Rights, which focuses on the rights of individuals. Often these two visions are incommensurate with one another, with the security of the individual generally subsumed under the weight of statist security discourse.

The focus on the individual for water security accentuates the significant threats people experience on a daily basis from lack of access to clean and sufficient supplies of water. It overrides the continued predominance of water wars discourse that mistakenly sees water as a strategic resource that will inevitably propel states and intra-state groups to conflict. Switching to the individual as the subject of water security means a radical break from traditional security concerns focused on the state. To pursue emancipation as the goal of security means to focus on the emancipation of individuals.

5.5.2 The avoidance of arbitrary forms of violence/ domination (Water as a lever of peace)

Water security is one of the defining global challenges of the twenty-first century. It impacts the lives of billions of people daily. Aaron Wolf writes succinctly that, “Water management is conflict management.”⁴⁰⁶ But incidences of *violent* confrontation between states or groups directly attributable to water scarcity are few and far between. In this regard it is more appropriate to depend upon a broader vision of cosmopolitanism that is less deeply connected to the original Kantian model, which was primarily premised on avoiding war. The wider global problems existing in today’s globalized world extend beyond war and conflict and include such diverse issues as economic inequality, poverty, disease, human rights abuses, and of course environmental degradation. Water intersects with many of these compelling notions of a broad understanding of security. Cosmopolitan theorizing can provide the ethical foundation upon which emancipatory water security flourishes. It can do so by producing a holistic awareness of the embedded connections that all individuals share with water sources in particular, and broader ecological processes in general. Beyond that, it is able to connect people across space and time over environmental resources. It is true that across most religions and cultures, there exists an emerging ethical consistency that places water and environmental stewardship as a pre-eminent concern. It is no stretch to place these types of emerging holistic beliefs in the context of a broader cosmopolitan outlook.

⁴⁰⁶Aaron T. Wolf, “Water and Human Security.” AVISO: An Information Bulletin on Global Environmental Change and Human Security , no. 3 (June 1999).

A critical cosmopolitan ethics can be the required shift that re-orientes our conception of water security towards individual emancipation and ecological sustainability. It can help us consider how water management entails an ethical commitment that can assist scientific and technological knowledge. Placing a cosmopolitan water ethos at the heart of water security policy will help avoid the arbitrary domination of one group by another - whether by violent or non-violent coercion. This will largely be achieved by relying upon public domains of communication. Communication, the opening of discursive space, allows for the flourishing of emancipation and the avoidance of imposing arbitrary harm on vulnerable populations. This is something that will be turned to shortly.

Placing moral preeminence on a global polis, rather than on bounded communities also helps move us away from modern societies' "disconnect from nature's web of life and from water's most fundamental role as the basis of that life."⁴⁰⁷ It helps us realize that water is tied together with all aspects of life on Earth. Water's functions go beyond that of other resources; it not only helps maintain the current (and unsustainable) luxuries of modern societies, it also drives the interconnected ecological process of the planet's ecosphere. There is then a *global* responsibility to act to preserve these vital functions for the sustainment of life on the planet. Given the global nature of the vulnerabilities and opportunities for the alleviation of harm, it is no longer morally compelling to restrict our collective responsibility to state-centric solutions.⁴⁰⁸ As Sandra Postel writes,

With freshwater life being extinguished at record rates, a more fundamental change is needed. An ethical society can no longer ignore the fact that water-

⁴⁰⁷ Sandra Postel, "The Missing Piece: A Water Ethic," *American Prospect* 19.6 (2008): 22.

⁴⁰⁸ Singer. *One World*.

management decisions have life or death consequences for other species. An ethically grounded water policy must begin with the premise that all people and all living things be given access to enough water to secure their survival before some get more than enough.⁴⁰⁹

Avoiding violence and domination is crucial to achieving the emancipation of the individual, which is the procedural goal of critical water security advanced here. It is also one of the key pillars of a cosmopolitan position.⁴¹⁰ Experiences of physical violence, as well as economic and social injustices, felt either through direct conflict or via structural inequalities are the realities for a great many people across the world. Yet we know that the connections between violence and water are tenuous. Water has been a far greater driver of cooperation than conflict. Water may factor into inter-state and intra-state conflicts, but the vast majority of interactions over water are mild and disputes are almost always resolved peacefully.⁴¹¹ Given this, it is more appropriate to shift attention to alleviating existing day-to-day tensions over water, namely by improving access to safe and clean water sources for individual human needs as well as for the sustainable management of precious water sources.⁴¹² Because these are global problems, global solutions are needed. A cosmopolitan ethics that emphasizes human interconnectedness is

⁴⁰⁹ Postel, 23.

⁴¹⁰ Thomas Pogge acknowledges the impossibility of pursuing equal associative duties for everyone, while also pointing out that “compatriotism makes no difference to our most important negative duties,” like violence and harm. Thomas Pogge. “Cosmopolitanism: A Defense.” *CRISSP* 5.3 (2002): 87.

⁴¹¹ See Aaron Wolf, Shira Yoffe, and Mark Giordano. “International Waters: Identifying Basins at Risk.” *Water Policy* 5(1), 2003: 31-62. A greater concern with the sub-national level is also warranted. Violent conflict over water is a too-frequent reality as tribes, water-sector users, and states/provinces battle over access. See: Aaron T. Wolf, “A Long Term View of Water and Human Security,” *Journal of Contemporary Water Research and Education*, 142, (2009): 69.

best suited for dealing with the myriad shortcomings of contemporary water security policies. A critical security of water based upon such cosmopolitan understandings is able to “scale up” from the minute experiences of individual relationships with water to greater emotional identification with other persons, with the intent to limit the capacity to cause violent and non-violent harm.⁴¹³

While the potential for violent conflict between states remains remote, a significant degree of harm is inflicted upon already vulnerable populations. The damaging effects of chronic water shortages and compromised water resources are disproportionately felt in low-income countries. It is the poorest who live in the areas of highest risk: the urban slums, the rural hinterland and along the floodplains.⁴¹⁴ Water-related diseases remain a major threat to human health and well being, responsible for the deaths of 3.575 million people each year.⁴¹⁵ Every year 1.5 million children under the age of 5 die from diarrhoeal diseases, largely from contaminated drinking water. All told, the Millennium Development Goals, the major UN markers for social progress, state unsafe drinking water represents one of the major threats to the world’s poor.⁴¹⁶ As the fourth World Water Development Report states, “In a global context, water contamination with

⁴¹³ Andrew Linklater, “Human Interconnectedness,” *International Relations* 23(3), 2009, 487.

⁴¹⁴ D. Garrick, R. Hope, *et al*, “Water Security, Risk and Society – Strategic Report on Research Findings, Gaps, and Opportunities.” Submitted to the Economic and Social Research Council by Oxford University Water Security Network, June 2012. Online. 24 November 2012. <<http://www.water.ox.ac.uk>>

⁴¹⁵ Annette Prüss-Üstün, Robert Bos, Fiona Gore, Jamie Bartram. “Safer water, better health: costs, benefits and sustainability of interventions to protect and promote health.” *World Health Organization*, Geneva, 2008. Online. 24 November, 2012. <http://www.who.int/quantifying_ehimpacts/publications/saferwater/en/index.html>

⁴¹⁶ See :World Water Assessment Programme (WWAP). “The United Nations World Water Development Report 4: Managing Water under Uncertainty and Risk.” (Paris: UNESCO, 2012.)

pathogenic substances is acknowledged as the most serious risk factor in relation to human health.”⁴¹⁷ Degraded water quality - untreated wastewater and sewage, contamination from hazardous chemicals like arsenic and pesticides - is responsible for adversely affecting billions of people around the world. In some very real respects, water quality is growing into a much greater concern than water quantity. Pressures on the volume and the quality of water supplies combine to substantially alter the prospects for a full life for an incredibly high number of people around the world.

The new types of threats posed by water scarcity and poor water quality are representative of the widening of security in a rapidly changing world. Water security encompasses a variety of risks including population displacement, human health, ecosystem degradation, climate change, disease, poverty, and inequality. While there have been no examples of overt warfare between states over water sources, significant harm has been inflicted upon vulnerable populations via system-wide drivers like population growth, urbanization, as well as industrial and agricultural production. All of this suggests that an ethics based on cosmopolitan responsibility must be principally concerned with ensuring vulnerable populations avoid arbitrary harm or domination through processes of self-transformation, based upon continuous dialogue. As Pogge writes, “the stringency of our most important negative duties does not vary with the presence or absence of compatriotism.”⁴¹⁸ In fact, “*all* persons have a negative duty of very high stringency toward *every* human being not to collaborate in imposing an unjust

⁴¹⁷ WWAP, 409.

⁴¹⁸ Pogge, “Defending Cosmopolitanism,” 87.

institutional order upon him or her.”⁴¹⁹ It means that new kinds of political and economic ‘violence’, rather than state-centric violent conflict, are the crucial context for a twenty-first century connection between cosmopolitanism and water.

5.5.3 The necessity of dialogue and inclusion over matters of public importance.

The last component of cosmopolitanism used here emphasizes the necessity of dialogue and the inclusion of marginal voices in matters of water security. This key theme is adapted to address the continued shortcomings of traditional approaches to water security that have failed to incorporate the views and wishes of all water stakeholders in a truly deliberative fashion. Cosmopolitan ethics that integrate deliberation and dialogue are able to transform the realm of human interaction, with the aim of developing a holistic, universal, communication community.⁴²⁰ Those that are affected by decisions should have an equal opportunity to shape those decisions in the first place. Such commitments will foster greater a sense of solidarity amongst water users and create better conditions for sustainable environmental policies.

Promoting a spirit of inclusion and non-coercive dialogue in communicative practices is a key component of a critical cosmopolitanism. Creating spaces for communication over matters of public importance is essential for unlocking what Bryan Turner has referred to as a “cosmopolitan epistemology of a shared reality.”⁴²¹ By actively participating in a

⁴¹⁹ Pogge, “Defending Cosmopolitanism,” 89.

⁴²⁰ See Andrew Linklater, “The Transformation of Political Community Towards a ‘Cosmopolitan System of General Political Security’,” *YCISS Occasional Paper No.55* (1999): 1-17.

⁴²¹ Bryan Turner, quoted in Gerard Delanty, *The Cosmopolitan Imagination: The Renewal of Critical Social Theory*, (Cambridge: Cambridge University Press, 2009), 7.

deliberative political community, individuals and groups can construct themselves as active agents while also learning about the responsibility they hold to others. By actively learning with and about the experiences of other water users, one of the effects may be to release common understandings about shared vulnerabilities, which can be rectified through democratic decision-making and the construction of inclusive social institutions. Participation and deliberation can also allow for the transcendence of established territorial and moral borders, as political communities reinvent themselves around shared global ethics rather than around clearly demarcated lines of inside/outside. It pressures the distinctions between fellow-citizens and aliens, the moral duties so unnecessary in an age of increasing interdependence and shared vulnerabilities.⁴²² The idea is to capture the immanent potentials for emancipation by configuring social relations around an inclusive, open communicative space.

Deliberation and participation will not always lead to agreement and the cessation of conflict; that is not the point. Consensus is often the exception rather than the norm. What is at stake is ensuring that morally speaking, all stakeholders are given the opportunity to participate and articulate their views from a position of non-coercion. The ideal speech situation, according to Habermas, is one where each participant experiences equality and freedom, so that they can express their own attitudes, desires, and needs. It is only when both equal participation and freedom of expression are guaranteed that it is possible for a morally legitimate decision to be reached. This ideal speech situation is one where equals engage with one another to uncover the strength of the better argument. Communication

⁴²² See Daniele Archibudi and David Held, *Cosmopolitan Democracy: An Agenda for a New World Order* (Cambridge: Polity Press, 1995).

has the dialectical aim of identifying strengths and weaknesses of “different positions and of ensuring that the stress on differences does not eliminate the quest for actual or potential points of convergence.”⁴²³ Without proper commitment to inclusive dialogue, there is faint hope that entrenched differences over water will be overcome. Actors - from states all the way down to individuals - will continue to rely upon unreflective strategies that fail to sustainably manage precious water resources and deny a great many individuals from experiencing full lives.

Critical cosmopolitan ethics can help overcome the significant challenges posed by traditional thinking on water security. Using communicative rationality as the standpoint for negotiating equitable and sustainable water policies entails engaging the other in an effort to settle disagreements. Cosmopolitan interaction, premised upon integration and acceptance of all stakeholders of water security, beyond simply nation-states and powerful sub-groups, is one of the most significant foundations of an emancipatory security of water. Interaction, based upon a positive recognition of the other, is not meant to merely “accommodate” differing views, but is seen here as a fundamental component of global transformation. The twentieth century sociologist Herbert Blumer is important here. Blumer’s notion of *symbolic interactionism* helps us understand how inclusion and interaction can lead to the transformation of social understandings and practices. Blumer helped pioneer the central constructivist belief that the nature of an object consists of what it *means* to the person for whom it is an object. This counters traditional social science belief in the determining factors of psychological factors or social structures.

⁴²³ Andrew Linklater, “Dialogue, Dialectic, and Emancipation in International Relations at the End of the Post-War Age,” *Millennium: Journal of International Studies*, 23.1 (1994): 127-128.

