

**WATER PRIVATIZATION AT THE TAP AND IN THE BOTTLE:
EXPLORING THE CHALLENGE OF ANTI-PRIVATIZATION IN A
MARKET SOCIETY**

A Thesis

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by

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ABSTRACT

The early 1990s marked the beginning of a wave of unprecedented growth for private water utilities firms and the bottled water industry. A wealth of academic literature has emerged which discusses the privatization of municipal water systems, however, in this discussion of water privatization the prevalence of bottled water is not directly addressed. Connections between the governing ideas encouraging water privatization are overlooked, despite many scholars as well as citizens' groups demand autonomous control of their water systems, both through the creation of a water commons as well as the ousting of the private firms. In my thesis, I connect the rise of private water (both in the forms of municipal water and bottled water) to a dominant conception of market rationality. I engage Karl Polanyi's theories of the rise and resistance to this ideology of economic liberalism and identify the struggles over water as part of a double-movement. Increased municipal privatization is easily attributed to powerful governing forces, such as World Bank Structural Adjustment Programs, but through an examination of bottled water, I emphasize the lasting impacts of this ideology on the individual and the challenge this poses to the implementation of alternatives.

BIOGRAPHICAL SKETCH

Sarah Alexander grew up in the Thornhill, Ontario. As an undergraduate at Wells College, she Majored in Women's Studies with Minors in English Literature and Philosophy, Ethics and Policy. She was awarded a Bachelor of Arts in 2006. Concurrent to her educational pursuits, she has also been involved in national organizing efforts with Oxfam America and United Student for Fair Trade. She is currently pursuing a Ph.D. in Development Sociology at Cornell University.

To my teachers

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Water Privatization at the Tap and in the Bottle: A Consideration of the Challenge of Anti-Privatization in a Market Society

To the thirsty I will give water without price from the fountain

-- Revelation 21:6

God provided the water, but not the pipes

--Gérard Mestrallet, CEO of Suez, the world's largest water corporation

CHAPTER ONE PROBLEMS WITH WATER: CONFLICT, CONSENSUS, AND CRISIS A THIRSTY PLANET?

Water is a complex substance. Earth, as we know it, would perish without it and every human needs it to survive. While it covers 70% of the planet and runs beneath the ground, 97.5% of it is salt water. Only a tiny fraction of water – 2.5% – is fresh. Of this fresh water, 70% is trapped in the polar icecaps and most of the remainder is sequestered as soil moisture or in deep, underground aquifers which are difficult and expensive to access. Less than 1% of the freshwater is found in easily accessed locations such as lakes, rivers, reservoirs, and low-lying aquifers. In the final tally, accessible freshwater only accounts for approximately 0.007% of the entirety of the water supply (Pfister 2000).

Despite this tiny fraction, there still ought to be enough water for everybody. According to a UNESCO (1999) report, the estimated total volume of water on Earth amounts to 1.4 billion km³. Therefore, the minuscule 0.007% of accessible water can be restated less dramatically as 9.8 million km³. If this amount were distributed equally to the approximately 6.77 billion people on the planet, each person would be given a torrential allotment of almost 1.5 billion liters per person.

According to a study by the Pacific Institute (1996), the minimum amount of clean water a person requires each day is 50 liters. This formula includes water used for drinking, sanitation, bathing, and cooking. If each person were given a 1.5 billion

liter allocation in a big plastic bottle and used their 50 liters each day, their supply would last for 30 million days – which is over 80,000 years!

Of course, each person is not handed one very large bottle of water from which they can draw from as they please. Water is not just used, but reused and shared. Water moves through the planet in a complex hydrological cycle. While lakes, rivers, and streams do carry water to the ocean where it is filtered through the processes of evaporation before being dropped back onto the planet as precipitation, it also moves through every living thing, flora and fauna.

While the planet is literally saturated with water, one third of the planet's population (just over two billion) is directly affected by water scarcity. The number is expected to grow to almost 50% by 2030 (United Nations World Water Assessment Programme [UN-WWAP] 2009). Overdrawn aquifers, rivers, and lakes are drying up and pollution accrues throughout waterways, making traditional sources less reliable. Although the planet remains replete with water, the hydrological cycle is fallible and has changed – this is concretely manifested in its failures to meet immediate needs of growing populations. In the context of this rapidly changing landscape, diverse people and organizations – from scientists at the State Hydrological Institute of St. Petersburg, to activist Vandana Shiva, to economists at the World Bank – agree that there is a “water crisis” (Black 2004; Shiva 2002).

THE WATER COMMONS: TRUTH OR TRAGEDY

Despite a global accord in voices declaring a world water crisis and that water practices must change, the discord in the emerging responses have been striking. Discussions cover a wide range of water-related topics and uses, such as crop irrigation, sewage management, bottled water, and municipal infrastructure. While these discourses often occur exclusively between certain stakeholders within a

particular field of interest, the empirical reality is that water is a shared resource. One particular use of water is not exclusive and independent. For instance, agricultural run-off or factory sludge that enters a waterway in one location inevitably makes its way to another location. Whether the use of a single individual or an entire city depletes an aquifer, every person, plant and animal that depends on that source of water is affected – even the landscape above ground could be altered if it sinks into the space formerly filled with water.

One response to the water crisis has been to reexamine water-use in this context as a commons, including the establishment of a cooperative global model to govern water-use (e.g. Petrella 2001; Bakker 2007; Barlow 2008). These models look at the water crisis as a result of a popular failure to consider water as a common resource. However, this treatment and consideration of water as a commons is at odds with the popular prescription for water management by private and independent parties.

Contrary to the necessary, broad consideration in regard to water use that the water commons implies, discussions related to water-use often occur exclusively between particular groups. The responsibility to curb water use or alter practices is considered the responsibility of private parties. While no one denies a universal need for water, rather than a cooperative approach, private use and management has emerged as the exemplar in many arenas.

The notion of water as a commons is counterposed by another approach, typified in Garrett Hardin's 1968 essay, "The Tragedy of the Commons." According to Hardin the quality and availability of common resources are bound to fail unless they become enclosed – identified as existing within certain boundaries and transferred to the management of private owners who have an economic stake in their continued well-being. Under this utterly contrasting belief, leaving water as common resource

will worsen the crisis and its enclosure is imperative. In other words, in order to save the world's water it should be removed from the commons and affixed with a market-set price.

Currently, the most widely advocated and enacted solution to mitigate the water crisis is private ownership and provisioning. My thesis examines the social forces and historical trends that sway conceptions guiding water use and management towards decisions that favor water privatization.

WATER FOR PEOPLE, WATER FOR THE WORLD: INDIVIDUALISM AND THE NEXUS OF THE WATER DEBATE

Although the image of a giant bottle of water containing an allotment for each person is an unrealistic portrayal of distribution and human consumption of the world's water, the problematic individual conception of water that it represents is more realistic. Water use may seem personal and isolated, but it is not. Even as water use has become a concern or point of contention, the peculiar nature of the substance makes it difficult to fully comprehend. It is both plentiful and scarce. Clean water is a life force, contaminated water, a death sentence.

The incontrovertible but easily comprehensible matter is that humans use a lot of water and that quantity is growing. Over the last century, water use has grown twice as fast as the population. While more people on the planet need water to drink, personal use makes up only a small amount of anthropogenic water withdrawals. The largest volume of water withdrawn by humans is used in agricultural and industrial endeavors (UN-WWAP 2009). Direct individual consumption of water is only responsible for approximately 10% of all human water uses (*ibid*).

While a constellation of ongoing human-uses and environmental conditions are instrumental in generating and continuing the conditions of crisis, I will focus on

individual use and primarily on drinking water. Despite playing a limited role in the totality of current human demands for water, the water people drink is both the most elementary and substantial way they interact with and perceive it. The immediate and personal interaction with water is especially relevant with the identification of a global “water crisis” characterized by the growing number of people who are unable to obtain a sufficient amount of water to meet their daily needs. The only universal similarity in the way people interact with and interpret water is synonymous with its most basic, biological human use – it must be consumed by every person, every day, in order to sustain his or her life.

Sociologically, this use is especially relevant as the primary site through which an individual conceives water. Most discussions regarding the water crisis are centered on providing water to meet individual needs and a reliance on the assumption of individualistic inclination informs many of the current decisions in water management. Though the aggregation of human uses creates the conditions for a crisis, there is no clear nexus of the crisis. It is lost in a convergence of individualistic perceptions of water and extensive and obscured water use. In this paper I argue that modern forms of individual water use preclude the consideration of water as a commons. Instead of seeing water as a shared resource, as a commons, both the actual uses of water as well as related discourse tends to overlook their interrelation and the wider complex of impact. I explore this in the context of two particular types of individual water provision – municipal tap water and bottled water.

CONTEXT AND HISTORY: THE RELATIONSHIP BETWEEN MUNICIPAL AND BOTTLED WATER

My project originates within two popular discussions related to water: (1) the explicit drive towards privatization of municipal water systems that has characterized

global management and policy over the last two decades, and (2) the coinciding worldwide appearance of a lucrative bottled water industry. Within academic and policy discourse regarding privatization, bottled water has been, at most, a footnote. I argue that current municipal privatization and bottled water sales are related, though they are rarely considered as such. The vast literature regarding privatization has presented water privatization in general as synonymous with the approach to municipal water provisioning. Though many have mounted challenges to this popular model, occasionally including bottled water, there is no singular thrust in the various arguments against privatization. Additionally, these discussions often simplify debates, labeling all dissenters as part of “the anti-privatization movement” (e.g. Segerfelt 2005; Conant 2006; Dilworth 2007; Barlow 2008) or characterizing the discourse as solely within a dichotomy of public versus private (e.g. Nickson and Franceys 2003; Kirkpatrick, Parker and Zhang 2006; Goldman 2007; Castro 2007). Forms of water provision must be understood in a more nuanced context, which includes the socio-historical setting from which they have emerged. I explore changing trends in municipal utilities and bottled water use to elucidate this postulate.

Bottled water sales are now sizable throughout the world regardless of the presence of a public or private water infrastructure or system of provision. This development is completely unique. Never before has bottled water been such a widespread source of drinking water. In fact, besides a notable, albeit neglected, case in the United States, bottled water had neither been marketed or employed as a simple form of water provision until the last decades of twentieth century. Before the development of the public water infrastructure, Chapelle (2005) explains that many U.S. residents had begun to regularly purchase bottled water from regional suppliers, usually in five-gallon glass containers. These numbers grew throughout the nineteenth century, but dropped off sharply, all but disappearing, as soon as the governments

began to provide universal, public access to clean, piped-in water. In this example, unlike in the present pro-private era, private sources of water were abandoned *en mass* when public water became available. Today both forms thrive simultaneously.

Most discussions of privatization have a narrow scope and fail to look at the complexities and contingencies from which the trends involving a particular kind of privatization emerge. To assist in the correction of these reductionist and ahistorical tendencies, I locate their relationship as entangled within a particular universe of discourse – an economic liberal ideology. The unique conjuncture wherein both of these trends in water provision emerged may have been largely coincidental. Notwithstanding, I propose that within this historical setting they function as catalysts to enable and reinforce the enclosure of the water commons (both physically and conceptually) that is requisite in privatization projects.

WATER IN AN ERA OF ECONOMIC LIBERALISM

In this paper, I identify the historical institution of economic liberalism as playing a central role in the debates surrounding water use. Arguments in favor of privatization must be understood within the context of the prevailing market-based ideology of economic liberalism. Hardin's assertions come out of the tradition of this market-based understanding, rooted in ideas crafted by enlightenment thinkers such as Adam Smith and David Ricardo. The core assumption is the belief in the centrality of a competitive market in which humans navigate their lives, guided by their inherent predilection towards economic rationality. This rationality includes acting as “individual maximizers” and the inborn desire to truck, barter and trade. Guided by an “invisible hand,”¹ Smith held that the market was a self-regulating mechanism and

¹ According to Smith, in a free market, all individuals seek to maximize their self-interest through the trade and exchange of (limited) goods and services. In a collective context (i.e. all individuals engaging in maximizing utility), this purportedly has the effect of each individual being better off

thus should not be met by any form of human interference (state regulation or otherwise). Individual freedom is realized in the freedom to own property through which economic tendencies can manifest. If these individuals are left to their own devices in a free-market, the market will expand and hard-working individuals will thrive. As they have emerged as the dominant way of thought, these theories are treated as true, natural, and everlasting explanations of human social order. (Hardin 1968; Polanyi 1991; Shiva 2003; Black 2004; Young 2005).

I explore how this conception of a society based on these liberal economic ideas, or what Polanyi (1991) would call a “market society,” has affected the understanding and treatment of water, including the emergence of privatization as a predominant practice for water provision. I look at the historical factors that gave rise to market ideology, various forms of resistance, and the challenge of resisting an idea that relies on the dominant mode of thinking about the world in economic terms.

WHY POLANYI?

Although Polanyi's 1944 book, *The Great Transformation* (2001) was written as a historical account describing the rise and fall of the hegemony of liberal economics, his theories remain of great relevance today. As Skocpol (1984) explains, Polanyi traces the emergence of economic liberalism as a dominant ideology to reveal the outcome of a world-historical process, rather than the inborn fate of humanity. Polanyi's work challenges solutions centered solely on economic notions and reveals how rich and diverse human histories have been largely consolidated into a liberal economic order (*ibid*; Baum 1996; Stiglitz 2001).

than if they produced only for themselves or their households. These processes occurred naturally, according to Smith, and thus worked optimally only if left unfettered. In this context, the “invisible hand” is conceived of as guiding the natural state of the market, and the individual decisions and practices within it, such that all participants mutually benefit.

Both the content and style of Polanyi's analysis are incredibly relevant in identifying the shortcomings of water debates, as I will expand upon in Chapter Four. He describes this order as a "market society," characterized by faith in the rules of liberal economics and its self-regulating market. He argues that people generally tend to act according to the prevailing logic in their society. Individuals living in a market society are socialized to abide by market logic. However, Polanyi identifies inherent flaws in the system which treat the logic as external and ignores its social origins. If the invisible hand does not exist, the outcome of the cumulative force of individual maximizers will devastate the natural world and limit the ability of people to maintain their livelihood. He postulates that as the destructive consequences of market society become evident, people in the society are forced to react and participate in a widespread demand for change or regulation. As these demands *counter* the prevailing system's assertions of market independence, Polanyi calls these reactions "counter movements." As a whole, both the effort to create the popularly acknowledged belief in a market society and the consequent challenge of the counter movement are dubbed the "double movement." Historically, there has been an ongoing tension between these two movements. As the first movement of the double-movement promotes economic imperatives, counter movements reembed social and ecological considerations in society.

The establishment of a market society requires that everything be treated as a commodity. Polanyi explains that some objects should not be treated as commodities, as they are not objects produced for sale on the market. He calls these "fictitious commodities" and includes the examples of nature, labor, and money. Counter movements are prompted by the destructive results of the treatment of these items as commodities. Polanyi offers the example of the public outcry in response to atrocious factory conditions during England's industrial revolution as counter movement. The

unbridled commodification of labor had obvious and widespread deleterious impact which created a social crisis. Similarly, anti-privatization arguments can be seen as counter movements responding to the destructive or potentially destructive outcomes of the commodification of water.

In examining what some have seen as Polanyi's erroneous declaration of the fall of market society, I elucidate a necessary consideration in the development of alternative water schemes. In his book, Polanyi concluded that the reliance on the liberal economic model, which characterized market society, had been a failed experiment. He believed that a growing popular acknowledgment of the shortcomings of economic liberalism would bring in a new social order through large-scale counter movements. He identified the New Deal in the United States as a fundamental step in the creation of the model of a new style of economy. He thought that the new U.S. hegemony would be a part of the dawning of recognized interdependence. New Deal economics now appears to have simply been a briefly successful counter movement (Black and Somers 1984; GoldFrank 1990). The outcome was not what Polanyi hoped, and by the 1970s a new series of events were paving the way for another movement to enact economic norms. Laws, public policy, international bodies, and agreements that reasserted the disembedded economy reinvigorated the system that Polanyi said was in ruin. The next step in the double movement moved away from the early twentieth century changes that Polanyi saw when writing his book and the social policies were replaced with the policies that have characterized the current era, often described as "neoliberal."² Much of the literature only looks to the dawn of the age of neoliberalism to explain trends in privatization, but Polanyi's explanation of the rise of market society offers a more thorough way to understand this. Examining the

² While current economic ideology is often described as *neoliberalism*, the underlying assumptions remain congruent with the tenets of the original founders. In many ways, the "neo" differentiates only the time period in which the advocacy of classical liberal economic occurs.

struggles over water, and specifically the challenge of finding a solution, in the context of a Polanyian double movement offers an explanation for a theoretical connection between various resistances to water privatization, and a venue through which to understand the difficulty of resistance. Looking at bottled water facilitates a project of revealing how, in the context of water, people are pressured and conditioned to act in accordance with the dominant social order and treat it as a commodity.

PRIVATIZATION, COMMODIFICATION AND NATURAL MONOPOLIES

This engagement of Polanyi in the context of water exposes the narrowing of terms which stifle related debates. Fights *within* the current system are not necessarily fights *against* the current system. Affirming Polanyi's assertion about individual understanding being formed in accordance with the prevailing social structure, many arguments against water privatization may fail to question the treatment of water as a simple commodity and the independent, individual use that the liberal economic model advances. Under this regime, discussions are encouraged to be compartmentalized and rarely look beyond the established logic.

By definition, privatization of water, in the context of most contemporary water discussions, involves partial or complete transfer of ownership of water delivery and treatment systems to private corporations (Gleick, Wolff, Chalecki and Reyes 2002:1; McDonald and Ruiters 2005). Supporters of privatization attempt to put control of the water industry in private hands in order to enable a competitive market. They believe this is a necessary step in getting “prices right.” In most countries, the price people pay for municipal water service is a mere fraction of the cost of water provision when abstraction, delivery, disposal, and treatment are included (Hassan, *et al.* 2005). Privatization, according to its advocates, allows the market to set the price for water, with a focus on full-cost recovery. This faith in the relationship between

water use and the market expresses more than an incidental management technique for municipal water.

The privatization of water is essentially a formal change of management enabled by commodification. Bakker (2007) describes commodification as a process which involves “the creation of an economic good through the application of mechanisms intended to appropriate and standardize a class of goods or services, enabling these goods or services to be sold at a price determined through market exchange” (450). This can only happen through the enclosure of water from the commons. Enclosure does not necessitate physically enclosing water or creating deeds denoting ownership. Most privatization projects have more to do with ownership and control of water resource management and delivery. In this sense, the enclosure of water is largely a conceptual transition.

Commodification and privatization are predominantly achieved through applying market rules to water. These transitions can involve physically enclosing water in pipes, in the case of municipal water, or glass and plastic, in the less frequently identified form of commodified water, bottled water. McDonald and Ruiters (2005) add that multiple enclosures and uses, be they mental or physical, facilitate the commodification process by atomizing all of the different uses and obscuring the relationships that water users might otherwise be prompted to consider.

Since the mid-nineteenth century, water utilities have frequently been regarded as *natural monopolies*. According to economists, the general rule is that the presence of a multitude of firms in a competitive market will result in the availability of the best prices and products to consumers. The opposite may be true in the case of natural monopolies. The theory of natural monopolies was initially used to describe industries, usually public utilities, in which a single firm is the most efficient producer and supplier of a certain (generally homogenous) good. This consideration of water as

a natural monopoly has been given in favor of state control or regulation of the industry because of the importance of a universal water supply. The initial fixed cost to build the infrastructure is so high compared to the price that many people are willing or able to pay, so the firm would have little incentive to expand. Additionally, competition from new firms is hindered both because of the high financial barriers to entry and because water is considered a fairly homogeneous good. This homogeneity stands in the way of product “differentiation” which economists also say is essential for competition (Rima 2009; Taylor and Weerapana 2009).

However, many economists do not consider natural monopolies as inevitable or stationary forms. As I will explore further, pressure to privatize water utilities are measures which reassert competitive, market tendencies into water provisioning. New technology that changes production costs and well as product differentiation may eventually disrupt a natural monopoly (*ibid*; DiLorenzo 1996; Nauges and van den Berg 2007).

Taking these characteristics of market society into consideration is essential in comprehending the complex state of the world's water. Looking at the historical setting and critically examining the components that inform arguments and actors who are both influenced by and influencing the reality they are working to reinforce or alter.

Many authors challenging municipal privatization trace decisions to privatize to governing structures, limiting the explanation of the decision-making forces to the particular will of certain organizational actors within institutions, such as the World Bank (e.g. Black 2004; Prasad 2006; Goldman 2007; Spronk 2007; Castro 2007 and 2008; Conant 2009). However, if people can be socialized to act according to a certain understanding, the explanation ought not be centered on such a small group. A person living in a municipality that has opted to privatize their water systems might

not have been involved as a decision-maker, but as global rates of municipal privatization have increased, so have bottled water sales. The prevalence of both of these forms of private water provision are signs of people operating as market-oriented actors. Debates regarding water use predominantly occur within market logic and many would-be counter movements are extinguished by minor changes which will not stop the water crisis from worsening. To this end, bottled water may be playing a new role as it has grown in popularity. It may be conditioning people to accept water as a commodity, which could assist in the ease in which other water privatization measures are implemented.

THE RELEVANCE OF BOTTLED WATER

The resistance to privatization has not been formed in response to bottled water, but municipal privatization. Herein, I reveal the relevance of bottled water. As part of an ongoing attempt to assert market logic through the further disembedding of water consumption, bottled water is stifling the change advocated by many who oppose privatization and the call to re-envision water use as a commons. I propose that the widespread failure to take action is the result of an indifference that is made possible primarily through the participation of unknowing actors who live their lives within the confines of a particular, incidental reality and reinforce it simply through their compliance (i.e. living in market society and buying the readily available bottled water). My project will interrogate arguments which challenge privatization, parsing the components of the “anti-privatization movement” to ameliorate certain myopic tendencies in the discussions.

