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THE POLITICS OF ARCTIC SEA ICE LOSS

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ABSTRACT

This is a qualitative thesis comprised of comparative case studies exploring the reasons why the United States is the only country of the eight Arctic nations which comprise the Arctic Council that has not ratified the United Nations International Law of the Sea Treaty. I have selected cases mostly related to American, Canadian, and Danish environmental policy, Arctic policy, public opinion, and historic records of participation in international laws, organizations, and treaties like the United Nations Law of the Sea Treaty, the Arctic Council and the United Nations. I have reviewed cases from 1970 onward because this is the year Canada established a powerful law protecting its Arctic territories and waters and because it was in 1973 that the first United Nations Law of the Sea conference occurred. The units of analysis are three case study countries, the United States, Canada, and Denmark. I control for regime type, geography, levels of civic engagement, and level of education of voters. I have found that across the three countries, levels of public opinion regarding climate change and the Arctic are relatively similar, so the important determining factors are the presence of nonrenewable energy business interest groups as well as the ease with which each regime translates public opinion into legislation and treaty ratification.

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Chapter 1

Introduction

The Arctic in 2018 is a rapidly changing place, physically, biologically, and geopolitically. Sea ice melt, permafrost thaw, and general warming patterns on Arctic land and in Arctic waters are resulting in increased shipping, greater industrial and tourist activity, and to other dangers to Arctic flora, fauna, and human life. As the Arctic changes, countries and international organizations must adapt and cooperate through the use of multiactor forums like the Arctic Council and through international laws such as the United Nations Law of the Sea treaty and the United Nations Declaration on the Rights of Indigenous Peoples.

Climate change and global warming are increasingly grave issues facing the planet. The planet is heating up at unsustainable rates due to the burning of nonrenewable energy in the form of fossil fuels, which include oil, natural gas, and coal. The emissions from the burning of such fuels greatly increase the level of carbon dioxide, the primary greenhouse gas, in the earth's atmosphere. As the amount of greenhouse gas increases in the atmosphere, the amount of solar heat that lingers at the earth's surface, and the temperature of the earth rises. As the planet warms, it has drastic and dangerously detrimental effects around the globe. In the Arctic, sea ice melts and creates a positive feedback of melting; when ice turns into sea water, it goes from white to dark blue. Dark colors absorb heat rather than reflect it, engendering further melting of sea ice. As sea ice melts, the sea level rises resulting in widespread flooding and the submerging of entire land areas. As the atmospheric temperature rises, permafrost, which stores more than half of the global amount of carbon dioxide, thaws and releases that carbon dioxide into the air, contributing to the thickening of greenhouse gases in the atmosphere (Juhasz 2008).

As global temperatures rise, as does the temperature of the oceans. As the oceans warm and absorb more pollution, they become more acidic, creating an increasingly inhospitable habitat for the

animal and plant life under the sea. The oceans are reaching the maximum capacity of pollution and acidification they can hold, and will soon no longer be able to filter pollution. As the global temperature rises, extreme weather and natural disaster occurrences are becoming more frequent, leading to the displacement of many people, now referred to as climate refugees. Green areas will face desertification, leading to even more rampant food insecurity. Frankly, the name "climate change" is neither severe nor honest enough; "climate chaos" would be more apt (Juhasz 2008).

Climate change, its history, and its future are accompanied by a complex enigma; many of the industrialized countries of the world are the largest consumers of nonrenewable energy and are the largest contributors to climate change, yet are the least at risk of the current effects of climate change due to their geographic location and privileged ability to move away from or adapt to the worst effects. It is people in so-called "less developed" nations who will bear the brunt of the burden of climate change, despite being the least responsible for it. Releasing 30 percent of all energy-related carbon dioxide emissions in 2004, the United States is by far the largest per capita contributor to global warming and climate change (2008). The United States is also the world's largest consumer of oil, the most harmful and powerful of the nonrenewable energy resources (2008). The United States makes up only five percent of the global population, yet it uses nearly 25 percent of the global oil supply each year (2008). Americans consumes as much oil annually as China, Japan, Russia, Germany, and India *combined*, averaging at about three gallons per person, per day (2008).

Clearly, oil and other nonrenewable energy resources fill the lives of Americans, but also have immense amounts of sway in American politics and economics. Climate change has been called the single biggest threat to human and nonhuman life, yet not everyone even believes it exists, due in large part to the influence of corporations who pay politicians to speak out against the existence of human-caused climate change. Such corporate interest groups impact national public opinion, but how a country's government is set up affects not only how public opinion is translated into legislation and treaty ratification, but also how much of an influence business interest groups may have on such legislative

decisions. It is now too late to reverse the effects of climate change, and humans would have to more than cut in half their emissions and consumption within a few decades in order just to stabilize the effects of climate change, but this should not discourage efforts to be more environmentally friendly, on an individual level, but especially on an organizational level, both governmentally and corporately. If the United States were to ratify the United Nations Law of the Sea Treaty, it would have increased power to protect fragile and vulnerable Arctic waters from international exploitation and, consequentially, further melting, and it would set an important example internationally regarding conservation and environmental consciousness.

By looking at levels of public opinion regarding climate change and the Arctic, presence of nonrenewable energy business interest groups, regime type and legislative process within the United States, Canada, and Denmark, this paper seeks to explore the United States' decision not to be the only one of the eight Arctic countries to not ratify the International Law of the Sea Treaty. The research question was inspired by my travels to Greenland to assist a climate change ecology professor in his research there. In Greenland, I witnessed first-hand the evidence and effects of climate change by seeing scratches on rocks from the glaciers receding, by hearing huge, melted chunks of ice fall from Russel Glacier every night, and by learning about the results of Professor Post's research on the effects of climate change on Arctic animal and plant species and how these effects are leading to alterations in animal populations.

As the Arctic warms, plants bloom earlier in the spring so that when the caribou calves come through the tundra in the spring in search of these plants, they have already bloomed past the point where they are edible to the calves, resulting in the starvation of many caribou calves. Climate change is affecting and will continue to affect every living species on the globe, but it is disproportionately affecting populations of people that are least responsible for it, like indigenous Arctic communities whose ways of life are being forced to change as climate change intensifies and the Arctic melts. If the United States ratified the Law of the Sea Treaty, it would grant them the necessary authority to protect and

preserve the Arctic Ocean. This action on behalf of the United States is becoming increasingly necessary because as Arctic sea ice melts, the Northwest Passage is being used at increasing rates, contributing to further pollution and melting of Arctic sea ice.

The research seeks to determine some of the motivating factors that lead countries, specifically Arctic countries, to ratify an international treaty like the Law of the Sea Treaty. As the Arctic melts, it is viewed increasingly as an important topic of discussion within and between countries, particularly the eight Arctic countries that comprise the Arctic Council: The United States, Canada, Russia, Denmark (Greenland and the Faroe Islands), Sweden, Norway, Finland, and Iceland. As of now, it is arguable that there is a lack of literature and policy pertaining to Arctic sea ice loss and why the United States did not ratify the law of the Sea Treaty.

I will explore the reasons why the United States did not ratify the Law of the sea treaty, while the other Arctic countries did ratify it and how that decision of the United States is affecting American sovereignty and rights to the Arctic Ocean and territory, climate change, Arctic sea ice loss, Arctic environmental protection, indigenous Arctic ways of life, international trade, exploitation of Arctic resources, international law, cooperation/relations between the Arctic states and with others, and environmental policy. I will formulate an argument in favor of the United States ratifying the Law of the Sea Treaty. Such an argument could prove to be relevant to both the interests of the United States and the preservation of the Arctic environment. I will look at the United States as an example of an Arctic country that did not ratify the Law of the Sea Treaty and will look at Canada and Denmark as examples of two Arctic countries that did ratify the Law of the Sea Treaty.

I will first share the existing literature on topics including the Law of the Sea Treaty, the Northwest Passage, and both Arctic exploration and exploitation. I will then discuss my theories regarding the factors that lead to ratification or not of a treaty like the Law of the Sea Treaty. I will then examine the three case study countries and their public opinion regarding climate change and the importance of protecting the Arctic, the presence and influence of nonrenewable energy business interest

groups on national governmental decision-making bodies, and, finally, their regime type and legislative process. I will then describe the research design for this paper. I will then provide an analysis based on case study evidence, followed by a description of the results. Following the conclusion of the paper, I will include a section on Indigenous peoples and their relation to environmental injustice in the context of nonrenewable energy sourcing as well as climate change. For more information on Indigenous peoples and environmental injustice, please see Appendix A. Finally, I will conclude the paper with some closing information as well as my recommendation for the United States' ratification of the International Law of the Sea Treaty.

Chapter 2

Literature Review

The United Nations Law of the Sea Treaty

Significant literature exists on the Law of the Sea Treaty and American and Canadian interests in the Arctic region. However, I have found relatively little that presents an explanation as to why the United States did not ratify the Law of the Sea Treaty while Canada and Denmark did. Most of the following sources have based their arguments on case study evidence.

First, it is necessary to explain a bit of the body of international law surrounding sovereignty and rights to Arctic land and water. According to the Charter of the United Nations and the principles of international law, states have "the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction" (Baker 2015). This explains why land is generally more protected than sea (2015). Further, states have sovereign rights over their own biological resources (2015). Coastal states have sovereign rights, but not necessarily complete sovereignty, over certain of their marine areas (2015).