Instead, *meaning* plays a central role in human actions. Meanings are derived principally through social interaction, or “symbolic interactionism,” where common symbols and common understanding construct both an individual’s and a culture’s self-identity. According to Blumer, group members are trained through their interactions with one another. These interactions are crucial in forming interpretations of the self and the other. In other words, social life *exists in action* – it is made and remade constantly.⁴²⁴

Symbolic interactionism provides some clues into the immanent possibilities to overcome predominant conceptions of water-security. It connects us with some of the claims made earlier in the dissertation that the construction of the social world via human agency simultaneously creates spaces for alternative theorizing beyond the status quo. George Herbert Mead, the intellectual mentor to Blumer, wrote in 1934 that individuals are members of a larger social community, always working to develop integrated social relationships. Mead writes, “We are getting to realize more and more the whole society to which we belong because the social organization is such that it brings out the response of the other person to our own act not only in the other person but also in ourselves.”⁴²⁵ In other terms, the recognition of the other is essential for constituting the identity of the self. For Mead and Blumer, as interactions grow between cultures, an “international-mindedness,” is likely to arise, whereby we can take the attitude of the other in various life-processes. This has significant effects because it allows for the eventual realization of *global* communication communities that share similar goals and aspirations. It is difficult

⁴²⁴ Philip Manning and Greg Smith. “Symbolic Interactionism.” *The Routledge Companion to Social Theory* Ed. Anthony Elliott (New York, NY: Routledge, 2010): 37-39.

⁴²⁵ George H. Mead, *Mind Self, and Society: From the Standpoint of a Social Behaviorist* (Chicago: The University of Chicago Press, 1972), 271.

to think of a goal quite as common or desirable as sustainable environmental practices. Writing eighty years ago, Mead was able to presciently identify the changes that occur cognitively from increased interaction: “A process of organization is going on underneath our conscious experience, and the more this organization is carried out the closer we are brought together. The more we do call out in ourselves the response which our gestures call out in the other, the more we understand him.”⁴²⁶

The purpose of highlighting the role of inclusion within a critical cosmopolitan ethics of water security is three-fold. On the one hand, it promotes a vision of egalitarianism and equality, which comports with the overall aim of emancipation. Ensuring that discussions over water security include a wide range of actors – all actors who perceive they have significant stake in the outcome of the discussion – creates legitimacy and is likely to reduce the role of manipulation and coercion. Public participation in matters of water security enlarges the democratic basis of decision-making. Secondly, at the risk of stating the obvious, inclusion widens the range of voices at the table. The effect of this is to open up the space for alternative points of view that are often marginalized beneath the weight of dominant discourses, but yet can still offer much insight into the problems and solutions of water security. Acknowledgement of and communication with individuals and groups that experience most readily the damaging effects of conventional water security policies - from indigenous tribes to rural women – may produce a better awareness of the problems and open up more holistic sets of solutions. Thirdly, inclusion increases the opportunities for learning and gradual transformation. As individuals share experiences with water and debate the merits of their answers to water problems, the

⁴²⁶ Mead, 271.

dominant political and ethical structures that entrench state-directed and utilitarian management solutions might be radically altered, promising an open, collaborative, and integrated response to the dilemmas of water security. As individuals and groups interact with, and thus learn from one another, mutual identity formulations might emerge as the basis for a cosmopolitan ethic of shared responsibility when it comes to protecting scarce and vulnerable water resources and avoiding harm.⁴²⁷ Chapter six examines a number of cosmopolitan appeals within contemporary water management, including hydrosolidarity.

Indeed, inclusion broadens the ethical horizons by opening up the space for legitimate involvement. Inclusive communication, free from coercion and arbitrary domination, can lead to collective learning, and effect cognitive shifts. This is no less true at the level of global ethics. It may (though not necessarily) expose common concerns and values across a range of issues, water being one. As Gerard Delanty writes,

The purpose of inter-cultural communication is not simply communication for its own sake but has the deliberative objective of settling disagreements through consensual communication rather than through force or manipulation. This does not necessarily require consensus as the final outcome. It does however require the acceptance of discursive procedures and the inclusion of as many people as possible in the discursive process.⁴²⁸

It may be cliché to acknowledge how the spread of globalization has transformed the boundaries of political communities beyond the nation-state, but it is no less true. The

⁴²⁷ For an article that is skeptical of the possibility that mutual recognition can transform conflict patterns through the formation of a collective identity, see Brian Greenhill, "Recognition and Collective Identity Formation in International Politics," *European Journal of International Relations*, 14(2), 2008: 343-368.

⁴²⁸ Delanty, 261.

traditional lines of political and ethical separation between individuals, based upon rigid statist ontology, are blurring amidst a rapid expansion of global activity. This has important implications for water security. It increases the potential for a wider number of actors to “speak security,” communicating their experiences with water and thereby transforming the notion of security itself. Beyond that, the immanent possibilities for an emancipatory security of water can be seen in the growing awareness of the *integrated* nature of the problem and in the diverse range of responses. Water is increasingly seen as an interconnected problem, one that cannot be disassociated from other problems like, environmental degradation, poverty, weak political institutions, corruption, energy and food. One can look no further than the latest unclassified U.S. National Intelligence Council (NIC) report on water and security, produced in 2012, which highlights the water-energy-food security nexus.⁴²⁹ It is clear that single sector approaches to water security are insufficient for adequately dealing with the impact it has across a wide range of areas.

5.6 Conclusion

Water literally and metaphorically flows through everything; our struggle to properly manage it shows us the deeply troubled relationships that we have with nature and with each other. We cannot divorce water from issues like food production, population growth, climate change, species extinction, urbanization, development, gender disparity, social inequality, and a host of other social processes. Responding to these challenges

⁴²⁹ United States Office of the Director of National Intelligence. “Global Water Security.” Online. 1 February 2013. <http://www.dni.gov/nic/ICA_Global%20Water%20Security.pdf>>

requires an integrated and holistic approach that takes stock of the nature of the problems as arising from, to paraphrase Adorno and Horkheimer, “the administered totality of modernity.” Critical theory can in this regard, contribute an awareness of the self as an active recipient and participant in the replication of a modern world dependent upon an instrumental logic of reason and the commodity form.

The growing global water crisis creates enormous problems and important opportunities. Up to eighty percent of the global human population faces a high risk to water security.⁴³⁰ That staggering number should give us long pause and compel us to construct alternative theories that can make better sense of the problem and begin to act in ways that comport with ethically valid principles and do so in a sustainable fashion. The aim of this chapter has been to do just that. By pursuing emancipation as the ultimate goal of security, it coincides with a young but growing tradition in security studies. Emancipation frees us to think about security away from traditional exclusionary means of enmity and conflict. It is argued here (and elsewhere) that the concept of emancipation offers humanity a means by which we might pursue a practical commitment to ensuring that life on this planet not only continues, but that it gets better. Roy Bhaskar may have put it best when he wrote that emancipation is “a special qualitative kind of becoming free that consists in the self-directed transformation from an unwanted and unneeded to a wanted and needed source of determination.”⁴³¹ In the context of water security, emancipation helps to bind our

⁴³⁰ C.J. Vörösmarty *et al.*, “Global threats to human water security and river biodiversity,” *Nature* 467 (7315), 2010: 556.

⁴³¹ Roy Bhaskar, quoted in Hayward Alker. *Rediscoveries and Reformulations: Humanistic Methodologies for International Studies* (Cambridge: Cambridge University Press, 1996): 354.

knowledge of the interconnected nature of the problems with a theoretical commitment to “reimagining the future in genuinely liberating ways.”⁴³²

This chapter constructed a vision of an emancipatory security of water by focusing on three components that could shift traditional water security towards ethical and holistic means. It identified inclusion, communication, and cosmopolitanism, as the central foundations of what could become an emancipatory theory of water security. Each component is able to offer specific insights into the various deficiencies of approaching water security along traditional, business-as-usual lines. Focusing on inclusion creates new possibilities for marginalized water stakeholders to voice their own concerns and wishes in a manner that respects the unique experiences of water insecurity. It also presents a multifaceted view of water security, critically upsetting the prevailing narrative of most water management strategies that hold an instrumentalist view of nature, and a statist understanding of international security. Focusing on inclusion in critical water security also requires us to adopt a constitutive-relational understanding of identity that avoids essentialized notions of the self and other so as to pave the road for free and open-ended forms of communication.

This leads to the second component of an emancipatory security of water that highlights the important role that communicative rationality plays in ensuring that alternative voices are engaged in open-ended discussions. While consensus may or may not be reached, the important thing to highlight is that the process of communication – the reflexive use of communicative rationality – encourages the creation of deliberative spaces whereby a

⁴³² Hayward Alker, “Emancipation in the Critical Security Studies Project.” *Critical Security Studies and World Politics*. Ed. Ken Booth. (Boulder: Lynne Rienner, 2005): 208.

broader range of actors, including the most marginalized members of society, are given enhanced access. This has important effects on realizing the potential emancipation of individuals and encourages a more sustainable use of world water resources.

The last component necessary for building an emancipatory security of water is a commitment to cosmopolitanism. Cosmopolitanism signals a commitment to a universal scope of moral concern, so that all individuals across the world share equal moral worth.⁴³³ Three main ideas were developed to construct a critical theory of cosmopolitanism useful for the pursuit of emancipation in water security. They highlighted that, 1) all people are morally equal; 2) arbitrary forms of power/domination are unjust and must be avoided and; 3) dialogue and inclusion over matters of public importance are crucial. Combined, all three ideas formed to create critical cosmopolitan imaginings that can propel water security towards new horizons that emphasize shared vulnerabilities and opportunities for integrated approaches that equitably and sustainably manage scarce water resources. There are signs layered in contemporary water approaches that signal such cosmopolitan possibilities. It is these possibilities that the next chapter examines.

⁴³³ Thomas Pogge's 'justice-based' cosmopolitanism has three features: individualism, universality, and generality. See Thomas Pogge, *World Poverty and Human Rights*, 175.

6 Chapter Six: Hydrosolidarity: The Ethics of Water Security

6.1 Introduction: The 2012 World Water Forum

Since 1997, the World Water Council (WWC), a loose coalition of governments, IGOs, private corporations and civil society groups, has organized a tri-annual World Water Forum, the largest international event in the field of water.⁴³⁴ The 2012 Forum, held in March in Marseilles, France, was convened under the theme “Solutions for Water,” with over 35,000 participants taking part in 250 workshop sessions (critics dispute this official number, claiming attendance was significantly down from previous years.) In June 2012, a few months following the completion of the Forum, the WWC produced its final document, entitled *Global Water Framework*, which summarized discussions held during the preparatory meetings and the forum sessions. The document reported the diversity of opinions in relation to the three strategic directions of the Forum’s approaches to modern water management:

1. Ensuring everyone’s well-being (social aspirations)
 - a. 1.5 – Contribute to cooperation and peace through water
2. Contribute to economic development (economic dimension)
3. Keep the planet blue (environment)

⁴³⁴ Though the World Water Council lacks any official recognition from the United Nations, it is one of the largest umbrella organizations dealing with water, comprised of over 300 member organizations. See World Water Council, “Membership General Information,” *World Water Council*, ND. Online. 20 August, 2012, < <http://www.worldwatercouncil.org/index.php?id=88&L=0%25252522>>

The 2012 *Global Water Framework* is representative of the type of grand narrative that accompanies environmental mega-conferences, such as the World Water Forum. These international meetings, centred around an overarching title and theme are meant to bring together the widest array of actors involved in a particular issue and offer large-scale proclamations about the need for increased awareness and concrete actions to be taken. The 2012 Forum was organized under the banner “Time for Solutions,” with the expressed desire to “be the birthplace of strong commitments and partnerships aimed at the introduction and scaling up of promising solutions by all the stakeholders from the different regions: elected representatives, decision-makers, civil society, financial partners and experts.”⁴³⁵ The Forum was designed to provide policymakers and water management practitioners with strategies to better realize the UN Millennium Development Goals (MDGs), to prepare for the post-MDG world after 2015, and to lead discussions in preparation for the Rio+20 Summit that took place in June 2012.

Both the World Water Forum and the World Water Council are hugely influential and important actors in international field of water but they also face intense criticism from environmental activists convinced that they are representative of the narrow interests of the private sector and because they have continuously failed to affirm that water is a human right. The Sixth World Water Forum was no different.⁴³⁶ Over 2,000 individuals

⁴³⁵ World Water Forum “The 6th World Water Forum March 2012: Time for Solutions,” *World Water Forum Press Release* Oct 2011, Online, 16 August 2012, <http://www.worldwaterforum6.org/fileadmin/user_upload/pdf/PressRelease-Oct2011.pdf>

⁴³⁶ A number of authors are critical of the hegemonic influence of global environmental mega-conferences, stifling the effects of alternative proposals. See Gill Seyfang, “Environmental Mega-Conferences— From Stockholm to Johannesburg and Beyond,” *Global Environmental Change* 13 (2003): 223–28; Robert G. Varady *et al.*, “Mega-networking at the Fourth World Water Forum in Mexico City: Looking for Opportunities at a Megaconference,” *Arizona Water Resource*, 14, no. 5 (May–June 2006); A.

and 150 organizations, including trade unions, environmental, humanitarian, and alterglobalization associations and NGOs, gathered in Marseilles, France at the same time as the WWF for the Alternative World Water Forum (the acronym FAME was used, reflecting the French translation - Forum Alternatif Mondial de l'Eau). The objective of FAME was to “create a concrete alternative to the Sixth World Water Forum,” and to “amplify the water movement by:

- Creating and promoting an alternative vision of water management which is based on ecological and democratic values
- Continuing research to find solutions to the worldwide water crisis
- Making the water movement structure sustainable.”⁴³⁷

Activist groups participating in FAME criticized the Ministerial Declaration of the Sixth WWF for failing to explicitly acknowledge the human right to water, which is recognized by the UN General Assembly,⁴³⁸ the UN Human Rights Council,⁴³⁹ and the World Health

Biswas, “World Water Forum: In Retrospect,” *Water Policy* 3 (2001): 351–56; Peter. H. Gleick and Jon Lane, “Large International Water Meetings: Time for a Reappraisal,” *Water International* 30 (2005): 410–14; James Gustave. Speth, *Worlds Apart: Globalization and the Environment* (Washington, DC: Island Press, 2003).