Arguments against privatization consistently blame particular agents, such as international financial institutions or political leaders, for instigating the trend. Arguments against bottled water often focus on pollution – the plastic bottle is seen as

the problem, not the water itself. Yet, the privatization of water hinges on the commodification of water, so bottled water ought to be central in the volumes of literature written on the subject of privatized water.

Bottled water epitomizes the project of applying market logic to water that is at the heart of expanding municipal water privatization, but the resistance to bottled water is much less developed. Furthermore, it may signify a new era of individualized water provision. While the forceful pressure to privatize by global financial institutions imparts market logic in municipal water provision, as individuals purchase bottled water they participate in a similar project by accepting water as an economic good, a commodity. Considering that water provision has been exempted from traditional market rules as a *natural monopoly*, any of these privatization projects are inserting competitive market tendencies into the protected industry. Additionally, as people are choosing to pay more for bottled water than municipal water, the rapidly expanding industry appears to be offering a kind of product differentiation that further undermines its status. Together these could contribute to the end of water's consideration as a natural monopoly.

PURPOSE OF THE STUDY AND RESEARCH QUESTIONS

This project looks at how water privatization and commodification are being challenged. The goals of the project are two-fold: (1) to identify how a prevailing reliance on a market ideology grounded in economic liberalism presents an obstacle to discovering and implementing alternative, non-market-centered conceptions, and (2) to explore how bottled water consumption elucidates this challenge.

The purpose of this study is to add to the discussion of resistance to water privatization. With the objective of bridging a gap in the literature which discusses water privatization, I explore the relationship between the growth of the bottled water

industry and private municipal water systems as part of a larger historical trend in economic liberalism. This project is a preliminary and exploratory endeavor. It begins a process of triangulating the relationship between the subjects it engages.

The main questions this study will seek to answer are: (1) what is the relationship between the global growth of privatization of municipal water systems and bottled water consumption, and (2) how does the relationship affect conceptions of water and discourses on management? Subsequently, I will explore answers to these secondary questions: (3) what are the historical processes through which people have chosen or have been compelled to pay for water, and (4) how does this shape the responses to the growing fear of water scarcity? Specifically, what are the events that prompted change and what are the institutions that maintain or enact a worldview that allows a system of water-for-sale?

In answering these questions I historicize the story of water. In identifying the historical forces through which both water privatization and resistance has been shaped, I connect the growth of the bottled water industry to the growth of the private water utilities industry. My findings reveal a system in which change is stifled both by the strength of the historically instituted market logic and a material reality enforced by that logic.

In Appendices A and B, I address my particular methodological approach and the extent to which I have answered the broad questions that have guided my study. This project is not intended to exhaustively answer the above research questions. Appendix A is an overview of the process through which I have crafted this document. Appendix B directly confronts an empirical gap in my findings that could not be resolved in the scope of this preliminary study. It provides an overview of a case study approach designed to evaluate the extent to which the availability of bottled water impacts municipal water resources and resistance to privatization.

OVERVIEW OF THE CHAPTERS

The intention of my thesis is to reveal a significant relationship between the bottled water industry and the difficulties facing the development of alternatives to privatization and commodification of water in a market society. In doing this, I integrate bottled water into the context of the well-established debates regarding the privatization of water. Although my most thorough engagement of bottled water occurs in the final two chapters, Chapters Two through Four establish a historical foundation upon which my argument responds, engages, and builds.

Chapter Two looks at the history of private water provision within a municipal context and the events leading up to global water privatization efforts. It also introduces the simultaneous growth of the bottled water industry. Chapter Three problematizes several responses to privatization efforts that have been characterized as “anti-privatization” arguments. I examine the diversity of these responses and highlight how a failure to grapple with the commodification of water in the quest for a solution cannot adequately address the market-centered mentality that compelled the creation of market solutions for access to water. In this identification, I show how only the particular movements which confront the commodification of water are posing a real challenge to privatization and how most have been framed in such a way as to exclude bottled water.

In Chapter Four, I explore the historical backdrop upon which conceptions of water and many of the arguments either for or against the privatization of water are situated. Engaging Karl Polanyi's explanation of the unique circumstances which led to the rise of market society, I look at how various treatments of water have been formed in relationship to this model as elements of what Polanyi called the *double movement* and how this potent system influences and is reinforced through individual

behavior.

In Chapter Five, I address how the popularity of bottled water offers an avenue through which to elucidate the difficulties facing various anti-privatization attempts. I explore several aspects of the bottled water industry that demonstrate the challenge of defeating the projects which privatize and commodify water. This shows that while the growth of the bottled water industry might not seem directly connected to the growth of private water industry, they share a vital relationship. In Chapter Six, I link key findings from throughout my thesis to reveal a complex interaction between multiple actors involved in water privatization. In the cumulative review, I also reflect on the ongoing challenges that my study highlights that must be considered by those attempting to make change.

CHAPTER TWO A BRIEF HISTORY OF WATER PRIVATIZATION

Private provisioning of water is not a new phenomenon. The importance of clean water has been known for millennia. Hippocrates (460-364 B.C.E.), known as the father of modern medicine, wrote that water was important in maintaining public health (HDR Engineering 2001). Historically, as cities developed, they would take measures to ensure adequate water for all. The earliest known aqueducts appeared over 5,000 years ago. Romans had large public fountains, while some wealthy members of society constructed piping to their homes, and water was a shared and free resource (Black 2004). Shiva (2002) writes about an ancient tradition in India of setting up free water stands in public areas called, “piyaos.” As cities expanded, so did populations and water needs. Private actors also began participating in businesses to deliver water.

By the beginning of the nineteenth century, water sanitation and service had become a private matter in many parts of the world. In these places, the overall quality of water was not a common concern amongst all members of society. The wealthy could purchase what they believed were the best water services, and those without money relied on other sources. Faith in this style of water provision had all but ended by the mid-nineteenth century.

The case of London presents an example of reasons which prompted the change to public management. By the 1840s, eight separate private firms controlled water in the city of London. Growing health concerns, including outbreaks of cholera and typhoid, lack of maintenance of the systems and the ongoing failure to expand the infrastructure beyond the wealthy neighborhoods led to unrest from all sectors of society. As a result, throughout the second half of nineteenth century the English

government took control over its waterworks, expanding to meet what grew to be the general consensus that access to water services needed to be universal to ensure well-being of the citizenry, regardless of class (Castro 2007).

Like the English case, ongoing health and hygiene concerns shaped the evolution of water infrastructure around the world as the connection between clean water and health was discovered and technological breakthroughs permitted filtration (HDR Engineering 2001). In the mid-nineteenth century, Cholera killed thousands people in New York City before the city overhauled their water and sanitation systems. Until the discovery that it was a waterborne illness, and due to its concentration in the city's poorest neighborhoods, many of the city's wealthy residents were leaving for the country and chiding the poor for causing the outbreaks (*ibid*; Castro 2007; Wilford 2008).

While there had been public and private wells and access points from which residents drew water, once the disease was linked to water, the city restructured their water infrastructure, taking unprecedented measures to keep it clean and safe for everyone. To improve sanitation and prevent contamination of the water, the city government required that 20,000 resident pigs be relocated. While this same request had previously prompted riots, in 1849 for the sake of public well-being, pig owners conceded (Wilford 2008).

At the beginning of the nineteenth century there were sixteen water utilities in the United States, fifteen of which were privately owned (Varghese 2007). This proportion shrunk over the next century as government took control of existing waterworks and expansion. Today, according to the American Water Works Association (2009), there are 54,000 community water systems in the United States that provide residents with 90% of their tap water. By the 1940s, 85% of United States water services were publicly controlled (Royte 2008). The last of London's

historical private enterprises was amalgamated into the public works in 1902 (Castro 2007). By this time, universal access to water services was accepted as a “binding moral duty” (*ibid*: 759).

This trend of public management and responsibility in the development of universal access as “binding moral duty” spread throughout much of Europe and North America. As towns and cities around the world grew, public funding of the municipal infrastructure became the norm. The waterworks of Jakarta, Buenos Aires, Delhi, and Nairobi all built in this way to ensure comprehensive health and safety (Black 2004). It was around this time that the concept of the natural monopoly (defined in Chapter One) was developed, which exempted water provision from traditional liberal economic norms.

These examples illustrate how debates and changes regarding water management have arisen through crisis. Concern for public health has been central in ongoing water projects. Looming water shortages, characterized in today's water crisis, present another impetus for the widespread concern which prompted previous debates and changes. Rising urban populations in many of the countries in the Global South are the sites of the highest rates of scarcity and water-related illness. Unlike the nineteenth century crises, the predominant solution to water scarcity in the contemporary crisis are private and not public maintenance and delivery of water. Whereas a century ago private control was deemed an inappropriate option and blamed for failures of the water works, today public systems have taken the brunt of the blame.

THE GLOBAL PRIVATIZATION OF MUNICIPAL WATER

The recent history of water pro-privatization management trends can be (and often are) empirically traced to the actions of a few particularly authoritative actors.

Post-World War II, powerful nations and international organizations, notably the World Bank, International Monetary Fund and the United Nations, turned toward market regulations and state-based management (Gore 2000). However, the beginning of the 1970's ushered in a revitalization of the old economic liberal supremacy. This was the dawn of the neoliberal era, spelled out in one of the main tenets of the Washington Consensus to include the liberalization of domestic products through deregulation and privatization (*ibid*; Harvey 2003). In 1989, less than a century after the implementation of public management in England, Thatcher opened the door for private water enterprise by selling the waterworks in England and Wales. This action set the precedent for a new kind of water management in response to emerging discussions regarding limited world water resources and infrastructure development (Black 2004: 71; Spronk 2007; Castro 2007).

While Thatcher still advocated water for all, she declared private enterprise to be the most suitable manager. Proponents blamed the problems of the water crisis both on overuse of water which was allowed by government subsidies and deemed governments of the South as too poor or too corrupt to solve the water problem internally. This change allowed for increases in the movement of private water utility companies, which already existed in certain areas of North America and Europe, to the United Kingdom. With this event came a new push to extend privatization to the Global South (Spronk 2007).

At the International Conference on Water and the Environment (ICWE) in Dublin in 1992, a set of directives codified the support for privatization in what came to be known as “The Dublin Principles.” Among these was the tenet that “water has an economic value in all its competing uses and should be recognized as an economic good” (ICWE 1992). Governments in over 100 countries signed their support for this new brand of commodification.

This led to a growth of private control of water utilities throughout the world. Before the 1990s, large water utility firms, based almost entirely out of the wealthy nations of Europe and the United States, had a negligible presence in the Global South. In the six years leading up to 1990, there were only eight cases of non-local private companies managing water utilities, but by 1996 almost 100 non-local private companies had become involved in municipal water distribution (Black 2004: 75). By 2000, more than 460 million people living in the Global South were serviced by transnational firms. This number is predicted to increase to 1.2 billion by 2015 (Barlow 2002; Goldman 2007).

A very small group of firms based out of Western Europe and the United States, make up the bulk of these acquisitions. The two French giants, Veolia and Suez, are the leaders in 100 and 130 countries, respectively. Veolia, the largest private water firm in the world, is estimated to provide private water to 110 million people (Food & Water Watch 2009). The World Bank helped facilitate this transition by giving out 276 water supply loans between 1990 and 2002, with an increasing number of loans requiring privatization. In 1990 only 20% required privatization; that figure grew to over 80% by 2002 (Goldman 2007).

As the cases in the United States and England highlight, most changes regarding water provisioning have come in response to an immediate need or crisis. For this reason, most recent cases of privatization have transpired in the Global South in places struggling or unable to bring adequate water to their populations. For instance, as 99% of the United States's population has access to potable water and modern sanitation (U.S. Census 2000), widespread discussions regarding transformation of water management have been largely absent in the United States. This trend could change. While the percentage of private ownership of water utilities had stabilized at around 15% in the first few decades of twentieth century, the Institute

for Agriculture and Trade Policy (2007) finds an increase in instances of new privatization projects since the late 1990s. The American Water Works Association (2009) reports that private ownership has grown to 20%. While government funding offered most of the initial expenditure to create the water infrastructure in the United States and other countries with well-established infrastructure, as these systems are aging, governments are less willing to allot the funds required for maintenance or do not have the money to cover the expense. Just like in England, some municipalities are turning to private companies who can offer the initial investment to repair and maintain the infrastructure (Varghese 2007). The Wall Street Transcript (2005) reported on a conference of investors who anticipated privatization in the United States to increase by 7% per year.

MAKING SENSE OF THE GLOBAL CONSENSUS

Tracing the origins of support for post-1989 water privatization reveals a much more integrated complex of influence than initial appearance would suggest. The apparent global consensus is a product of overlapping networks in governance and decision-making. Goldman (2006 and 2007) offers an appealing explanation of the forces which shaped the pro-privatization of water argument going back several decades before the publication of the Dublin Principles, linking it to Transnational Policy Networks (TNPs), with the unabashed supporter of water privatization, the World Bank, integrated as a central actor.

Three of the most prominent water-policy related think tanks in the world have their origins firmly rooted in the World Bank. These include the Global Water Partnership (GWP), the World Water Council (WWC), and the World Commission on Water for the 21st Century (WCW). The WWC was established in 1996, jointly sponsored by the UN and the World Bank. Suez was a founding member. Its current

board members include World Bank staff in addition to representatives from several other intergovernmental organizations that have participated in World Bank training as well as several representatives from private water utility firms. Its current president, Loïc Fauchon, is also the president of the private water firm Groupe des Eaux de Marseille, which is jointly owned by Veolia and a subsidiary of Suez (Conant 2009). Two years after its own inception, WWC formed The World Commission on Water for the 21st Century (WCW). While seemingly more distant from the World Bank than the WWC, its membership includes (in addition to former heads of state, representatives from the water industry, and even the president of the Inter-American Development Bank), many current and former World Bank officials. Among the board members are the CEO of the Bank's Global Environmental Facility, Mohamed El-Ashry, as well as two former Vice-Presidents, Wilfried Thalwitz and Ismail Serageldin, and former Bank president Robert McNamara. Serageldin, who still works as a senior environmental official at the World Bank, is the chair of the WCW (Goldman 2007).

The World Bank trains its staff as well as members of the above organizations, representatives from borrowing states, non-governmental organizations, academics, professionals, technicians, teachers, students, journalists and various decision-makers via the programming of its education arm, the World Bank Institute (WBI). The WBI has trained hundreds of thousands of people since the late 1980s and has over 400 partner institutions. In 2002 alone, 48,000 participants attended WBI programs in 150 countries. The WBI officially launched its Water Policy Capacity Building Program in 1994. By 2006 it had already trained 9,000 people from 90 countries. The World Bank itself reports paying journalists to attend these trainings. Through these programs and the TNPs, the Bank has played a fundamental role in constructing what Goldman refers to as the ideology of “global expertise” that has shaped the apparent consensus regarding water privatization (2007: 789).

The World Water Forums are the largest gatherings of global water policy decision makers. The forums are held every three years with the number of participants often exceeding 20,000 and the numbers of journalists reaching up to 1,500. While the forums are proclaimed by the organizers to be a neutral site for discussion, since the first forum in 1997, rooted deeply in the complex of pro-private actors, they have not wavered in their overwhelming support of privatization. The World Water Council hosts the event, but its sponsors have included the World Bank, its offspring, private industry and other members of the TNPs (Conant 2006 and 2009; UNDP 2006; Goldman 2007; Barlow 2008). Barlow (2008) reports they have consistently excluded or severely limited members of civil society from engaging in the discussions. Panels and workshops are predominantly headed by supporters of the global consensus, including the staff of private water utilities and bottled water companies.

AT FIRST GLANCE: RESULTS AND RESPONSES TO WATER PRIVATIZATION

As the appropriateness of privatization has come under scrutiny, a growing number of movements contest this privatization trend. Despite institutionalized support of privatization through many governmental, non-governmental and intergovernmental organizations, recent backlash against some projects have imposed upon the unadulterated success of the expansion of private water utility companies. Oppositional organizations organized “Alternative Water Forums” alongside each World Water Forum. They gather to learn from each other, explore alternative forms of water management and to create a physical presence to challenge to consensus formed at the official forum (Conant 2006). Direct reactions to privatization projects include the referendum in Uruguay banning privatization of water in 2004, the march of the Zapatista Army of Mazahua Women in Defense of Water to Mexico City in

2006, and the notorious riots in Bolivia in 2000 (*ibid*; ; Barlow 2008).

In 2000, when water utilities were privatized in Cochabamba, Bolivia at the request of the World Bank, the Bechtel Corporation, a U.S.-based engineering firm, took control of the city's water. In the months that followed, monthly water bills increased to \$20 USD or more. The monthly minimum wage in Bolivia is less than \$70 USD and not everyone earns the minimum. Water suddenly became unaffordable to large portions of the population – especially because the new laws also prohibited collecting rainwater and charged people for using their own rooftop catchments. The citizens reacted with riots which eventually drove Bechtel out of the country (*ibid*).

The August 2007 success of the six-year campaign fought by residents of Stockton, California against privatizing their water is another instance of a dramatic triumph over privatization. What would have been the most bountiful private water sale in the history of the United States – a twenty year, \$600 billion contract with a consortium of the Colorado-based OMI (a subsidiary of one of the largest engineering firms in the United States) and RWE/Thames Water was epically defeated. In early 2008, Stockton assumed control of their water infrastructure. While RWE/Thames had been the world's third largest water firm in 2002 when they won the Stockton bid, by 2008 the parent company RWE, a German-owned energy powerhouse, sold off its two largest water firm acquisitions: Thames Water and American Water. RWE blamed “growing public resistance to privatization schemes” as the impetus of their sale (Snitow and Kaufman 2008:57).

LOOKING DEEPER: RESULTS AND RESPONSES TO WATER PRIVATIZATION

Terrible blunders in the implementation of privatization and celebrated triumphs of anti-privatization campaigns have led some analysts to announce the failure of the privatization experiment and eminent victory in the fight to keep water

out of private hands (e.g. Olivera 2004; Hall and Lobina 2006; Castro 2007). Despite these declarations and some decisively negative reactions, the results of the outcomes of privatization measures are often ambiguous as well as contradictory.

Although the above example of Cochabamba stands as a testament to a worst-case scenario for privatization, the hundreds of new privatization projects have provided grounds for other conclusions. Galiani *et al.* (2002) found positive results in Argentina where privatization increased numbers of water hook ups and enabled an 8% reduction in child mortality, primarily in low income areas. In a more comprehensive study of Latin America, Andres (2007) looked at 181 privatized firms in 15 Latin American countries. He included telecommunications, electricity, and water utilities. His study tracked changes before and after privatization. Overall, he reported improvements in the quality of operating and performance and, in the water sector, a reduction of distributional losses. However, he noted no significant improvements in coverage and a trend toward price increases for customers in some areas.

Although there have been reported price increases in the United Kingdom (Black 2004; Bakker 2005; Hall and Lobina 2006), Renzetti *et al.* (2003) and Hodge (2000) found no particular deviation in user costs between public and private utilities in Europe and the United States. Though some argue that for particular customers, price increases may be a positive way to curb excessive use. For instance, at over 700 liters each day, Canada has the highest rate of per capita consumption of water in the world, but the price of water is the lowest (Black 2004). Estache and Rossi's (2002) study of countries within the Asian-Pacific region looked at technical efficiency and found little difference between private and public ventures. Kirkpatrick, et al. (2006) had similarly lackluster findings in African cases.

Contrary to the above results, Martimort and Straub (2009) find that

privatization efforts have in fact been an overall success in enhancing efficiency of utilities. Though they admit that there has been substantial public outcry within countries, they place much of the blame on a preexisting wariness toward privatization in these countries and not simply the wrongdoing of the private companies. Their main recommendation is to take measures to reduce public fear of corruption. They do not say this fear is unwarranted, but say it also existed with regards to the public utilities.

Admittedly, there is no clear victor in the fight over preferred water management. Privatization of water has not been a magic bullet solution to squelch the water crisis, but it remains the dominant solution. In the face of protests the private water industry and its supporters continue their advocacy and expansion. In Chapter Four, I will show how the pro-privatization movement is reacting to protests and how even the apparent defeats against the pro-privatization movement are being challenged.

THE CASE OF BOTTLED WATER

Privatized municipal water is not the only type of privatized water to increase in popularity throughout the nineties. Bottled water sales have skyrocketed. What was a small niche market in the 1980's has transformed into the fastest growing segment of the beverage industry. Global sales tripled in the nineties and continue to grow (Natural Resources Defense Council 1999). It has mushroomed into a \$100 billion industry (Pacific Institute 2008). Bottled water sales have also rapidly increased in the informal sector in the Global South, but their sales are difficult to track (Girard 2009). While many popular media releases, including books, films and press, have promoted discussion and awareness of the rise of the bottled water industry and prescribed weariness on the part of the consumer, such as Food & Water

Watch's Take Back the Tap campaign and even a segment on the ABC television program *20/20*, bottled water is less frequently discussed in academic literature and discussions of municipal water privatization. Water scarcity and privatization make up a large and growing field of interest. This literature does not entirely ignore the existence of bottled water but fails to offer an explicit explanation of its presence, popularity, and history. The same nearsightedness that explains this exclusion also offers a compelling way in which to understand the growth of the private water utility industry and the reactions to it.