In accordance with the 1982 United Nations Convention on the Law of the Sea (UNCLOS), also known as the Law of the Sea Treaty, coastal states' sovereignty over their aquatic regions shrinks the farther out to sea one goes, i.e., from internal waters to the adjacent 200 nautical miles of Exclusive Economic Zone (EEZ), to the continental shelf, to the high seas, and the seabed and subfloor that is outside of state dominion (2015). On a coastal state's continental shelf, that state has sovereign rights when it comes to exploring and exploiting those waters (2015). On the high seas, all countries have some access to resources and passage (2015). After a country ratifies the Law of the Sea Treaty, it has within a ten-year window to claim rights over an area of sea beyond the continental shelf, which, if permitted,

allows that country to have exclusive rights to resources on or under the seabed of the extended continental shelf area (Zia et al. 2015). Norway, Russia, Canada, and Denmark, all Arctic countries, have does this (2015).

The Law of the Sea Treaty is rooted in the idea of the state's control over natural resources (Baker 2015). The Law of the Sea Treaty is comprised also of elements of international law and also deals with transit rights and freedoms, marine scientific research, dispute settlement, protection and preservation of the marine environment, and granting states the right to exploit their own resources (2015). The Law of the Sea Treaty is interested in establishing and encouraging international cooperation and environmental protection (2015). Since its establishment in 1982, 158 countries around the world have ratified the Law of the Sea Treaty (Zia et al. 2015).

Possibilities and Limits of the Law of the Sea Treaty

There are both cooperative and competitive policies by countries with shared Arctic interests. For example, responding to climate change will inspire collaboration, but as sea ice melts and passages open up and resources become available, competition will surely ensue (2015). The Law of the Sea Treaty allows for both cooperation and competition. For example, the United States, in defiance of the Law of the Sea Treaty policy regime, refuses to accept Canada's claim of sovereignty over the Northwest Passage and wants to keep Russia from getting the territory it wants in the Arctic (2015). Because the United States has not ratified the Law of the Sea Treaty, it has little limitations imposed on it in terms of having its way in the Arctic region (2015). For example, the United States can legally dismiss other countries' sovereignty claims (2015). The Law of the Sea Treaty does not provide dispute settlements for territories claimed by more than one state (2015). Such territorial disputes are not uncommon in the Arctic and have occurred between primarily between Russia, Canada, and the United States (2015). In this way, the Law of the Sea Treaty is vague and unhelpful.

The Arctic Council

Next, it is important to understand the Arctic Council as well as its function and recent activity. There are eight Arctic nations which comprise the Arctic Council: The United States, Canada, Denmark (Greenland and the Faroe Islands), Sweden, Norway, Iceland, Finland, and Russia. The Arctic Council collaborates to create important international laws and agreements. The Arctic Council organizes Arctic decision making through three branches of international law with the primary goals of cooperation on issues regarding sustainability and protection of the Arctic, its people, and its environment (2015). While six Indigenous Arctic groups, called the Permanent Participants, have been granted a participatory role in Arctic decision-making processes, the eight Arctic nations remain the sole decision makers (2015). The Arctic Council is a powerful negotiator of international agreements (2015).

In 1991, the Arctic Council agreed to an Arctic Environmental Protection Strategy in order to ease Cold War tensions as well as to increase environmental protection (2015). In 1996, the Arctic Council signed the Ottawa Declaration which establishes the Arctic Council as a high-level forum that seeks to promote cooperation, coordination, and interaction among the Arctic states and allows for participation of Arctic Indigenous communities in Arctic affairs (2015). In 2011, the Nuuk Observer Rules were adopted in order to require that any non-Arctic states or organizations who wish to have observer status in Arctic decision making must prove that they "respect the values, interests, culture, and traditions of Arctic Indigenous peoples and other Arctic inhabitants" and "have demonstrated a political willingness as well as financial ability to contribute to the work of the Permanent Participants and other Arctic Indigenous peoples" (2015). Non-Arctic observers typically work closely with the eight Arctic states and the six Permanent Participants (2015).

Although the Arctic Council is state-based, it is not an intergovernmental organization, does not have legal personality, and is neither comprised of international law nor is it completely state-centered (2015). It is, however, Arctic-centered (2015). These factors make the Arctic Council flexible and effective in terms of creating laws that are in the interest of the Arctic (2015). The Arctic nations can act

collectively or individually, which explains the ability of some to have signed on to certain treaties and international laws while others have not (2015). For example, Canada, Russia, and the United States are not a part of the 1992 Convention for the Protection of the Marine Environment of the North-East Atlantic (2015). Furthermore, the United States is the only Arctic state to not be a part of the Convention on Biological Diversity and the same is true regarding becoming party to the Law of the Sea Convention (2015).

The Geopolitics of Arctic Sea Ice Loss

According to a 2011 assessment from the Arctic Council's Arctic Monitoring and Assessment Program, 2005-2010 was the warmest period of time ever recorded in the Arctic (Zia et al. 2015). The assessment reported that there is less snow cover and sea ice in the Arctic than ever and that permafrost is thawing extensively, moving northward as it goes (2015). The assessment anticipates that the Arctic Ocean will be completely ice-free in summer within the next couple of decades, having vast ramifications on environmental and geopolitical issues to come (2015). Both the so-called developed and the developed worlds are addicted to fossil fuels, the burning of which greatly exacerbate global warming, sea ice melt, and permafrost thaw. As human consumption of fossil fuel continues to increase, global temperatures continue to rise, and the Arctic continues to melt and becomes more vulnerable. Climate change is affecting the Arctic region much sooner and much more severely than the rest of the planet (2015). As Arctic sea ice melts, international cooperation, particularly between Arctic nations, is weakening (2015). As navigation across Arctic waters becomes increasingly possible, and as the potential of new oil, gas, and mineral resources grows, cooperation between nations is turning into competition (2015).

Arctic sea ice melt is affecting travel and transportation through the Arctic Ocean. Dobransky, Ruel, Birchall, Kraska, and Guy and Lasserre agreed that the Arctic is melting rapidly and that this development is having profound implications on Arctic Ocean traffic, resource exploitation, trade, and policy creation. Kraska expressed concern that there is a positive feedback between increased Arctic ice

melt, increased Arctic traffic as a result of more Arctic water volume, and the resulting pollution and sea ice melt as traffic increases (Kraska 2007). Dobransky acknowledged that the navigable Arctic Ocean route that used to exist for no more than two months out of the year, but is now a year-round passage, was made even easier by ice-breaking ships (Dobransky 2012).

Push and Pull Factors of the Arctic

The authors have proposed a number of reasons why there is a progressively higher volume of Arctic Ocean traffic. The first is the presence of natural resources in the Arctic. Dobranksy wrote that the Arctic houses between 20 and 25 percent of the fuel resources left on the planet (Dobransky 2012). That percentage will go up as fuel continues to be consumed (Dobransky 2012). He also wrote that an estimated one-third of the planet's diamond resources (billions of dollars worth) is located in the Arctic, as well as gold, platinum, silver, and other valuable metals (Dobransky 2012). The presence of such resources in the Arctic makes it an appealing region that could lead to international conflicts in the future. As the Arctic seas melt and open up, many international oil and gas companies will rush to exploit oil and natural gas stores (Zia et al. 2015). The United States Geological Survey approximated that the Arctic might house some 90 billion barrels of oil, 20 trillion gallons of natural gas, and 44 billion barrels of natural gas liquids (2015). More than 70 percent of the undiscovered oil resources are guessed to be in or near the Arctic Ocean (2015).

There is competition among countries, particularly among Arctic countries, when it comes to claiming Arctic territories and resources. There have been several such disputes. Norway and Russia had a long-standing dispute over maritime boundaries and zones, specifically regarding oil and gas resources, fishing and hunting, access and entry to waters, fjords, and ports, commercial operations, and right of ownership of property (Zia et al. 2015). There was also a dispute between Canada and the United States regarding territorial boundaries, fossil fuels, and fishing in the Beaufort Sea which lies between the

Yukon territory and Alaska (2015). Another territorial conflict between Canada and Denmark occurred regarding the limits of their continental shelf boundary claims (2015).

Another reason countries and companies want to use the Arctic Ocean as a shipping and travel route is that it reduces transportation costs by offering a shorter route. Dobransky reported that these Arctic passages reduce shipping routes from Asia to the east coast of the United States by more than 3,000 miles, and from Asia to Europe by more than 6,000 (Dobranksy 2012).

Guy and Lasserre argued that although there is little Arctic shipping and transportation activity right now, the amount of travel through the Arctic Ocean is still increasing, which requires legal regulation to protect the delicate Arctic environment (Guy and Lasserre 2016). Young also argued that economic gains make exploiting the Arctic very appealing, particularly to countries like China and the United States that do not have a strong connection to the Arctic like Canada does (Young 2012).

However, Riddell-Dixon disagreed with the notion that there will be significant competition over resources in the Arctic (Riddell-Dixon 2008). She argued that countries that are trying to harvest the resources stored in the Arctic will do so in an orderly fashion. She believes that this alleged competition has been exaggerated in the media (Riddell-Dixon 2008). Wasum-Rainer, Winkelmann, and Tiroch proposed that there be a balance between national and common Arctic interests like sustainable development and environmental protection (Wasum-Rainer et al. 2011).