⁴³⁷ Alternative World Water Forum, “Our Mission Statement,” *Alternative World Water Forum* 18 October, 2011, online 20 August, 2012, < <http://www.fame2012.org/en/reviews/our-mission-statement-what-is-fame/>>

⁴³⁸ United Nations General Assembly. “The human right to water and sanitation (A/RES/64/292).” *United Nations* (28 July 2010).

⁴³⁹ United Nations Human Rights Council. “Human rights and access to safe drinking water and sanitation. (A/HRC/RES/15/9).” *United Nations* (30 September, 2010); United Nations Human Rights Council. “The Human right to safe drinking water and sanitation. (A/HRC/RES/16/2).” *United Nations* (24 March 2011);

Assembly.⁴⁴⁰ Instead of re-affirming the human right to water as specified in the resolutions the final Ministerial Declaration of the WWF instead called on signatories to “commit to accelerate the full implementation of the human rights obligations relating to access to safe and clean drinking water and sanitation...” Yet notably, ambiguous nature of the language stirred significant controversy among civil society groups during the Forum. While the declaration is not legally binding, the fact that the largest water forum continuously failed to affirm a human right to water was cause for concern for many critics for two reasons: first, it represents a failed opportunity to further the integration of water management discourse with the language of human rights. Secondly, it potentially provides a convenient way out for states to sidestep legal and financial obligations and pursue less stringent water strategies. According to the NGO, WASH United, “The language leaves room for States to individually determine whether their human rights obligations require them to realize the right to safe drinking water and sanitation for all.”⁴⁴¹

In contrast, the final “Declaration of the Participants at the Alternative World Water Forum” presents a radically different vision of water and its role in the social and

United Nations Human Rights Council. “The human right to safe drinking water and sanitation. (A/HRC/RES/18/1).” *United Nations* (12 October 2011).

⁴⁴⁰ World Health Assembly. “Resolution on Drinking Water and Sanitation (WHA 64/24)” *World Health Assembly* 24 May 2011.

⁴⁴¹ WASH United, “Call to action for the human right to safe drinking water and sanitation.” *Wash United* ND. Web. 20 August, 2012, < http://www.wash-united.org/uploads/media/CalltoAction_WWF.pdf>

ecological fabric of the world. It upholds water as “a fundamental and inalienable human right;” argues “solidarity between present and future generations be guaranteed;” rejects “all forms of privatization of water;” and calls for the UN General Assembly to organize a “Democratic Summit on Water” that would replace the corporate-led World Water Forums as the legitimate voice for the global water movement.

The presence of a dynamic alternative forum arising in opposition to the World Water Forum indicates the struggle over the future of water is ongoing. This struggle continues despite the spread over the past three decades of decentralization management practices, and increasing commitments to sustainability. The divisiveness between the official WWF and the groups that supported the counter-Forum FAME is representative of a continued divide on issues of water. Those on the streets of Marseilles continue to feel that the WWF acts as a mouthpiece for corporatist agendas that seek privatized control over water. One of the most vocal groups campaigning at FAME against the WWF was the Council of Canadians, which characterized it as “the Davos of Water...a non-democratic forum run by multinational water corporations.”⁴⁴² Official representatives of the WWF offered their own criticisms of the alternative forum. Loic Fauchon, the head of the World Water Council labeled FAME as “insignificant at best and harmful at worst.” What was needed, according to Fauchon, was to move beyond debate, towards “practicable solutions” – out of respect for those waiting for essential services.⁴⁴³

⁴⁴² Agence France-Presse. “At global forum, ministers pledge to tackle water crisis,” *Agence France-Presse* 13 March, 2012, Web. 22 August, 2012 <<http://goo.gl/t8lxC>>

⁴⁴³ Claire Provost, “No Single Course for Providing Water,” *The Guardian* 22 March, 2012, online 22 August, 2012 <<http://www.guardian.co.uk/global-development/poverty-matters/2012/mar/22/no-single-course-for-water>>

However, as *the Guardian* makes clear, while significant differences separate the water visions of WWF and FAME, there are examples that throw into question the prevalent cynicism that paralyzes progress. Individuals around the world do not seem to be “waiting” for water security to be “achieved”. Alternative models of water security, dependent upon ethical notions of hydrosolidarity, and pursued by a variety of water stakeholders may in fact demonstrate the immanent processes of reconstruction that offer emancipatory alternatives to the dominant discourses of water in particular and to security in general.

The divide at the Sixth World Water Forum showed a deep level of contestation over the ethics of water. The divide between government and business officials on the one hand and environmental activists on the other has been a fixture of modern global ecopolitics for decades. The question asked here is whether or not critical alternatives exist within contemporary discourse over water security – whether the potential exists for emancipatory security practices. Such practices would integrate a variety of viewpoints, from all sectors of society, with a particular emphasis on the most vulnerable and marginalized populations. In particular this chapter applies the framework developed in chapter five to examine the idea of hydrosolidarity as a potentially emancipatory alternative to traditional, and dominant views of water security. It will show that the principles of hydrosolidarity - as presently laid out by a variety of authors and practitioners – are beginning to meet the water security needs of the most vulnerable populations globally, while also promoting equality and sustainable management of water resources for future generations and the earth itself. As it is with most things, there are no panaceas for the global water crisis (despite a high degree of optimism in techniques of desalination), and something as obscure or malleable as “hydrosolidarity” will not rid the

world of water scarcity. But where it may succeed is in opening up the discursive space for water security to accommodate ethical principles of cosmopolitan solidarity, in line with emancipatory aims advanced in previous chapters of this dissertation. That means that hydrosolidarity, as expressed both in contemporary practice and in future potentialities, may indeed be a crucial development that expresses critical alternatives to traditional approaches to security.

This chapter is divided into three sections. The first details the historical development of the concept of hydrosolidarity. The ethics involved in hydrosolidarity have always been a part of human interactions over water, but in terms of its modern manifestation in water security discourse the concept has been developing only since the end of the 1990s. In this regard it is a relatively new concept, one that is still emerging so as to guide water management. The second section of this chapter examines the relationship between hydrosolidarity and the dominant water management paradigm, integrated water resources management (IWRM). IWRM is an approach that links the water crisis with other vital resources, seeking to coordinate a holistic, integrated, and equitable response. IWRM does not view water as a resource in isolation, but as part of an interconnected web of environmental and human-led processes. This means that a diverse range of actors and disciplines are consulted to provide a wider, more efficient, and sustainable approach to water management. The third and final section of this chapter examines recent political proclamations by a number of states, international organizations, private companies, and civil society groups to pursue policies of “Global Water Solidarity” (GWS). GWS is meant to develop, replicate, and scale up existing “decentralized solidarity mechanisms” (DSM) in water and sanitation. GWS and DSM were the subjects of numerous World Water Forum panels in 2012 and were targeted throughout the WWF6 final report as a

hopeful solution for facilitating international cooperation and sharing technical expertise. Funded by the Swiss and French governments, as well as the UN Development Programme (UNDP), GWS is guided by principles of “universality, subsidiary, additionality, leverage and institutional, environmental, and financial sustainability.”⁴⁴⁴ GWS reflects in many ways the evolving realization that ethics must play a larger role in water management. It may be too soon to fully judge the outcomes of GWS, but at the outset of its institutionalization, it may demonstrate alternative, emancipatory trends in water security. Together, the three sections comprise a detailed look into the role and place of ethics and emancipatory practices in contemporary water security. It argues that hydrosolidarity, manifested in numerous state and non-state actions, questions the prevailing wisdom that water’s place in international security discourse should be confined to warnings of violence and conflict over dwindling resources.

6.2 The Roots of Hydrosolidarity

Hydrosolidarity emerged in the 1990s as a conceptual marker used to overcome prevailing water management practices that emphasized “hydroegoism.” Hydroegoism is the belief that individual, competing, interests guide water allocation decisions, with conflict frequently resulting from the interactions by diverse stakeholders. In response to growing dissatisfaction with hydroegoism, a number of junior water professionals in Sweden convened seminars at the 1998 Stockholm Water Symposium to present alternative voices that promoted a new twenty-first century water management ethics built on justice, equality, and cooperation. Following these discussions and the published

⁴⁴⁴ United Nations Development Programme (UNDP), *Global Water Solidarity: International Platform for the Promotion of Decentralized Solidarity Mechanisms*, UNDP, N.D. Web. 26 August, 2012 <http://web.undp.org/geneva/watersolidarity/docs/Global%20Water%20Solidarity_UK_WEB.pdf>

report from the Stockholm Water Symposium, famed Swedish hydrologist Malin Falkenmark became one of the first to use the term “hydrosolidarity” in her October 1998 Volvo Environment Prize acceptance speech in Brussels, Belgium.⁴⁴⁵ In her speech, Falkenmark highlighted how,

Much stress is presently being put on human rights to water; what is tacitly being referred to is not water as such, but the provision of safe household water. The fundamental importance for humanity's future, of finding ways for peaceful sharing of the precipitation falling over a joint river basin, between those living upstream and those living downstream, however, suggests that there is a need for human "water solidarity." Human water obligations have to be given equal weight to the human right to safe household water. Given a situation where upstream and downstream countries have problems in agreeing on issues relating to the sharing of transboundary water systems indicates the need to seek support from religious and philosophical circles in the search for a water ethics.⁴⁴⁶

Falkenmark and her colleagues at the Swedish International Water Institute (SIWI), one of the world’s leading water think tanks, began to promote the integration of ethics and human rights into what had until then had been mostly technical variables of water management. Seminars on hydrosolidarity were organized during World Water Weeks in the early 2000s and a special session devoted to hydrosolidarity was a part of the 2003 World Water Forum in Kyoto, Japan. A few special issues of academic journals were organized around the role of hydrosolidarity and ethics in water. Perhaps the foremost

⁴⁴⁵ Stockholm International Water Institute (SIWI), “History of Hydrosolidarity” *Stockholm Water Front*. 4, (2002) Web. 4 September, 2012 < http://www.siw.org/documents/Resources/Water_Front/WF-4-2002.pdf>

⁴⁴⁶ Malin Falkenmark, “Forward to the Future: A Conceptual Framework for Water Dependence. Volvo Environment Prize Lecture 1998,” *Ambio* 28.4 (June 1999): 361.

journal to engage with the concept of hydrosolidarity has been *Water International*. It published a whole issue in 2000 dealing with the subject as its central theme.⁴⁴⁷ In 2003 (the International Year of Freshwater) Falkenmark edited a special issue of the science journal *Philosophical Transactions of the Royal Society (B)* that “assessed the current status and knowledge of the freshwater dimension in our biosphere and its relationship to human welfare.”⁴⁴⁸ The issue now reads as one of the more comprehensive attempts to produce a more formalized understanding of what hydrosolidarity entails, besides just an aversion to hydroegoism. Carl Folke, a professor at Stockholm University and a frequent collaborator with Falkenmark, attempted to provide a foundation for hydrosolidarity in his article “Freshwater for Resilience: A Shift in Thinking.” Folke concluded that hydrosolidarity was the necessary forward path for future water security because we are living in an age where change is the rule rather than the exception. As a result, “resilience has been eroded and the challenge facing humanity is to try to sustain desirable pathways for development in the face of change.” For Folke, and the early adopters of hydrosolidarity, resilience entails setting up the socio-ecological systems to cope with and live with change, uncertainty, and surprise.⁴⁴⁹ Folke concluded that effective management of freshwater supplies in a dynamic system requires an awareness of the social dimensions in developing adaptive co-management strategies. For him, the complex interrelationships between hydrological, ecological, and social issues requires a

⁴⁴⁷ See *Water International* 25.2 (2000).

⁴⁴⁸ Malin Falkenmark, “Introduction” *Philosophical Traditions of the Royal Society (B)* 358, 2003: 1917.