The prevalence of bottled water is changing the face of water consumption throughout the world. By excluding bottled water from privatization discussions, critics of privatization are failing to recognize the most rapidly growing type of privatized water. The bottle of water, which is sold on city streets and stocked on the shelves of virtually every gas station, grocery store, and vending machine in the world, is a very clear example of water which is both privatized and treated as a commodity. Discussions of bottled water have remained, at best, a peripheral part of the discussion of water privatization. Any discussion of bottled water in the arena of privatization is fairly recent and much less established than municipal discussions. While management of municipal water systems has surely been a topic of discussion since the inception of municipalities themselves, bottled water has only recently begun to elicit debate. Ten years into the bottled water boom, Andy Opel lamented that the bottled water industry had not faced any resistance (1999: 78). Today there are a number of campaigns and movements resisting bottled water, including dozens of local campaigns to restrict bottle water purchases in towns and schools. Nevertheless, bottled water consumption continues to increase in popularity across the world and multiple sectors of society. The convergence of both of these water industries exposes a stifling challenge for those seeking alternatives to pro-privatization policies.

The current state of bottled water sales reveals an alteration of social conditioning and material conditions pertaining to the acceptance of water as a commodity, as the virtually forgotten early history of the nineteenth U.S. bottled water industry demonstrates (as discussed in Chapter One). One hundred years ago, the people who bought bottled water did not choose to pay for expensive bottled water out of a wide array of options, but out of necessity. A century later the world has changed. In addition to assertions in patterns of governance and formal articulations encouraging the treatment of water as a commodity (i.e. The Dublin Principles), today's bottled water sales may indicate a world of individuals operating in tacit agreement with these assertions.

CHAPTER THREE

THE SCOPE OF PRIVATIZATION AND ANTI-PRIVATIZATION

In this chapter, I begin with a brief exploration of the arguments in support of municipal water privatization against which the most resistance to privatization, and ensuing discussion, is framed. Then, based on a review of literature in which alternatives to the current manifestation of privatization are posed, I look at some ways in which these alternatives have been sorted. I look beyond the moniker of “anti-privatization,” which tends to conflate heterogeneous campaigns, to the central arguments within an array of assertions.

The key goal of this chapter is to identify where many considerations of privatization have fallen short, both in their conceptual framing and failure to historicize privatization projects. My discussion engages Bakker's (2007) call for conceptual precision in posing opposition to privatization. Like Bakker, I propose that the conceptual cornerstones in pro- and anti-privatization arguments are the treatment of water as a commodity or a commons, respectively. However, most discussions regarding privatization are framed in such a way that precludes the consideration of bottled water. I suggest that these counterpoints ought to be extended to include bottled water and other kinds of privatized and commodified forms of water.

WHY PRIVATIZE?

Arguments in favor of privatization assert that it is not only possible to put a price on water and other parts of the natural world, but determining their full value in economic terms will ensure more efficient allocation and avert environmental degradation. Increasingly, they argue water provision is a natural monopoly. They identify government-run water allocation as a conflict of interest because the state both regulates the water systems and monitors their own progress. Generally, they

blame water subsidies for encouraging wasteful use and many poor, inept, or corrupt governments for being unable or unwilling to provide water for all. They explain that private companies can offer the money for development that cash-strapped governments cannot, and have a more compelling incentive in being accountable to water-users as customers than a government would in seeing them as citizens (Nickson and Franceys 2003; Segerfelt 2005; Spronk 2007; Nauges and van den Berg 2007).

Central to the privatization of water is the assumption that water is suitable for economic treatment as a commodity. The commodification of water is the core requirement of its privatization. Bottled water seems to be a clear example of this manifested core requirement, in addition to being subject to the competitive forces of the market. Strangely, in discussions of water privatization, the type of water provision which is included tends to have a much more narrow focus.

In the discourse on water provision, privatization has a rather defined focus on infrastructure-based provision projects. Though Gleick, *et al.* (2002), explain that discussions of water privatization have a wide reference – the term “privatization” includes both partial and complete transfer of public water assets and operations into private control – they define a scope that does not depart from municipal or other piped-in types of water provision. “Privatization” is used to describe private sector provisioning of water (PSP) where a private company manages water distribution and a wide range of other mixed relations often classified as Public-Private Partnerships (PPPs) or Private Sector Involvement (PSI) (*ibid*; Prasad 2006). Generally, discussions of privatization focus on the post-1989 project – municipal privatization linked to Thatcher and the World Bank. Bottled water is left out and municipal water management is treated as the exclusive subject in most cases.

ALTERNATIVES TO PRIVATIZATION

Though many people support the privatized system and privatizing measures, or at least do not question it, a growing movement of scholars and citizen-groups are actively challenging attempts to privatize water, arguing for its management outside of the hands of private enterprise. Within discourses surrounding these challenges, the dissenting voices have frequently been characterized as “the anti-privatization movement” (e.g. Segerfelt 2005; Conant 2006; Dilworth 2007; Barlow 2008). A survey of arguments against privatization can quickly reveal that the cohesion this characterization implies is fallacious. The privatization of water is a mere change in ownership, so simply challenging this particular wave of privatization does not necessarily challenge the treatment of water as a commodity. Different types of opposition confront the logic which guides privatization with varying degrees of thoroughness and precision.

The solution to privatization is not “anti-privatization.” Opposition in itself implies neither an alternative nor cohesion in opposition. Just as the meaning “privatization” includes various incarnations, so do opposing arguments. While many people and organizations expressly oppose privatization, the change they call for and how these claims have been interpreted vary. In reviewing some of these claims and recent literature that discusses resistance to the current model of privatization, there are several categories that are used to understand the individual struggles and arguments. Many of these characterizations fail to encompass the complexity, variation, and necessary struggle against market norms that face alternatives to the currently mandated style of water privatization. Careless distinctions, in regard to the assumed cohesion of resistances to privatized water, obscure the complexity and variation in anti-privatization struggles and their proposed alternatives, including the degree to which they actually question the guiding principles of privatization.

Historically, debates over municipal water provision have been framed as occurring in a binary context of private versus public (McDonald and Ruiters 2005). The inclusive definition of privatization (which accepts various levels of public involvement in privatization) illustrates how this conception falls short. Many discussions that oppose privatization assume the alternative to private control of water is public control or may fail to specify an alternative to the privatization they criticize (e.g. Goldman 2007; Castro 2008). Systems of public water management are far from uniform. Considering the potential for overlap between public and private management, in some cases there could be little distinction between these two forms. Furthermore, while discussions of public systems may imply government management, forms of governance vary, and some waterworks are managed without government support or involvement. There are many independent community-run cooperatives throughout South America that are free of both state and private involvement (Bennett, Dávila-Poblete, and Rico 2005; Trawick 2003).

Dilworth (2007) offers an alternative classification system, stating that the responses to privatization can be divided in terms of “moral” or “technical” grounds. He says academic and policy discussions generally fall into the latter category, while discussions on what he calls “the moral level” take place among “activists.” Notwithstanding the large body of anti-privatization literature which is produced by academics, his assumption is that, in academic circles, problems are discussed with pragmatic, cost/benefit analysis, while the morally-motivated activists oversimplify, thinking with their hearts instead of their heads, and reach conclusions drawn from isolated and outstanding examples. While he says both of these groups are somewhat misguided, his division is problematic. In addition to the perplexing overlap of the groups he calls “activists” into the technical sphere, his implication that supporters of privatization and academics in general disregard moral considerations is entirely

fallacious. I do not believe that advocates of any kind of system to handle water would say their argument was not a moral one or that they were not morally motivated. Despite what protesters might express, even those adherents to the full privatization believe that their system is doing a good thing. As explained above proponents of privatization measures assert a universal benefit in transferring management of water to the market. Nickson and Franceys (2003) endorse privatization even in the absence of local support. Some might think this disregard is foolish, but Nickson and Franceys, like others who support privatization, wholeheartedly believe that it will rescue both humans and the natural world from the vagaries of bureaucracy and government. Clearly, a better division than moral and technical is needed.

The most popular classification over the last few years, especially in releases aimed at an audience outside the academic or policy-making community, has been to discuss anti-privatization movements in relationship to the very small group of very large, transnational corporations that have become involved in the water utilities of over 100 countries around the world (e.g. Shiva 2003; Snitow, Kaufman and Fox 2008; Barlow 2008). The biggest players and most obvious privatization projects manifest the most conspicuous examples of the aims of post-1989 privatization, but these transnational corporations are simply one of the many agents of privatizations.

An emerging trend in these classifications has begun to broaden the framing of anti-privatization, both looking beyond transnational privatization and looking at the way water utilities conform to market logic, this includes looking beyond private ownership as the defining feature (e.g. Smith 2004; McDonald and Ruiters 2005; Prasad 2006; Bakker 2005 and 2007; Roberts 2008; Swyngedouw 2005 and 2009). McDonald and Ruiters (2005) argue for the expansion of what projects are considered to be privatization projects, warning “we cannot limit our discussion of privatization to

direct private sector participation and control. Equally important is the question of private sector operating principles and mechanisms” (*ibid*: 17). This is clearly in line with the core requirement of the logic of privatization measures requiring the commodification of water. They argue for the consideration of certain actions and schemes as part of the pro-privatization project that have not been included in other portrayals. These include various government projects that engage in business models, as well as “downloads” of service responsibilities (e.g. laying piping or repairing water pumps) to individuals, communities, and nongovernmental organizations. McDonald and Ruiters conclude, “Although not necessarily acting with the same institutional or economic incentives and frameworks as a private company, the transfer of decision making power to individuals and communities nevertheless constitutes an abdication of responsibilities on the part of the state” (*ibid*: 15).

As mentioned above, Bakker (2007) calls for greater conceptual precision in the debates over water privatization. She proposes that as privatization hinges on commodification, the opposite of commodification and the best alternative to privatization is to treat water as a commons – a shared resource which should be managed on a social, not economic, level and as a public, not private, good. She makes distinctions between “commercialization,” which speaks to institutional change in support of market logic in management regardless of ownership and “privatization” which is just an organizational change ownership or management. Commercialization is the key process that facilitates commodification as it, “rescripts water as an economic good rather than a public good, and redefines users as individual customers rather than a collective of citizens” (*ibid*: 441).

THE RIGHT TO WATER

The commodity-to-commons spectrum that Bakker sets up provides an

extremely relevant platform to expose shortcomings in many anti-privatization discussions, namely the conceptual and historical failure to situate arguments and include a role for bottled water. However, considering Bakker's quest for conceptual precision, her paper is imprecise in its own consideration of the relevance of water as a right. Her presentation of anti-privatization campaigns possesses some glaring omissions. Her article is written in response to what she sees as a strategic error of anti-privatization campaigns that argue in support of water as a right. In her dismissal of the right to water as a counterpoint in privatization debates, she dismisses all campaigns that suggest a rights-based approach or included the right to water as a component of their approach. She fails to acknowledge that within the right to water discourse the full spectrum from commodity to commons exists.

Bakker contends that anti-privatization campaigns have turned into human right to water campaigns. She disregards a formalized right to water as a solution to the water crisis, citing it is difficult to implant, carrying the potential for governments to over-allocate to privileged groups, effecting little practical change (looking to South Africa as an example of a country where it is embedded in the constitution, yet has similar problems as countries that lack it), anthropocentric (that providing humans water could harm hydrological systems), and finally, a right in itself does not provide any reasonable argument why the private sector could not guarantee this right. On the last point, the advocates of privatization would agree!

Bakker also highlights overall strategic errors of campaigns for human right to water: it conflates human rights and property rights, fails to distinguish between different types of property rights and service delivery models, and thereby fails to foreclose the possibility of increasing private sector involvement in water supply (*ibid*: 439). However, her argument is weakened by her apparent failure to examine the tenets of some of the campaigns which articulate their meaning of the human right to

water in ways which adequately address her qualms.

Many have made the call for the right to water. Few would question the right to water. Support for it has been expressed on the websites of the world's largest private water firms and by the World Bank, and was even mentioned in the Ministerial Declaration at the fourth World Water Forum in 2006 (Bakker 2007; UN-WWAP 2009), in addition to stalwart anti-privatization activists. However, the explanation of what the right to water means has been articulated in different ways and it has not been recognized formally by international law. Many who do call for the right to water do not challenge the privatization or commodification of water, some are ambiguous, and others specifically speak out against it.

Similar to the "moral" discussion, the human rights discussion highlights the different ways in which belief in certain conceptions of humanity, particular societies, or what the market can and cannot do, influences "logical" conclusions. Advocates of privatization feel that private enterprise is best equipped for granting every human being access to water. A report advocating water as a human right was released in 2004 by the World Conservation Union and sponsored by the United Nations Development Program. They asserted the right to water means "the right to access sufficient water, with the term 'access' also including economic accessibility, i.e. affordability, and with the term 'sufficient' referring to both the quality and quantity of water necessary to meet basic human needs" (Scanlon, et al: 2). They include a role for the private sector in helping this right be realized. However, this inclusion is prefaced with the explanation that their report is one which does not promote the right to water in an ideal world, but within the confines of reality. A few words of law alone cannot change material realities.

For example, the right to food, which has been internationally recognized, still leaves one billion people chronically undernourished and 25,000 people dying daily

from hunger related causes. In the report, they seek to include water in the human rights lexicon because many of the other rights that have been recognized depend on the water, such as health and food. They also see it as one which, taken at a holistic level, will promote sustainable development. It will allow for social equity and respect for the environment while allowing economic development that does not lay the path for its own destruction. They specify that a formal right would apply to, not exclude, transnational corporations – allowing them to still be players in the world water market, but preventing them from continuing environmentally abusive practices (*ibid*: 31). However, there are other claims that decisively limit private involvement.

While Bakker mentions *The Water Manifesto* (Petrella 2001) in her list of anti-privatization campaigns that have proposed a human right to water, she fails to include the tenets put forth in the book. The subtitle of the book is “Arguments for a World Water Contract.” Though written by Petrella, it is an expansion of the work of The Committee for the World Water Contract (CWWC) headed by the former President of Portugal, Mario Soares. This book (along with the CWWC) contests each of Bakker’s misgivings, arguing for the establishment of a network of the world’s parliament to manage water as an item of significance that specifically cannot be treated as a commodity (*ibid*; CWWC 2009).

In fact, *The Water Manifesto*, while arguing for the human right for water, also fully supports Bakker’s argument for water as a commons. They specifically call for the removal of private control of water as well as to take water out of centralized control of the state and instead to “[entrust] integrated management of water to public bodies such as local communities, citizens’ groups, village or town networks, and cooperative societies” (Petrella 2001:16). In this they, like Bakker, also warn of the idealism or romanticism related to village communities or grassroots urban communities, because groups such as these are not “necessarily more peaceful... or

egalitarian” (*ibid*). This alternative model, in accordance with Bakker's favored models, is designed for small-scale management within a network of regulations, supports, and partnerships.

Several other campaigns which advocate for the human right to water similarly contest Bakker's argument. Bakker is correct that South Africa's constitutional inclusion of the right to water has done very little to help many South Africans with inadequate access to water and indeed allowed for privatization and commercialization of the country's water, but other measures have been much more successful. South Africa is one of only three countries that currently contain inclusion of the right to water in their national legal framework. The other two, Uruguay and the Netherlands, take greater strides in articulating necessary measures in realizing the right to water. These include restrictions on private sector participation. The Netherlands simply specifies that drinking water be delivered only via public entities, and the Uruguayan constitutional amendment states “public service of water supply for human consumption will be served exclusively and directly by state legal persons” (Barlow 2008:174).

While the human right to water in itself can mean many different things, it may still be an important element in water negotiation. In fact, despite discussing water as a “right” in the Ministerial Declarations at the fourth World Water Forum in 2006, at the most recent forum in March 2009 water was referred to as a “human need,” rather than “a right” (Environmental New Service 2009). Depending on the way in which the specifics of the humans’ relationship to water is articulated, it can be addressed along the spectrums in support of privatization and anti-privatization or commodification and commons. This could include Suez who wants to sell the world their water or The Blue Planet Project (2009) that supports a water commons and sees the legal inclusion of a human right to water as a fundamental element in achieving a

commons.

COMMODITIES AND COMMONS IN ANTI-PRIVATIZATION

Bakker's recasting of the optimal strategy of anti-privatization discussions around the counterpoint of the commons provides an appropriate conceptual marker for gauging to what extent certain anti-privatization arguments are in fact opposing privatization. Table 1 classifies certain qualities that characterize the treatment of goods as commons or commodities.

Table 1: The commons versus commodity debate

	Commons	Commodity
Definition	Public good	Economic good
Pricing	Free or "lifeline"	Full-cost pricing
Regulation	Command and control	Market-based
Goals	Social equity and livelihoods	Efficiency and water security
Manager	Community	Market

Source: Bakker 2007: 441

In most instances, treatment of water will not completely conform to either of these models. Nevertheless, the components on the table provide a platform with which to consider how particular assertions of water management rely on market rules. Taking these distinctions into consideration, I will look at how a few ostensibly anti-privatization arguments or non-privatized treatments ignore, maintain, or facilitate the treatment of water as a commodity.

WATER AS A COMMODITY

Water can be treated as a commodity in the public or private realm – or in between. Even in a privatized system, regulations and policy can limit what water utility firms can, cannot, and must do. Even a publicly managed system can still treat water as a commodity by engaging in its use as an economic good, using full-cost

pricing, and market-based regulation to achieve efficiency and security. Although some arguments in support of the full free market privatization of water directly advocate that complete state divestment from all aspects of water provision (e.g. Segerfelt 2005 and Cowen 1998), this type of argument is rare. Most privatization measures in this era of water privatization do not mandate full privatization. As the characteristics in Table 1 simply describe overall tendencies, in various incarnations of management and ownership, even if water is treated in moderate compliance with the commodity requirements in Table 1, its treatment could still be considered commodified. The more it complies, the more its commodification is enforced.

Several authors, like Bakker (2007), provide support for this notion by distinguishing additional mechanisms that insert market logic into the fold of municipal water management without privatization (e.g. Smith 2004; McDonald and Ruiters 2005; Roberts 2008). Like commercialization, alternative projects can facilitate the commodification of water in the in the public sphere by applying market principles, such as the deregulation of public water utilities or corporatization. McDonald and Ruiters (2005) describe *corporatization* as form of commercialization that occurs in the public sector. Corporatization is a management style under which a publicly owned and operated water utility is operated like a business. They say this includes a similar ethos and focus on a short-term financial bottom line. The South African city of Durban's public water utility *Umgeni Water* is an example of a corporatized entity. Not only does it operate according to a staunch business model and an “aggressive orientation to cost recovery,” but also is one of several corporatized public companies to engage in private contracts with other countries (*ibid*: 29).

Young (2005) explicitly opposes water privatization in *Determining the Economic Value of Water*, his handbook on water management. However, in addition

to his explicit opposition to privatization, he also explicitly supports treating water as a commodity. He differs from pure free-market orthodoxy in questioning privatization and advocating that public policy regulate water use and management, but relies on strictly economic valuation measures to address water. Although, he agrees with pro-commons advocates who claim that water is different from other commodities, he simply factors these differences into his calculations. He turns to the public sector to manage and regulate water provision largely in order to avoid the “cumulative impact of many small decisions” (*ibid*: 10).

Young adds that his pro-public/pro-commodity argument is supported by the Dublin Principles. Responding to the popular understanding, he suggests, “the Dublin Statement can be interpreted as recommending that water allocation policies be analyzed with economic evaluation techniques and cost-benefit analysis” (*ibid*: 11), but this can be done outside of private control and therefore justify his framework. While Young claims economic valuation can be completed without the private sector, these ideas do advocate that identifying its value with a price and treating it as a commodity can attain the best managed practices for water.

WATER AS A COMMONS

Clearly, challenging the current form of private management of water is not synonymous with challenging the commodification of water, but truly changing the state and fate of water necessitates challenging the conception of water as a commodity. This involves confronting the privatization of water as well as the multitude of additional supports for an underlying system of market logic which governs the rational decision to expand the field of commodities to include water.

The above discussion exposes the problematic nature of both assumed homogeneity of the anti-privatization movement as well as attempts to establish

precise distinctions of the forms proposed as alternatives to privatization. Arguments against privatization are not necessarily arguments against the underlying logic of privatization. Looking at the breadth of arguments in support of the human right to water exposed that Bakker's categorization inaccurately presumed that the mere support of water as human right indicated weak opposition to privatization. This lapse supports a critical reexamination of arguments within anti-privatization and the scope of the privatization discussion in general.

As presented above, privatization hinges on the treatment of water as a commodity, therefore proposed alternatives ought to hinge on the treatment of water as a commons. Arguments which support the treatment of water as a commons pose the only argument distinctly against the commodification of water which is the core of water privatization. The privatization of water relies on the conception of water as private property, a commodity. Incarnations of water management which rely, with or without intention, on this conception may occlude the requirement for deliberate cooperation in water use. When water is commodified and treated as an economic good, the invisible hand of the market is presumed to manage its use. When monetary value is assumed to be its true value, other considerations which require active involvement are obscured.

Of course, commons-based approaches are not uniform either. Bakker (2007) and Petrella (2001) both warn that not all commons-based solutions are equal. For instance, they might be idealistic or romantic notions regarding the meaning of “local” or “non-market” and can occur with very different scales or styles of governance. In *Blue Covenant* (2008), Maude Barlow articulates a view of what a world water commons might look like. A global declaration would declare water as a shared good. Each nation would have a sovereign right and responsibility to maintain their fresh water. It would be managed locally, but with a global outlook, including the aid of

shared expertise and strategies. It could not be sold by any institution, corporation, government, or individual for a profit. This does not imply that money or payment is not appropriate, but that price should not be the sole or primary measuring tool with which water is valued.