Chapter 3

Theories

The current hypothesis is that public opinion [about climate change and the importance of the Arctic] is a driving factor as to why a country would or would not ratify an international law like the Law of the Sea Treaty. The hypothesis continues to assume that because there is higher public awareness and concern about climate change and the Arctic in Canada than in the United States (Environics Institute and David Suzuki Foundation 2014; Gallup 2016) that it is a potential explanation for why Canada ratified the Law of the Sea Treaty. If this is the case, Canada ratified the treaty to protect as much of the Arctic as possible. On the other hand, a potential reason for why the United States did not ratify the treaty is that it would then be forced to obey the laws of the sea fully, in particular those of the Arctic Ocean and it could be subject to lawsuits from environmental groups or international organizations who could find fault with something like American pollution levels in the Arctic Ocean (Sorokin 2016).

The second arrow diagram that reflects my hypothesis is:

Higher public opinion regarding the protection of the Arctic and Climate Change -------> *Ratification of International Treaties and Laws like the UN Law of the Sea Treaty*

However, after more thought, I realized, and found, that there are other factors influencing public opinion regarding climate change and the protection of the Arctic, and that there could be other factors influencing the ratification of international treaties and laws like the Law of the Sea Treaty. Such factors include party systems, business interest groups (which often influence the publicly stated stance of prominent politicians regarding climate change), regime type, legislation process, and treaty ratification

process, all of which differ between the three sample case study countries of the United States, Canada, and Denmark.

The current arrow diagram is:

Legislation process, party systems, business interest groups, treaty ratification process, public opinion -------> Ratification of International Treaties and Laws like the UN Law of the Sea Treaty

Table 1: Theories Table

		Public Opinion	
		High	Low
Influence of Business Interest Groups	Weak	Treaty	Undetermined
	Strong	Undetermined	No Treaty

The above table shows the hypothesis that when the influence of business interest groups is weak and public opinion regarding climate change and the Arctic is high, the likelihood of the ratification of a treaty like the UN Law of the Seat Treaty is high. When the influence of business interest groups is strong and public opinion is high, the treaty ratification result is undetermined, as this research does not explore that possibility. When the influence of business interest groups is weak and public opinion is low, these results are also undetermined by this research. When the influence of business interest groups is strong and public opinion is low, it is hypothesized that the likelihood of treaty ratification is low. Due to time constraints, I cannot test all possible outcomes; at this time, I am only able to look at the occurrence of high levels of business interest group influence and relatively high levels of public opinion. This part of the research will remain open-ended for future further exploration with more cases and outcomes.

Chapter 4

Case Studies

Overview

This case study compares the public opinion regarding climate change and the importance of the Arctic, the presence and strength of business interest groups, and the regime type and legislative process of the United States, Canada, and Denmark, in order to draw some conclusions regarding why the United States is the only one of the eight Arctic countries to not have ratified the United Nations Law of the Sea Treaty, while Canada and Denmark have. For more information on public opinion, please see Appendix B to read some thoughts from high school students from the United States, Denmark, and Greenland regarding climate change, science, politics, and the importance of Arctic environmental protection.

United States

Country Profile

The United States is the primary global economic and military power, contributing approximately one half of the world's gross domestic product and spending more on its military than nearly the rest of the world's individual defense budgets combined (BBC 2018). The United States has contributed significantly to popular culture through Hollywood films and music. The United States' is comprised of a federal, constitutional republic, ruled currently by a president, legislature, and judicial system. There are 316 million people living in the United States who primarily speak English and mostly practice Christianity. The life expectancy for American men is 76 years old, and that for American women is 81 years old (2018).

The United States is the only one of the eight Arctic countries that has not ratified the United Nations International Law of the Sea Treaty. As for why this is, Sorokin brought up a compelling

explanation. He argued that there are several reasons why the United States did not ratify the Law of the Sea Treaty. First, if the United States were to ratify the treaty, it would make itself (especially its corporations and the military) vulnerable to lawsuits from international organizations, particularly climate protection organizations, as well as from other corporations (Sorokin 2016). Second, much of the opposition to the Law of the Sea Treaty in Congress stems from concerns over the ceding of American sovereignty through binding compliance with international organizations and bureaucracies like the International Seabed Authority which regulates mining and drilling on the seabed that lies beyond any area of national jurisdiction (Sorokin 2016).

Public Opinion

I am exploring the idea that public opinion regarding climate change in the United States, Canada, and Denmark are affecting the ratification of the Law of the Sea Treaty. The hypothesis is that the lower the public opinion regarding the importance of Arctic protection and climate change, the lower the chance of ratification of international laws and treaties that serve to protect the environment. The United States has somewhat lower public concern over climate change than does Canada, and has even lower public concern than does Denmark.

As for American public concern about climate change, a 2015 Pew Research Center study, "Global Concern about Climate Change, Broad Support for Limiting Emissions," written by Bruce Stokes, Richard Wike, and Jill Carle, measured the concern about climate change of people all around the world. The study uses 45,435 telephone and face-to-face interviews with people aged 18 and older in 40 countries. The study occurred from March 25 to May 27 of 2015.

A quotation from the study highlights perhaps the most compelling of the results, "People in countries with high per-capita levels of carbon emissions are less intensely concerned about climate change" (Pew Research Center 2015). The United States emits the highest level of carbon per capita among the surveyed nations, but it has one of the lowest levels of concern for climate change (Pew

Research Center 2015). Furthermore, most countries agree that the richer nations should bear more of the burden of addressing climate change issues than should developing nations, yet this phenomenon has yet to happen. Another interesting takeaway from the survey findings is that Americans' opinion regarding climate change is very polarized between the two American political parties. Only 20% of Republicans reported that they feel that global climate change is a very serious problem, while 68% of Democrats reported that they do think that climate change is a very serious problem. This fact could support the hypothesis that American public opinion regarding climate change is influenced by outspoken politicians (one way or another), who are in turn influenced by [corporate] interest groups who seek to either hide or advocate on behalf of climate change issues.

Furthermore, a 2016 Gallup annual environmental poll, "U.S. Concern About Global Warming at Eight-Year High," by Lydia Saad and Jeffrey M. Jones describes American climate change public opinion. The study is based on 1,019 telephone interviews with a random sample of Americans aged 18 and older living in every state in the U.S. and Washington, D.C. The study occurred from March 2 through March 6 of 2016. At the 95% confidence interval, the study's margin of sampling error is 4%.

The poll reports that only 64% of the American population is worried either a great deal or a fair amount about global warming. Only 41% reported that they think that global warming will pose a serious threat in their lifetime. Moreover, only 65% blame human activity for causing global warming. The poll admits that according to its results, the percentage of Americans concerned about global warming has increased, reaching an eight-year high in fact, but the numbers are still relatively lower than those of a similar poll done in Canada. The results of this survey support the hypothesis that each country's level of public opinion regarding climate change might influence their decision to ratify the Law of the Sea Treaty, with the purpose of protecting the Arctic in mind.

Business Interest Groups

Another hypothesis is that the presence of business interest groups in the United States influenced the decision not to ratify the Law of the Sea Treaty. A study, entitled, "Testing Theories of American Politics: Elites, Interest Groups, and Average Citizens," by Martin Gilens and Benjamin I. Page (2014), looks at Majoritarian Electoral Democracy, Economic-Elite Domination, the four traditional American politics theories, and Majoritarian Pluralism and Biased Pluralism, the two main types of interest groups in order to measure the influence of different actors on American public policy. Some of these different actors include, "average citizens, economic elites, and organized interest groups, mass-based or business-oriented" (Gilens and Page 2014). The study is based on 1,779 policy issues. The study concludes that economic elites and organized groups that represent business interests have a large impact on American policy but average citizens and mass-based interest groups have little to no impact. Its seems that the influence of business-oriented interest groups and economic elites might have more of an impact on environmental policy than public opinion does, and that their influences might have an effect on public opinion regarding climate change.

In the United States, because policy outcome is dominated by economic elite individuals, business interest groups have a strong impact on policy outcome (2014). While average citizens and elite citizens often tend to have similar demands of the government, business interest groups do not (2014). Further, while some American membership organizations, like the AARP and labor unions, do represent the policy desires of average citizens, other interest groups, like pro-life groups, do not (2014). Business interest groups, on the other hand, do an even worse job of representing the interests of the average citizen, yet have a large role in influencing policy outcome (2014). When both interest groups and elite Americans oppose a policy, it has a significantly lower likelihood of being adopted (2014). In fact, American public opinion has little influence over the policies adopted by the government (2014). Based

on the fact that much of American policymaking is dominated by influential and powerful business interest groups and a small number of economic elites rather than American public opinion, the term "democracy" arguably only loosely applies to the United States (2014).