⁴⁴⁹ Carl Folke, “Freshwater for Resilience: A Shift in Thinking,” *Philosophical Traditions of the Royal Society (B)* 358, 2003: 2027. Other authors in the special journal issue also made use of the “bloodstream” metaphor for water. See Wilhelm Rippl, “Water: The Bloodstream of the Biosphere,” *Philosophical Traditions of the Royal Society (B)* 358, 2003: 1921-1934.

much broader vision of water security that can acknowledge that water is the “bloodstream of the biosphere’s capacity.”⁴⁵⁰ Folke concluded the article by writing,

Stewardships of freshwater in dynamic landscapes to secure and enhance social and economic development will no doubt be a central issue in the near future. It requires a shift in thinking and management of freshwater as merely a resource to freshwater as the breath of the Earth. It also requires a shift from trying to control and allocate freshwater flows in an optimal manner for various human uses to recognition of the necessity to actively manage the essential role of freshwater in dynamic landscapes faced with uncertainty and surprise. It will require that those involved with freshwater management foster a worldview and vision of stewardship of freshwater as the bloodstream of the biosphere. This broader view of freshwater provides the foundation for hydrosolidarity.⁴⁵¹

The first articles on hydrosolidarity focused on constructing a water ethics that emphasized the resource’s interconnected properties and processes. In these articles, water was seen as the linchpin linking numerous global crises. “The crises related to land degradation, food security, water quality degradation, ecosystem decline, water insecurity, poverty, and economic losses from extreme hydrologic events are all interlinked, the root causes stem from government policy failures, and both the North and the South have much work to do to address the issues.”⁴⁵² The central focus was to take knowledge gained from a number of river basins to address the connected issues of land use, water use, energy, and the protection of ecosystems while also dealing with

⁴⁵⁰ Folke, 2027

⁴⁵¹ Folke, 2033-2034

⁴⁵² Alfred M. Duda, “Integrated Management of Land and Water Resources Based on a Collective Approach to Fragmented International Conventions,” *Philosophical Traditions of the Royal Society (B)* 358, 2003: 2051.

empirical cases of national upstream-downstream conflicts of interest. The intention of the first articles dealing with hydrosolidarity was to build awareness that water issues are interconnected; that water basins need to be managed with integrative approaches; and that engaging a diverse group of stakeholders was necessary to ensure efficient, equitable, and sustainable water management.⁴⁵³ In the first years of its usage, hydrosolidarity was meant to encourage cooperation based on an appreciation of these interconnections. Solidarity in decision-making in a river basin – between upstream and downstream, rural and urban, human and environmental needs – was the essential component that would foster stability and responsible stewardship of precious water resources.

Since the first years, hydrosolidarity has evolved to encompass a range of approaches that incorporates aspects of ethics into water security. For instance, Falkenmark and Folke have used the concept of hydrosolidarity to argue that previous water management strategies failed to adequately account for the dynamic, complex, and inter-linked biological and social systems. Beginning from the starting point that humans both shape the processes of the biosphere and are simultaneously dependent on its proper functioning, they recently modified the original hydrosolidarity term and replaced it with *ecohydrosolidarity*. While still upholding the original intention of relying on basic principles of solidarity for balancing seemingly incompatible interests in a basin, the new term is meant to make note of smaller-scale catchment areas. Thinking in these terms

⁴⁵³ Stockholm International Water Institute (SIWI). *Proceedings*, 'Towards Upstream/Downstream Hydrosolidarity'. SIWI/IWRA Seminar, 14 August. Stockholm: SIWI, 1999; Stockholm International Water Institute (SIWI). *Water security for cities, food and environment – Towards catchment hydrosolidarity*. Stockholm: SIWI, 2001; Stockholm International Water Institute (SIWI). *Proceedings 'Balancing Human Security and Ecological Security Interests in a Catchment – Towards Upstream/Downstream Hydrosolidarity.'* Stockholm: SIWI, 2002.

involves acknowledging that rainwater catchments are “interdependent social-ecological systems with institutions and multigovernance systems” that should develop adaptive management approaches in order to create ecohydrosolidarity within and between regions and nations.⁴⁵⁴

An article written in 2011 by Andrea Gerlak and her colleagues produced probably the most comprehensive study of the concept of hydrosolidarity. In the article published in *Water International* titled, “Hydrosolidarity and beyond: can ethics and equity find a place in today’s water management?” Gerlak *et al* provided an overview of its short intellectual history and its evolving application, arguing that it has “emerged as a mechanism to inject issues of social justice and human rights into a discussion about water that had been largely driven by technical and political variables that influence water management, especially in the international arena.”⁴⁵⁵ According to the authors, hydrosolidarity’s most valuable contribution is its continued use as a synonym for ethically based behaviour.⁴⁵⁶

⁴⁵⁴ Malin Falkenmark and Carl Folke, “Ecohydrosolidarity: A New Ethics for Stewardship of Value-Adding Rainfall,” *Water Ethics: Foundational Readings for Students and Professionals*, Eds. Peter G. Brown and Jeremy J. Schmidt (Washington DC: Island Press, 2010): 247-264.

⁴⁵⁵ Andrea K. Gerlak, Robert G. Varady, Olivier Petit, and Arin C. Haverland, “Hydrosolidarity and beyond: can ethics and equity find a place in today’s water management?” *Water International* 36.3 (2011): 260.

⁴⁵⁶ Gerlak, Varady, Petit, and Haverland, 260. A number of recent academic articles and policy interventions have begun to highlight the ethics of water governance. See Shafiqul Islam and Lawrence Susskind. *Water Diplomacy: A Negotiated Approach to Managing Complex Water Networks*. New York: The RFF Press Water Policy Series, Routledge, 2012; Andrea K. Gerlak, Robert G. Varady, and Arin C. Haverland. “Hydrosolidarity and international water conflict.” *International Negotiation* 14.2 (2009): 311–28; Úrsula Oswald Spring. “Hydro-diplomacy: Opportunities for Learning from an Interregional Process.” *Integrated Water Resources Management and Security in the Middle East*. Eds. Clive Lipchin *et al*. Springer, Heidelberg, 2007: 163-200

The integration of hydrosolidarity as a discursive marker for ethical behaviour in water security is meant to embolden alternative approaches to “business as usual” models in water security that continue to exploit water resources for strategic gain, with too little attention paid to sustainability, environmental consequences, or human suffering. By incorporating a sense of ethical understanding into what had largely been only technically-driven solutions, hydrosolidarity means to encourage a framework that respects common human values. As William J. Cosgrove, the former President of the World Water Council, wrote in 2003, “Respect for shared human values will eventually prove to be the key to sound management of the world’s water resources in the sustainable service of human development.”⁴⁵⁷ The fact that the head of the largest governing body of water organizations and professionals adamantly declared the necessity of using ethical considerations in managing increasing water stress is an important indication that hydrosolidarity is an attractive and useful component of twenty-first water security.

Some of the expansive effects that hydrosolidarity provide are helpful in formulating alternative security practices related to conflict management. It may not allow us to fully formulate what all emancipatory visions of security might look like, but it gets us closer to understanding the potential for emancipatory intent inherent within water and environmental security. The next section will examine whether the predominant management strategy of integrated water resources management (IWRM) can adequately operationalize emancipatory ethics into water security.

⁴⁵⁷ William J. Cosgrove, “Fulfilling the World Water Vision – Hydrosolidarity,” *Water International*, 28.4 (2003): 530.

6.3 The Promise and Peril of IWRM

6.3.1 Defining IWRM

Hydrosolidarity encompasses a wide range of processes that broadly encourages incorporating ethical considerations into more technical, scientific, environmental planning. It can now be seen as the primary ethical component upon which the dominant paradigms of complex water management strategies could be built. In particular, it is been increasingly associated with the strategies of integrated water resources management, though often such ethical considerations are avoided or left unacknowledged. This section will define IWRM, delineate its key features and historical progress, and summarize the main criticisms of IWRM. It will conclude by offsetting a measured degree of support for IWRM with calls for much further ethical engagement. It leads into the final section of the chapter, which provides promising emancipatory alternatives to IWRM embedded in contemporary water discourse.

IWRM is best defined as a “process that promotes the coordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems.”⁴⁵⁸ IWRM begins by stipulating that water needs to be treated as a single environmental resource, allocated to the main societal water users: industry, agriculture, and individual households. According to IWRM frameworks, this allocation is most efficient and sustainable when participatory public policy frameworks are used involving all affected stakeholders. In this regard, IWRM incorporates social

⁴⁵⁸ Global Water Partnership (GWP). “Integrated Water Resources Management. Global Water Partnership Technical Advisory Committee.” *TAC Background Papers* No 4. 2000, 22.

factors into analyses while also taking stock of the interconnected physical attributes of surface water, groundwater and the ecosystems through which they flow. The idea of integration extends through the physical management of water resources as well as the wider social context through the pursuit of consensus building with the input of stakeholders from all levels.⁴⁵⁹

There is no precise blueprint for implementing IWRM. It is better seen as a set of principles from which best practices, sensitive to specific contexts, can be implemented. IWRM has been formulated to combat a host of problems related to water governance – problems related to conflict, cooperation, distribution, protection, and sustainability of water resources. It would not make sense to construct a rigid set of guidelines that would work around the world, in every case. Instead national and regional institutions are urged to develop their own types of IWRM practices engaging collaboratively with those who would be affected as well as engaging with the emerging global consensus on the necessarily broad parameters of achieving sustainable and equitable resource security. In particular IWRM recognizes the importance of water quality issues which leads it to pay special attention to the poor; to the role, skills and needs of women; and to vulnerable areas such as small island states, landlocked countries, and desertified areas.⁴⁶⁰

⁴⁵⁹ GWP, 2000, 22

⁴⁶⁰ Hans Günter Brauch, “Environment and Security in the Middle East: Conceptualizing Environmental, Human, Water, Food, Health, and Gender Security,” in *Integrated Water Resources Management and Security in the Middle East* Eds. Clive Lipchin, Eric Pallant, Danielle Saranga, Allyson Amster, (Dordrecht: Springer, 2007): 140.

IWRM has gained significant attention since it was first circulated as a broad idea at the 1992 Earth Summit in Rio.⁴⁶¹ The Global Water Partnership (GWP), created in 1996 by the World Bank, the United Nations Development Programme, and the Swedish International Development Cooperation Agency, has facilitated its growing role in water governance. In 2000 GWP produced the first authoritative definition of IWRM. No unambiguous definition had been created up to that point and no answer to how its principles might be put into practice had been devised. GWP sought to correct this and it defined IWRM as a holistic approach that understands managing water demand is as important as managing its supply. In so doing it linked together wider social, economic, environmental, and technical dimensions of water management. The justification for these linkages is based upon a belief, to put it simply, that humans and the decisions they make determine how water is used or misused. Thus there must be an integrated policy-making process that involves all the various concerned stakeholders. Because stakeholders often hold conflicting interests and their objectives concerning water resources management may be oppositional, negotiations organized with IWRM principles develop operational tools for conflict management and resolution. The important objective in preparing appropriate conflict resolution tools is to “identify and designate water resources management functions according to their lowest appropriate level of implementation; at each level the relevant stakeholders need to be identified and mobilized.”⁴⁶²

⁴⁶¹ See World Bank. *Water Resources Management*. Washington D.C. World Bank, 1993. This policy paper reflected an emerging consensus that water management should be based upon the Dublin Principles.

⁴⁶² GWP, 2000, 29

IWRM is the most popular approach to water management today.⁴⁶³ The 2012 UN-Water assessment survey found that since 1992, 80 percent of countries around the world had implemented some level of integrated water resources management strategy.⁴⁶⁴ As an attempt to integrate previously wide-ranging and isolated water management practices into one holistic framework, it has become remarkably popular. The overriding criterion that propels IWRM is interconnectedness, between economic, social, and environmental conditions. IWRM approaches to water management require adherence to the conditions of *economic efficiency in water use, social equity, and environmental and ecological sustainability* (emphasis in original). These three pillars buttress the three central elements needed for successful implementation: *enabling environments* (e.g. creating a general framework of rules, laws, legislation, information), and *institutional roles* (e.g. delineating precise roles for stakeholders), and *managing instruments* (e.g. providing operational tools for effective implementation, regulation, monitoring and enforcement of agreed upon rules).⁴⁶⁵

⁴⁶³ UNDP, *2006 Human Development Report* 2006. Web. 28 September 2012
<<http://hdr.undp.org/en/reports/global/hdr2006/>>; GWP, *Catalyzing Change: a handbook for developing IWRM and water efficiency strategies*, Stockholm, 2004. Web. 28 September 2012.
<<http://www.gwpforum.org/gwp/library/Handbook.pdf>>

⁴⁶⁴ UNEP, *The UN-Water Status Report on the Application of Integrated Approaches to Water Resources Management* 2012, 8.

⁴⁶⁵ GWP, 2000, 30.

6.3.2 The History of IWRM

The roots of IWRM extend as far back as the 1960s, when river basin management strategies were first implemented.⁴⁶⁶ However it was not until the 1977 UN-led Conference on Water in Mar del Plata, Argentina when IWRM began to develop into something wider and more holistic. At that conference, the first coordinated IWRM plan was introduced. The Mar del Plata Action Plan stands as one of the signposts of modern water management. It signaled a broad international consensus that the best way to approach water management was to link a range of formerly separate analyses including assessments of water use, efficiency, health and pollution control, policy planning and management, public information, and regional cooperation.⁴⁶⁷

Today's iterations of IWRM are principally derived from the Dublin Principles, adopted in Ireland at the 1992 International Conference on Water and the Environment held in Dublin, Ireland five months prior to the Rio Summit. The four Dublin Principles are:

1. Fresh water is a finite and vulnerable resource, essential to sustain life, development, and the environment
2. Water development and management should be based on a participatory approach, involving users, planners, and policy-makers at all levels.