THE WATER CONUNDRUM: AN UNCOOPERATIVE, YET STUBBORN COMMODITY

The task of presenting an argument in support of a water commons and actualizing a global transition to a commons view of water pose two distinct challenges. A strong argument in itself will not deliver change. Logically, the argument in favor of treating water as something other than a commodity makes sense. Many highlight difficulties in applying economic theory to water and water resource management, as water is not like other commodities (e.g. McNeill 1998; Young 2005; McDonald and Ruiters 2005; Beatty 2007; Bergkamp and Sadoff 2008; Barlow 2008).

Water is a “flow resource.” It moves throughout the hydrological cycle, making it difficult to establish private property rights. It is also affected by environmental and health factors which are difficult to incorporate into the pricing of water (Bakker 2007: 442). Water has multiple meanings outside of simple hydration, environment, and hygiene. Young's suggested techniques and procedures for determining prices for water seem to defy economic logic surrounding competitive markets and commodities, yet he maintains that water is a commodity. Given these failings, why do Young and so many others maintain that water is a commodity?

The consideration of water provisioning as a natural monopoly might provide some insight in beginning to answer this question. John Stewart Mill proposed the existence of natural monopolies in the nineteenth century, around the time that public provision of water infrastructure was becoming widespread in much of the world. The

privileges of the market were adjusted to explain and excuse situations where competitive markets failed to fill their purported function of achieving maximum economic efficiency. Public water utilities are frequently given as an example of such a situation. In many cases where multiple competitive private firms had neglected to expand coverage and prompted health and sanitation crises, single public utilities were much more successful (Rima 2009; Taylor and Weerapana 2009).

This enables Young, a self-professed mainstream, neoclassical economist who adheres to the tenets of economic liberalism, to consider water as a commodity with the application of economic valuation techniques. He agrees with the presumptions of market logic, that economic efficiency is the primary goal of society, but “[w]here conditions exist such that markets do not function properly, neoclassical economists apply their tools and concepts to understanding such conditions and prescribing remedies that enhance economic efficiency” (2005: 21). Young believes that in most cases of water provision, public management is still the best prescription. Not all economists have accepted or maintained the same stance regarding the existence of natural monopolies. Taylor and Weerapana (2009) present frequent qualms related in drinking water and the desire to achieve optimal economic efficiency:

If, however, the distribution of drinking water is in fact not a natural monopoly, then restrictions on entry may be keeping the supply of water artificially low and the price of water artificially high, thus restricting access to water by the poor. On the other hand, if the supply of water is a natural monopoly, but the government does not do an adequate job of regulating the price to keep it below the monopoly price, then there will be deadweight loss as the unregulated monopolist exerts its market power. Finally, some governments impose price ceilings on water that are so low that the monopoly provider has no incentive to install the pipes and taps needed to deliver water to those without access (*ibid*: 290).

In a volume on concessions for infrastructure, The World Bank, noted harbinger of privatization, explains its rationale for the replacement of public or state provision with concessions to private firms in a natural monopoly setting.

Competitive bidding for contracts “allow some of the benefits of competition to be brought to bear in the absence of direct competition” (The World Bank and Kerf 1998: 3).

Here, we can begin to see the conundrum. Notwithstanding the multiple failures of water to fulfill the requirements of an economic good, discussions still reconcile its suitability for treatment as a commodity. This pernicious attachment to market-based explanations of world order is evident in the recasting of certain failures to adhere to market logic – failure becomes permissible through the invention of the natural monopoly. The actualization of the water commons appears as a much more difficult challenge when this market-centric tendency is considered.

REFINING THE SCOPE

Taking Bakker’s cue of the importance of conceptual precision and avoiding strategic errors, this chapter interrogated a variety of anti-privatization claims, including Bakker's. In agreement with Bakker's conceptual mandate, I concur with the formulation of the conceptual counterpoints via identification of the core of privatization as commodification and the core of anti-privatization as the commons approach. This is the conceptually appropriate approach to understand the differences that lie on each end of the spectrum of privatization and anti-privatization claims. However, this reframing reveals a strategic error of anti-privatization campaigns which have failed to include other projects that enforce these counterpoints, such as bottled water. A privatization project is not a privatization project simply because it is labeled as one, but because the actual features of the project either assert or rely on the commodification of water. The typical circumscribed considerations of water privatization (pertaining to post-1989 changes in infrastructure) impede anti-privatization conceptions. These neglect, sometimes in their very definitions of

privatization, the relevance of non-infrastructure-based privatization and commodification projects, as well as those that transpired prior to the conspicuous wave superficially initiated by Thatcher. Through extricating conceptual counterpoints, they can be applied to a multitude of commodification projects to illuminate the longer history and deeper relevance of water privatization.

An integral obstacle to attaining a commons alternative is not privatization, but commodification. A simple call to transform the popular conception of water from personal commodity to a global commons does not address other social factors standing in the way of change. The conundrum of water as an uncooperative, yet stubborn commodity is evidence of the potent and imposing force of economic ideas in market society. In order to understand the challenge facing resistances and why water has become such a contested and constitutive space, it is important to look at the histories which guide not only the treatment of water as a commodity, but also the ways in which people react to this treatment. The global rise of various forms of water privatization and the resistance that came in its wake were not spontaneous coincidences. To reach a better understanding of the present state of affairs, I will look backward. To address the varying issues of water-use today, we must understand the history that unites both those that pay for what comes out of their tap and those that eschew the tap to buy a bottle. These commodification projects are mutually constitutive elements in market society. Understanding the interplay between histories which inform the social world and the spectacular resilience of idealized economic logic is imperative for any attempt to move beyond it.

CHAPTER FOUR KARL POLANYI AND PAYING FOR WATER

The liberal economic model makes the assumption that paying for everything is not simply preferred, but is the natural state of affairs. Within anti-privatization discussions this notion is challenged in differing degrees. In explaining the history of the sudden push that led to the rapid expansion of private water utilities across the globe, as mentioned above, most authors stop at the Dublin Principles of 1992 and the privatization of water in England and Wales. However, these explanations fail to elucidate where the notion of looking to market rules as the saving grace originated. In doing so, they fail to identify a vital aspect of the struggle against the commodification or privatization of water. These struggles are not simply about water, but the very way of thought that guides and restricts human interaction in a market society. Ahistorical examination and solutions ignore a larger constellation of forces which might influence decision-making processes. One of the ways in which we can achieve a better understanding about the resistance to water privatization (including bottled water and municipal systems) is through the theory of Karl Polanyi, both as part of his theory of counter movements to resist the artificially constructed market society as well as how the market society influences resistance. In exploring water privatization in this light, I identify the 500-year-old project that has rallied for a particular conception of the market and demonstrate that any campaign or conception that does not address the endemic nature of this conception cannot be successful in mounting any real change.

Polanyi's work applies to the discussion of water privatization in several ways. He details the channels through which the ideas of economic liberalism spread as a global order. The argument in support of the commodification and privatization of water comes from this order. His theory contains an explanation of distinctions

between types of challenges to ideas formed from within that global order. As Chapter Three demonstrated, although campaigns and approaches grouped within the moniker of “the anti-privatization movement” have posed various challenges to what is otherwise considered the global consensus regarding the suitability of private participation in global water distribution, the challenges often fail to question the treatment of water as a commodity. Polanyi can shed light on this failure. Both the decision to privatize water as well as the responses to privatization measures can be linked to Polanyi's tale of the rise of market society – the popular acceptance of the norms of economic liberalism across the globe.

POLANYI: THE RISE, FALL, AND RESURGENCE OF DISEMBEDDED MARKETS

Along with the resurgence of liberal economics, since the late twentieth century Polanyi's theories have reentered discussions throughout the social sciences, particularly in regard to environmental governance (e.g. McCarthy 2004; Bridge 2002; Peluso 2007). In the recent discourses of water management and privatization, Polanyi has been occasionally cited (e.g. Perreault 2005; Castro 2007; Castree 2007; Bauer 1997). However, only particular pieces of his theory are included, usually with little discussion.

For instance, Swyngedouw's (2009) article on urban water privatization begins with an ominous epigraph borrowed from Polanyi warning against environmental degradation in the name of market activity. The body of the article references him only once, as a member of a generation of political economists who elucidated the connection between unregulated liberalism and social and environmental destruction. In an article on water regulation, Bakker (2005) cites Polanyi when she mentions that regulatory changes in resource management that result from multi-party discussions

ought to be considered as examples of the “double movement.” Later in the article she makes a second, less direct, reference to Polanyi with a section on British developments, entitled: “The 'great transformation' in water supply in England and Wales.” The section it precedes makes no further mention of Polanyi. Similarly, Prudham (2004) briefly engages Polanyi's postulate that “laissez-faire was planned” (343). Like Bakker, he connects Polanyi to regulatory dynamics. Specifically, he explores the role of former Ontario Premier Mike Harris's governance under the motto, “Common Sense Solutions” as it pertains to disastrous lapses in oversight which resulted in bacterial contamination in the public water works that infected over 2,300 of the 5,000 residents of Walkerton, Ontario and left seven dead. In her discussion of social reproduction pertaining to water privatization, Roberts (2008) applies the most thorough inclusion of Polanyi, first drawing on his label of “fictitious commodity” in describing water's strange character as a commodity and again to describe reactions to privatization as part of a counter movement. These invocations of Polanyi, though isolated and succinct, draw from various elements of his rich theory. Taken as a whole, Polanyi's work contains valuable insights which can be applied in a much more thorough way to discussions of water privatization.

MARKET SOCIETY

Polanyi's critique of ahistorical market society maintains its fortitude against the resurgent economic liberalism. Polanyi described this presiding social order of the nineteenth century as a unique development. Under the auspices of the liberal economic order, society was unmistakably conceived as *One Big Market* – not markets and society, but market society. Markets were believed to regulate themselves without social interference. This seemed perfectly reasonable as it aligned with sovereign science of liberal economics which deemed the social order the logical outcome of the

daily life of freely associating, economically inclined individuals.

In contesting the treatment of economic liberalism as a natural social order inborn in humanity, Polanyi looked beyond the dawn of this conception to earlier social orders and located specific origins of the system. He believed that the historical institution of the market economy around the time of the industrial revolution had an ongoing effect on human social order. Polanyi argued that prior to the advent of the market society, human relationships were primarily social. Markets, where they existed, were merely one aspect of a human economy. Contrary to Smith's notion of the inborn proclivity of the economic man, Polanyi argues against the idea of natural tendencies. Like Marx, Polanyi also challenges Smith's notion of gradual but progressive accumulation. He identifies no knowable inborn proclivities and no overarching method through which early wealth was obtained.

Polanyi explains that nineteenth century civilization was indeed characterized largely by a near universal belief in economic liberalism and the treatment of the social world as subordinate to the market. He identified these facts as the result of aberrant developments rather than a predetermined or natural trajectory. Thus while the prevailing interpretation of the state of social affairs decried a certain everlasting stasis for the newly industrialized market society, Polanyi complicates this understanding by including what he says the others leave out – history and a non-homogeneous evolution of human social order. It follows that the economic liberal account of the development of the industrial revolution, “misread history because it insisted on judging social events from the economic viewpoint” (*ibid*: 35/6)

In the utopian version of market society, the industrial revolution was a natural outcome of technological development. This purely economic understanding discounts social or historical consideration: society is merely the sum of individuals working toward their own self-interest and motivated by economic interests. Progress

is a simple, linear result of people living their daily lives guided by the innate inclinations to barter/trade and to accumulate wealth. Monetary systems and the willingness to work for wages are also an inevitable aspect of human development.

Contrary to this fluid and uniform view of development, Polanyi looks at several histories of market societies to elucidate the ways in which the development of market society is not the result of a hands-off progression, but a series of interventions. I will discuss some of the mechanisms of intervention below in the section entitled, “Double Movements, Counter Movements and Fictitious Commodities.”

Market society's basic functioning relies on a system of self-regulating markets. Ingrained in the very logic of its function was the need for “an economy directed by market prices and nothing but market prices” (*ibid*: 45). Explicit in the notion of a self-regulating market is freedom from human oversight and the transfer of value into commodities. Consequently, in order to establish a market society, the preexisting social relationships, which regulate economic life, need to be disembedded. It is only after this metamorphosis in which the social world is subordinated to the economy that economic essentialism could seem substantiated.

NON-MARKET SOCIETIES

The socially disembedded market is one of the many ways Polanyi describes market society as contrasting with the socially embedded market. Polanyi challenges the assumed reality of the economic man and the predilection towards gainful occupations with a survey of societies that defy the supposed norm of market-centric rule. The findings of his historical overview indicate a range of manifestations of the relationships governing societies and markets. He says not until the nineteenth century had social relations been overshadowed by economic ones.

The institution of the market and the practice of trading has been a part of many cultures since the Stone Age, but merely as a subordinate aspect of social life. People have traditionally been prompted to act in a certain way for reasons of social rather than economic expectations or gain. Instead of a universal inclination to truck and barter, Polanyi says various societies have relied on a multitude of norms governing interactions. Participation in these practices is prompted by socialization, not nature.

He gives an example of the Trobriand Islanders of Western Melanesia (*ibid*: 49-51). The community is governed by the principles of reciprocity and redistribution. Generosity is valued in the community and bringing food to family members is a social obligation. A brother may be inclined to bring some of his harvest to his sister for a variety of reasons, none of which provides him with significant material benefit. He will receive praise for his good behavior and the chance to show off his skills as a gardener. In shirking his responsibility he will harm his reputation and embarrass his family. The principle of redistribution is shown in the practice of delivering a large portion of the islander's produce to the village chief where it is put into storage. While the producers may experience a net loss in material wealth, they fulfill their obligation for the sake of their entire community. They reap the benefit of the function of their society. They help furnish the communal store around which community activities are centered. Their produce might be traded, or given as a gift to visitors from another island, or even be part of a village feast. Polanyi concludes that in delivering their share to the village stores, community members might be said to be fulfilling their economic roles in the division of labor, public taxation, foreign trading, and defense provision without any economic motivation. While this example describes what seems to be a fairly pleasant community, Polanyi's point is not to paint an idyllic picture of all non-market societies, but reveal other possibilities that prove

market society was a novelty, despite claims to the contrary.

In his discussion of non-market societies, Polanyi identifies a tendency toward what might be called an 'economy-centric' way of thinking. He chastises Ricardo, Smith, and the persistent “chorus of academic incantations” for ignoring what Polanyi identifies as 10,000 years of exclusively non-market societies (*ibid*: 45-47). A consequence of this ignorance is the dismissal of societies that do not measure up to their theory as “uncivilized” and deeming their social organization as irrelevant and backwards. He describes differences between societies as vastly exaggerated, especially in the economic sphere. He draws attention to Western and Central European regions, as homes of many liberal economic theorists, to note a decisive absence in material and economic progress for most of their known history.

Similar to the tendency of economic theorists who looked past examples that countered their claims, advocates of water privatization also have a blind spot in regard to information antithetical to their cause. The history of water management is characterized by many more instances of successes in public and community provisioning of water compared to private water. In fact, like the institution of market society, private provisioning of water has been a rarity for most of human history. Until 1989, France was the only country with large-scale involvement of the private sector in water provision. Like the economists that Polanyi identified, supporters of water privatization seem to have the ability to look past this inconsistency and make decisions based on economic theory rather than material reality. Market societies are no different from non-market societies in that actions are determined in the framework of the social system. The decision to privatize water is simply made in a social system characterized by a faith in economic ideas. If people in societies are motivated by whatever form of social approval is the norm, doing what is “right” is still doing what is normal – normal in this case is simply determined by faith in the

theory of the self-regulating economy in which what is ultimately best for society is seen as the economy functioning in a disembedded form.

DOUBLE MOVEMENTS, COUNTER MOVEMENTS AND FICTITIOUS COMMODITIES

The creation of market society depended on the market becoming disembedded from society through the alteration of the social system. Polanyi describes the process which shaped the transition as characterized by an interaction of two different movements. The first movement is the disembedding force, characterized by actors working to implement and secure the economic liberal norms. The second, the counter movement, is a protective reaction and encompasses various re-embedding measures which offer resistances to the disembedding forces. Neither part of the double movement is directed by any deliberately crafted master plan. As Polanyi explained, hitherto the rise of market society, human histories throughout the world did not align with the liberal explanation and no disembedded markets existed. The requisite disembedding was not “natural” or “inevitable,” by the outcome of ongoing intervention. As he puts it, “laissez-faire was planned; the planning was not” (*ibid*: 147).

The basic function of economic liberalism is predicated upon the unhindered economic relationship of commodities. Therefore, the elements that furnish human existence needed to be absorbed into the market as commodities. Market society required the inclusion of what Polanyi identified as “fictitious commodities” – land (nature), labor, and money. The inclusion of these three items as commodities was the capstone of the liberal project. However, none of them materialized as commodities *sui generis*. For instance, enclosure movements commodified land to create private ownership. Money, as a currency system, was far from spontaneously generated as a

commodity. It was the product of social organization, especially as trade developed and was further regulated by banks, governments, and the creation of the Gold Standard. The final inclusion of labor, the commodification of a person's work, was only possible after the first two were already established. Once all of these features were established, the market could then be said to function independently.

Counter movements were the spontaneous, yet inevitable, responses to these changes that demanded measures of social control in the economy. The outcome of a counter movement could be large scale change, including the reestablishment of the market as socially embedded or smaller changes that implement some protective regulations without questioning the overall model. Though the establishment of market society could succeed in altering the social character of a society to accept economic liberalism, ultimately universal commodification and treatment of economic interests above all else would be unsustainable. Eventual reaction to the subordination of the social world and harm to the environment would be inevitable.

However, reactions do not necessarily question the overall social order. In fact, Polanyi says that most counter movements do not. He describes regulatory mechanisms, such labor regulations, as accomplishments of counter movements. He believed fundamental change would not be possible without “the discovery of society” (*ibid*:268). The discovery of society entails the widespread acknowledgment that despite the “truth” held in the theory of economic liberalism that market society was the inevitable result in a world made up of economically inclined individuals, they were in fact interdependent and social. A counter movement after this discovery would be of such a scale as to bring about a new social character to those previously established under market rule. Although, until such a time that the underlying market assumptions are displaced, counter movements exist as part of an ongoing double movement. They may fight for changes against the will of the majority and the power

structures that shape change.

In applying the notion of “fictitious commodity” to water, privatization is part of the double movement in favor of disembedded treatment, and the anti-privatization movements can be seen as counter movements. Although Polanyi does not explicitly identify water in his discussion of fictitious commodities, it is a part of the fictitious commodity of nature and is clearly different from non-fictitious commodities which Polanyi defines as “objects produced for sale on the market” (*ibid*: 74).

In Chapter Two, I highlighted mixed judgments of empirical studies of the outcome of water privatization as well as condemnation by the anti-privatization movement. Looking at these water practices and discourses in the context of the double movement, the proclaimed successes of anti-privatization counter movements are met with contradictory iterations. Pro-private advocates have presented a different story and have interpreted the state of affairs quite differently. The review of studies pertaining to the success of privatization demonstrated no overall consensus in the judgment of past efforts, the current state of affairs, or how to shape future endeavors. However, supporters of water privatization have maintained their belief in their ongoing efforts. Undeterred by what many in anti-privatization movements have deemed a torrent of bad publicity and failures, the pro-private movement, with an ideology formed in the historically strengthened market society, adapts and responds to critiques and expresses a positive outlook for their plight.

With both monetary resources and decision-making power, pro-private interests have demonstrated persistent fortitude in the face of what have been hailed as the greatest victories against them. Despite the astounding debacle in Bolivia, Bechtel took a heavy swing at the country's government. Though the conditions of their contract contained no channels for legal recourse, Bechtel sued.

Liberal-oriented institutions of governance not only provided a justification

for the lawsuit, but retroactively allowed U.S.-based Bechtel to manufacture a legal channel that enabled legal action. Bechtel was permitted to set up a post office box presence in the Netherlands and take advantage of a Dutch-Bolivian bilateral trade agreement. The International Centre for Settlement of Investment Disputes (a trade court under the auspices of the World Bank) allowed one of world's wealthiest corporations to sue the poorest country in South America. Bechtel's annual revenue is twice that of the Bolivian GNP and the company had invested less than \$1 million. However, they requested compensation for damages and lost profits totaling \$50 million. The lawsuit was filed in 2001 and was eventually dropped at the end of 2005 (Olivera 2004; Environment News Service 2006).

The case of Bolivia, despite being frequently hailed as a victory for the citizens against water privatization, in the expanding context of the double movement, the winners and losers are less clear. The victory for Bolivians is not inherent in Bechtel's departure from Bolivia or the dropped lawsuit. Though public outcry likely influenced Bechtel's decision to drop their case, the system that allowed Bechtel's legal maneuvering remains intact. Even without a verdict, Bolivia still accrued approximately \$1.6 million in legal fees (Environmental News Service 2006). The ease with which a wealthy company like Bechtel was able to wrangle the legal system in order to take such action is a testament to the ongoing institutional support of private firms. Furthermore, a report by the Inter-American Development Bank (IADB) questions the very circumstance surrounding Bechtel's initial departure from Bolivia. It claims that, at least in the case of Cochabamba, access to water actually increased during Bechtel's tenure and suggests that the protests had not been prompted by water privatization but by social tensions between people of Spanish and indigenous heritage (Morales, et al. 2006).