In the United States, a democracy with two main competitive political parties, these parties will exchange certain policies for support from certain interest groups (Cao 2014). The government thinks this support from interest groups is important and necessary for election and reelection (2014). This support can be in the form of money, votes, information, or efforts to mobilize other voters (2014). In return, the government rewards such interest groups. In terms of energy resources interest groups, the government might provide subsidies and tax exemptions (2014). American government tends to place relatively high amounts of value on interest groups support, although the partisanship of governments matters; right-leaning governments tend to place more value on support from industrial interest groups (2014). Right-leaning governments also tend to give more state support to industries, typically in the form of subsidies (2014). Further, how well an interest group is able to mobilize has an important effect on how powerful its influence on the government will be (2014). In the United States, political parties and interest groups are largely separate institutions, independent of one another and in constant competition in terms of supporting candidates, recruiting members, and acquiring communication access to policymakers (Thomas 2001). American political parties and interest groups are more separate than in some other countries, like Denmark for example (2001). The factors that shape political party and interest group relations in the United States include political culture, government framework, the nature of the American party system and organization, statutory provisions and regulations, and the campaign financing system (2001).

According to a 2006 Gallup poll, almost 75% of Americans believe that large corporations have too much control over the federal government (Juhasz 2008). It is widely believed that the power of corporations over the United States government is too strong to break (2008). Fortune magazine in 2005 described ExxonMobil as the most powerful and valuable American corporation (2008). However,

ExxonMobil is not the only American oil company. Following the forced break up of Standard Oil in 1911, there are now seven major oil companies, that, when combined, form the sixty-seventh largest economy on the planet as well as a major American oligarchy with immense amounts of political clout (2008). The oil industry spent more money to elect the George W. Bush administration into office in 2000 than it has spent on any previous election or any election since (2008). In exchange for funding the election, the resulting president, vice president, and secretary of state were all former oil company officials who jumped on the chance to invade the Middle East for oil exploits. Every agency and level of bureaucracy was comprised of former oil industry lobbyists, lawyers, staff, board members, and executives (2008). This government worked to serve, first and foremost, the needs and interests of the oil industry through deregulation, less strict legal enforcement, as well as new and increased access to America's public lands and oceans, subsidies, tax breaks, and war (2008).

Big Oil does not limit its spending to election time. Through its economic lobbying power, the oil industry impacts everyday policy-making (2008). In fact, it spends more lobbying the government than it does during elections (2008). From 1998 to 2006, ExxonMobil spent over $80 million on lobbying the federal government, which is more than 14 times what it spent on political campaigns (2008). Aggregately, ExxonMobil, Chevron, Shell, BP, Marathon, and ConocoPhillips spent $240 million lobbying the government during that same time period which totals to more than the entire oil and gas industry spent on federal election campaigns from 1990 to 2006 (2008). The oil industry has so much more economic power and influence, there exists absolutely no comparison between that industry and other industries that try to influence for the betterment of consumers, the environment, public health, and environmental justice (2008). Through the use of lobbyists, lawyers, elected officials, government regulators, conservative think tanks, industry front groups, and media inundation, the oil industry uses its wealth to successfully change and sway public debate and public policy (2008).

Currently in the United States, there are a plethora of interest groups acting on the government and policy decision making. These interest groups represent many different issues and organizations,

from abortion, to guns, to gambling and gaming, to marijuana legalization. However, some of the most salient interest groups are business interest groups. More specifically, oil and gas and other forms of nonrenewable energy interest groups are particularly powerful and influential in American politics. According to watch dog group Vote Smart, two such oil and gas interest groups are EnerVest and the Independent Petroleum Association of America, the latter of which last gave an endorsement in 2014 (Vote Smart 2018). There are 13 natural resources and energy interest groups listed on the site, and 12 strictly energy-related interest groups (2018).

Regime Type and Legislative Process

In order to further understand why the United States did not ratify the Law of the Sea Treaty and why Canada and Denmark did, I will explore each country's legislative and treaty ratification processes. In the United States, when a law is passed, a bill is proposed and a representative sponsors the bill and sends it off to a committee for review. There, it is voted on, debated on, or amended. The bill then passes if the majority of the House of Representatives passes it. It then moves on to the Senate where it moves on further if the majority of the Senate passes it. Then the House and Senate give it a final approval, and the president either signs or vetoes it (United States House of Representatives). As for ratification of treaties in the United States, the Senate approves or rejects ratification as proposed by the president. Most treaties have received approval in the United States (United States Senate).

Civic participation is another interesting component related to public opinion. In 2016 in the United States, voter turnout was at a 20-year low; only an estimated 55% of eligible voters voted in the presidential election (Wallace 2016). In the United States, higher income and higher level of education are the two biggest factors that affect civic participation (Smith et al. 2009).

Canada

Country Profile

Canada is comprised of a federation of former British colonies and has maintained a parliamentary democracy with the Liberal Party's prime minister Justin Trudeau as head of government and the British monarch, Queen Elizabeth II as the head of state (BBC 2017). Canada has a population of 34.7 million people and an area of 3.85 million square miles, ranking it the second largest country in the world (2017). Indigenous peoples make up about four percent of Canada's population (2017). Its major official languages are English and French, and its major religion is Christianity. The life expectancy of Canadian men is 79 years old and the life expectancy of Canadian women is 83 years old (2017). Canada uses the Canadian dollar, and although it has a relatively small population for its size, Canada has a strong economy and is relatively wealthy (2017).

Canada has strong and important cultural ties to the Arctic, more so than the United States (Kraska 2007). Similarly, Guy and Lasserre reported that, in 1970, Canada ratified the Canadian Arctic Shipping Pollution Prevention Regulations (ASPPR), which give Canada sovereign authority over everything within 200 nautical miles of its coastline, thus granting it the power to turn away any ships attempting to traverse the Arctic Ocean that Canada deems threatening to its safety and security and/or harmful to the Arctic (Guy and Lasserre 2016).

Public Opinion

As for why Canada did ratify the treaty, some sources, like Kraska, pointed to Canada's cultural ties to the Arctic and its public awareness and concern for the Arctic and for climate change. However, Griffiths argued that, since the end of World War II, Canada tightened its control of the Arctic because it feared that other countries would stake their claims before Canada could (Griffith 1987, pg. 39). This concern arose from a number of international expeditions taking place in Canada's Arctic north, like the Alaska Highway and the Canol pipeline, both carried out by the United States (Griffith 1987, pg. 39). This poses an interesting additional argument that Canada may have ratified the Law of the Sea Treaty because it feared it would lose its territory to other encroaching countries, especially the United States. This could explain why the United States still opposes Canada's sovereignty of much Arctic territory and the Northwest Passage (Birchall 2006).

A 2014 Canadian public opinion survey, "Canadian public opinion about climate change," resulting from a partnering of the David Suzuki Foundation and the Environics Institute seeks to gauge Canadian's opinions regarding climate change and to measure how their opinions have changed over the year since the previous survey. The survey was conducted via telephone interviews and reached 2,020 Canadians between October 6 and 19 of 2014. The survey reports that, due to its sample size, its results are accurate within 2.2%.

This survey used questions that asked about Canadian responders' opinions on different aspects of climate change. The survey findings show that only one out of every ten Canadians is skeptical about climate change and that 63% of the responders believe that climate change is the consequence of human activity. More of the Canadian population is aware of and concerned about climate change than the American population. The survey also found that Canadians hold their government to high standards in terms of its responsibility to address climate change and develop environmental policy. The survey draws the conclusion that the findings report relatively high levels of concern for the environment due in large

part to education; the study reports that at the time of the study (2014), 70% of Canadians had a college degree.

In 2015, another Canadian public opinion survey, "Canadian public opinion about climate change," sought to determine Canadian's opinions regarding climate change and to measure how their opinions have changed over the year since the previous survey. The survey was conducted via telephone interviews and reached 2,004 Canadians between August 4 and 16 of 2015. The study reports accuracy in their findings within 2.2%.

This study showed that Canadians had not grown increasingly concerned about climate change over the year since the previous study was conducted, despite natural disasters that had occurred and despite warnings about climate change from prominent global leaders. The study also found that although Canadians will mostly object to climate change policies that will cost them personally, many are in support of carbon taxes and government action in creating helpful environmental policies. The survey found that only one out of ten Canadians remains skeptical about climate change and that 66% reported that they would be upset if Canada did not participate in an international climate change agreement. Like the findings from the previous year's survey, these findings, may add to the hypothesis that higher public concern for climate change leads to increased motivation to protect the Arctic regions, as exemplified by the cases of Canada and the United States.

In 2013 in Canada, among those eligible to vote, 81% reported having voted (Turcotte 2015). The voting rate is lower among the 25-34 age group, people with lower levels of education, recent immigrants, parents with children under the age of five, and Aboriginal people (Turcotte 2015). The voting rate is higher among senior citizens, university graduates, those with higher incomes, home owners, and married people or those in a common-law union (Turcotte 2015). The Canadian provinces with the highest civic participation are Quebec, Prince Edward Island, and New Brunswick (Turcotte 2015). People who regularly follow news and current affairs, have voted in the past, who volunteer, who participate in group activities and meetings, and those who have trust in and a sense of belonging to Canada are also more

likely to vote (Turcotte 2015). Lower levels of confidence in public institutions was associated with a lower probability of having voted (Turcotte 2015).

Business Interest Groups

In Canada, members of Parliament tend to accept and welcome the presence of interest groups and take advantage of the information on certain issues and subjects (Gatner 2018). In Canada, the act of lobbying is protected by the right to petition the government and that this right originates in the Magna Carta of 1215 (2018). In modern Canada, there are interest groups and lobbying agents for a large number of interests, from corporations, to trade associations, to labor unions, to religious and ethnic groupings (2018). Although such interest groups are affiliated with all levels of government, they tend to have the largest influence on the federal government (2018). Interest groups in Canada organize around a certain value or issue and seek to bring favor, awareness, or assistance to their individual goals by negotiating and consulting with decision makers both in private sectors of society and in the government (2018). Interest groups in Canada do not parallel the power of legislators, they merely provide information to the government regarding the issue they represent, and they convey the thoughts of the interest they represent to the government, especially to the cabinet (2018).