⁴⁶⁶ Tony Allan, "IWRM/IWRAM: a new sanctioned discourse?" Occasional Paper 50, SOAS Water Issues Study Group, School of Oriental and African Studies, University of London, April 2003: 1. Broad IWRM principles can be found in earlier water management fields, like Strategic Planning, which emphasized similar approaches like long-term planning, innovative solutions, and attention to future opportunities rather than present weaknesses. See Farhad G. Mukhtarov, "Intellectual history and current status of Integrated Water Resources Management: A global perspective," *Adaptive and Integrated Water Management: Coping with Complexity and Uncertainty*, Eds. Claudia Wahl-Post, Pavel Gabat., and Jörn Möltgen (Berlin: Springer Press, 2008): 167-187

⁴⁶⁷ Muhammad Mizanur Rahaman, and Olli Varis, "Integrated water resources management: evolution, prospects and future challenges," *Sustainability: Science and Practice* 1.1 (2005): 16.

3. Women play a central part in the provision, management, and safeguarding of water
4. Water has an economic value in all its competing uses and should be recognized as an economic good.⁴⁶⁸

These broad principles were intended to act as guidelines for action at all levels of water management. The Dublin conference was not without controversy: the fourth Dublin Principle was singled out for criticism from representatives from the developing world, who felt that water development could never be sustainable without adequate attention to questions of equality and poverty. Other criticisms of the Dublin Principles were that they were elite-led, lacked third world representation, and failed to indicate just how the principles could be operationalized in the context of complex water management schemes, especially in developing countries.⁴⁶⁹

Despite these criticisms, the Dublin Principles have been hugely influential. They were adopted into *Agenda 21*, the main substantive outcome of the 1992 Earth Summit in Rio de Janeiro. *Agenda 21* was a monumental blueprint for global action to combat environmental destruction and promote sustainable development. Chapter eighteen of *Agenda 21* specifically dealt with water quality and freshwater supply. It was also the first instance that IWRM was explicitly mentioned as a necessary component to future

⁴⁶⁸ The International Conference on Water and the Environment (ICWE), “The Dublin Statement on Water and Sustainable Development” ICWE Secretariat, World Meteorological Organization, 1992. Web. 16 April 2011. <<http://www.wmo.int/pages/prog/hwrrp/documents/english/icwedece.html#p4>>

⁴⁶⁹ Rahaman and Varis, 16.

water management strategies. The box below details the specific clauses that incorporate IWRM in Agenda 21:

Table 1: IWRM in Agenda 21

18.8. Integrated water resources management is based on the perception of water as an integral part of the ecosystem, a natural resource, and a social and economic good, whose quantity and quality determine the nature of its utilization. To this end, water resources have to be protected, taking into account the functioning of aquatic ecosystems and the perennality of the resource, in order to satisfy and reconcile needs for water in human activities. In developing and using water resources, priority has to be given to the satisfaction of basic needs and the safeguarding of ecosystems. Beyond these requirements, however, water users should be charged appropriately.

18.9. Integrated water resources management, including the integration of land- and water-related aspects, should be carried out at the level of the catchment basin or sub-basin. Four principal objectives should be pursued, as follows:

- a.** To promote a dynamic, interactive, iterative and multisectoral approach to water resources management, including the identification and protection of potential sources of freshwater supply, that integrates technological, socio-economic, environmental and human health considerations;
- b.** To plan for the sustainable and rational utilization, protection, conservation and management of water resources based on community needs and priorities within the framework of national economic development policy;
- c.** To design, implement and evaluate projects and programmes that are both economically efficient and socially appropriate within clearly defined strategies, based on an approach of full public participation, including that of women, youth, indigenous people and local communities in water management policy-making and decision-making
- d.** To identify and strengthen or develop, as required, in particular in developing countries, the appropriate institutional, legal and financial mechanisms to ensure that water policy and its implementation are a catalyst for sustainable social progress and economic growth.

UNCED, *Agenda 21: Programme of Action for Sustainable Development*, Rio Declaration on Environment and Development, Rio de Janeiro, 1992. Web. 28 September, 2012.
<<http://www.un.org/esa/sustdev/documents/agenda21/english/Agenda21.pdf>>

Further development of IWRM came during the Second World Water Forum in The Hague, in 2000, where the Global Water Partnership offered the first definition of IWRM. During the Hague meetings, IWRM grew in prominence and was firmly enshrined as a necessary water management strategy in the Forum's Ministerial Declaration. The final document proclaimed that IWRM was the pivotal component for meeting the challenges of twenty-first century water management. In two of its eleven points of emphasis, IWRM was singled out:

5. The actions advocated here are based on integrated water resources management, that includes the planning and management of water resources, both conventional and non-conventional, and land. This takes account of social, economic and environmental factors and integrates surface water, groundwater and the ecosystems through which they flow. It recognizes the importance of water quality issues. In this, special attention should be paid to the poor; to the role, skills and needs of women; and to vulnerable areas such as small island states, landlocked countries, and desertified areas.

6. Integrated water resources management depends on collaboration and partnerships at all levels, from individual citizens to international organizations, based on a political commitment to, and wider societal awareness of, the need for water security and the sustainable management of water resources. To achieve integrated water resources management, there is a need for coherent national and, where appropriate, regional and international policies to overcome fragmentation, and for transparent and accountable institutions at all levels.⁴⁷⁰

⁴⁷⁰ World Water Council, *Ministerial Declaration of The Hague on Water Security in the 21st Century*, 2000. Online 29 October 2012.

<http://www.idhc.org/esp/documents/Agua/Second_World_Water_Forum%5B1%5D.pdf>

The combination of the first comprehensive definition by GWP and the explicit mention of IWRM in the 2000 Ministerial Declaration of the Second World Water Forum marked a significant progression by IWRM into mainstream discourses on water policy. It laid the groundwork for IWRM being adopted at the 2002 World Summit on Sustainable Development (WSSD) in Johannesburg, South Africa. By then, IWRM was seen as the future foundation for water governance systems and part of a broader package of international strategies for achieving the Millennium Development Goals.⁴⁷¹ The WSSD *Plan of Implementation* laid out a comprehensive set of roles for IWRM to act as the primary conduit for future water policies. IWRM was to be used to coordinate national/regional strategies for river basins, to improve the efficient and equitable sharing of water resources and to help establish public/private partnerships and other types of partnerships that give priority to the poor.⁴⁷² It also singled out IWRM as a necessary element for achieving the goal to halve, by the year 2015, the proportion of people that are unable to reach or afford safe drinking water, and the proportion of people without access to basic sanitation. In March 2012, UNICEF and the WHO declared that the MDG target was indeed reached, three years ahead of schedule.⁴⁷³

With the publication of the WSSD *Implementation Plan*, IWRM was cemented as the pre-eminent guide for water management. Over the succeeding decade its principles have been repeated almost as a mantra in large environmental mega-conferences. The GWP

⁴⁷¹ United Nations Development Programme (UNDP), *Human Development Report 2006. Beyond Scarcity: Power, Poverty, and the Global Water Crisis* (New York: Palgrave Macmillan, 2006) 170.

⁴⁷² World Summit on Sustainable Development (WSSD), Report of the World Summit on Sustainable Development, A/Conf. 199/20., 2002, Online. <http://daccess-ods.un.org/access.nsf/Get?Open&DS=A/CONF.199/20/Corr.1&Lang=E> (Accessed 29 September, 2012)

⁴⁷³ WSSD.

and the World Bank now consistently stress integrated approaches that take into account the downstream social and ecological costs of building dams, irrigation schemes, and other forms of water management. Every World Water Forum, every UN World Water Development Report, every World Water Week, points to IWRM as a set of necessary guiding principles.

6.3.3 Critiques of IWRM:

IWRM is not universally supported. It has received a fair amount of criticism that will likely not dislodge its position as pre-eminent water strategy, but does indicate significant dissension among water scholars and practitioners. The criticisms have been varied. Some offer pointed and specific critiques of IWRM, while broadly agreeing with its general framework. Biswas argues that its definition is amorphous, which can lead to difficulty in actually implementing most of its components.⁴⁷⁴ He also maintains that what works for one area cannot *prima facie* be expected to work for another, where different institutions, with different stakeholders, and interests exist. He writes, “Water management must be responsive to the needs and demands of a growing diversity of central, state and municipal institutions, user groups, private sector, NGOs, and other appropriate bodies. Concentration of authorities into one or fewer institutions could increase biases, reduce transparency, and proper scrutiny of their activities.”⁴⁷⁵ Kirshen *et al.* argue that IWRM needs to better account for hydraulic uncertainties that will arise as

⁴⁷⁴ Asit K. Biswas, "Integrated Water Resources Management: A Reassessment," *Water International* 29.2 (2004): 248-256.

⁴⁷⁵ Biswas, *Integrated Water Resources Management: A Reassessment*, 255.

a result of climate change.⁴⁷⁶ Jonch-Clausen and Fugl lament that IWRM has "degenerated into one of those buzzwords that everybody uses but that mean different things to different people."⁴⁷⁷

Deeper critiques have also been levelled that question the underlying philosophy behind IWRM. Many point to the tendency among IWRM proponents to ignore social aspects of water management in favour of technical solutions that appease growing water demand. Many of these deeper critiques are in essence an attack on the dominance of instrumental rationality at the expense of politically sensitive assessments that acknowledge alternatives to traditional state-led management processes. Allan makes the case that IWRM policy makers do not realize that cultural, spiritual, and economic factors are as important as sustainability in managing water. For him, the political nature of IWRM needs to be better acknowledged.⁴⁷⁸ McDonnell argues against the dominance of narrow, positivist, and techno-scientific frameworks integrated in IWRM analyses.⁴⁷⁹ Rahaman and Varis extend this critique against IWRM's belief that privatizing the marketable aspects of water will result in single-purpose planning and management. For them, this approach ignores the ethical and practical difficulties in implementing planning strategies uniformly around the world. The differences between regions means full-cost recovery

⁴⁷⁶ Paul H. Kirshen, Hal Cardwell, Jack Kartez, S. Merrill, "Challenges in Incorporating Climate Change Adaptation into Integrated Water Resources Management," Paper Abstract. American Geophysical Union. Fall Meeting 2011.

⁴⁷⁷ Torkel Jonch-Clausen, and J. Fugl, "Firming up the conceptual basis of integrated water resources management." *International Journal of Water Resources Development*, 17.4 (2001): 502.

⁴⁷⁸ Allan, 2003.

⁴⁷⁹ Rachael A. McDonnell, "Challenges for Integrated Water Resources Management: How Do We Provide the Knowledge to Support Truly Integrated Thinking?" *International Journal of Water Resources Development* 24.1 (2008): 131-143.

may not be possible in great areas of the global south where infrastructure is deficient or incomplete.⁴⁸⁰

As might be expected, the participants at Alternative World Water Forums have also put forth significant criticisms of IWRM. The Bradford Centre for International Development, an organizer of the 2003 Alternative World Water Forum, argued the global water consensus, is, “narrowly underpinned by neo-liberal principles, dominated by technical and managerial concerns and informed by limited methodologies and empirical data. NGOs and campaigning groups have questioned the pro-privatization focus of the consensus, the neglect of environmental and ecological concerns and equity issues.”⁴⁸¹

These deeper criticisms argue against instrumental rationality that canonizes impartial data collection and the innate good will of partners, essentially ignoring the deeply political processes at work. As has been repeated throughout this manuscript, such approaches are, at best, insufficient for alleviating complex and political water problems, and, at worst, culpable in their continuation. In making oblique reference to IWRM as evidence of a holistic approach to individual water securing, various constituents may only be providing smokescreens to further their own entrenched interests, confirming business-as-usual policies. The outcome, according to these critics is that entrenched power asymmetries are replicated, with the state acting as the sole and necessary entity to produce effective water security. As François Molle puts it, "the entire process appears to

⁴⁸⁰ Muhammad Mizanur Rahaman, and Olli Varis, "Integrated Water Resources Management: evolution, prospects, and future challenges, *Sustainability: Science, Practice, and Policy*, 1(2), 2005: 15-21.

⁴⁸¹ Splash Water Governance Research, "Water Governance: Challenging the Consensus," University of Bradford. Online < <http://www.splash.bradford.ac.uk/project-four/>> Accessed 11 October 2012.

be naturally steered by the state...with a consequent high likelihood of reproducing paternalistic, technocratic, and bureaucratic and top-down conventional approaches, modified only by whatever degree of participation is allowed."⁴⁸²

6.3.4 The Promise and Peril of IWRM

IWRM compels planners and practitioners to assess the wide confluence of factors that are necessary to adequately manage water resources. In this sense IWRM represents a more holistic approach to water security. It promotes multiple connections – connections in ecology by mixing water, land, and related resources; connections in economics by promoting efficiency and equality; connections in politics by promoting institution-building, institutional resilience, and coordinating often competitive and segmented intra and inter government departments; and finally it promotes connections in society by encouraging the inclusion and participation of different stakeholders in water policy planning, and by acknowledging the specific gendered effects that water places on women. However, does IWRM truly exemplify emancipatory water security? Does it bring us closer to an ontology of security with individuals and their well being at its core? IWRM does represent certain emancipatory understandings of human security. It promotes inclusion, pursues the peaceful and efficient allocation of water across borders and along shared waterways, and it is claimed to be built upon a foundational ethics of hydrosolidarity that propounds the value of discussion, negotiation, and deliberation amongst different stakeholders. The components of inclusion, dialogue, and cosmopolitanism were drawn out in detail in chapter five as the most coherent path to

⁴⁸² François Molle, "Nirvana Concepts, Narratives, and Policy Models: Insights from the Water Sector," *Water Alternatives*, 1(1) 2008: 134.

critical water security, and to varying degrees they are acknowledged in IWRM processes.