The triumph of residents of Stockton, California when they returned their city's

water to public control was linked to another accomplishment hailed by many in the anti-privatization movement as the sign of the end of private enterprise's reign over water. This was RWE's acknowledgment of the strength of resistance in their decision to unload two of its largest subsidiary water firms. However, the underlying principles which led to the push towards privatization remain strong within the community of influential actors who have shaped and continue to shape the policy that guides water management in much of the world. In leaked minutes from an RWE/Thames executive board meeting in Germany, the CEO lamented that their venture into the water business did not offer the quick profits that he had hoped. Another board member chimed in with a prediction from Goldman Sachs that “water business would become the oil business of the decade from 2020 to 2030” (Snitow and Kaufman 2008:57). The sale of Thames Water for \$8.9 billion to Australia's largest security firm, Macquarie Bank, Ltd., shows that interest in the water business prevails, and faith in Goldman Sachs's prediction expressed at the board meeting. Thames was Macquarie's third water utility acquisition in a single month (*ibid*; Foley and Moullakis 2006). Even though some companies have divested in water, other water firms, industrial corporations, and private equity groups have compensated by increasing their investments in the water industry, including General Electric and 3M. Four water industry-related indexes have been added to stock exchanges around the world in the last five years (Dickerson and Anfuso 2007).

The protests have not gone unnoticed by governing entities. They have responded by adapting their language but have not wavered in their underlying push towards private measures. Financial institutions continue to shape policy in favor of privatization. The latest report by the UN-WWAP (2009) claims that the number of privatization projects may have been underestimated by only looking at large-scale private operations. They report on two emerging studies by the World Bank and the

International Institute for Environment and Development (IIED). The World Bank found 10,000 small -scale private service providers in a sample of 49 countries. The IIED study estimates the total number of privately-run services providers may exceed one million.

As discussed in Chapter Three, some privatization supporters believe that water is a human right. Additionally, though the privatization supporters currently bill privatization as a beneficent “pro-poor” solution, privatization projects in the early 1980's failed to make this claim. The language adapted by the end of the decade as criticisms arose (Castro 2007 and 2008; Goldman 2007). Overall, as Prasad (2006) reports, advocacy for privatization continues with comparable vigor, but is obscured by nuanced language used in the discussion. According to aforementioned definitions of privatization, it does not require the exclusive transfer of all aspects of the public utility into the hands of private enterprise.

The World Bank has made some claims that they have changed their practice of privatization, allowing more opportunity for public involvement, and that they remain consistent in their belief that the private industry has an important role to play (*ibid*). The Asian Development Bank (2006) may be relying on a distinction which views full transfer of control to private enterprise and other forms of private involvement as distinct. They confusingly state both that they do not support privatization and that private involvement might be necessary. Gérard Mestrallet, President-Director of Suez made a similar differentiation when announcing the stance of his company, explaining, “we believe that the privatization of water infrastructure in developing countries is not necessary” (Castro 758: 2007). Suez continues to be involved as a private actor these projects.

Like the early attempts at creating markets for land, labor, and money were marked with some set-backs and revisions, determined forces worked to eventually

create a system of land ownership, monetary and credit systems, and a labor force. The same may be the case with the market for water. The Inter-American Development Bank (2009) indicated that privatization is still their preferred approach, but conceded that consideration of more sensitive integration strategies might be important in the latest version of their Sectoral Operational Policies pertaining to procedures for public utilities. Not only do they continue to make loans requiring water privatization, but Food & Water Watch (2007) reports that they have also helped in sustaining privatization efforts by resuscitating failed World Bank projects with new loans that maintain the privatization mandate. The UN-WWAP (2009) report expresses a desire through international governing bodies to encourage private involvement where possible, but less rapidly in some countries. It seems even in concessions, the hope is to prepare to communities for greater acceptance of private measures.

CHALLENGES AND CHANGES IN A WORLDWIDE MARKET SOCIETY

Polanyi believed that with the rise of market society, certain things were inevitable. The commodification required for its function would ultimately result in social dislocation and destruction of natural environments. However, he believed that the impacts of growing destruction would eventually be so evident as to prompt a fundamental change – the discovery of society and the permanent reembedding of the market. The lingering question when considering Polanyi's theory is: why did the change he predicted fail to materialize?

The simple answer might be that we are caught in a double movement. One side of the double movement, the disembedding side, seems to have incredible power in their ability to reassert market rules within these discussions. The fundamental challenge to any fight, any counter movement, is to not simply be part of an ongoing

tug-of-war against a firmly established world order – to win, someone needs to let go of the rope. The development of market society spread around the world; Polanyi declared, “international free trade involved no less than an act of faith” (*ibid*: 144). With no guarantee of success, people all around the world participate in the system. He explains the spread of market logic as a truth that became accepted as religion and then spread around the world through its missionaries. As a means to the end, market supremacy destroyed societal diversity and consolidated choice into market options. The specific harm done by the institution had nothing to do with anything inherent in the nature of trade or money systems. The problem, Polanyi stated, was in the necessity to commodify everything. Polanyi gives the example of the colonial insertion of market society in India by the British and several famines that followed. The imported economic system played a role in famine, but lack of food was not to blame. On the contrary, though people in India, subjected to the pains of hunger perished, the famine was a result of the destruction of their established way of life that the newly emigrated market society demanded. The traditional practice of growing food for community consumption, which included maintaining stores in case of food shortages, was replaced with the new system whose demands included the participation of residents in a money economy and the conversion of local agriculture from food into commodities to be sold on the free market. Damages from occasional harvest failures, which traditionally had been mitigated by reliance on grain stores or various forms of trade, were much worse under the monetized market system.

In the new system, commons became commodified and societies became individualized. In the ahistoric version of humanity, death from starvation was regarded as the result of an individual failure to be productive. Regardless, in displacing any other social organization, individuals were left with no other option than to be market actors. It becomes both a material and mental reality. For those

born into market society, its reality is both imparted as well as made evident in the conditions of life.

The far reaching ramifications of these developments live on in a very unique way as the accepted laws of natural order. Polanyi's "great transformation" can be understood as the ongoing tension of the double movement that exists in this state of global affairs characterized by a set of actors working to assert liberal economic norms and those who challenge the norms. The challenges to the market-dominated model are constantly being co-opted, reasserted, and absorbed into the dominant discourse. This can happen on a large scale, such as the development of neoliberalism or on a small scale, such as resistance to water privatization. Looking at how market-oriented ideas have spread to water helps elucidate the dilemma in making change in this modern market society.

POLANYI IN THE CONTEXT OF WATER PRIVATIZATION

Polanyi's theory provides insight into the biggest challenge that faces anti-privatization movements. Fights against water privatization are not isolated battles. They must be understood within the context of their role in the historically implemented project which creates and maintains market society. The declaration of the Dublin Principles and the privatization of water in the United Kingdom are neither the product of a conspiracy on the part of water corporations nor stand alone efforts. These decisions were informed by a reliance on the historically instituted fiction of economic liberalism.

The application of measures to privatize water is not as radical and drastic as some critics claim. Considering alternative formulations that do not require privatization, such as commercialization and corporatization, or the water in which privatization aims have been reasserted, the control of water by private actors in itself

does not necessarily change the nature of water practices or conceptions. These all support the notion that water is a commodity, which makes perfect sense within the economic order that governs much of the world. Within the framework, the difference between a private company who provisions water and a municipal government might be undetectable. The Summit Management Group's report on water investment states it remains profitable investment regardless of who owns the infrastructure (Dickerson and Anfuso 2007). However, considering that the “naturalness” of this model is artificially constructed and maintained, privatization measures, as part of the double movement, are an overt reminder that reinforces the model.

Even though water provision was excused from traditional market logic until the recent wave of privatization, it was still under the rule of the market. In what may have been a double movement of the nineteenth century, when the rules of the market failed to bring water to the masses and resulted in disaster, an addendum was made *within* liberal economics to consider water provisioning as a natural monopoly. Therefore, the wave of privatization that has affected water since the 1980s was not abolishing an independent public institution of water provision, but reconsidering that which was already ascribed a role in market terms.

Anti-privatization fights do not occur in a vacuum, but in a double movement against powerful actors that have long instituted support. I have already highlighted some of the responses to the woes identified by recent anti-privatization campaigns. The pro-private actors easily responded to the concerns and even appropriate the language of the challenges as commensurate with market logic. These kinds of responses based in market understanding are not determined only in the hands of a few powerful market actors, but in individuals who understand the world in the same logic. This is the leviathan which those that challenge water privatization must confront. As Polanyi explains, individuals in a particular society understand the world in that

context -- this is true of both powerful global decision-makers as well as in individuals. The same logic that guides governments and large world regulatory bodies also affects individuals in the choices they make.

While the argument in support of the water commons enlists a claim which challenges the commodification of water, it is not just the powerful global actors, but individuals around the globe who need to be swayed. According to Polanyi an effective counter movement will rise out of a widespread feeling of crisis caused by the shortsightedness of market society. Presumably, the global water crisis should sound the alarm. A century ago, even after the rise of market society, various water crises were solved with public measures. Today, while some resistance has transpired, the current water crisis has not elicited a universal or large-scale response – other than prescribed privatization. Polanyi identified the discovery of society as necessary for change, but many individuals have yet to cast off their inherited worldview.

As Polanyi proposes, only when the people feel in a state of crisis do they react to attempts to disembed the economy. Polanyi believed that the market society would eventually be defeated by a counter movement driven by the realization of social unity as a necessity. He thought mutual effort would be imperative in order to sustain the necessities of life that market society would eventually deny.

While mapping the role of governing structures in reasserting economic imperatives is important, recognizing the material conditions in the daily lives of people within these structures is of crucial importance. In understanding why this change has failed to materialize, especially in light of the water crisis, I propose an alternate way to understand reactions, or lack thereof. Limiting the opportunities through which individuals are inspired to participate in a counter movement increases the strength of the implementation of the logic of the self-regulating market. The presence of conditions which prevent the onset of the feeling of crisis or alter the

material reality in which individuals react, stands in the way of fully reembedded the market. I will use *crisis-declaration limitations* as shorthand to refer to this proposal which limits a substantial counter movement by preventing the identification of a crisis that results in a mutual demand for change.

Polanyi explains that a counter movement is spontaneous and not based within a hierarchal social order. An individual is prompted to participate in a counter movement through the crises that come from the treatment of vital social goods as commodities. However, without seeing or feeling an obvious or immediate deleterious impact, why would anyone question a worldview that, according to Polanyi, is followed like a religion? In connecting the rise of the bottled water industry in this discussion, I will present a case explaining how the creation of a global water market stands in the way of change.

CHAPTER FIVE SEEING THE WATER COMMODITY AND DRINKING BOTTLED WATER

An institutionalized weakness of imagination has gripped popular conceptions of water around the globe. Discussions of water privatization that overlook fundamental precursors have failed in explaining primary reasons behind the state of affairs guiding decision making regarding human water use – on both a policy-making and individual level. In this section, I begin to take a deeper look at the bottled water industry and how what was once a fairly harmless, portable container of water may actually be enabling water privatization as a Trojan horse of commodification. In this changing landscape, public water systems that were once protected as *natural monopolies* are under attack by private companies and governing forces attempting to insert competitive markets. The most developed resistance to water privatization have centered on municipal water works, but bottled water, the most obvious form of commodified water in existence, has the least developed resistance.

To expand my case for the relevance of bottled water, I first consider some of the mechanisms of water privatization and commodification. This initiates a deeper exploration of the material and mental assaults which stand in the way of the realization that Polanyi anticipated, which I enhance with the inclusion of the bottled water industry in the following chapter. Within this appraisal of the nuts and bolts of water commodification, I parse out the particular components which aided in the construction of the complex forces, enabling and encouraging the predominant conception of water as a commodity. This understanding speaks to the larger picture of commodification and the ensuing discussion will show not only how the growth of private municipal water and bottled water are permitted through a confluence of forces, but also the critical role of bottled water. This chapter looks at the rise of the

contemporary bottled water industry and the deleterious impacts of its exclusion from most discussions of privatization. It exposes the limited and easily pacified types of resistance the industry has faced and reveals the enduring competitive force that the bottled water industry represents. The growing popularity of bottled water is not simply an innocuous result of water commodification or a mere actor in the complex of mutual reinforcement, but is both a sign of and major player in a changing the landscape in which choices regarding water are made.

CHANGING PERCEPTIONS: SOCIAL AND INDIVIDUAL CHANGES IN THE WAKE OF COMMODIFIED WATER

Neither bottled water nor other forms of privatized water are recent inventions. The unique phenomenon is their current and unprecedented popularity. This popularity relies on the larger project of economic liberalism as manifest not simply in current neoliberal policy, as the majority arguments opposing water privatization suggest, but in the widespread acceptance of those ideas which guide it. There is a difference between the mere existence of water-for-sale and its current state of commodification.

Chapter Two's overview of Transnational Policy Networks (TPNs) describes the methods through which governing institutions and organizations achieved consensus on the subject of water privatization. Water is merely one of many things that need to be treated as a commodity under market logic. No single sweeping regulation or trend is responsible for the commodification of water or anything else. These changes to water also require systematic adjustments and dismantling of other social arrangements. Changing needs and desires within societies also prompt alterations of arrangements regarding water provision.

Population growth and industrial development changed the way people

acquired and used water. While there is a universal need for all humans to ingest water for their survival, there are few other universals for water. Water might be obtained by walking to streams or from wells, catchments, tankers, faucets, and bottles. However, along with expanding industrialization, the growth of urban communities has changed world water in several ways.

Today access to money plays a huge role in access to water. In areas with limited access to water, often expensive technological intervention is the only way to obtain water and the number of places with limited water is increasing. In many places where wells were formerly dug by hand, as aquifers around the world are running dry or being pumped beyond their capacity, communities must seek other options. In those places that still have some groundwater, machinery is required to tap into the falling water table or divert rivers and streams. With growing numbers of people flocking to urban areas, new piping systems are required to meet even the most basic need of growing populations, sometimes from hundreds of miles away (Brown 2006).

Meeting the challenges of these growing water needs and the associated costs is a battleground in struggles over the commodification of water. In Chapter Two I discussed the health and sanitary crisis that erupted in many places and was the impetus to take the management of water out of the hands of private enterprise. Those earlier private systems which privileged those with the wealth to afford safe water and left those without the money to pay for their services to fend for themselves ultimately harmed the entire community, regardless of wealth. Paltry conditions were not isolated within any particular class. In the best interests of the community, water was deemed a public responsibility and a public good. This declaration should not be viewed as representing some essential truth of a human desire to share, but a decision that was commensurate with a set of particular circumstances. The widespread harm

generated a widespread crisis that caused people to question privileged access to water and treat it as something other than a simple commodity.

In the course of the growing acknowledgment of the current water woes, water management has re-entered the debate, but the powerful governing forces, perhaps more powerful than in previous negotiations, are blaming the crisis on the failure of the public sector. Even with the strength of the hegemonic governance model, the mandated implementation of privatized municipal water is only possible when the population it affects is fairly compliant. If, like Polanyi says, a population would not be naturally compliant, requisite then of the acceptance of water privatization is making a population compliant. This can be done through specific laws which regulate water use or simply convincing people to think in the logic of the decision. The latter is especially important because, in order to get people to pay for water and not put up a fight they must believe that its value is summed up in that price, i.e. they must believe that water is a commodity.

As so many have elucidated, water does not lend itself to the traditional commodity treatment. Nevertheless, many people have been treating it as if it were one. Swyngedouw (2005) suggests commodification constitutes a social transition. This social transition is of far more relevance than the material suitability of water as commodity. Commodification is not a universal or uniform transition. It can happen in different ways, times and places. Even with varying degrees of commodification in terms of speed and geography, McDonald and Ruiters claim, “the underlying pressures of commodification remain, with far-reaching transformative effects” (2005: 22). Economic rationalities have been applied to water in various ways in support of commodification. The confluence of market ideas and multiple forms of commodified water can reinforce each other.

While new laws, such as Bolivia banning the collection of rainwater, are more

overt measures, the subtlety of seemingly non-forced compliance is more effective. Though the grossly inadequate and largely unaffordable privatized water in Bolivia were the obvious factors prompting Bolivia's riots, the riots might have been avoided if Bechtel's measures had not been so drastic before a mental assault had already transpired. Hundley's (2009) account of the history of the Colorado River Compact is an example of a more drawn-out assault. Publically governed practices of water use were displaced over several decades, including local management strategies and a riparian principle dictating that water withdrawals must not effect water downstream. Private enterprise and state authorities worked together to co-opt water management into the public realm. The ensuing centralization and enclosure of water management hindered the opportunity of local accountability. The traditional system was altered to such an extent that it ultimately prevented the opportunity for water to be seen or treated as a social good or commons (ibid; Black 2004).

In accordance with my proposal regarding crisis-declaration limitations, an effective privatization project would require a population that is amenable to the idea of paying for water (and viewing it as a commodity) in order to stave off a widespread feeling of crisis. In the earlier example of the short-lived boom of a U.S. bottled water industry in nineteenth century, the presence of a safe, public option initiated a decline. Considering that today many opt for bottled water in spite of a safe, public option, this may indeed demonstrate a more amenable population.

The largest and most widespread reactions to water privatization have transpired only in places in which a large number of people faced the visceral reality of a lack of water. The mere identification of the threat of a global water crisis does not incite remotely the same reaction as those who have experienced crisis. Monetary wealth, or its absence, is a primary aspect tied to large-scale reactions. The ideas of market society may have a stronger or weaker hold in different places. In most

instances, popular responses to privatization have come from populations in the Global South that lack financial resources, after facing actual water shortages. Of course, there have also been reactions to privatization in wealthier countries, but these have been incredibly rare, and even the most fervent have been contained to courtrooms. Overall, most transitions to private water management are largely unchallenged.

While most privatization goes unchallenged, more people than ever are participating in various privatization and commodification projects including investing money in water-related industries, drinking privatized tap water, purchasing home filtration systems and drinking bottled water (I will elaborate on this in Chapter Six). In the next chapter I will look at the way these industries and other supporters of privatization initiatives are related and consolidating. The rest of this chapter will interrogate the modern bottled water industry. Bottled water provides an accessible platform with which to understand how ideals of market society have affected individuals – and expand the framework of decision makers beyond the obviously powerful players responsible for policy-making. While most critiques of water privatization focus on municipal water, the decision to privatize a municipal system generally involves few people relative to the overall population. On the other hand, the majority of individual purchases of bottled water are a personal choices made directly by the person who drinks the water. Bottled water is the fastest growing form of privatized water, the most blatant form of commodified water, and the place in which billions of individuals around the world have been demonstrating at least some degree of acceptance to the treatment of water as an economic good.

THE HISTORY OF BOTTLED WATER: FROM PORTABILITY, TO LUXURY, TO STAPLE

The early history of portable water has little in common with the contemporary

bottled water industry. Water has likely been kept in a carrying device of some kind since further back than records exist. Even before the invention of pottery in 6000BCE, other early storage units may have included pitch-lined baskets, gourds, shells, woven-grass vessels, or hardened animal organs, such as stomachs or bladders. These very early units have much more in common with vacuum flasks, Nalgene bottles, or even drinking glasses than the bottled water of today. The invention of glass bottles themselves did not prompt the birth of the bottled water industry. Throughout time most of the water being carried on one's person had nothing to do with anything else than transport or portable hydration. While some gradation existed for these early water drinkers, it was likely ranked as generally either drinkable or not (Black 2004; Royte 2008).

In the late 1700s European mineral pools and springs were a site of early enclosure, privatization, and sale of water. These ancient destinations were believed to have health benefits and healing power for those who drank or bathed in the water and became popular, fashionable resort destinations. Less than 50 years later, trains were bringing not just people in and out of these sites, but the water too – packed away into glass bottles. In the ranks of these early companies were Evian, San Pellegrino, and Vittel, which would later become Perrier. Perrier would go on to play a large role in the popularizing bottled water around the world (Royte 2008; Spar and Bebenek 2008).

A French doctor, Louis-Eugène Perrier, purchased Vittel in 1898 and then sold it to a wealthy British man named St. John Harmsworth. Harmsworth first renamed the spring after his predecessor and then packaged it in an elegant green glass bottle and began selling it across Europe as “the champagne of table waters.” In keeping with its original slogan, Perrier continued to be marketed and regarded as a luxury item, as was par for the course with most bottled water going into the late twentieth

century. While the end result of an aggressive and expensive advertising campaign, including the sponsorship on the New York Marathon secured Perrier's position as the clear leader of the bottled water industry, its 1989 sales peaked \$110 million. Compared to Coca-Cola's sales of over \$200 billion in the same year, the relatively minuscule share of the beverage market is shown (Chain Drug Review 1990). However, Perrier was not after the Coca-Cola crowd.

In 1989 drinking bottled water represented class status – not thirst, clean water, or health. Of course, other people were selling water. Hundreds of regional bottled water companies had been in operation in the United States, some since the nineteenth century. But in 1989, the remaining companies were mainly in the business of dropping of the large coolers of water that people talk by at the office. Consuming a fancy, carbonated water like Perrier was clearly not about quenching thirst, while much of the non-Perrier sales of bottled water were to places without drinkable water. In the 1970s, annual sales of bottled water had totaled around one billion liters; the numbers had slowly doubled by the early 1980s. Future captains of the bottled water industry, Coca-Cola, PepsiCo and Nestlé, accounted for a minimal portion of the sales in the mid-1980s. These companies were not focused on selling water within wealthier nations. Five years before the World Bank reached a similar conclusion about the Global South, they were tapping into countries where deficient water infrastructure and scarcity made additional sources of drinking water a necessity (Black 2004: 104). These companies did not rival Perrier's supremacy, nor did they show interest making an attempt. The closing of the 1990s marked some big changes for water.

As Perrier would be loath to give up its trademark green, glass bottle, the introduction of the half-liter polyethylene terephthalate (PET) plastic in 1989 probably did not dazzle any company executives. The biggest news in the water world in 1989

might have been the sale of the municipal water of the United Kingdom and Wales to private companies. A few months later, Perrier's reign came fizzling to an apparent end. A random check of their product in North Carolina turned up traces of a known carcinogen, benzene. Perrier issued a worldwide recall of their water. With Perrier off the shelves for several months, opportunity knocked and businesses flocked to the bottled water industry to fill the void. New companies with new advertising campaigns scrambled after Perrier's customers – and then some. Not until the aftermath of the benzene disaster did Coca-Cola, Pepsi, and Nestlé begin their deliberate penetration of the North American and European markets.