However, most Canadian citizens do not know much about how these interest groups, let alone how they function (2018). As a result, most Canadian interest groups tend to be publically regarded with skepticism and suspicion (2018). Canadian interest groups then work hard to establish their validity by choosing to focus more on the importance of organizational goals of interest groups rather than the actions of them (2018). These organizational goals most often include growing the organizations and maintaining their leaders in decision-making roles (2018). The Canadian Labour Congress, for example, successfully embodies these goals (2018). The Canadian Labour Congress has worked to ensure its place in decision-making bodies in order to further its interests, and, consequentially, has access to the entirety of Parliament, any cabinet member, and the Prime Minister any time it wants to discuss policy (2018).

Interest groups can have hearing before parliamentary committees and thus work to make sure that the interests they represent are discussed in parliamentary hearings (2018).

In Canada, interest groups are not profit-seeking, although some may represent organizations that are (2018). Because most Canadian interest groups are not profit-seeking, many of these groups receive their financing via membership fees (2018). Such interest groups include the Chambers of Commerce and the Boards of Trade and traditionally, a good portion of Canadian interest groups have represented the economic interests of agriculture, labor, business, and industry (2018). However, many Canadian interest groups are not geared toward economic gain. There are also professional groups like the Canadian Association of University Teachers, the Canadian Bar Association, and the Canadian Medical Association (2018). Additionally, there are communication interest groups like the Canadian Association of Broadcasters and the Canadian Daily Newspaper Publishers Association (2018). Some important interest groups in public administration are the Canadian Association of Chiefs of Police and the Canadian Federation of Mayors and Municipalities (2018). In terms of social justice interest, religious, and ethnic interest groups, there are the Canadian Civil Liberties Association, the Canadian Council of Christians and Jews, and the Consumers Association of Canada (2018). Interest groups in Canada tend to represent very specific local and national interests. However, because Canada is divided into large provinces, there are also interest groups representing interests specific to the provinces (2018).

Canadian interest groups' presence and influence reflect the evolving priorities of Canadian society. Following the 1960s, a large number of environmental protection interest groups have emerged in Canada (2018). In the last two decades, a number of interest groups oriented to look out for Canada's native peoples, the Indian, the Inuit, the Metis, and non-status Indians, have developed (2018). Since the end of World War II, there has been a rise in the number of Canadian interest groups, and as society grows increasingly intricate, more interest groups will surely emerge alongside new interests. Canadian interest groups, while their activity is not all that different from that of American interest groups, the influence and power they wield in Canada is far less than in the United States (2018).

Regime Type and Legislative Process

In Canada, the legislation process is somewhat different. It is a long process made up of twelve steps. In summary, the bill is reviewed by specific committees, then the Senate, then the Commons. Finally, it comes to fruition if it receives Royal Assent (Parliament of Canada). The treaty ratification of Canada also differs from that of the United States. The Canadian Minister of Foreign Affairs is traditionally the one to negotiate international treaties, but the Minister is not the only party that supervises the ratification process. Who else is involved typically depends on the type of treaty at hand. For example, environmental treaties are conducted by Environment Canada and tax-related treaties are conducted by the Canada Revenue Agency (Parliament of Canada). Usually, the Minister of Foreign Affairs requests Cabinet approval of a treaty. The treaty can be signed by the Minister if approval and authority is granted by the Cabinet (Parliament of Canada).

Denmark

Country Profile

Denmark, known for its ancient Viking expeditions and land acquisition, is now a relatively small Scandinavian country comprised of approximately 16.5 thousand square miles and located between Germany and Sweden in Europe (BBC 2018). It has a population of 5.6 million people who speak Danish, spend money using the Danish krone currency, and have a male life expectancy of 77 and a female life expectancy of 81 (2018). Denmark's major religion is Christianity and its politics tend to range from centre-right to liberal (2018). It is a parliamentary democracy with a figurehead monarch, Queen Margrethe and a head of state, centre-right Prime Minister Lars Lokke Rasmussen (2018). Although Denmark has lost many of its territorial acquisitions over the years, it has retained the massive Arctic landmass of Greenland, which became a Danish province in 1729, as well as the northern Faroe Islands (2018). Denmark is a member of the European Union, the North Atlantic Treaty Organization, the Nordic Council, the European Free Trade Association, the European Economic Community, and the Arctic Council (2018). Denmark is a generous state in terms of social spending and social security and has historically ranked among the top happiest countries in the world.

Additionally, Denmark is home to an excellent renewable energy industry. Renewable energy usage has increased dramatically in recent years (International Comparison of Energy Transitions 2016). Renewable energy makes up an increasingly large part of Danish energy production and consumption (2016). Denmark responded to the global oil crisis in the 1970s by making it its goal to become energy self-sufficient by reducing oil consumption and abandoning coal usage (2016). Wind power in Denmark then took off alongside environmental regulation policies (2016).

The Faroe Islands are an archipelago of 18 islands in the North Atlantic Ocean and are an autonomous region of Denmark. The Faroe Islands are home to not only rugged vistas and abundant bird life, but also the prospect of access to oil and gas resources (BBC 2018). Fishing and farming are the main economic activities on the islands and many islanders rely on Danish subsidies as a source of

income (2018). Because of the prospect of oil and gas reserves on the islands, Faroe Island natives have toyed with the idea of splitting from Denmark, but Denmark has threatened to end subsidies and support to the islands if they were to act on the idea (2018).

Greenland is the world's largest island at 840,000 square miles and an autonomous Danish territory that, although it has its own parliament, depends on Denmark and has only limited self-rule authority (2018). Most of Greenland's revenue comes from Denmark although some of it comes from fishing, and as the ice cap which currently covers more than 80% of the island melts, access to Greenland's mineral resources is becoming more available and is attracting prospectors (2018). The island's major languages are Greenlandic and Danish and the major religion is Christianity (2018). There are only 57,000 people living in Greenland, and many of these inhabitants face severe social problems including alcoholism, unemployment, and sexually transmitted diseases. Greenland has high suicide and depression rates and, in terms of social well-being and mental health, sadly is in many ways Denmark's antithesis. The male life expectancy of Greenland is 68 and the female life expectancy is 73 (2018). Greenland enjoys two months of summertime complete sunshine, but is quite dark all of the time for the rest of the year. Denmark's Head of State is Queen Margrethe of Denmark, and its head of government is Prime Minister Kim Kielsen (2018). As long as Greenland is a self-ruled territory of Denmark, the annual sum of money Denmark gives Greenland will provide economic security to the autonomous territory (Degeorges and Ali 2015). This yearly block grant also empowers Greenland to be in charge of its natural resources independently (2015). Greenland can become independent if it so chooses, made possible by the Self Rule Act (2015).

Public Opinion

As for Denmark's public concern for climate change, Eskjaer (2016) writes, "climate change reporting [in Denmark] is marked by substantial public consensus concerning the scientific evidence of climate change and the moral obligations of the industrialized world. It reflects a Scandinavian political culture based on political cooperation on key social challenges as well as a Democratic Corporatist media system characterized by a moderate, rather than polarized public opinion." Eskjaer (2016) continues, "outright climate change denial has been marginal in Denmark." Furthermore, Denmark demonstrates strong commitment to the United Nations, a trait characteristic of Scandinavian countries in general (Eskjaer 2016). Climate change discussion in Denmark is often related to topics of sustainability, development, and other broader environmental agendas (Eskjaer 2016). Moreover, Denmark possesses the vast territory of Greenland which is located in the Arctic, thus tying Denmark and its interests at least somewhat to the Arctic and its preservation.

Public opinion in Denmark regarding environmental questions oscillates and changes with time and depending on climate trends as well as the political environment (International Comparison of Energy Transitions 2016). However, the private economic aspect of environmental action is relatively stable and is very important to Danish citizens (2016). Two out of three Danes expressed dissatisfaction with the efforts and ambition of the Danish government's action regarding climate policy and regulation (2016). Such criticism is not surprising however; because Denmark is a global leader in terms of green practices, Danes have high expectations for their country's commitment to environmentally friendly policy (2016). Thus, in response to the high public opinion and public expectations of Danes regarding green climate action, Denmark has many pieces of environmental legislation and is party to a number of environmental agreements, organizations, and treaties (2016). Denmark is a very active member of the European Union, for example, as well as an active former of international environmental agreements (2016). The energy policies in Denmark fall into three categories: climate change, global renewable energy, and energy

efficiency (2016). Typically, public opinion and politicians have been in agreement regarding where and how to move forward with energy policy (2016).

Danish civic participation is the highest of the three case countries with 86% voter turnout in recent elections, a turnout that is significantly higher than the OECD average of 68% voter turnout (OECD). In Denmark, there is only a 4% gap between the civic participation percentage of the top 20% of the population and the bottom 20% of the population, which is a much smaller gap than the 13% OECD average (OECD). These statistics are suggestive of the high level of social inclusion in Denmark's democratic institutions (OECD). Evidently, there is a strong sense of community and a high level of civic engagement in Denmark.