However, to see IWRM as a wholly emancipatory alternative would be overstating its value and purpose for a variety of reasons, even though its constituent parts do point to a progressive re-ordering of water security, which was argued for in previous chapters. Primarily, IWRM remains at its core a statist, technically-driven platform that is designed and implemented from the top-down. And while such strategies may be useful for making large-scale policy decisions and consolidating disparate planning strategies, it too often results in the continuation of instrumentalist conceptions of water security, that fail to account for the ethical underpinnings of water management in different contexts.

It is still possible to point to the emancipatory potentials embedded within various IWRM projects, particularly its commitment to rectifying historically fragmented and competitive management of shared water resources. But IWRM cannot, at least on its own, be viewed as illustrative of a sufficiently emancipatory alternative. The scientific and technical rationality at its heart is overemphasized at the expense of normative judgments. IWRM may reflect a growing awareness amongst water professionals and policy makers for the need for more holistic thinking in water management and security, but it pays little overt attention to the ethics involved in managing water security. Every decision that is taken with regards to water has embedded within it an ethical component – this is one of the key insights that critical theory teaches. To ignore that is to cede ground to dominant paradigms of instrumentalist control, which are so problematic in security contexts.

6.4 Global Water Solidarity: emancipatory water security or chimera?

The terms of IWRM represent multiple progressive steps but they are only one partially realized example of the emancipatory potential in water security. While it has largely reflected a technical, managerialist outlook on water, at the expense of developing a larger, progressive ethical foundation, IWRM is not the only arbiter of global water relations; there are other expressed forms of hydrosolidarity that can be seen in contemporary global water relations.

One new development signals an awareness of the progressive appeal of water security that has arisen since 2010, receiving its most explicit formulation during the 2012 World Water Forum, in Marseilles, France. “Global Water Solidarity” (GWS) is a worldwide initiative that aims to bridge the multiple levels of water stakeholders in order to advance cooperative ties. GWS has been established to replicate highly successful development efforts called “decentralized solidarity mechanisms (DSMs).” Rather, GWS seeks to engage the multiple levels of governance that is required to manage water resources, especially in vulnerable areas of the world. By placing importance on multiple actors across space and scale, GWS should be seen as an innovative response to the deficiencies of modern water security. It is defined as a, “coalition of local, regional and national governments public and private institutions and civil society organizations from Europe, Asia, and Africa.”⁴⁸³ It works in a variety of ways to demonstrate an embedded emancipatory alternative to competitive water scenarios. Principally, by focusing on the

⁴⁸³ United Nations Development Programme (UNDP), *Global Water Solidarity: International Platform for the Promotion of Decentralized Solidarity Mechanisms*.

nascent level of cooperation, ethical responsibility, and local participation amongst water users across varying degrees of distance it exemplifies the inclusive, dialogic, and cosmopolitan nature of emancipatory water security. The next section will explicate the origins of Global Water Solidarity and Decentralized Solidarity Mechanisms, and focus on the bridges they create towards more holistic and progressive approaches to water security.

6.4.1 The History of Global Water Solidarity

Originally, the GWS initiative was first proposed by the UN Development Programme (UNDP) in late 2010 to mobilize technical and financial resources to support local governments from the developing world in their efforts to meet MDG 7C, which seeks the reduction by half of the proportion of people without sustainable access to safe drinking and basic sanitation. It was thought that by upscaling the already existing and successful policies of DSMs, it would be possible to harness the existing political will to combat water scarcity and improve sanitation conditions for vulnerable populations in the developing world, with a special focus on Asia-Pacific and Africa. The impetus behind the upward shift from decentralized solidarity mechanisms to global water solidarity was a belief that it was politically feasible, technically achievable, and ethically desirable.

Since DSMs were originally set up as a way to further the progress in achieving the UN's MDGs⁴⁸⁴ related to water (specifically Target 7c), they should be seen as a success story.

⁴⁸⁴ The framework for DSM is based on multiple existing UN Resolutions, including: Millennium Declaration (A/55/L.2), United Nations General Assembly Resolution A/RES/64/292, Human Rights

In March 2012, just before the opening of the Sixth World Water Forum, UNICEF and the WHO declared that the MDG target for drinking water had been reached, well ahead of the 2015 deadline.⁴⁸⁵ This was one of the first MDG targets to be met, and was hailed as a significant achievement. Unsurprisingly, significant challenges remain, including the fact that 11 percent of the world's population (783 million) still lacks access to improved drinking water. There have also been some that questioned whether the collected data was in fact accurate. A Dutch NGO, International Water and Sanitation Centre (IRC), pointed out that water quality was not measured in the MDG report, and the reporters also failed to look into whether water supplies worked or were reliable.⁴⁸⁶ The lesson to take away is that while DSMs have been one of the most successful tools used in getting closer to the water MDG, there is still much improvement to be made across the world.

The formal creation of DSMs was based upon earlier pioneering initiatives including the Oudin-Santini law in France, the 'Koppejan' law in the Netherlands, the Platform Solidarit'eau in Switzerland, the Flemish Partnership Water for Development in Belgium and the 'L'Acqua è di tutti' fund in Italy.⁴⁸⁷ The initiatives helped build voluntary

Council Resolution A/HRC/15/L.14, Rome Declaration, the Paris Declaration, the Accra Agenda for Action and Busan Declaration.

⁴⁸⁵ UNICEF, *Progress on Drinking Water and Sanitation*, Geneva: WHO and UNICEF, 2012. Online. 1 November 2012.

⁴⁸⁶ International Water and Sanitation Council, "Did the UN overestimate early success in achieving the MDG on water and sanitation? An 'inside story' look." 13 March 2012. Online. 30 September 2012. <<http://www.irc.nl/page/70278>>

⁴⁸⁷ World Water Forum, "4175 – Global Water Solidarity – International Platform for the Promotion of Decentralized Solidarity Mechanisms (DSMS) for Water and Sanitation," *Solutions for Water* n.d. Web. 6 November 2012. <<http://www.solutionsforwater.org/solutions/global-water-solidarity-international-platform-for-the-promotion-of-decentralized-solidarity-mechanisms-dsms-for-water-and-sanitation>>

cooperative networks across Europe that put a portion of the water and sanitation budget aside to assist water projects in developing countries. In France alone, where participation is voluntary, the Oudin-Santini Law raised about 24 million Euros in 2010, and has to date assisted 600 projects in 17 countries.⁴⁸⁸ One estimate from Jean-Phillipe Bayon, a senior water expert at UNDP put the potential European-wide mobilization of financial resources for GWS at €4 billion.⁴⁸⁹

Following the success of these early initiatives, at the end of 2010, the UNDP Hub for Innovative Partnerships began mobilizing new technical and financial resources from decentralized cooperation in order to support local governments from developing countries in their efforts to achieve Millennium Development Goal (MDG) 7C. The ‘triggering point’ was the possibility of scaling up at the European level a voluntary levy of 1 percent on water and sanitation services already functional in certain countries and notably in France.⁴⁹⁰

The next section will detail how DSMs work and explain the rationale behind upscaling to Global Water Solidarity.

⁴⁸⁸ UNDP, *How DSMs Work: France*, UNDP, 2012. Online 4 November, 2012, <
<http://web.undp.org/geneva/watersolidarity/DSMs/how-dsms-work/france.html>>

⁴⁸⁹ Jean-Phillipe Bayon, “Going further with Jean-Phillipe Bayon from ‘Global Water Solidarity’ platform: Four billion Euros could be mobilized in favor of decentralized solidarity.” *Water and Sanitation for Africa* (WSA, 12 October 2012) Online. Accessed 13 November, 2012. <
<http://www.wsafrica.org/welcome/news-articles/itw-bayon.aspx>>

⁴⁹⁰ UNDP, *Global Water Solidarity: Report on Activities and Results. International Platform for the promotion of Decentralized Solidarity Mechanism March 2011-March 2012*, Geneva: UNDP, 2012; 2.

In early 2012, the GWS Steering Committee, made up of representatives from local, regional and national authorities, international and multilateral organizations, water operators, NGOs, private organizations and prominent public figures, focused its efforts on specifying the best ways to use small-scale DSMs in achieving the MDGs. At this time, DSMs were essentially a bundle of policies adopted at sub-national levels that harnessed financial resources, and promoted local capacity building and technology transfer in support of sub-national institutions' efforts to establish water and sanitation services.⁴⁹¹ All of these policies were pursued on a voluntary basis and as a sign of solidarity.

During the last decade, DSMs have been a successful and resilient approach to human water security. They have been designed specifically to address the obstacles that sub-national institutions faced in developing countries. As such, they reflect a broader understanding of the need for inclusive participation in the management of water resources. Their principal use has been to decrease human vulnerabilities by improving the availability of clean water sources and improving sanitation, the roots of individual health and wellbeing. Their impact has been significant and it is clear that with the pursuit of Global Water Solidarity, the benefits resulting from DSM have been far from negligible.

The MDG goal of safe drinking water has been one of only three MDG targets achieved to date (together with targets to reduce slums and extreme poverty), and it was met three years ahead of the 2015 deadline. The proportion of people without sustainable access to

⁴⁹¹ United Nations Development Programme (UNDP), *Global Water Solidarity: International Platform for the Promotion of Decentralized Solidarity Mechanisms*, 5.

safe drinking water was halved and the proportion of people using an improved source of water (such as piped supplies and protected wells) rose from 76 percent in 1990 to 89 percent in 2010. The number of people using improved drinking water now stands at over 6.1 billion, an increase of over 2 billion from 1990, with increases in China and India making the largest gains.⁴⁹² This is a measurable reflection of the positive effects that have occurred from increased efforts to combat human water insecurity. Part of the attainment of MDG Target 7c was made possible by the efforts of several European countries that launched DSMs. By encouraging and promoting the role of local authorities in water governance, DSMs operate with the understanding that water systems have a distinct impact on local communities, and that these communities should have a larger involvement in the planning and implementation of water policy.

Perhaps the most significant reflection of the ethical foundations of DSM/GWS comes from its founding Charter of DSM. It provides three important acknowledgments. First, it recognizes that, although national governments alone maintain the legal responsibility for ensuring universal access to safe water and sanitation, it is also imperative that sub-national groups must be fully involved. Secondly, it considers the fact that the continued lack of water security (in the form of safe water and sanitation) is primarily the result of economic constraints and institutional deficiencies, not due to limitations in physical

⁴⁹² UN, *The Millennium Development Goals Report 2012*, New York: UN, 2012: 4. For a detailed description of the data, see UNICEF, *Progress on Drinking Water and Sanitation, 2012 Update*.

resources. Thirdly, it puts special emphasis on the fact that the combined stress effects on water affect the poorest and most vulnerable population groups most intensively.⁴⁹³

Together, these acknowledgments are a manifestation of a progressively oriented approach to water security and mark an important indicator of the sociopolitical drivers of vulnerability. The commitment to act in ways that reduce harm for vulnerable individuals and communities is based upon international and national dialogues that acknowledge that ecological and geographical factors are not disconnected from the social fabric and institutional context of societies.⁴⁹⁴ The commitments of the DSM Charter are fundamentally the product of deeper ethical thinking on the parts of the drafters.

There are seven guiding principles of DSM, codified in its charter, that sustain its ethical foundations. The first principle is *universality*. This guides policies that avoid discrimination on any grounds, while concurrently promoting universal access by all groups and individuals in situations of vulnerability. The second principle is *subsidiary*, which reinforces democratic participatory planning at the least centralized competent authority level. The third principle – *additionality* - encourages a vision of DSMs as additions (not substitutions) to already existing Official Development Assistance (ODA) and other existing mechanisms. The fourth principle – *leverage* - transforms larger investments into a reduction of risk perception and reduces the transaction costs of loans.

⁴⁹³ UNDP. *Global Water Solidarity, Decentralized Solidarity Mechanisms (DSM) for Water and Sanitation Charter*. UNDP, 2012. Online 4 November, 2012, <<http://web.undp.org/geneva/watersolidarity/charter>>

⁴⁹⁴ Mark Brklacich, May Chazan, and Hans-Georg Bohle, “Human Security, Vulnerability, and Global Environmental Change.” *Global Environmental Change and Human Security*. Eds. Richard A. Matthew, Jon Barnett, Bryan McDonald, and Karen L. O’Brien. (Cambridge, Mass: The MIT Press, 2010): 41.

The fifth principle is *sustainability (institutional level)*. This emphasizes the need for good governance and capacity building by existing and future organizing institutions. The sixth principle is *sustainability (environmental level)*. Proper environmental stewardship via IWRM and prevention and adaptation measures to natural disaster and climate change is required to fulfill the goals of DSM. Finally, the seventh principle is *sustainability (financial level)*, which promotes adapted, inclusive, and proportional mechanisms for cost recovery and self-financing.⁴⁹⁵

Organizations and initiatives that appeal to DSM funds must reflect these guiding principles, creating a type of benign consensus that can work to spread the principles of alternative water security. The explicit focus on universality, democratic participatory planning, and sustainability, are recognition of the mutual benefit that accrues from joint participation towards a goal of spreading water security strategies across borders. While DSMs are primarily designed for developing countries struggling to improve water and sanitation services, the ethical principles upon which they are founded are universally applicable. Indeed, the original DSMs were first implemented at the national and regional level within European countries. In this way they are able to answer some of the central criticisms levelled against MDGs, which is that they ignore problems of inequality across the world, “ghettoizing” development as something only to be worried about in the global south.⁴⁹⁶ Instead the roots of GWS show that internationalist discourses of cooperative

⁴⁹⁵ UNDP, *Global Water Solidarity: International Platform for the Promotion of Decentralized Solidarity Mechanisms*.