Nestlé's first big move was to purchase Perrier. They worked not only to revive Perrier, but launched several separate brands of water, even creating an entire new subdivision of the company, Nestlé Waters. Herein, bottled water sales ascended at unprecedented rates. By 2000 global bottled water sales topped 84 billion liters (Black 2004: 104) and in 2008 reached 200 billion liters (Rodwan 2009). Danone, which now tops the bottled water industry in global sales, like the leaders of the private municipal water industry, is a French company. The rest of the top four are rounded out by Nestlé, Coca-Cola, and Pepsi (Spar and Bebenek 2008).

THE SHARED GROWTH OF BOTTLED WATER AND PRIVATE MUNICIPAL WATER

There is no evidence that anyone whispered in board rooms or government offices timing sales of municipal water to go along with advertising campaigns encouraging consumers to buy more bottled water. The half-liter PET bottle ended up being invaluable to the new image of bottled water that was pushed in the 1990s. It was cheaper and was theoretically recyclable. While mostly coincidence, the rapid rise of both of these types of private water did happen among populations that had been well-primed in the economic mood of the 1980s. The decade had been a free-market

celebration which encouraged individual interest and choice as the preferred units of measurement. Around this time, as liberal economists began to question the consideration of water as a natural monopoly, bottled water began offering the necessary product differentiation, a subject which I will return to shortly in the final chapter.

The transfer of public control of municipal water to outside companies seems starkly contrary to the idea of community care and control which guided water use in many civilizations throughout history (Shiva 2002; Black 2004). As I have proposed, through the implementation of crisis-declaration limitations, the triumph of the market society is not just a result of getting people to think in a certain way, but by actually limiting a scope of choices within that way of thinking, thereby diminishing their opportunities to be inspired to want or ask for change. The popularity of bottled water is more than just a feather in the cap of economic liberalism. It is changing both the opportunity and necessity to see water as anything other than property and individual responsibility. Water utilities are given to corporations and the only water one needs to protect is conveniently available in a sanitized and sealed bottle at the gas station. The late twentieth century dominance of market ideology had carved out easy access for the bottled water industry's new brand of water. This new kind of bottled water is a devastating yank in the double movement tug-of-war in favor of the disembedders.

BOTTLED WATER: A PERSONAL CHOICE?

While most people living in municipalities that have opted to privatize their water are most often not direct participants in decision making and likely informed of the decision rather than asked, bottled water appears to be a private water acquired exclusively by choice. The truth behind this apparent choice is often a mere consequence of life in a market society. Today when people choose to buy a bottle of

water, they make their choice from an array of options, but mental landscapes are frequently informed by subjectively crafted informational input. Marketing, no doubt, played a powerful role in this project, but those who crafted the campaigns were delivering the pitches to a well-primed group.

Perrier was bubbly and deliberately pretentious. It was not sold as simple water, but something better. It was a confection, not a source of life or hydration. Advertising was and is a key part in shaping the image in bottled water since the early 1990s. From the original message of the “champagne of table water,” bottled water is no longer a delicate, sipping drink for special occasions. Today, the most popular brands of bottled water do not brag about their mineral content, report unique health benefits, or claim to be anything other than simple hydration. Conceivably, had bottled water remained as it was, either providing potable water as a temporary measure in places that lacked it or in its jazzed-up, fancy Perrier style, popular concepts of water and reactions to privatization might be different. However, it does not just act as any other beverage. For the most part, the bottled water is now regarded as a vital necessity to human life – it is water that just so happens to come in a bottle. If sales are any indicator, like any other kind of water, the bottled version is something everyone needs every day.

A minority of bottlers continue to market their water as a luxury item. The makers of King Island Cloud Juice bottle rainwater in Tasmania and ship it to London where it sells for £9. The advertisements for BlingH2O trumps Perrier's in declaring itself “the Cristal champagne of water.” The bottle is adorned with Swarovski crystals and sells for \$80 (Spar and Bebenek 2008:116).

However, the advertisements of most bottled water companies rely on a much different image for their product. Since the 1990s bottled water marketing has

primarily focused on that idea of naturalness. An episode of the television program *20/20* (ABC 2005) begins with a montage of bottled water commercials depicting bottles splashing into clear, sparkling pools, pristine landscapes, and untouched mountains. Opel's (1999) early critique of the bottled water market surveys the ads of the first decade of the water boom and a near universal concentration on purity and nature. This purity is sometimes depicted in ads that only display water – pools water with no identifiable container or pouring water flowing out of nothingness. The plastic bottle which appears eventually to capture the purity is the only exception. Aquafina's advertisements in the late 1990s and early 2000s featured nothing but their bottle framed against a white background and their slogan, “so pure, we promise nothing” (American Demographics 2001). More than anything else, brand names, bottle design and ads rely on mountain-scapes and deep green forests, singing out the words “what it means to be from Maine” in its advertisements. Mountainous and geological images are present in the packaging and advertising of Evian, Volvic, Crystal Geysir, Aberfoyle Springs, Grayson, Triton, and Danone (Opel 1999). Even with its promise of nothing and imagery of nothing in advertisements, Aquafina's logo depicts a sun setting over mountains. The *20/20* episode traces two similarly marketed waters, Everest and Glacier Clear, to Corpus Christi, Texas and Greenville, Tennessee respectively. The former lacks mountains and the latter lacks glaciers (ABC 2005).

This is not surprising considering that despite what marketing might imply, a large portion of bottle water is actually filtered tap water. According to Food and Water Watch (2008) up to 40% of bottled water is initially tap water. Worldwide, millions of dollars are poured into advertising campaigns. The U.S. expenditure in 2005 was \$158 million. Pepsi's 2006 “Drink more water campaign” alone cost \$20 million (Royte 2008: 39)

While large advertising campaigns might encourage bottled water sales, the preexisting prevalence of the established packaged beverage industry made stocking the shelves easier. Though they also invested in advertising campaigns, as the world's largest soda companies, Coca-Cola and Pepsi could simply add their recently launched brands of water to the line-ups through their existing contracts at a wealth of venues, including stores, theme parks, concert halls, vending machines, bars, and restaurants. For over a decade after bottled water launched into the global market, bottled water companies regularly attacked tap water. While many advertising campaigns made indirect assaults with implications of purity at the expense of the tap, some companies were more outgoing with their goal. In 2000, two leading U.S. water bottlers, made no secrets of their goals in comments to the press. The vice chairman of PepsiCo stated "the biggest enemy is tap water" and the president of the beverage division of Quaker Oats said, "When we're done, tap water will be relegated to showers and washing dishes" (Gleick 2001:n.p.). A 2006 ad campaign by Fiji Water proffered, "The label says Fiji because it's not bottled in Cleveland" (Royte 2008:170).

Coca-Cola promised on its website that it could help restaurants reduce "tap water incidence" (Gallagher 2001). In 2002 Nestlé distributed a CD called "Pour on the Tips" throughout the restaurant industry. Geared towards wait staff, it encouraged them to convert tap water drinkers to bottled water drinkers. The CD emphasized that twenty "conversions" per shift would give them an extra \$100 in tips each month. Wait staff were encouraged to present bottled water options as the obvious choice and thereby shame costumers away from opting for tap water (Royte 2008: 40).

Bottled water is more than a fad. By 2003, United States sales surpassed milk and beer to become the second most popular beverage after soda (Beverage Marketing Corporation 2007) and by 2006, worldwide bottled water sales were roughly equal to

the global coffee market – and the third ranked beverage in overall sales. Today's total market share is 12%, and growing (Spar and Bebenek 2008). Who are these people making these purchases or drinking this water? What then can be said about the personal choice of each of these individuals?

I suspect a prominent factor behind bottled water's absence in anti-privatization discussions is assumptions about a limited sector of the population purchasing bottled water. While many anti-privatization critiques make similar arguments to my own with regard to an overall operating ideology being heavily influenced by the ideals of economic liberalism, looking only at the large-scale decisions and habits of policy-makers leaves the average individual unexamined. The average individual, these theorists might assume, is not buying bottled water. Bottled water is exorbitantly expensive compared to the tap. Even with the new egalitarian marketing, it might seem like a luxury that not all can afford. According to Facenda (1999), in the late 1980s, the average bottled water consumer was a single, fitness- and image-conscious woman in her mid-twenties. Today's demographics are quite different. The reality is a surprisingly well-distributed base of purchasers. The most detailed demographics available appear confined to industry reports prepared by the international market research firm Mintel – a breakdown of the characteristics of the U.S. bottled water consumer is available for \$3,995 (Mintel 2009). The accessible findings point to a fairly diverse consumer base.

While the bottled water boom began in Western Europe and the United States, countries from Eastern Europe, the Middle East, Latin America, and Asia all make the list of top twenty bottled water consumers, both in per capita consumption and volume consumed. In the top ten of per capita consumption, Mexico tops the list, followed by Italy, United Arab Emirates, Belgium (including Luxembourg), Germany, France,

Spain, Lebanon, Hungary, and the United States, respectively. However, the United States tops the list in terms of volume consumed, followed by Mexico, China, Brazil, Italy, Indonesia, Germany, France, Thailand, and Spain, respectively (Beverage Marketing Corporation 2009). Rodwan (2009) reports that more bottled water companies are focusing on expanding into new and less penetrated markets. China's market, which more than doubled from 2003-2008, accounted for almost 10% of the 2008 global industry sales. Indonesia experienced a 20% increase in sales in 2008 and now ranks 6th in overall sales (Rodwan 2009). Coca-Cola and Pepsi, whose main market has been the United States, will include directed expansion in Europe in upcoming efforts. The leaders in the industry, Danone and Nestlé, work on continued penetration in Latin American, Asian, and African countries. Danone is restructuring their entire business plan for the sake of the new focus (*ibid*; Spar and Bebenek 2008).

A 2008 report by Statistics Canada that found that 3 out of 10 Canadian homes consumed primarily bottled water. The study further examined the effect of income, education, age, and type of dwelling impacted the distribution. While the study found that overall the most likely type of household to consume primarily bottled water is one with an income over \$91,000 CAN with no one in the household having obtained a high school education, there was little overall difference between different types of households – with the exception of senior-only household's where just over 15% relied primarily on tap water. Income, education (as defined by the highest level of education obtained by anyone in the household), and dwelling played some role. Within the categories, those with higher incomes, less education and living in houses were the most likely to drink primarily bottled water in their homes. The overall difference between groups is not stark with a difference of only 8% between the 25% of homes in the lowest income group (which made less than \$25,000 CAN) compared to 33% in of the highest income group. In the education category just less than 25%

of university-educated households made up the smallest group of primarily bottled water drinkers, yet the top group, “some postsecondary,” contained 30% (Rothwell 2008).³ A 2003 Gallup survey of U.S. residents founds that just 56% drink water directly from the tap, 37% use additional filtering or treatment, 74% identified themselves as bottled water drinkers, and 20% of respondents, or, extrapolated, 56 million U.S. residents, drink only bottled water (Spar and Bebenek 2008: 115).

More women than men purchase bottled water in the United States, and Latina women purchase more than any other demographic group (Hobson, Knochel, and Byington 2007). Several reports also suggest that people with children are more likely to purchase bottled water (e.g. Rothwell 2008; Spencer and Armfield 2004; Hobson et al 2007). A survey of parents at a children's center at a health clinic in Salt Lake City found that 30.1% of the parents never drank tap water and 41.2% never gave it to their children. While some families used filtered water, of the children who never drank tap water, 59.6% were given exclusively bottled water. In this primarily Latino and low-income group, the study found no overall association with income level. In the lowest income group of families making less than \$14,999/year, 32.9% stated that they only gave their children bottled water (32% drank exclusively filtered water) (Hobson *et al.* 2007). Many of the studies regarding children have been undertaken by dental and medical groups concerned with fluoride intake and likely have further information of sociological interest than the reports reveal.

While overall trends in increased bottled water consumption can be attributed to a wide variety of causes, the end result is a change in water drinking habits themselves that take people away from the tap. The reports on in-home consumption

3 While this study determined that 30% of Canadian households drink primarily bottled water, it did not present inclusive information about other frequent consumers of bottled water. The overall percentage Canadian bottled water drinkers would likely increase dramatically beyond 30% if regular and frequent drinkers were included

and children's water intake point not to an overall concern for social or public well-being, but are individual measures to obtain “safe” water.

While it is true that tap water quality is much more frequently monitored than that of bottled water, the issue at hand is not whether or not the water is clean, but the bottled water option itself. Tap-water advocates have been battling with bottled water companies for years over which water is “better.” There have been incidents of contamination on both sides.

The Earth Policy Institute (2006) reports findings that even small and contained problems with tap water can cause widespread loss of confidence. Despite more stringent regulations and frequent monitoring for tap water in much of Europe, the United States, and Canada, bottled water is still emerging as the victor in the battle for “best” water (Arnold and Larsen 2006). We all need clean and affordable drinking water. The meaning affordable when it comes to water is in flux.

While there is no comparable study involving bottled water, in the case of municipal water, there are numerous reports of an increasing *willingness to pay*. According to GliECK *et al.*, regardless of income, people are willing to pay for water in general and will pay more for “new and improved services that they desire” (2002: 30). Perhaps bottled water seems like a 'new and improved' form of water to the growing numbers of people paying hundreds of dollars for water in bottles that would cost pennies at the tap.

Even if local groups and municipalities fight back in support of their tap water, they are fighting against not just an industry that spends hundreds of millions of dollars on advertising, but the economic rationality guiding the trend. They are fighting against people who have grown up in a world where paying more money for something is associated with better quality. They are fighting against individuals who

have been taught to look out for themselves. In the face of water crises where people once turned outwards, we see the presence of the changed landscape of choice.

The people who have been primed for all of their lives to think as individual maximizers in a consumer society are being told that their tap water might not be safe and in arms reach is a bottle of water. They have grown up in a world where money is equated with quality, so with water being too important to take any risk, they reach for the bottle. Two hundred years ago, contaminated water prompted the creation of what has remained one of the best and now biggest and best quality public water systems in the world – New York City’s water system (Platt, Barten and Pfeffer 2000). In 2007 the city allotted a whopping \$700,000 of their budget to launch a campaign begging its residents to return to the tap (Royte 2008). While more and more New Yorkers were judging their city's water as good enough only for dishes and flushing the toilet, a new bottled water company found success in merely turning on the tap within the city limits and selling it right back to them. This company, NYC Tap'd, make no secret of the source of its water; an image of a faucet adorns every bottle. While the company has not yet fully launched the brand, it is already being sold at over 100 locations in New York City area (Tapped Drinks, Inc. 2009).

Of course, not everyone has the option of tap water. In parts of the world, the sale of bottled water is prompted by the lack of clean water. Without water infrastructure or other available sources of water, for some, no option exists other than independent private acquisition. Much of the rapid growth in these countries comes from bottled water consumption as a primary option – at least for those who can afford it. For example, in India and China bottled water is the top selling beverage, accounting for 45.5% of all beverage sales in India and 49.7% in China, according to 2006 reports (Spar and Bebenek 2008).

Unlike in the cases of the United States and England where the widespread devastation of an inadequate water supply harmed everyone, regardless of wealth, class, or social status, bottled water provides an alternative. In those cases, the poor themselves did not have the money or power to back development, but were supported by those who did. Today, especially if acting under the rules of market society, those who otherwise could work collectively, feel less inclined to lend their money and power to such an effort. While not surprising under market logic where demand increases price, in the poorest places in the world, water is often relatively more expensive than the luxury brands of water sold in wealthier nations. For instance, a bottle of Fiji water costs 0.03% of the average 2007 income of a New Yorker while a bottle of water in India costs 0.43% of 2006 average income in India (*ibid*). In these places, bottled water might act to either delay the need to develop infrastructure or make people more accepting of the idea of commodification if infrastructure is privatized. Municipal water tends to be less costly for the users, but the majority of people without access tend to live on the outskirts of towns or in rural areas. Though they generally have less money than the wealthier urban dwellers, allotting a larger share of their limited funds towards bottled water is sometimes the only option for clean water (Black 2004; UN-WWAP 2006).

RESISTING BOTTLED WATER

Although lots of people are drinking bottled water, not many people are questioning it. Overall, campaigns and complaints about bottled water have been fairly limited. Though some large victories have been announced against the bottled water industry, the rates for per capita consumption and sales volume indicate strong, ongoing support. Just as bottled water has been excluded from the bulk of the discourse regarding water privatization and commodification, critiques of bottled

water generally fail to engage it as privatized or commodified water. Notwithstanding the handful of exceptions, such as the inclusive campaigns of Food and Water Watch's "Take Back the Tap" and "Think Outside the Bottle" or the publications of The Blue Planet Project (2009) and The Polaris Institute (2009), very few campaigns and organizations resisting bottled water are associated with or even connect their claims to relevant municipal water concerns.

In one of the few references to bottled water within water privatization literature, Black (2004) briefly and comically notes that the people who rally against bottled water today are the same people that first encouraged its consumption in the 1980s. She identifies those fighting bottled water as generally concerned about the environment. First, they complained about harmful containments and chemicals in the water system which caused people to fear the tap and turn to the bottle. Now they complain about the pollution of the wasteful bottled water industry. Black's observation speaks to the most prominent basis for criticism and resistance to bottled water – not the water itself, but the plastic that makes the bottle. While I have and will continue to elucidate these connections between municipal water and bottled water (and all water for that matter), most campaigns against bottled water focus on the environmental impact of the industry.

The bottled water industry has faced several challenges in the latter part of the decade. Chicago imposed a bottled water tax and several city governments including San Francisco, Seattle, and London, Ontario have recently announced they will stop purchasing bottled water within government offices (Barlow 2008). In July 2009, the rural town of Bundanoon, Australia became the first town in the world to implement a complete ban on bottled water. The campaign was abetted by an environmental organization "Do Something" which also worked to get plastic bags banned in Tasmania (McLaren 2009). These efforts are primarily based on the idea of limiting

pollution. Though most of the cities do praise their tap water and many do decry that bottled water is taking people away from tap water, the environmental impact of the bottle is central. Undoubtedly, minimizing pollution is an admirable and necessary mission. Bottled water production is incredibly wasteful. However, the near exclusive framing of the ills of bottled water being based on the wastefulness of plastic and transportation does not acknowledge or question the increasing privatization and commodification of water. Furthermore, as I will discuss, it allows for growing weariness about bottled water to be pacified simply by creating “environmentally-friendly” versions.

Unlike many bottlers whose product is merely filtered tap water, Nestlé prides itself in selling several brands of spring water. Recently they have encountered some resistance from those who live in the communities from which water is being extracted. When a resident of Denmark, Maine brought Nestlé before the state's Supreme Court challenging the legality of Nestlé's extraction, Nestlé emerged the victor.

While Nestlé's permit allowed them to pump out an unlimited amount of water that was transported around the country by truck, Maine law restricts bulk water transportation over municipal boundaries for commercial purposes in all but a few situations, specifically: (1) its transport won't constitute a threat to public health, safety, or welfare; (2) the water is not available naturally in the location to which it will be transported; and (3) failure to authorize transport of the water would create a substantial hardship to the potential recipient of the water (Royte 2008: 188). Nestlé argued that the loss of potential profits that the company would endure by having their permit revoked constituted “a substantial hardship” and the courts concurred, allowing them to keep pumping and transporting. Even without the legal system in their favor, Nestlé, and other water bottlers, have other resources.

Shortly after the planning board of the town Fryeburg initially approved Nestlé's proposal to open a second bottling station and trucking facility in their town, the Fryeburg Zoning Board of Appeals rescinded the approval. They were prompted to intervene after town residents petitioned against the decision and a citizen's group, who dubbed themselves Western Maine Residents for Rural Living, hired an attorney to go before the board. Residents lamented that in addition to the noise, traffic, and pollution caused by 24-hour production and trucking at the proposed location's residential setting, it would also threaten to deplete the town's aquifer (Royte 2008; Stop Nestlé Water 2009).

Nestlé responded by filing a very inclusive lawsuit that named the Inhabitants of the Town of Fryeburg, the board of appeals and the Western Maine Residents for Rural Living. The legal battle began in 2005 and continues into 2009. While Nestlé has yet to win the case, they have appealed four rulings that were not in their favor and are currently on their fifth. The suit claims that the town interfered with their "right to grow market share," which is a valid legal argument within Maine. While the courts have yet to rule in Nestlé's favor, the company suffers from no shortage of resources and finances to continue the legal battle. The town of just over 3,000 residents cannot make that claim. This case may demonstrate that a favorable verdict is not the only way to achieve victory through legal channels (*ibid*).

In the earlier example of Bechtel versus Bolivia, by the time Bechtel dropped their lawsuit, Bolivia's legal fees totaled \$1.6 million – over 50% more than Bechtel had invested in Bolivia (Environmental News Service 2006). Currently, Western Maine Residents for Rural Living are at least \$20,000 in debt from legal fees – the town's expenses are quite likely much more. Nestlé might even bankrupt the town leaving them no other choice but to concede (Royte 2008; Stop Nestlé Water 2009). The battle is on between the efforts of the counter movement of some of the

comprehensive campaigns to unite the fights against water privatization and the efforts of corporations and other market-centered actors who offer resistance.

FORESTALLING CRISIS: APPEASEMENT VERSUS CHANGE

While bottled water rose to success for a variety of reasons, it now may stand as a fundamental barrier in making changes in the face of the global water crisis. As the bottled water industry grew in size, it consequently became an accepted form of provision. The ways in which different companies and coalitions within the industry have responded to critics reveals some of the ways in which the industry has developed and enforces their secure footing. Polanyi explained that counter movements arise through a feeling of crisis prompted by the treatment of fictitious commodities as commodities. He further identified two ways in which a counter movement could happen – either with or without the conscious acknowledgment of the interdependence of people in society. The former of the two possibilities would theoretically result in a lasting change in society and the recognition and treatment of the market as embedded and subordinate to social relationships.