Business Interest Groups

In Denmark, there are 1,700 interest organizations, and nine of them have one third of the interest group influence in Danish parliament (Copenhagen Post Online 2014). Most of the lobbying that occurs in Denmark originates from the interest group's action (2014). Those interest groups with more economic and financial power have more of an influence on policy (2014). Danish interest groups expend much of their resources in communication efforts, mainly contacting civil servants, getting media coverage of their organization, and meeting with parliament members and parliamentary committees (2014). In return for their investments, they receive political influence. The nine most powerful Danish lobbyist groups are Dansk Industri, Dansk Erhverv (the Danish Chamber of Commerce), Landbrug and Fødevarer (the Danish Agriculture and Food Council), LO (the Danish Confederation of Trade Unions), the trade union 3F, the trade union FOA, KL (Local Government Denmark), Dansk Regioner (Danish Regions), and Forbrugerrådet, a consumer organization (2014). Although it is problematic that out of the nearly 2,000 Danish interest groups, these nine have one third of the influence, it does not pose a strong threat to Denmark's democracy in that these interest groups represent a diverse array of interests, from consumers and industry to employees and employers.

The Danish Energy Association is an interesting example of a non-commercial lobby organization for Danish energy companies that works in the interest of energy companies via communication with the government, authorities, businesses, and other decision-makers in Denmark and beyond (International Comparison of Energy Transitions 2016). The energy industry is Denmark's most important form of industry and export, and it is committed to cutting greenhouse gas emissions (2016). The Energy Association is actually one of the loudest voices criticizing the government for not doing enough to work towards a greener and more renewable energy future (2016). The Energy Association understands that its future is green. SustainableEnergy is a nongovernmental organization that works in Denmark as well as in developing countries to help people make environmentally-friendly life choices by updating old, uneconomical, and polluting private household heating systems, for example, and by providing training to craftsmen to improve their knowledge of renewable technologies (2016). SustainableEnergy has collaborated with many local governments and has political contacts both nationally and locally (2016). The Ecological Council is an environmental organization that works towards a sustainable transition and transformation for the larger community (2016). The Ecological Council uses politics to achieve its goals by influencing and collaborating with Parliament members as well as universities and researchers (2016).

Regime Type and Legislative Process

The Danish legislative process, on the other hand, seems to be a bit more thoughtful, careful, and fair. First, although only members of Parliament or ministers of the government can introduce new bills and propose amendments, the idea for a law can come from anyone from citizens, to interest groups, to members of Parliament, to ministers of the government (Folketinget). The Danish legislative process allows for plenty of time for deliberation; a proposed bill must be read three times in parliament before it can be passed and both the Chamber and parliamentary committees deliberate it together (Folketinget). Furthermore, external parties and experts are often called in to be consulted to ensure that bills are passed

only very responsibly. Most importantly and unusually, when a minister introduces a bill, the parties that will be impacted by the bill are notified and given an opportunity to voice their opinions and to be heard before the bill is passed (Folketinget). This is called the consultation phase and it comes before the introduction of a bill in parliament. Interest groups or representatives of the business community might also be consulted like this (Folketinget). This way, the Danish parliament can guarantee a high level of expertise as well as the awareness and opinion of the public in its legislation. Finally, the Queen must sign the bill for it to be officially legal (Eschbach). As for the Danish treaty ratification process, approval of at least two thirds of the Danish parliament, the Folketinget, if at least half of the members are present, is required for the conclusion of international agreements (Eschbach).

Due to Denmark's election system as well as its practice of garnering political consensus, governmental authority is both trusted and respected (International Comparison of Energy Transitions 2016). This trust and respect is even stronger in the realm of energy and climate because related policies are typically institutionalized by Danish government and society (2016). Thus, there is little discord between governmental policy action and public opinion of Danish citizens (2016). This results in a bottom-up decision-making perspective that is quintessentially Danish (2016). In Denmark, there is a strong history and valuing of grassroots movements, in the arenas of energy and the environment as well as in other societal realms (2016). The Danish government tends to use both free market arrangements and state interventions when dealing with industries like the energy sector (2016). This allows Denmark to be internationally competitive but still have helpful state interventions and regulations. Danish politics is comprised of much negotiation and compromising in Parliament. Denmark's government is completely responsible for the monitoring of laws and other formal regulations and the framework for such monitoring is regulated in Danish legislation (2016).

Chapter 5

Empirical Analysis

Research Design

This is a qualitative thesis comprised of comparative case studies exploring the reasons why the United States is the only country of the eight Arctic nations which comprise the Arctic Council that has not ratified the United Nations International Law of the Sea Treaty. I have selected cases mostly related to American, Canadian, and Danish environmental policy, Arctic policy, public opinion, and historic records of participation in international laws, organizations, and treaties like the United Nations Law of the Sea Treaty, the Arctic Council and the United Nations. I have reviewed cases from 1970 onward because this is the year Canada established a powerful law protecting its Arctic territories and waters and because it was in 1973 that the first United Nations Law of the Sea conference occurred. The units of analysis are three case study countries, the United States, Canada, and Denmark. I control for regime type, geography, levels of civic engagement, and level of education of voters.

Analysis

In order to explore why the United States is the only Arctic nation that has not ratified the United Nations Law of the Sea Treaty, a comparative case study was done to test the hypothesis that when the presence of business interest groups is strong and public opinion regarding climate change is lower, the country will not ratify the Law of the Sea Treaty. After comparing the case studies of the United States, Canada, and Denmark with regard to their respective public opinion regarding climate change and the Arctic, the presence and influence of business interest groups, and the regime type and legislative process, it is clear that while public opinion and regime type and legislative process are important factors when it comes to treaty ratification, the presence and influence of business interest groups has the strongest effect on treaty ratification likelihood. In the United States, a group of senators and lobbyists are in large part responsible for the Law of the Sea Treaty remaining unratified (Zia et al. 2015). They feel that any limitations on American sovereignty in the region risks inadequate exploitation of available resources in the Arctic (2015). Instead, this group is promoting the privatization of the seabed which would economically incentivize owners to protect and exploit their property (2015). This group of business interest groups and the legislators whom they influence have much sway in the decision for the United States to ratify or not the Law of the Sea Treaty, and it is clear that these economic interests outweigh public opinion and regime type and legislative process, resulting in the refusal to ratify the Law of the Sea Treaty on the part of the United States.

Results

After the comparative case study analysis, it is clear that business interest group presence and influence is the leading factor in the United States refusing to ratify the United Nations Law of the Sea Treaty. The United States has relatively high public opinion regarding concern for climate change and Arctic preservation, a level of public opinion that is not significantly different from that of Canada and Denmark. The United States is a presidential democracy with a rather difficult legislative and treaty ratification process compared to those of Canada and Denmark, both parliamentary democracies which allow for more legislative turnover than does the American presidential democracy. The United States has a strong presence and influence of business interest groups compared to Canada and especially Denmark, and it is clear that the economic influence of such interest groups plays a large role in terms of American governmental decision making.

Table 2: Results Table

	Public Opinion	Business Interest Groups	Leg./Ratification Process (Regime Type)	Ratification Predictions
United States	High	High	Presidential Democracy	No
Canada	High	Medium	Parliamentary Democracy	Yes
Denmark	High	Low	Parliamentary Democracy	Yes

Chapter 6

Conclusion

Some authors argued that the United States, as a powerful, example-setting country, should use its Arctic sovereignty to increase understanding and protection of the Arctic region, rally interest and concern for climate change, and collaborate with and include indigenous Arctic people in discussions pertaining to the Arctic, (Wasum-Rainer et al. 2011). Another common argument is that existing international organizations like the Arctic Council must be strengthened and made more inclusive, meaning that they should incorporate the input of indigenous Arctic people as well as non-Arctic countries (Wasum-Rainer et al. 2011). Griffith argued in his book that it is imperative that the demands and lives of Inuit people be heeded and respected because their lives have been turned upside down since World War II when the Arctic became much more heavily used by the international community (Griffith 1987, pg. 55). Another argument is that tactful diplomacy and cooperation between the Arctic countries will decrease the risk of conflict over Arctic space and resources (Ruel 2011).

Climate change and environmental disasters do not discriminate and are uncompromising; they affect every person on Earth. However, the decision to ignore or downplay climate change as well as the decision to locate low-income minority groups closer to areas most affected by climate change and natural disasters is discrimination, leaving the people least responsible for climate change and environmental racism the most vulnerable to them.

In order to progress in terms of addressing Indigenous climate injustice as well as environmental issues, researchers and policy makers must look beyond traditionally accepted western notions of health, science, and customs (Vickery and Hunter 2014). When considering how to address climate injustice for Indigenous peoples all over the world, historic patterns of racial discrimination and abuse must be acknowledged and considered (2014). A paradigm shift regarding attitudes towards protection of the

environment and acknowledgment of the urgency of climate change is needed. A paradigm shift regarding the military-industrial complex, capitalism, and consumerism is needed. Environmental injustice encompasses both elements of racism and environmental issues, so policies need to be created that address the crossroads of environmental racism in the form of levying fines and penalties which would make it too costly for firms and individuals to engage in it (Rogers 1995). Equal representation is needed in order to give a voice to those affected by environmental injustice (1995). Responsibility needs to be taken so that people no longer suffer disparate and intolerable living conditions in the self-proclaimed greatest nation on earth. Perhaps in order to make this happen, climate change needs to be viewed as a human rights issue.