⁴⁹⁶ Ashwani Saith, “From Universal Values to Millennium Development Goals: Lost in Translation,” *Development and Change* 37.6 (2006): 1167-1199.

water security are being used in ways that can challenge the heretofore largely dominant discourse of security.

It is clear that the principles expressed in the DSM charter represent a form of hydrosolidarity, which is one of the emancipatory appellations present in contemporary water politics. They constitute a shift to ideas that have previously been viewed as inimical to the realization of water security. Whereas traditional water security approaches have focused on national-level frameworks for managing scarce water sources, some of the main sponsors of DSM and hydrosolidarity champion the involvement of local institutions. This is an important factor in developing and implementing strategies to improve access to safe water and sanitation, while also increasing the involvement of local actors in securing basic rights and freedoms. Local involvement, requiring high levels of dialogue and cooperation, are central requirements for hydrosolidarity, and the ongoing progression of DSM into a more solidified global framework signals one movement to re-engineer understandings of water security to the individual level.

A key indication that alternative water security norms developed in the DSM framework are taking root is seen by the commitment to expand the range and scope of DSM into a global approach to combatting water insecurity. Leading up the 2012 World Water Forum (WWF 6), it was decided by the DSM Steering Committee that DSMs should be upscaled and replicated. This has led to the transformation of DSMs into something larger called Global Water Solidarity (GWS). Officially launched at WWF 6, Global Water Solidarity expands DSMs across space and time to assume a larger role in promoting innovative, ethical solutions to global water problems. It does so by

replicating, at a larger level, successful decentralized solidarity mechanisms. Accordingly, financial resources are to be mobilized in order to be dispersed internationally. It mandates increasing technology transfer and facilitating training exchanges between decentralized authorities and technical services. GWS also seeks to promote good governance and territorial development. All of these mechanisms are undertaken with a special focus on the role of local governments and communities in providing basic services. While IWRM remains the dominant water management approach, DSM was singled out at the World Water Forum as an important contribution that is both grounded in specific ethical principles and can help in the progress towards achieving the minimum standards of Millennium Development Goal 7. It was for this reason that such a concerted effort was made at WWF 6 to disseminate and replicate achievements. Unified under the theme “*Time for Solutions,*” WWF 6 witnessed the creation of GWS and its promotion was evident at numerous events. One official session dealt with “Innovative Finance for Local Government;” one side event was called, “1% Water and Decentralized Solidarity Mechanisms: Partnership Solutions in Africa for Water and Sanitation;” and another event looked at, “Villages for Solutions.”⁴⁹⁷ All these events were part of the ‘coming-out party’ for GWS.

Funded by the *Swiss Agency for Development and Cooperation*, and the *Ministère des Affaires Etrangères et Européennes de la République Française*, as well as the UN Development Programme, GWS is undertaken on a voluntary basis, as a gesture of solidarity. The three funding organizations have championed the scaling up to the

⁴⁹⁷ UNDP, *Global Water Solidarity: Report on Activities and Results. International Platform for the promotion of Decentralized Solidarity Mechanism March 2011-March 2012*: 10.

European level of a voluntary levy of 1 percent on water and sanitation services that was already functional in certain countries, including France.⁴⁹⁸ The funds generated are then diverted to a variety of projects and organizations across the world with the aim of improving drinking water and sanitation for vulnerable populations. The encouragement of a 1 percent solidarity mechanism (a ‘voluntary tax’ in other terms) is one aspect of GWS, but the platform is not limited to financial packages. The needs of water and sanitation sectors require broader engagement than simple financial mobilization. GWS thus also facilitates international technical exchanges, encouraging the cross-pollination of best practices and the experiences from previous efforts. The closer links among national platforms and decentralized authorities can leverage ethical responsibility into real improvement in the lives of others. The emphasis on inclusive dialogue across borders, regions, and watersheds, and the principal role that local governments play in all aspects of the design and implementation of the platforms are indications of alternative conceptions of the way in which water security can be articulated and practiced. A range of actors across borders and continents, from *Programme Solidarité Eau* in France⁴⁹⁹ to *Water and Sanitation for Africa*,⁵⁰⁰ to *Sahara and Sahel Observatory* in Tunisia⁵⁰¹ are

⁴⁹⁸ UNDP, *Global Water Solidarity: Report on Activities and Results. International Platform for the promotion of Decentralized Solidarity Mechanism March 2011-March 2012*, 2012

⁴⁹⁹ Agence Française de Développement (AFD). *La coopération décentralisée dans le secteur Eau et Assainissement*. AFD. Online. 21 June 2013. <http://www.pseau.org/outils/ouvrages/ps_eau_la_cooperation_decentralisee_dans_le_secteur_eau_et_assainissement_bilan_2012_2013.pdf>

⁵⁰⁰ Water and Sanitation for Africa (WSA). *Dakar Communiqué*. WSA. 19 January 2013. Online. 21 June 2013. <<http://africahighlevelforum.files.wordpress.com/2013/01/dakar-hlf-communique-dec-2012-19-1-13.pdf>>

⁵⁰¹ Sahara and Sahel Observatory (OSS). *Stratégie 2020 de l'OSS*. (Tunis: OSS. 2012) Online. 21 June 2013. <http://www.oss-online.org/sites/default/files/fichier/strategie_2020.pdf>

contributing to the process of re-defining what water security can mean. Going forward, the task becomes one of expanding hydrosolidarity, catalyzing more north-south, south-south, and north-north linkages through progressive financing mechanisms and capacity sharing. The critical vision is such that these types of decentralized partnerships help fundamentally transform the ends towards which water security is aimed, evolving over time into new, vibrant alternatives that contribute to a good life for the entire community of life dependent on water.⁵⁰²

6.5 Conclusion

It is too soon to fully judge the outcomes of Global Water Solidarity, but at the outset of its institutionalization, it seems to demonstrate emancipatory practices immanent in water security. The eventual scaling up of solidarity mechanisms is in essence a re-articulation of the way in which security can be constructed – away from more technical, instrumental interpretations envisaged by IWRM and, even more fundamentally, away from the traditional security discourse of exclusion and enmity. The commitment made by *Global Water Solidarity* to increase individual water security by utilizing transnational

⁵⁰² Erik Mostert, Marc Craps, and Claudia Pahl-Wostl. “Social learning: the key to integrated water resources management.” *Water International*, 33.3 (2008): 293–304; Aaron T. Wolf. “Healing the Enlightenment Rift: Rationality, Spirituality, and Shared Waters.” *Journal of International Affairs* 61.2 (2008): 51-73; Peter G. Brown and Jeremy J. Schmidt, “An Ethic of Compassionate Retreat” *Water Ethics: Foundational Readings for Students and Professionals*, Eds. Peter G. Brown and Jeremy J. Schmidt (Washington DC: Island Press, 2010): 265-281; Catherine Allan. “Rethinking the ‘Project’: Bridging the Polarized Discourses in IWRM.” *Journal of Environmental Policy and Planning*. 14.3 (2012): 231-241; Jeremy J. Schmidt and Dan Shrubsole. “Modern Water Ethics: Implications for Shared Governance.” *Environmental Values*. 22.3 (2013): 359-379. Anton Earle, and Susan Brazilli. “A Gendered Critique of Transboundary Water Management.” *Feminist Review, suppl. water* 103. (2013): 99-119; David Groenfeldt, and Jeremy J. Schmidt. “Ethics and Water Governance.” *Ecology and Society*. 18.1: 14 (2013) Online. 24 June 2013 < <http://www.ecologyandsociety.org/vol18/iss1/art14/>>; Cecilia Chen, Janine MacLeod, and Astrida Neimanis Eds. *Thinking With Water*. (Montreal: McGill-Queens University Press, Forthcoming 2013).

resources (both human and financial) and combining them with a central role for local communities signals an emancipatory alternative in ways that IWRM as a managing doctrine simply cannot do or promise. While it may seem contradictory for proponents to advocate concurrently for institutionalization and decentralization, both processes are necessary for the hoped-for shift in water ethics.

Decentralization is necessary for the inclusion of disparate communities and in order to better manage resources upon which they depend for their livelihoods. Local communities can in theory provide more inclusive public participation and dialogue over water issues. Such participation is vital for the increase in ethical and technical legitimacy as well as the overall empowerment of local communities. It is clear that local knowledge is essential to the planning and implementation of complex water security strategies. Without it, there is the potential for marginalized groups to experience the effects of power disparities – forcing them to participate and replicate the dominant orthodoxy of the dominant group. Such orthodoxy is often inimical to deeply held spiritual and ethical beliefs of local groups, and it may also continue to entrench larger discourses of national security at the expense of emancipatory alternatives. The avoidance of past mistakes compels us all to re-think the purpose and utility of traditional approaches of water security. Shifting nationalist discourses of water security to the local individual, will do much to promote emancipation, can contribute to a vision of the future that is urgently needed.

This dissertation has shown that the problems surrounding water security are multifaceted and complex. Global water problems are not just problems of inequitable or inefficient distribution - though these are important components that require technical solutions –

they are reflections of much larger attitudes and beliefs about how human society should be fundamentally ordered. Water scarcity, water impurity, and unequal water sharing practices exert wide-scale negative material consequences, but their continued prevalence are social constructions that stem from intersubjectively created social processes and ideas about what can or cannot be accomplished. The continued and growing distance between water supply and demand requires a larger emancipatory ethical framework that can promote values of sustainability, cosmopolitan responsibility, and hydrosolidarity. It is not enough to promote technical solutions, or better management practices. For entrenched practices, like IWRM, to adequately increase individual and national security, they will need to increasingly acknowledge the role that inclusion, dialogue and cosmopolitan ethics play in water management. This means that new practices, like GWS, must continue to incorporate the nascent principles like hydrosolidarity into their core operational guidelines. Otherwise, contemporary water management will be in danger of replicating the failures of past strategies, which focus on technical, deterministic solutions that do not integrate sustained ethical considerations into their analyses. Furthermore, the rise of IWRM as a hegemonic discourse is troubling. It is seen as almost heretical to question this new form of water practice in the large global water conferences like the World Water Forum, World Water Congress, and Stockholm International Water Institute.

This chapter outlined one promising alternative – *Global Water Solidarity*. Global Water Solidarity is in its very early stages of development. It is too soon to tell what its successes and failures will be, and just how much it can contribute to advancing an alternative identity of water security that counters the exclusivist tendencies of traditional water security. Expectations must be tempered. That said, it is but one example - perhaps

an obvious one given the involvement of UNDP and state governments – of a progressive shift in the manner in which water security is both deliberated and practiced. Its promotion of the ethical norms of solidarity, decentralization, universality, and sustainability in the name of protecting vulnerable populations is an expression of the vision of emancipatory water security outlined in earlier chapters. Finally, it signifies how the possibility for emancipation is immanent in any political context, even in one as tightly bound to sovereign exclusivity as water security.⁵⁰³

⁵⁰³ Cameron Harrington. “Toward a Critical Water Security: Hydrosolidarity and Emancipation.” *Canadian Journal of Foreign Policy* 19.3 (Forthcoming Dec 2013).

7 Conclusion

There has been an increasing acceptance that water is a vital security issue. Various UN organs and institutions have debated the concept of water security. It has been the subject of a major national security report in the United States.⁵⁰⁴ In 2007, The Government of Australia released *A National Plan for Water Security*.⁵⁰⁵ And clearly, a large number of think tanks, NGOs, and academic studies have pointed to water as a major threat to security. Much of the talk of water is deeply connected to a growing awareness of the dangers posed by climate change. In February 2013, the United Nations Security Council convened a meeting to discuss and debate the security implications of climate change. Chaired by the United Kingdom and Pakistan, the council heard appeals from UN officials, think tank analysts, and representatives from the World Bank, Australia, and the Pacific Island states of Kiribati and the Marshall Islands. The central argument, presented by Tony deBrum, a minister and assistant to the Marshall Islands President, was that climate change is, “a security issue, and not just an economic-political-social issue.”⁵⁰⁶ The impetus for this meeting was the continued pace of climate change and its attendant effects being felt across the world since the last debate in 2011. The hope was that a stronger consensus would be reached that acknowledged and set up action on the dire security implications that climate change posed. At the end of the 2011 meeting, the

⁵⁰⁴ DIA, 2012;

⁵⁰⁵ Government of Australia. 2007.