The present popularity of bottled water stands as a testament to the success of the illusion of the disembedded market. While many have revealed the decidedly artificial ways that the free market is held together, the strength of the illusion is shown in the ongoing influence of the supposedly natural market on the individual. Coupled with the large-scale, top down ways in which these economic liberal ideals are imparted is the mutual reinforcement of individual behavior. A counter movement comes from a widespread feeling of crisis that results in change. The presence of bottled water as an established norm in so much of the world could function as a barrier to the establishment of that shared feeling of crisis. Without a real, visceral need to question what has become a fundamental reality to a large and powerful

segment of the global population, people will continue to do what they judge as reasonable in the face of would-be crises. Looking at grievances about water, people are appeased by minor adjustments rather than roused into action.

FORESTALLING CRISIS: THE BOTTLED WATER INDUSTRY RESPONDS TO CRITICS

With the advent of a disposable plastic bottle a rational place from which to imbibe water, arguments in support of sustainable water use fail to undermine bottled water itself. The challenge for inspiring fundamental change is clear in the ways in which the responses to claims against the bottled water industry or fears about the global water crisis are enacted. An effective counter movement must cause individuals to question their lifestyle; the bottle of water has become a tool through which people can alleviate concerns without changing a thing. In the face of reports of the faults of the bottled water industry and concerns about the water crisis, consumers have a wide range of feel-good options.

Like supporters of privatized municipal water scrambled to rearticulate the goals and definitions of their variety of privatized water when people cried foul, so have bottled water companies in response to a range of ongoing campaigns and claims made against them. Just as these groups have organized to dispense their concerns about the ills of bottled water, the bottled water industry has responded in kind – even to claims that anti-bottled water campaigns have irreparably harmed the bottled water industry.

Some communities have banded together to fight bottled water and, in kind, groups within the industry are working together to respond. The International Bottled Water Association (IBWA) and the Natural Hydration Council are two prominent organizations demonstrating the bottled water industry's committed and organized response. The IBWA was founded in 1958. While it primarily serves the interests of

the bottled water market in the United States, its members are both large and small bottled water companies from around the world. It rallies in support of the bottled water industry in a variety of ways, including fighting governmental regulations and campaigns which limit the bottled water sales, funding reports on bottled water, serving as an informational resource for information on the bottled water industry, and offering an advertiseable code of conduct that their membership follows.

The organization has responded to claims that bottled water is a blight on the environmental well-being of the planet. Rather than arguing that their bottled water production and consumption is innocuous, they describe the numerous ways in which the bottled water industry is “strongly committed to stewardship of the environment” (IBWA 2008) via comparisons to other industries and themselves. While much of their website brags about how much bottled water is being sold, the numerous sections and press releases which address environmental concerns emphasize the relatively diminutive stature of their industry. They report only 15% of *all* packaged beverages sold in 2006 were bottled water. They skew the reality of the bottled water number two spot in the U.S. beverage market by including all types of containers and overall units sold, rather than just plastic or quantity. They also applaud the 21% rate at which their PET bottles are recycled because it is 25% higher than other food containers and they only take up 0.3% of the space in new deliveries to landfills and highlight the declining weight of their bottles.

To further demonstrate their commitment to environmental stewardship, they have partnered with the USDA Forest Service in a campaign to protect groundwater. In another effort to prove their business is environmentally sound, or at least to scare off critics, on July 23, 2009 the IBWA filed a lawsuit against Eco Canteen, a company that sells reusable water bottles. The IBWA claims that the television commercials that Eco Canteen has aired across the United States are unfairly attacking the bottled

water industry (IBWA 2009). To support their claims, the IBWA often cites studies conducted by the Drinking Water Research Foundation (DWRF). DWRF is an independent, not-for profit organization, but was actually established by members of the bottled water and home filtration industries. Not only does the IBWA offer the organization financial support, they also share an office (DWRF 2009).

In the fall of 2008, fifty years after the IBWA was founded, the largest bottled water sellers in the United Kingdom (many of which fill the ranks of the largest sellers in the world), including Highland Spring, Danone, and Nestlé, united to form the Natural Hydration Council (NHC). The group, which is registered as a not for profit company advocates and lobbies in support of the bottled water industry. As its national campaign is in support of the bottled water industry, it echoes much of the IBWA's talking points. They inform consumers that the carbon footprint of bottled water in the U.K. is a mere 0.05% of total carbon emission and that overall the recycling rates of bottled water have improved. They add that bottled water in the U.K. does not have many “food miles” as three-quarters of the water is sourced within the country and most important water comes in from France “often transported by carbon-saving electric rail or sea” (NHC 2008).

The IBWA and the NHC also demonstrate the overall public trend in the bottled water industry to backtrack against claims they are a competitor of tap water. Whereas formerly many in the bottled water industry directly called the quality of tap water into question in advertisements and publications, in light of the public backlash, they are rapidly redefining themselves specifically as a healthy alternative to sugary drinks rather than an alternative to tap water. The NHC campaign focuses on getting people to drink more water (they even have a website: yououghttodrinkmorewater.com) and its dental, mental, and health benefits. The IBWA annual report on the state of the global bottled water market repeatedly asks

that readers not link bottled water to tap water. It explains, “Though bottled water is frequently compared to tap water, bottled water actually achieved its growth by luring consumers away from other packaged beverages perceived as less healthy than bottled water” (Rodwan 2009: 14). Despite some efforts to conceal their old messaging, they have not been entirely successful. In a 1999 IBWA press release, which was removed from their archives and searchable pages of their website, they censured tap water as a monopoly and praised bottle water as the best way to ensure safe drinking water. The publication, which I founded in a cached record from Google, stated plainly, “consumers who don't buy bottled water have no choice in their home's source of drinking water” (IBWA 1999:n.p.). In their latest press releases they have even began referring to the product they sell not as bottled water, but as a “water-based beverage” (IBWA 2009).

Like these larger organizations, individual bottled water companies have made many changes to both their products and approaches to marketing to address expressed concerns and attempt to stave off further protest. A review of their websites makes this abundantly clear. All of the top bottlers have reduced the thickness of their bottles, which they advertise reduces their environmental impact and also offer additional funding to water conservation and development programs. On the website for Pepsi's Aquafina, the front page exclaims they have reduced the amount of plastic they use by 50% since 2002. Visitors of the site are prompted to click a link so they can learn how they can follow in the company's footsteps in reducing their own environmental impact. Aquafina debuted their newest bottle in March 2009, along with its trademarked, feel-good name and logo, “eco-fina” (PepsiCo 2009). Nestlé Waters has a new slogan, “The Healthy Hydration Company.” Other than the word “water” in the name of the company, the front page of the website makes absolutely no mention that the company sells bottled water. The only two full sentences on the page

simply state: “We offer products that help you meet your hydration needs in a healthy way” and “Environmental stewardship and innovation are core (sic) of our economic model.” Like Pepsi, they have a new bottle with a new name: “eco-shape” (Nestlé Waters 2009).

On the website for Coca-Cola's Dasani, in addition to the regular bottle of water, they have included new “flavored water beverages.” The front page is mostly white and nearly bare with three bottles of water and a “flavored water beverage” at the foreground. They sit in a pool of water in front of a moving graphic of water spilling behind them from an unseen source (The Coca-Cola Company 2009).

Danone's Evian is currently running an incredibly popular advertising campaign which features, with the assistance of computer generated graphics, babies on roller skates listening to rap music and break dancing. This marketing is very different than the others. The initial appearance of their website also seems different. However, despite the dedication of the right side of the screen to continuously playing the roller-skating babies commercial and using the color pink more than any other color, the overall message is similar. First, the center of the screen is white with slowly changing images of different Evian bottles. Their campaign slogan, “Live young,” while on a pink backdrop is just as “green” in its messages as the other campaigns. In their expansion the meaning of “live young,” it has to do with Evian as the “natural source of youth for body and mind.” They also promise health, purity, and sustainability (SAEME 2009).

While lately most bottled water companies have been officially avoiding and discouraging tap water comparison, a British company called “Hildon” has launched a direct attack against tap water. Hildon (2009) laments that “incompetent sources” have been responsible for the bad press facing the bottled water industry. Their campaign, as they put it, is an attempt to properly inform the public. They displayed

their message in a 20-page ad in a May 2009 edition of a trade magazine for the hospitality industry (Forston 2009). The theme of the campaign is clearly marked on each page with the words “Bottled water v Tap Water.” While the ad is a rehashing of many of the same arguments in support of bottled water that the bottled industry has depended on for decades and incorporating arguments for why bottled water, or at least Hildon's, is better for the environment than tap water. The ad pages, which are presented in a similar style to public service announcements with the words “Sponsored by Hildon Natural Mineral Water” in very small print, warn would-be tap drinkers of “cancer drugs found in tap water” as well as the parasite “cryptosporidium.” The ads do not stop at simply highlighting select failures of tap water, but fundamentally question the system itself because tap water is treated. The ad poses the question “Do you know what condition Tap Water was in before it was made artificially safe to drink?” and then answers with the word, “no.”

Hildon's ad minces no words. Though recently other bottlers have officially denounced comparisons to tap water and denied claims that they are seeking to act as an alternative to tap water, they still continue in subtle and overt ways to make the comparison. The *Natural* Hydration Council's saturation of the word “natural” into its campaign whose slogans include: *naturally* sourced water, *naturally* kind to teeth, *naturally* superior performance and *naturally* sharp mind, seem to serve as a subtle reminder hinting at a similar message to Hildon in that bottled water is “natural” while tap water is “artificially made safe to drink.” Though companies now officially denounce the comparison, the continued use of language and images of nature, health, and purity, relies on an underlying comparison to *something else* that lacks those qualities. While Nestlé Waters's official publications explicitly deny any intention to compete with tap water, CEO Kim Jefferies broke with the party line by commenting in a way that conflicted with the company's official stance in a December 2008

interview with Advertising Age. In response to the question: ‘why shouldn't everyone just drink tap water if they want a healthful beverage option,’ he stated:

There's no one in America that can tell me that what you get out of your tap is the same as what we're able to deliver in a closed system. [We're] guaranteeing that product, when you open it up, is high quality. You can't make that guarantee for tap water that's coming through an infrastructure that's as much as 100 years old... We represent the only alternative when tap water goes down in America, and it goes down a lot (Zmuda 2008: 16).

This example makes it very clear that companies' goals do not necessarily change when the well-placed and crafted words in their marketing do. However, some companies do strive to fully respond to critiques.

As a result of the faith in the market to solve these social and environmental failings tied to the commodification of water that bottled water critics identify, a number of new bottled water companies have entered into the market. Unlike the others, these companies have not reformed in response to complaints, but formed to embody a solution. The proud bottler of New York City tap water, Tap'd NY, is marketed as “the anti-bottled water bottled water.” The company was founded to provide a locally sourced bottled water that would not require long distance transportation (Tapped Water, Inc. 2009). Ethos Water was founded in 2001 with a mission to raise money for water improvement projects and was purchased by Starbucks in 2005. Ethos's bottled water bares the slogan, “Helping Children Get Clean Water” (EthosWater 2009). Belu Water is made of corn-based compostable plastic and claims to be carbon neutral. They send all of their profits to clean water projects and they promise that each bottle purchased will grant someone clean water for a month (Belu Water Limited 2009).

While people with noble intentions run many of these companies, their noble intentions come in the form of the market norm and actually work against creating a “commons approach” to sustainable and equitable water use. They offer solutions in a

world where water is viewed as commodity and is found in a bottle. Reducing environmental harm or sending money to unseen water projects does not change the state of the world's water. The ideas that water access is a personal problem and consumption is isolated obscure the far-reaching, unseen consequences of water use.

For most people who do not have the time or are not inclined to delve deeply into the details of the industry, news of these minor concessions will likely be enough to quell any rising levels of concern. The legitimate critiques against bottled water were transformed into a solution commensurate with the dominant economic interest. The concerns here are expressed almost entirely in relation to bottled water as a pollutant. While pollution is a problem, these companies show that problems with pollution can be ameliorated within the bottled water industry both through material changes as well as well-spent marketing dollars. As the industry pacifies those who express these concerns, it continues to conceal commodification itself.

CHAPTER SIX FINDINGS AND CONCLUSIONS

THE CHALLENGE OF ANTI-PRIVATIZATION IN A MARKET SOCIETY

Fighting against privatization in a climate which is so accustomed to it and its role in the economy is an arduous crusade. The Polanyian lens illuminates the current state of affairs pertaining to water privatization. In tracing the heritage of the current model of privatization, we arrived at the peculiar construction of liberal economic hegemony. The offspring of those powerful actors who first stripped the market from social inclusion live in large-scale forces, such as intergovernmental organizations, financial institutions, private corporations, as well as in the minds of those who live under these naturally assumed and unquestioned conditions. Looking at resistances to water privatization, which I have identified as counter movements, reveals the strength and adaptability of the hegemonic forces in support of the self-regulating market. Even despite some ostensible victories in resistance, supporters of privatization continue to reassemble quickly.

In Chapter Three I showed that many solutions posed as anti-privatization measures often continue to lean toward a logic of economic liberalism and the requisite consideration of water as a commodity. Following that chapter, I provided many examples of ongoing projects that shape the framework of action, on both large-scale and individual levels, and stave off changes which call into question any fundamental liberal economic notions. The changing language regarding water privatization and the recent adjustments of the bottled water industry show a way in which minor changes are used to quell the development of larger concerns or need for change.

In a market society based on faith in the economic sphere, money speaks louder than words. Even when concerns about privatization are expressed, they often

fail to look beyond particular topics and change is inhibited by the venues that process it. Despite Goldman's (2007) sharp censure of the private municipal water industry, his only reference to bottled water is to describe, uncritically, it being touted as a paragon of excellence with which to compare tap water.

Without questioning the overall economic system and its requisite assumptions, most critiques which do not challenge commodification can be responded to within the framework of the existing system. The private industry can alleviate certain fears about water use and distribution and even in non-private arrangements water may still be treated as a commodity. If change needs to come from a large-scale outcry, the challenge is becoming increasingly difficult as the push and pull of the double movement happens on the landscape of such deeply entrenched systems. While the pro-commons argument has been posited as the only anti-privatization argument which posed a solution contrary to economic liberalism, the reality of such a change seems unrealistic in the face of a hegemonically market-oriented world. While one arm of the neoliberal project subsumed water-related fears as solvable within the confines of the market, bottled water functions to stave off a feeling of crisis which would rally people to demand larger change and question the current economic system.

The argument in support of the water commons is convincing and logically sound. How else can a substance as unique as water be sustainably managed than with deliberate, global cooperation? However, it is contrary to the ideas held by the majority of the most powerful decision-makers on earth as well as billions of others. To even consider the notion of the commons belies the unencumbered individualism and economic valuation that are cornerstones of the neoliberal doctrine. If the need to deprogram economic liberal thinking did not present an unyielding challenge before, the last two decades have ushered in not just a new push to privatize municipal water,

but the material change of private bottled water as a major player in the fight.

Not long ago, communities needed to share water out of necessity, but in the complex of today's choices, that necessity now seems an improbable option. Alone, the follies that accompanied so many of the municipal privatization projects might have incited a more effective counter movement that questioned the commodification of water, but the advent of the ubiquitous bottle of water has allowed many to turn inward. Bottled water not only supports the commodification of water, but blinds people from seeing the need to holistically care for the world's water supply. It further entrenches the apparent reality of market ideas by allowing its logic to apply to water in a way in which it previously had failed.

Today's wide range of options and technologies for water provision may allow water to break-free from those features that were once given in favor of terming it a natural monopoly. Unlike in Polanyi's scenario in which social cooperation is necessary to ensure a feeling of safety, the unit of change has successfully shifted to the individual and the appropriate way to maintain water supply has, in turn, shifted into the hands of the market. In light of the water crisis, the world water industry is now poised stronger than ever before to react to any challenge with a network of solutions that rely on private, or at least market-oriented, conceptions of water as a commodity. While fundamental change is not impossible, the barriers are daunting.

DE-MONOPOLIZING THE NATURAL MONOPOLY

In the nineteenth century market society, when the technology related to universal water provision for growing populations was in its infancy, water failed to meet market-oriented standards. Clean water appeared to be a homogeneous commodity, high-fixed cost created barriers for new firms to gain entry, and private companies failed to expand provision to poorer households as they had little financial

incentive, making it a natural monopoly. Today's bottled water industry represents a momentous change, offering the material support to go with the wave of privatization that contested water's freedom from the market as a natural monopoly. As stated in the World Bank's explanation of the benefits of privatization, the competitive bidding associated with it allowed for "some of the benefits of competition to be brought to bear in the absence of direct competition" (1998: 3). In all the ways in which liberal economists describe natural monopolies as an unfavorable exception, the option of bottled water is superior to privatized municipal systems. The growth of the industry responds to each of the initial shortcomings of water provisions: it provides product differentiation (whether or not there is a difference, it claims to be different in its marketing that challenges other bottlers as well as tap water – and the fact that it comes in a bottle also represents a difference), it has much lower barriers to entry, and it has expanded to the poorest areas, even when infrastructure has not.

Bottled water, like other kinds of privatized or commodified water, contributes to a variety of undertakings in the trends of water privatization that continue towards mutually reinforcing ends –maintaining the status quo of market society for some, expanding implementation for others, and consistently rejecting any broad measures that question their logic. First, as we have seen, bottled water provides an individual way to acquire safe drinking water. Because bottled water is a relatively affordable option, when doubts, even minor or temporary, arise about the quality of municipal water, many will turn to bottled water or simply continue drinking it, as the case may be. Bottled water and private water utilities are fighting the same battle – they are fighting to undermine faith in public water utilities with market-based, commodified, and individualizing treatments of water use that stand in the way of cooperative governance (e.g. commons-based approaches).

Whereas universal concern about public water quality was once an immediate

necessity, bottled water allows people not to feel that vital concern for water as a shared resource. Without the need to care about the water that comes from their taps, they will fail to feel an immediate need to fight to improve conditions or even maintain them. In one scenario, if this trend continues, without public support and willingness to show that support with their tax dollars, the infrastructure of public water is poised to degrade or crumble – less than adequate water will not raise too many red flags if no one is drinking it. When public systems fail, it paves the way for more private utilities. Their advocates can point to the failure of public management and then point to privatization as the solution (Gerard 2009).

In the case of places without an established water infrastructure or with genuinely undrinkable water, bottled water may be hindering progress towards the goal of establishing an infrastructure to deliver clean water to all. Ubiquitously accessible bottled water is such an easy and obvious source for drinking water for those with at least a modicum of money and power as to prevent them from feeling inclined to participate in a counter movement to bring water for all or change water practices. It also conditions people to accept water as a commodity.

While Nigeria – Africa's most populous country and home to the world's largest river delta – is rich in water resources, accessing safe drinking water is a daily struggle for many of its residents. Though the Nigerian government is working to increase access, a large informal bottled water market has also emerged. The water is sourced locally, usually from boreholes. By the close of 2008, the market had grown by 90% since 2003 and now makes up between 4-6% of the country's total GDP (Owoseye 2009; Girard 2009). While Nigerians are buying more bottled water than ever before, WHO/UNICEF Joint Monitoring Programme (2008) reports a decline in access to improved water sources between 1990 and 2006, from 50% to 47%.

The bottled water industry may be compensating for the lack of infrastructure

which leaves growing millions scrambling for alternatives. In the case of Vietnam, even though the WHO/UNICEF Joint Monitoring Programme indicates that the country has made great strides in improving water services, public water works have failed to expand to the poorest citizens. Additionally, much of the municipally delivered water must be boiled. Instead of utilizing the existing system or demanding improvements in quality and coverage, Vietnamese people are buying bottled water. Bottled water sales shot up by 80% between 2003 and 2008 (Girard 2009). Strangely, these sales continue to increase even after multiple reports of contamination and illness from tainted bottled water. The Vietnam Association of Standards and Customer Protection estimate that 70% of the nation's water bottlers are not meeting minimum drinking water standards (Dat 2009).

Water and sanitation related diseases are a major health problem for those without access to improved facilities – diarrhea is one of the nation's top killers. Rather than insisting on municipal improvements, residents remain more focused on their individual option of bottled water (WHO/UNICEF 2008). As health departments have begun to crack down on standards of bottled water production, reports indicate the industry continues to flourish (Dat 2009). These examples demonstrate a less straightforward path for the development of a public water utility. If the people who the pipes are supposed to serve do not care about the quality or do not use them, they are unlikely to materialize as the mode of universal access to water.

Bottled water can take the place of the need to provide everyone with a clean, drinking water infrastructure, as it has in Mexico. Mexicans drink more bottled water per person than citizens of any other country. In Mexico, rather than the smaller bottles of water, which account for most of the sales globally, over 70% of the Mexican market is made up of larger containers designed specifically for household consumption. Mexicans drank 12.3% of the global volume of bottled water in 2008

(Rodwan 2009). The bottled water market expanded faster than the country's water infrastructure and for many has become established as the normal way to obtain drinking water.

Even without preventing the ultimate implementation of water infrastructure, bottled water, in both the formal informal sectors, can facilitate the implementation of private control of water utilities by enabling the requisite mental transition of water into a commodity. Additionally, rather than necessitating broad consideration of the relationship between individual water consumption and the quality and quantity of global water resources, this mental transition also transfers this responsibility to the invisible hand of the market.