It is recommendable that the United States pay more attention to the public opinion of its people than the desires of business interest groups and the politicians and lobbyists they endorse. The United States could do this by ratifying the United Nations Law of the Sea Treaty in order to prioritize international cooperation and environmental protection over economic and commercial interests which compromise both international cooperation and relations as well as environmental protection and Arctic preservation. However, the Law of the Sea Treaty should not be left as is. While it is useful and important, it also has some drawbacks that could be addressed by some modifications to the original treaty as well as the establishment of a transnational Arctic protected area, both of which changes are increasingly important as the Arctic faces melting which complicates transit and territorial boundaries as well as resource exploitation (Zia et al. 2015). Territorial dispute resolutions within the Law of the Sea Treaty need to be toughened in order to better deal with intersecting assertions of control and authority (2015). The Law of the Sea Treaty also needs better and stronger environmental protection as well as clear-cut recognition of the rights and involvement of Indigenous peoples and populations. Establishing an Arctic protected area could accomplish and fortify some of these policy change goals; it could affect climate change while simultaneously recognizing Indigenous rights. While the outcome of such changes to the Law of the Sea Treaty cannot be guaranteed, it is worth the try, and the United States should join

the rest of the Arctic nations and so many other countries and ratify the treaty for the betterment of the Arctic and the world as a whole.

Climate change acts as a threat multiplier, particularly in the Arctic which faces governance challenges as well as resource extraction, both issues intensify climate change (Bratspies 2015). Climate change not only affects the environment, but also political, economic, and social aspects of society (2015). The United States is currently grappling with meeting and negotiating with North Korea, ostensibly because of North Korea's human rights violation record. However, the United States refuses to be a part of the United Nations Convention on the Law of the Sea despite its human rights implications as well. Perhaps if climate change were to be framed as a human rights issue, the United States would be compelled to ratify the treaty and join the convention. In the face of climate change and Arctic vulnerability, current nations and organizations will have to be adaptive and innovative in order to be resilient against the development, protection, and justice challenges a rapidly changing climate bring to a rapidly changing world.

Appendix A

Indigenous People and Environmental Racism

Overview

This chapter seeks to explore two examples of environmental racism towards two different Indigenous groups; North American Native Americans and Arctic Inuit peoples. Using racial identity, exclusion, colonial mentality, ethnic stratification, abusive practices, split-labor markets, capitalism, and internal colonialism to divide and separate Indigenous peoples from the rest of a populations has had severe consequences on Native Americans and Arctic Inuit peoples. "Environmental inequality" refers to differences and disparity in the quality of living environments based mostly on age, gender, race, and ethnicity (Vickery and Hunter 2014). "Environmental racism" looks more specifically at how race and ethnicity influence environmental disadvantages (2014). "Environmental justice" involves efforts to obtain or grant reparations for environmental harm, inequity, and disadvantages (2014). Environmental inequality disproportionately affects minorities, resulting in the environmental racism Native Americans and Arctic Inuit peoples face at high rates. "Environmental inequality mirrors existing patterns of socioeconomic and racial inequality; race and class tend to be associated with living on the right track or on the wrong track of the city's landscape" (Adeola 165).

Native Americans

Native Americans arrived in what is now the United States as many as 40,000 years ago, compared to the approximately 400 years ago that white settlers first arrived at which time the genocide of Native Americans commenced (Aguirre and Turner 150). It is estimated that the Native American

population represents only about 1% of the general American population, although they were here first (154).

Native Americans have been subjected to oppressive stereotypes leading to discrimination and the degrading usage of Native American names and images as mascots. Native Americans have had the lowest average income rates of any ethnic group, until they slightly surpassed those of African Americans in the last decade or so (161). Native Americans are underrepresented in white-collar jobs and overrepresented in blue-collar jobs, a consequence of limited access to quality education and traditional Native American occupations are no longer able to financially sustain them (157). 25% of Native Americans live below the poverty line compared to 10% of white Americans (162). In terms of the housing of Native Americans, 40% of Native Americans live in overcrowded or substandard housing, 25% of Native Americans live on government-regulated reservations and 15% live near them, meaning that nearly 40% of the Native American population lives in an extremely segregated, isolated, racialized space (160). These reservations are most often located on lands too arid to be farmed.

Relatively less research has been conducted on the impacts of environmental racism on Native Americans, but the research that does exist shows that Native Americans face significant levels of it. Because Native Americans are a vulnerable group with little power and influence in the United States, they have become "paths of least resistance" in terms of environmental discrimination (Vickery and Hunter 2014). Environmental racism is not only hurting Native Americans physically through loss of traditional foods and the effects of pollution, but also spiritually, mentally, and emotionally by the removal of their ability to practice customs and pass on knowledge to future generations (1995). Native Americans are particularly vulnerable to climate change which takes the shape of issues of food security, impacts on traditional knowledge, climate adaption, and tribal control of resources (1995). Many tribal members can see visible and tangible effects of climate change on their ways of life by the changing harvest times and migration patterns (1995).

Lead poisoning, military weaponry testing, as well as waste disposal have all affected Native American lands especially in recent years as globalization and climate change heighten (1995). Furthermore, the American military-industrial complex poses a great threat to Native Americans. Native Americans were coerced and forced onto their current reservations and the military has used and continues to use Native American lands in destructive ways including leaving hazardous materials, unexploded ordnances, abandoned equipment, unsafe buildings, and debris, thus contaminating and degrading the natural environment as well as posing threats to tribal economic, social, and cultural well-being (Hooks and Smith 2004). Military bases are also being built and expanded onto Native American lands, a habit begun in the 20th century (2004). Native tribes across the United States, particularly out west, have fallen and continue to fall victim to significant amounts of radiation and hazardous waste due to the proximity of nuclear test sites, uranium mines, power plants, and toxic waste dumps to reservations and tribal lands (Scientific American 2017). In disposing nuclear waste, the government and private companies have ignored and broken treaties, distorted and exploited Native American sovereignty, and "directly engaged in a form of economic racism akin to bribery" (2017).

Upper-class neighborhoods and residential areas, typically majority white, have been able to avoid environmental racism with their financial security and political clout. Such residential areas are characterized by historic and natural preservation, environmental regulation, minimum lot sizes, and no multiunit rental units (Collin et al. 1995). By examining the case study of Native Americans, it is clear that residential segregation and racial discrimination are alive and well in the 21st century United States, and that the government and companies are taking advantage of this fact and employing various harmful mechanisms of environmental racism on Native Americans.

Because of the sovereign status of some Native American tribes and lands, they have the option to use this sovereignty to oppose harmful environmental actions. For example, the Swinomish Indian Reservation in Washington State fought against its tribal lands being used as a petroleum dumpsite

(Vickery and Hunter 2014). It successfully appealed to the Environmental Protection Agency for correction and protection (2014). However, tribal sovereignty is limited and not available to all tribes, and it does not always empower tribes to have the economic strength necessary to fight harmful policy and development on or around their lands (2014).

Because Native Americans live below the poverty level at twice the rate of most other groups in American society, they are sometimes forced to use their sovereignty to resort to hosting environmentally hazardous materials and activities on their lands in order to make some money and create jobs (2014). For example, the Mescalero Apache tribe decided to allow uranium extraction on their lands (2014). However, their lands are not subject to the same level of regulation and protection due to their sovereignty (Scientific American 2017).

The Trust Doctrine is intended to protect Native American tribal lands, but it is instead often ignored by the United States government which acts out of federal and corporate interests and agendas (Vickery and Hunter 2014). Conversely, Honor the Earth is a group trying to encourage communication and cooperation between Native Americans and environmentalists and is currently working to convince dozens of tribes that accepting hazardous waste and activities on and near tribal lands is not the long-term solution to the problems they face (Scientific American 2017). In 2007, Native advocates and members of the public were able to talk the Skull Valley, Utah Goshute tribe out of accepting an offer to store nuclear waste above ground on their land, land already surrounded by a military test site, a chemical weapons depository, and a toxic magnesium production facility (2017). In 2009, the United States Department of Energy decided to decrease efforts to make Yucca Mountain in Utah the only storage place for nuclear waste, much to the relief of nearby Native tribes and reservations (2017).

Currently, Native Americans are trying to adapt to climate change. Researchers argue that tribes should be able to make their own adaptation decisions and participate in the decision-making processes (Vickery and Hunter 2014). Relocation of Native Americans might have to be an option as climate change, and thus environmental racism and inequality, intensifies. Tribes are trying to adapt to climate

change and environmental discrimination, but these efforts are often limited by regulations and policies such as those that limit the times of year tribes can fish and hunt, effectively limiting Native American sovereignty and preservation of customs (2014). Traditional ecological knowledge (passed-down knowledge) could be an important tool for climate adaptation for Native Americans going forward (2014).