⁵⁰⁶ Edith M. Lederer “Islands struggle to convince UN Security Council that climate change is a security threat.” *The Vancouver Sun*. 15 February 2013. Online 6 March 2013. <<http://www.vancouversun.com/business/Islands+struggle+convince+Security+Council+that+climate+change+security+threat/7973702/story.html>>

UNSC agreed on a vague statement expressing “concern that the possible adverse effects of climate change may, in the long run, aggravate certain existing threats to international peace and security.”⁵⁰⁷ The 2013 meeting, in contrast, was galvanized by an increasing awareness that the frequency and severity of climate change effects, like hurricanes, wildfires, droughts, monsoons, and flooding, required a new sense of urgency. Given the deep connections between climate change security and water security, it is obvious that the issue will be of paramount importance in the coming years. The stress placed on water resources caused by exploitation, mismanagement, and climate change, will undoubtedly lead to intense political pressures. The result of these pressures is unknown; many argue they will lead to war and conflict, while others envision an increase in cooperation and mediation. The point is not to predict the future, but to begin constructing it. This study should be seen in this light.

The aim of this dissertation has been to reframe the concept of water security along emancipatory lines. First defined by Ken Booth, an emancipatory vision of security is holistic, non-statist, and de-emphasizes the use or threat of force. It involves, “the freeing of people (as individuals or groups) from those physical and human constraints which stop them from carrying out what they would freely choose to do.”⁵⁰⁸ It is obvious that the significant constraints imposed upon individuals and groups from a lack of sufficient water quantity and quality impede the potential to lead a full life. An emancipatory water

⁵⁰⁷ United Nations Security Council (UNSC) “Security Council, in statement, says ‘contextual information on possible security implications of climate change important when climate impacts drive conflict.’” *Security Council SC/10332* 20 July 2011. Online 6 March 2013. <
<http://www.un.org/News/Press/docs/2011/sc10332.doc.htm>>

⁵⁰⁸ Ken Booth. “Security and Emancipation”: 319.

security counteracts traditional security approaches that present water in terms of “the coming anarchy.” It provides a framework for viewing water in a multiplicity of ways - as something much more complex and important than as currency for war strategists and forecasters.

Water is an inherently connective substance. It shapes and alters human relationships as well as the ecosystems upon which they depend. Beyond human life, water is essential material for the functioning of the earth system. It is not substitutable in ways other natural resources are. Thus, a focus on water has the capacity to fundamentally transform the terms of security in equally profound ways. There is a widespread propensity among traditional security scholars and practitioners to view water as a strategic commodity. In such readings, water becomes another factor in the state-led calculus of vulnerabilities and opportunities. Such is the case of the highly securitized Nile Basin region, whereby state officials, journalists, and academics contribute to the perpetuation of traditional security narratives and conventional valuations of water.

While water is often pivotal to state security, such readings belie the much more complex estimates of value. In fact, water’s worth is too multifaceted to label it primarily as a conflict variable. Such maneuvers ignore its multiple, overlapping, and interdependent values. Beyond the conventional understandings of water’s strategic and monetary value, there lie broader community values that demonstrate its inherent complexity as a security issue. Indeed, water also holds environmental, in-stream, and spiritual value. In environmental terms, water is the lifeblood of the earth. It bestows upon ecosystems the necessary materials required to exist and to thrive. It goes without saying that it plays an

integral part in the functioning of the planet. Every life form derives its being from water in some way. Therefore water has clear use for nature and for animals. Its environmental value cannot be overstated. Within river flows, water provides a multiplicity of benefits – both economic and non-economic. In-stream water values are apparent in terms of both human and non-human life. Water for fish and habitats for other animals enables necessary biodiversity. In human-terms, the uses derived from in—stream river flow are enormous. Whether through fishing or transportation water is central to the well-being and livelihood of a wide range of human river users. Finally, water also intersects with deeply held religious and spiritual beliefs. As outlined briefly in chapter three, by understanding the centrality of water within spiritual and religious belief systems across the world, it becomes clear that water has an organic or inherent value.⁵⁰⁹

The non-traditional values of water indicate a highly complex confluence of differing uses and understandings that clearly demonstrate the need for alternative approaches to water security. The essentiality of water means that it cannot be relegated to one frame of rationality. It is by its very nature a strategic resource, one that security analysts will (and should) consider. But water means much more than just a strategic resource over which countries, or intra-state groups will fight over. As Veronica Strang writes, “The meanings themselves – water as the spirit, as life, as social, connective substance, as wealth and power, as generative source and regenerative sea, as nature, id, emotion and unconscious

⁵⁰⁹ Kira Artemis Russo, and Zachary A. Smith. *What Water is Worth*. (New York: Palgrave Macmillan, 2013): 55.

– all of these permeate the interactions that people have with water.”⁵¹⁰ To relegate water security largely to treatises on the inevitability of future conflict over dwindling resources is to vastly simplify and overlook the social meanings and material properties it encompasses. The argument presented in this dissertation argues against this by viewing water security along emancipatory lines. Emancipation allows individuals and organizations to envision and construct a world that moves away from fatalistic proclamations and towards actions that reduce human suffering and ecological degradation.

The meanings of water “seep into every decision made about water use, wash over every aesthetic, religious or acquisitive vision of water, and swirl in powerful undercurrents in every quarrel about ownership, access and control of water resources.”⁵¹¹ This is also true of the concept of security. The meanings attached to the subject imbue the decisions and choices made in its name. As chapter two pointed out, an unquestioned understanding of rationality, knowledge, and ‘human nature’ grounds traditional security paradigms. When these inconsistencies, contradictions, and inadequacies work to construct a predominant notion of water security as Malthusian nightmare, it reveals much about the potential and peril of dominant paradigms. But when we reconstruct security along different lines and in different contexts we can see the multiplicity of meanings possible. Such attempts are found throughout this dissertation. Chapters five and six in particular are meant to convey the potential and possibility for imbuing water

⁵¹⁰ Veronica Strang, *The Meaning of Water*. (Oxford, UK: Berg Publishers, 2004): 245

⁵¹¹ Strang, 245.

security with ethical components. It becomes clear then just how important the concept of security is for managing water and just how useful water is for expanding our understanding of the subject of security.

Thus, this dissertation should be seen as a modest attempt to reorient security away from traditional approaches that consistently fail to critique the underlying assumptions that portray water primarily as a strategic commodity. The intention is to acknowledge the space for alternative theorizing in the field, bringing forth multiple visions of security.

Without question, water is a pressing security concern for a large number of individuals and communities around the world. But often the reality of individual insecurity caused by a lack of access to quality water supplies is obscured by discourses and policies that reify and preserve the status quo of statist security. Unsurprisingly, evidence of this is found in various national security strategies and in the debates held in intergovernmental forums like the UN Security Council. Indeed, this dissertation examined one of the most highly volatile regions of the world where water remains scarce –the Nile Basin – to show how water securitization generates a vision of security dependent upon a preservation of the status quo. The result of the continual focus on maintaining national and international ‘order’ and ‘stability,’ enables traditional, dominant security actors to position themselves as the most important security providers. More importantly, perhaps, are the effects this has in engendering policies that privilege a vision of the state and its leaders as the end of security, rather than the means: as the object of security rather than a facilitator of it.

Examining the linkages between traditional security and water leads to larger questions: What does security do? Who is security for? How do we understand threats? These questions are important for understanding how our conceptions of water security, and our responses to those conceptions, are intimately tied to fundamental ideas about the individual, society, and nature. While some question whether the concept of security is itself useful anymore, this dissertation believes otherwise.⁵¹² In contrast to Neocleous' notion of "anti-security," which posits that security inevitably blocks politics,⁵¹³ this dissertation argues often that security is by its very nature political. However, the political nature of security does not necessarily have to lead to its abandonment altogether but can, with the necessary critical theoretical tools, allow for the transformation of security into a desirable concept through which emancipation is possible. It is thus argued that the political nature of security can in fact be harnessed to produce normatively superior ends. The intention is to create ways in which the concept of water security contributes to the emancipation of individuals around the world. This is primarily the aim of chapter five, which produced a detailed theory of emancipatory water security.

Indeed, the concept of security is absolutely central to the argument presented here: that security as emancipation is something desirable and possible in human relations over water. This argument stems from awareness that the monumental scale of the challenges facing the global environment and human societies requires a reexamination of the core

⁵¹² Neocleous

⁵¹³ Mark Neocleous and George S. Rigakos. *Anti-Security* (Ottawa: Red Quill Books, 2011).

beliefs that condition our relationship to the world. The response must then be a reorientation of security that can offer progressive and effective responses fundamentally tied to ethical norms of inclusion, communication, and cosmopolitanism. In so doing, cooperative and sustainable practices of water management can emerge on various scales - from the local to the global.

This dissertation comprised two broad sections. The first section – chapters two, three, and four – produced a critique of the concepts inherent in traditional accounts of international relations, international security, and environmental security. They contribute to the unsettling of imagined norms of the general concept of security and of the nature of water security in particular. Chapter two began by interrogating the notion that the disciplines of international relations and international security are reflective of natural human tendencies towards war, violence, and strategic logic. Those interrogations are necessary for later interjections that work to reconstruct the security of water towards emancipatory ends. Chapter three built upon those insights but shines a critical light on the widespread tendency to equate water security with the narrative of the coming anarchy. Chapter four made the case that the prevailing securitization of water – seeing water security in purely Schmittian terms of exception – are inadequate and normatively problematic. All told, chapters two, three, and four worked together to deconstruct and problematize prevailing notions of water security. They offer the comprehensive groundwork necessary for the second section of the thesis – chapters five and six – that constructed a framework for emancipatory water security. Chapter five developed a vision of emancipatory security with three defining features: inclusion, communication, and cosmopolitanism. As it is in the critical theoretical tradition, such features are not

blueprints, but are part of a mutable, adaptable vision and meant to encourage reflection and discussion. These features derived from and expand upon the contentions made in the earlier chapters. They are representative of critical appeals to unsettle naturalized security norms and to promote a greater awareness of the security of vulnerable populations who are consistently denied inclusion and agency in water relationships. Chapter six took the features of emancipatory water security outlined in chapter five and highlighted the emancipatory potential embedded in contemporary water security by focusing on the concepts of hydrosolidarity and DSMs.

Together, the two sections work in congruence to provide a nuanced picture of the myriad complexities of water and security. They are linked together by the emancipatory appeal. The first section draws upon a wide array of literature to deconstruct traditional security, particularly in the context of water. The second section picks up from this to present alternatives to the dominant paradigms. It buttresses the central argument – that security as emancipation is desirable and possible in relations over water.

The manuscript presented here thus offers a three-fold utility. First, it produces a new approach to water security – an emancipatory approach that is analytically and normatively progressive. Secondly, it adds to our understanding of emancipation as a critical security concept. To date, the concept of emancipation has been left only partially examined. It therefore has become commonplace to dismiss its usefulness or to criticize its as utopian and idealistic. By establishing a set of foundational components in relation to an absolutely essential resource, the dissertation can answer some of the most frequent charges against the concept of emancipation. Thirdly, it is one of the first international

security manuscripts to apply hydrosolidarity in any sustained way. In this regard it contributes to the spread of an important hydrological idea, though further theoretical refinement and application is called for.

In sum, this dissertation has rather modest aims. It should not be read as a treatise for the abolition of security, nor does it seek to take on very large philosophical questions regarding the ontology of the individual. Rather, what is advocated are pointed adjustments to our discourses of water security that show an appreciation for the myriad ways in which it intersects with the ability to lead a good life. Moving forward, the first steps taken in this dissertation are likely to contribute to a deeper engagement with problems of human ontology, the materiality of water and inter-human relations, and questions of security.

Water security is an aperture – a window of opportunity – for deeper explorations of the social and power relationships that work to construct the world of international relations. Accepting the existing state of human relationships as necessary signals a moral choice, because reality then becomes essentialized. To argue the immutability of certain social and political norms in security studies, like the international state system, the pursuit of selfish national interests, etc., reifies and accepts specific configurations of power that contribute to an unjust and dangerous world.

Traditional top-down, closed, and national-interest-based approaches to water management, no matter whether they explicitly rely upon nationalistic imperatives of sovereignty, or are hidden beneath the proclaimed values of hydrosolidarity, have the

potential to be damaging to people and the natural environment. To overcome this, the first step must be to uncover the deeply held assumptions that ground the analyses of water-security relationships in terms most familiar to state strategists and policy-makers. From there, considerations must be made that question the connections of security with an objectivist view of knowledge generation and then seek to transform security towards emancipation. Partial and atavistic articulations of security, like the ones associated with territorial preservation of the nation-state and the threat and use of force, play an important role in limiting the potential of individuals and groups to lead full lives. As long as assumptions remain unchallenged about the primacy of states, the politics of security, the universality of security as state security, and the benefits of objectivity, it is doubtful that the world will be able to transcend contemporary water problems.

However, there is hope that alternative approaches can and will be harnessed to produce normatively desirable, and analytically superior, evaluations of water security. The goal has been to produce the means by which it is possible to conceptualize water security in emancipatory terms. This approach disrupts “settled” norms of sovereignty, and points toward more holistic, “nascent” norms such as emancipation. This holism can work to incorporate ethical concerns and create a critical, continuous dialogical engagement; a humble, collaborative, recognition of others. Water is seen here as an important site that not only demonstrates the continued dominance of traditional security, but also the junctures at which it becomes insufficient, illogical, and obsolete. Perhaps the most vital impact of water is to demonstrate the complex, and multifaceted ways in which security, the self, and the natural environment might coalesce to promote hopeful alternatives that pursue emancipation as their core responsibility. Water can never be truly bounded or

separated. It connects the world. The task then is to use water to catalyze and solidify human relationships, with each other and the natural environment, that are built upon shared understandings of a common future.

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