JOINT FORCES

Providers of private water and governing institutions have joined forces in others ways. The bottled water industry is uniting with some of the usual suspects in the push towards water privatization. In 2006, the IBWA's officemate, the Drinking Water Research Foundation (DWRF), was added as a partner at the Drinking Water Research Information Network's (DRINK) (DRINK 2006). DRINK is a project run by the U.S. Environmental Protection Agency that aims to be a centralized source of information on research pertaining to drinking water for the international community. The inclusion of DWRF as a partner in the project allows the organization a secondary screen with which to obscure their organization's direct responsibility and mandate support for the bottled water industry.

Starting with the World Water Forums, governing agencies have deliberately and openly united with both private water firms as well as the bottled water industry. I recently drove past a display on the side of a Toronto bus station shelter that was a combination of a public service announcement about the state of the world's water and

an advertisement for the Danone-owned bottled water, Vittel. The display featured a large UNICEF insignia as well as an image of a bottle of Vittel and the promise that the two were working together to dig wells for people without access to water. With the union of Vittel and UNICEF, the poster strongly implied that Vittel, if not bottled water companies in general, supported the universal expansion of water services.

Another measure binding like-minded actors is the CEO Water Mandate under the UN Global Compact. The CEO Water Mandate is a program through which private enterprise and international governance institutions may collaborate on solutions to the water crisis. In becoming a signatory of the Mandate, the companies involved are compelled to participate in policy-making decisions by joining groups, including the UN Environmental Programme's Water Policy Programme and Water Governance Programme, and invited to meetings of various stakeholders, such as the World Water Forums. Under the Mandate, companies pledge to “[s]upport the work of existing water initiatives involving the private sector” (UN Global Compact 2007: 5). Collaboration with the World Bank is explicitly suggested as a way to fulfill the pledge (*ibid*).

While many water-related organizations and even some countries are restricted from participating in these conversations that shape global water use, the companies involved are welcomed to the table with decision-makers. They sponsor research and sign their name on documents with the backing of the United Nations. The list of signatories was last updated on July 14, 2009 and includes private water vendors in both the bottled and utility market, including Coca-Cola, Pepsi, Nestlé, Danone, and Suez (UN Global Compact 2009).

Together, the interests of pro-private actors can shape the world into a suitable canvas for their projects. Through various ways, people are being eased into the idea of paying for water that comes with commodification and privatization, and

approaching water with individualistic intentions rather than broader social considerations. Even without turning to either of the most popular private options present, home filtration may be another sign and supporter of the trend. For instance, even though the American Water Works Association (2009) reports no need for home filtration, 86% of U.S. residents express concern about their tap water. In 2000, 40% of U.S. homes used some kind of home filtration and by 2007, the number reached 60% (Royte 2008). Even anti-bottled water campaigns like “Take Back the Tap” provide consumers with information on home filtration systems (Take Back the Tap 2009). For most people who can afford it, and even some that probably ought not, choosing to spend a few dollars to purchase water or even a filter, is a much easier and more immediate way to ensure the quality of their drinking water than attempting to alter the local system of delivery – let alone signing up for a global counter movement demanding systemic change in the global economy.

SEEKING SOLUTIONS

In this ongoing push towards privatization, commodification is evident. The fundamental problem with this model is in the implication of private water in the hands of an individual: you pay, therefore you own. While in market society private provisioning of water becomes normative, it logically follows that water can be owned by the individual. Water privatization in this sense can be seen as personal. If market society is the source of prevailing logic, then regardless of the type of provision, public or private, once water is in the hands of an individual, it becomes his or her private or personal water. There is no obvious need to think of what happens after (or as a consequence of) this personal use. The shortsighted approach that behooves individuals to care only for the condition of their own water, fails to encourage the consideration for where the water ends up after the individual is done with it. The

very nature of water and all its multiple anthropogenic and non-anthropogenic uses may hinder anyone's ability to comprehend the condition of global water. Not only does the mandated individualism in market society make the prospect of thinking of water as a commons difficult, but also it does not consider the complicated nature of water itself.

The individual water use that I explored in this paper makes up a small fraction of the water that is extracted and impacted by human activity. Even the best measures taken by people in their daily lives to minimize the water they draw upon for their personal usage will not result in any great impact on the state of the world's water. While excessive anthropogenic withdrawals and pollution are primary culprits in inducing and exacerbating the global water crisis, the complex of water use is difficult to perceive. Water is so much more than a drink.

Globally, agriculture accounts for 70% of water use and industry about 20%. In countries with less efficient irrigation, agricultural use sometimes accounts for over 90% of overall use (UN-WWAP 2009). The demand for water has tripled over the last fifty years (*ibid*). As a consequence, these activities deplete the sources of clean and protected water and dump effluent into waterways. Sometimes the effects are obvious. So much water is taken or diverted from the once mighty Colorado River that it slows to mere trickle, if anything, by the time it reaches the Gulf of California. In Central Asia, the demand on the Aral Sea caused the sea level to sink so low that the sea split in two (Brown 2006). Many of China's rivers have met similar fates. Of the ones that remain, 80% are so polluted that they do not support fish (Black 2004).

Although a dry riverbed, exposure of the sea floor, or the death or disappearance of millions of fish are empirically obvious repercussions, the extent and implications of most water use is much less perceptible. The term “virtual water” is used to describe the volume of water necessary to produce a particular good or service.

For instance, a 200ml glass of milk represents 200 liters of virtual water (LVW), a slice of bread, 90LVW, a potato, 25LVW, a microchip 32LVW, a cotton T-shirt, 2000LVW, and a pair of leather shoes, 8000LVW (Hoekstra and Chapagain 2007). The various inputs are not apparent in a finished product. Virtual water is just one of the many places that water hides. The world's water tables are rapidly falling as they are over-pumped or sucked dry. While the problems of the water crisis are real and growing, the people in the world who easily get enough to drink each day do not see them. Despite the UN-WWAP's predicted change, the water crisis is still an invisible threat for the majority of the world's population.

With the reality of water use obscured and with so many people disinclined to even look beyond personal use, how is it possible to transmit the meaning of growing water scarcity? To those with water, the fear of a water crisis will remain at most theoretical. Currently, most debates on how to solve it are stuck on the idea styles of management pertaining to provision. Discussions need to include actual practices of water use and not simply the best way to increase provision in the face of a crisis. The water crisis will not end by eliminating thirst, but by altering use.

I have read many works that include the veteran World Banker Ismail Serageldin's (1995) ominous warning, "Many of the wars of this century were about oil, but those of the next century will be over water." Serageldin suggests an inevitable and unstoppable crisis. I do not believe this to be true. Current practices that consolidate water into private hands and allow people to pump as much as they can pay for enable such an end. However, stopping these practices can stop the process of manufacturing a growing crisis.

Though my findings paint a bleak picture of the chance for real change, increasing scarcity of water might finally lead to a widespread and visceral need for change, as Polanyi predicted. When the water crisis shifts from theory to concrete

reality, popular conceptions of water and other resources will need to shift.

Unfortunately, if change will not come until the faucets of the world begin to trickle dry and as the bottom of the omnipresent bottle of water is exposed, hindsight will not be enough to restore the devastated hydrological cycle.

However, Polanyi warns against such fatalistic pessimism. While the actors working to assert the disembedded economy are fighting back, there is something to be said even for the victories of the counter movements that do not manage to topple the system. Polanyi offers encouragement with the advice:

That which is ineffectual in stopping a line of development altogether is not, on that account, altogether ineffectual. The rate of change is often of no less importance than the direction of the change itself; but while the latter frequently does not depend upon our volition, it is the rate at which we allow change to take place which we may depend upon us (2001: 38-39).

Regardless of the palpable regeneration and assiduous heel digging that faces counter-movements challenging water privatization, at the very least, they can interrupt the disembedding process. If the disembedding process brings harm, impeding upon it prevents harm, albeit temporarily. Polanyi describes several counter movements that, without reembedding the market, did exert some beneficial mechanism of social control. For instance, without extricating human labor from its treatment as a commodity, regulations vastly improved factory conditions.

The declaration that the forces of privatization had been vanquished was premature. As I have argued, in a slightly altered incarnation, the forces advocating and imposing the privatization and commodification of water endure. The post-1989 boom of privatization was forceful and conspicuous. The speed and language has changed, as well as scope of the actors who are the primary advocates of implementation. But the intention of the project has not shifted from the ultimate goal of privatization. Its supporters still believe that the market is the best water manager.

Their tactics are consistent with the economic theory of Ricardo, champion of an unhindered free-market, according to Polanyi. Ricardo maintained that gradual change was important to prevent social upheaval when removing structures that hinder market forces (Polanyi 2001: 143). By gently applying price, business models, and the logic of individualism to water they advance toward the same end. The confluence of the multiple disembedding forces continue on the path they see as natural, gradually instilling the ideology of market society.

APPENDIX A METHODOLOGIES

INTRODUCTION

This section articulates the methodological approach employed in this thesis as well as the obstacles and limitations of my project. In addition, I present some potential next steps regarding the implications of my findings.

This thesis, and the disconnection within water debates that it addresses, was informed by my initial attempt to explore the growth of the bottled water industry. Though the growth of the bottled water industry in the places I have lived (New York state and the Greater Toronto Area) has been pronounced, my interests were piqued in August of 2005 while working with an indigenous-rights organization in Chiapas, Mexico. As many places I visited lacked either running water or drinking water (and occasionally both), I was especially cognizant of water sources. In both rural and urban areas, bottled water was readily available from street vendors, stands, and stores. In the city of San Cristobal de las Casas, from early morning until long after nightfall the sound of the water trucks was inescapable. The modified pick-up trucks, piled with five-gallon jugs and adorned with loud speakers, drove the streets playing music and advertizing “agua fresco” (fresh water) and “agua pura” (pure water). While attending a lecture in the city, I was informed that the Coca-Cola Company had begun staking claim to some of the fresh water resources in Chiapas and was building bottling factories. Though Chiapas has limited infrastructure to move the water, it has rich fresh water resources. Coca-Cola was limiting free access and re-selling the water as bottled water or other beverages. I began to wonder how and why so many people were going along with the bottled water craze.

In searching for explanations of the global increase in bottled water sales, I found little discussion of bottled water in academic publications. I did discover a large body of literature pertaining to water privatization, but almost entirely limited to the

merits and implications of the post-1989 privatization of municipal water. Yet the criticisms I found of “privatized water” in this literature seemed to be applicable to bottled water as well. As I admit in my thesis, I am not the first to make the case for the relevance of bottled water in discourse regarding privatized and commodified water; I am merely explicating the relevance which has thus far remained peripheral at best.

METHODS AND APPROACH

My research questions interrogate the relationship between the growth of the bottled water industry and privatization of municipal water systems. My findings are based on the proposition that there is a relationship between private municipal water and bottled water: working from the premise that social and historical factors are constitutive of the current trends and patterns emerging in water provisioning, I examined impact that water privatization has had on public water supplies and resources. I did not assume that I would be able to address all these factors that relate to water, or that I could draw any immutable, grand conclusions. I approached my thesis project mindful of my methodological standards and limitations.

Throughout this thesis, I have attempted to provide an intervention into the vast literature on water privatization, illustrating the debates that have been occluded, marginalized, and/or neglected by contemporary research. Thus, I have substantiated my claims through literature review, content analysis, and personal observation. As my thesis project engages a set of pre-existing discussions pertaining to water privatization, I primarily relied on the applicable existing literature on water privatization to inform my research. The evaluation and integration of the existing literature and data regarding municipal privatization and bottled water sales provided initial evidence. Polanyian theory also provided a historical framing to situate the

social influences that led to the trends of increased water privatization. Additionally, to compare and contrast the trends and strategies of private companies, as well as their institutional support, I engaged content/documentary analysis of websites, press releases, advertisements, investment guides, newspaper articles, published standards of operation, and policy reports. I acquired these materials via: library research, electronic searches of scholarly journals, obtaining referenced material, and the World Wide Web.

LIMITATIONS AND OBSTACLES

My thesis has been influenced by external and self-imposed barriers. Although my thesis makes claims that speak to the fate of all of the world's water under privatizing and commodifying measures, I could only address selected sites and illustrations. For the sake of relative brevity and timeliness of completion, I had to choose a subject that I could examine without extensive travel or several dedicated years of study. I chose to look mainly at drinking water, specifically focusing on bottled water and municipal water. Although I justify this choice by discussing the importance of the drinking water in shaping perceptions of water, I gave little attention to the agricultural and industrial use responsible for the majority of human withdrawals. I could have also included a larger focus on another kind of individualized water use, such as home filtration. In addition, much work on water use has illustrated class and gender dynamics, which I have almost entirely left out in my discussion. However, my thesis is intended to be an initial and exploratory intervention in a broad field of literature in which discussions on the explanations and effects of water privatization have consistently been separate and distinct from discussions on bottled water. I have attempted to begin a conversation regarding the interconnection of these discussions and debates.

In my thesis I provide a range of evidence that supports and elucidates the nature of this relationship. My exploration includes some further suggestions as to the ramifications of the trends I indentify, the boldest of which is the suggestion that the presence of bottled water may prevent action being taken to maintain a sustainable public water supply. Although my thesis includes empirical evidence that *may* support my claims, the extent to which bottled water acts as a Trojan horse is supported largely by conjecture. For instance, I provide evidence of an institutional stronghold that enables water privatization (i.e. connecting bottled water to Goldman's transnational policy networks or The Global Water Compact), but my suggestions that it could prevent action from being taken to protect municipal water or even prevent the development of infrastructure is untested and supported only in theory. More testing would be needed to verify some of my claims.

NEXT STEPS

I see two imperatives within the findings of my thesis. First, is the need to broaden what activities and forms of provision are included in discussions of water privatization. I think I have made some very convincing arguments for why the discussions of privatized and commodified water should not just look at municipal privatization, but also at other water forms of provision, such as bottled water. The second imperative is to further investigate the ways in which bottled water acts as a Trojan horse for the extension and perpetuation of market logic, as it relates to water, and could gravely impact the availability of public water resources.

The first of my imperatives could be achieved quite simply. While the majority of policy and academic discussions have failed to look beyond municipal privatization, several organizations have already begun making broader connections (e.g. The Blue Planet Project, The Polaris Institute and Food & Water Watch).

Hopefully, this emerging trend will continue. Especially for those who criticize and protest the privatized model, exploring more than just the municipal model can help reveal other important contextual considerations. For instance, within the social and historical material I engaged while addressing bottled water, I found evidence that spoke to the importance of looking at the role of market logic and how economic discussions of water as a natural monopoly could shift if bottled water is seen as a plausible form of product differentiation.

The second imperative is one which requires more work, which I would like to address through further investigation. I propose a comparative case study as an optimal next step in examining the “Trojan horse” claims. I expand upon this in Appendix B.

APPENDIX B TESTING CLAIMS: EVALUATING THE ‘TROJAN HORSE’

THE CLAIMS

My argument regarding bottled water’s shift from fairly harmless beverage to potential threat to world water resources is produced through empirical evidence and inference. In sum, I make the case that as bottled water has grown in popularity and availability it has increasingly been relied upon as a source of drinking water provision and that it is eroding on previous consideration of water as a public good by offering an alternative to direct acquisition from public water resources and infrastructure.

While water has historically been treated as a public good because of the severe and widespread ramifications of contaminated or insufficient water and has been protect from traditional market logic as a natural monopoly, bottled water offers an alternate solution that could obscure the need to treat water as a public good or natural monopoly. Simultaneously, as it offers an alternative to acquisition via a piped-in source, it also may spell the end to water’s freedom from market rules as a natural monopoly. In other words, by making clean water available regardless of the condition or availability of a piped-in public supply and offering a new and feasible method of water delivery, it could both diminish the public mandate regarding the urgency and necessity of well-maintained local water resources and provide a way to unleash market competition on water resources.

Projecting the ways in which these outcomes of bottled water provision could impact world water both conceptually and materially, I make two unconfirmed claims: (1) public outcry regarding diminishing water quality or availability of water resources could be severely diminished and (2) bottled water-use could adversely impact the maintenance or even the development of public infrastructure. Proof is needed to test or substantiate these claims.

EVALUATING THE CLAIMS: A CASE STUDY APPROACH

In order to assess these claims and address if and how the prevalence of bottled water, in a specific locality, affects both public concern over water quality as well as the physical quality and availability of public provisioning, I would employ case study approach.

In his volume on case studies, Yin (2008) explores the scope of their utility. A case study is a type of empirical inquiry that “investigates contemporary phenomenon in depth and within its real-life context” (*ibid*: 18). They can be used to “*explain* the presumed causal links in real-life interventions that are too complex for the survey or experimental strategies” (20). He also notes that case studies may be complementary to historical explanations (*ibid*: 11). For these reasons, a case study seems an apt way to evaluate the “presumed causal links” in my claims and build upon the largely historical foundations from which I draw my conclusions.

DESIGNING THE CASE STUDY: THE FIVE COMPONENTS

Research design for case studies is generally composed of five components: (1) a study’s questions; (2) its propositions, if any; (3) its unit(s) of analysis; (4) the logic linking the data to the propositions; and (5) the criteria for interpreting the findings (Yin 2008:27). I am not yet equipped with the knowledge I need to sufficiently design a study. The ability to create an effective and informed design is contingent upon the outcome of a laborious process of preliminary investigations, including site specific literature and data reviews, and a range of logistical factors. Rather than prematurely attempting the design, I offer only a preliminary sketch of what I may expand upon in another endeavor. This proposal for future design addresses each of the five components, but further development would require much more investigation and

planning.

THE LOGIC LINKING THE DATA TO THE PROPOSITION AND THE CRITERIA FOR INTERPRETING THE FINDINGS

Yin (2008) describes the final fourth and fifth components of case study research design as tending to be the least developed and often overlooked in case study designs. They predominantly have to do with data analysis that will occur after the study, but are important criteria to consider at the onset of research. These design criteria are largely warnings of factors a researcher should be aware of during the design phase. They should be incorporated throughout the design and carry through until the end of the study. Even in this premature sketch of my research design, I attempt to follow this advice.

In the sections below, as I discuss the selection of potential research questions, propositions and sites, I have followed the directive of the fourth component in considering the logic of the relationship of data. The criteria I describe for selecting plausible sites of study are determined by the presence of qualities that could answer my research question and be directed by my propositions. The fourth component also involves selection of appropriate analytic techniques and research methods. I begin this in my above justification of the case study approach in general and also include this in my discussion of case selection.

During the design phase, the fifth component, “criteria for interpreting a study’s findings,” is a preemptive measure to ensure more rigorously tested findings. Namely, Yin says to be aware of what evaluative strategies will be used to examine the findings and to be knowledgeable about rival explanations before beginning the study. Thus far, my work has demonstrated my commitment to these two aspects of component five. The methodological standards I outline in Appendix A are examples

of the former and the alternate arguments in favor of market logic/water privatization and the criticisms of anti-privatization claims that I include throughout the main body of my theses are examples of the former. I intend to continue this commitment as I advance and draw on these findings in designing my case study.

As the purpose of this case study is to acquire empirical evidence pertaining to my claims, it must include a range of strategies to obtain concrete information. The information gathered needs to include methods water provision and the attitudes and actions surrounding them. My design should not simply focus on validating my claims, but actively include strategies to counter them. I suggest some methods below.

QUESTIONS AND PROPOSITIONS

The questions and propositions which would guide my study come directly out of the claims I discuss above. My potential research question might ask: how does consumption of bottle water impact attitudes toward public provision and the quality of public infrastructure? Explanatory propositions are not requisite in case study design. Some projects begin with only the intent of exploration. Many case studies, like mine, are produced because of a proposition. The proposition is often the reason that the case study is designed. It also clarifies and directs the ways in which the research question will be answered and the kinds of evidence which may be relevant (Yin 2008:27/8). This is the case for the propositions which would guide my case study. I would likely use the “two unconfirmed claims” from the last paragraph of “The Claims” for this purpose.

UNITS OF ANALYSIS

The unit of analysis in a case study is simply the case or cases chosen. Although my underlying interest in the study has to do with individualized water

provision and the effects of market logic on water resources, case studies allow for realistic, real-life testing sites. Selecting the appropriate case or cases to analyze must be done purposefully with consideration for other components of the study. To facilitate answering my questions and evaluating my claims, I would propose a comparative study of two or more municipalities. Concentrating on a municipal-context would allow me to explore the site specific trends in water use in relationship to whatever municipal infrastructure might be in place. Reducing the area of study also allows for much more rigorous and thorough data collection. Specifically I would suggest focusing on municipalities within Mexico.

The selection of Mexico itself is prompted by my knowledge of the trends in water provision in the country. Although federal, state and local governments in Mexico have mandates to move towards universal water provision, Mexico has the highest rate of bottled water consumption per capita in the world. To further their stated goals of universal piped-in water provision, they have participated in both publically and privately funded and managed projects (Barlow 2008; Black 2002; Rodwan 2009).

Shifting focus from this national backdrop and looking closely at particular municipalities, I could quantitatively explore types of water provision (e.g. obtain records from water service providers, survey households on purchases practices, or track sales) and qualitatively inquire about the way people conceive of these services and of water more generally (e.g. through surveys, interviews, and/or local media). I see three feasible approaches through which to choose the particular sites of study: (1) the presence or absence of civil unrest regarding water quality and provision, (2) by rates of bottled water consumption and quality of infrastructure, or (3) a combination of 1 and 2.

MAKING THE CASE

In adhering to instructive and structuring aspects of the five components of case study design, I have presented a case designed to evaluate two untested claims. Coupled with rigorous strategies to gather empirical evidence, the approaches I suggest for site selection are intended to find specific factors that may help triangulate the relationship between the evidence I gather. Looking at particular sites may not offer conclusive proof regarding my claims, but through a well-designed study I will learn more about the plausibility of my claims.

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