Environmental racism exists because it is assumed that the minority communities it victimizes will not resist and because it is assumed that these decisions will only affect those closest to the hazardous zones when in actuality, they affect everyone. Living in a clean, healthy, safe, and productive environment is a fundamental right, one being deprived Native Americans in the United States and other Indigenous peoples around the world (Adeola 169). As awareness of environmental injustice arises, as should the environmental justice movement, which began in the 1970s after several environmental injustices occurred in predominantly black neighborhoods in cities across the country (171). The movement needs to advertise itself more and be more active in order to instill larger-scale change. It should also partner with the slightly more mainstream environmentalist movement which has been around since the 1830s when European-American individuals and groups began championing the cause of the environment (Bullard 53). The environmentalist movement has continued to operate without much minority involvement, but this involvement and inclusion of people of color, including Indigenous people who are most vulnerable to climate change, is essential in ending environmental racism and could result in a powerful union of interests. An inclusive environmentalist movement is key (54).

Arctic Inuit Peoples

Arctic peoples have done little to contribute to climate change, yet are being forced to bear the brunt of the burden of its effects. While many Americans can avoid the effects of climate change for the time being, Arctic peoples are forced to experience these effects right now, as the Arctic is hid hardest and first by climate change and global warming in the form of sea ice melt, permafrost thaw, biological changes, and complicated international relations. Resource extraction are encroaching on Arctic communities and threatening their wellbeing, way of life, cultures, traditions, and environment on which they often rely for their livelihoods. These livelihoods tend to rely on the use of natural resources which are negatively affected by industrialization. It has been studied and shown that the breeding success of caribou, reindeer, elk, moose wolves, and bear declines with the increased presence of road density and other infrastructure (Yakovleva and Grover 2015). Indigenous Arctic people are endangered and threatened as other nations benefit from resources on their lands, but are typically not able to share in the benefits of such exploitations nor have any right to prevent developments that adversely affect them (2015).

At the heart of the issue of Indigenous rights in the Arctic in a time of Arctic exploitation and degradation has roots in basic principles of land rights. Indigenous peoples around the world have traditionally suffered injustices in the frequent from of displacement and dispossession of their lands. Indigenous peoples often live on or use land without formally owning it, no matter for how many years or generations that land has been used by that person or community (2015). These lands may be used for the hunting of migratory animals, for example, a livelihood which does not require permanent or continuous use like formal agriculture does (2015). International policy regarding Indigenous peoples calls for the expansion of land ownership rights for Indigenous peoples, but the ability to actually expand ownership rights depends on the relationships between the Indigenous communities and their state and how willing the state is to give power and land to Indigenous peoples (2015). Since the 1940s, a portion of international law focuses on Indigenous rights to land and encourages states to acknowledge the “social,

cultural, spiritual, economic, environmental, and political value" of land to Indigenous peoples (2015). Control over the development of Indigenous lands has the ability to preserve Indigenous cultures and wellbeing. The 2007 United Nations Declaration on the Rights of Indigenous Peoples states that Indigenous peoples have the right to the lands, territories, and resources they have traditionally owned or used and that states need to legally recognize and protect this right (2015). They also have the right to preserve and protect these lands and waters as well as the right to self-determination (2015). Indigenous Arctic people face near constant injustices, historically and contemporarily. In Russia in 2004, an oil pipeline was proposed that endangered a lake as well as an endangered species of leopard. This pipeline crosses the territories of the Indigenous nation, the Evenki, an autonomous republic within Russia (2015). They are a minority, but are recognized and protected by Russia. The pipeline threatened traditional trades, practices, and livelihoods of Evenki communities due to its likely detrimental impact on flora, fauna, and water resources (2015). Because the Evenki do not have formal rights or ownership over the land, they were not given a participatory role in the decision to install the oil pipeline nor were they given the opportunity to benefit financially from the pipeline (2015).

In Canada in 1973, another pipeline was built on the land of Indigenous peoples who relied on the land for subsistence hunting and fishing (2015). Mineral extraction and the construction of such pipelines are likely to greatly disrupt natural life and, by consequence, the livelihoods and wellbeing of Indigenous peoples. Many jobs that come about as a result of mineral extraction are given to imported labor, not local Indigenous peoples (2015). Further, Indigenous land is often seen as "public" land and is used as such without the consent of its inhabitants (2015). Following some lawsuits in this case of the Mackenzie Valley pipeline, there was policy change in Canada that led to the recognition of land rights of aboriginal peoples as well as the inclusion of them in employment and financial gains of such projects (2015). However, this inclusion might engender social change which could alter traditional ways of life, but that choice should be left up to the affected Indigenous peoples. Indigenous peoples must choose between

traditional ways of life and demanding Western globalization – a balancing act, so to speak (Sheehan and Jensen 2015).

Indigenous Arctic peoples seek to argue that their human rights are being infringed upon by activities that enable and encourage climate change (Bratspies 2015). The United Nations Declaration on the Rights of Indigenous Peoples argues for Arctic governance through a human rights lens by advocating for the inclusion and participation of Indigenous peoples as well as for their protection from exploitation (2015). This human rights framework of Arctic governance advocates for participation of Indigenous Arctic peoples in Arctic decision-making processes, including the right to development and the right to self-determination (2015). It also advocates for widely-available access to information and transparency in environmental decision making in order to ensure effective participation of Indigenous peoples (2015). The human rights framework also advocates for prior informed consent and the opportunity for Indigenous Arctic people to either give it or withhold it (2015). The Arctic Council already requires consultation of Indigenous Arctic people prior to resource extraction, for example, but consultation is not the same as consent, and consent is crucial (2015). These three additions to the human rights framework of Arctic decision making processes seek to protect Indigenous Arctic communities from exploitation and exclusion.

Appendix B

Greenlandic, Danish, and American High School Student Interviews

During July of 2017 and on my third trip to Greenland as a field research assistant to climate change ecology professor Dr. Post, I arranged ahead of time to speak to some high school students from Greenland, Denmark, and the United States who were in Greenland for a several-week long exchange program called the Joint Science Education Project (JSEP) to build and strengthen public diplomacy between the three nations as well as to learn about science field work and climate change. When I spoke to these students in a plain but tidy hostel in the tiny former-military base town of Kangerlussuaq, I was immediately impressed by their early knowledge of and enthusiasm for the environment, no matter which country they were from or which country they were visiting.

They all had extremely insightful comments regarding the environmental and international relations issues that currently face the world, as well as some wise advice regarding how to move forward and work to solve some of these tangled issues. Aviaq, a young Greenlandic student said, "I feel like asking someone if they believe in climate change is like asking them if they believe in God." She thinks that climate change should not be a personal topic, it should just be respected as science and accepted as fact. Aviaq thinks that the way to create international agreement with regards to climate change solutions lies in conversations and communication, both individually and internationally. Aviaq thinks that the taboo which surrounds climate change should be discarded and that people should talk openly about the issue in order to solve it. It should be so common, she says, and the goal of working to fix it should be so widespread that advertisements should run on television promoting environmentally friendliness and climate awareness.

Sebastian, a Danish student, also thinks that environmental issues cannot be improved upon without communication. He believes that there is a breach in not only knowledge about the environment but also a breach of communication between those who believe in climate change and those who do not. He advises that those who do believe in it sit down and have a conversation with climate skeptics and deniers. He recommends that during these conversations, climate change believers listen to their opponent's point of view and then explain their knowledge on the topic, however basic it may be. Sebastian also advocates for awareness of science and the environment, as well as of the consequences human action brings to the planet. He wants people to not only be aware of their actions but to stop supporting polluting and corrupt companies. He believes that change to counter climate change must and will happen in small, progressive steps.

Niko is an American student from California who is passionate about marine biology and is gravely concerned for the well-being of the planet's seas. He is dismayed that humans are "trashing 70% of our Earth just because it's foreign and wet." He believes that small, daily actions like biking to work and installing high-efficiency lightbulbs can make all the difference in terms of combatting environmental degradation. He thinks that it is extremely important and necessary that people know that what they do *does* make a difference, for better or for worse. At his high school in California, he was a part of the team of students that advocated and put pressure on their administration to install solar panels at school. Niko does know a few climate change deniers and skeptics, and he thinks that showing them evidence is the trick to opening their minds to have concern about the natural environment.

Adam is also an American student from Oregon. He is interested in stream conservation and environmental protection at the community level. Adam recognizes the tight grip capitalism and corporations have on American environmental mentality, so he suggests that climate change advocates should beat them at their own game. Corporations are good at advertising, so environmental advocates should not only advertise more, but also change the tone of their outreach. Instead of focusing on harm, care, justice, and fairness, Adam argues that these advertisements should talk more about loyalty to one's

country and planet by keeping them clean and pure. He thinks that these advertisements should encourage the upholding of commitment and pride in protecting the environment. Because it is often ideologically conservative individuals who are skeptical about the existence and causes of climate change, Adam suggests that protecting the Earth be painted in more patriotic colors by appealing to the well-being of the family, community, and nation. Adam thinks that being green should be portrayed in shades of red, white, and blue. In this way, environmental protection "appeals to more than just the choir," Adam says. With this new marketing strategy, Adam also suggests a new approach to talking about climate change, one that educates and eliminates disconnect.

Speaking with these students gave me hope for the direction of international agreement regarding climate change and environmental protection. Their ideas are intuitive and innovative and they have the intelligence and character to follow through with their plans, leaving a green trail behind and in front of them.

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Academic Vita

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Paterno Fellows Program Student Advisory Board, University Park, PA **Fall 2016 - Present**
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