What does the Increased Fossil Fuel Scarcity mean for the Arctic Region?

A quantitative and qualitative content analysis of Canada, Denmark, Norway, the United States and Russia’s Arctic strategy.

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Abstract

This bachelor thesis asks the question, **what does the increased fossil fuel scarcity mean for the Arctic region?** It further investigates the aim and motives by the five main Arctic states. With the use of structural realism, existing research on the parallels between resource scarcity and conflict and, the combination of two methodological approaches: quantitative and qualitative content analysis, I argue in this study that the five states will act in accordance with the structural realist way and exploit the Arctic due to the protection of their national interests and security. This thesis highlights that, firstly, there is a process of climate change enabling the accessibility to extracting fossil fuel. Secondly, there is an ongoing militarization of the region. With that being said, I argue that the race for fossil fuel will prevail and this will create a destabilizing Arctic region with environmental impacts and militarization that can lead to problematic disputes and even conflicts. Therefore, the Arctic is a vulnerable region with a questionable future due to its economic stakes and militarization.

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1.0 Introduction
The aim of this bachelor thesis is to analyze how fossil fuel scarcity is threatening the stability of the Arctic region, politically and environmentally. In terms of threats I am mainly referring to possible oil spills, destruction of the biodiversity but mainly, further militarization of the region. In this thesis, I have decided to define fossil fuels according to Merriam Webster’s dictionary “a fuel (such as coal, oil, or natural gas) formed in the earth from plant or animal remains”. The Arctic region currently consists of multiple low-intensity disputes. With climate change opening up the accessibility to extract fossil fuels the situation is progressing with militarization in the region. Thereupon, in regard to fossil fuel scarcity, there is a debate questioning if resource scarcity can develop into conflicts or even war. On the one hand, scholars such as Klare (2002) and Homer-Dixon (1991) argue that resource scarcity can develop into conflicts. While, on the other hand scholars such as Knecht (2012) and Le Billon and Cervantes (2009) question this very assertion. I argue that the debate is unbalanced, as it does not include the theoretical framework of structural realism. The Arctic glaciers are melting and accordingly it opens up the accessibility to economic gains and completely changes the structure of the region and enhances the power-struggle in relation to resource extraction. By putting the Arctic region, itself at the center of the equation, I will pose the question what does the increased fossil fuel scarcity mean for the Arctic region?

This thesis will aim to in-depth understand the ongoing political process that may or may not result in the end of the Arctic that we know. In this, it is important to include the directly involved actors. The five main Arctic states are Canada, Denmark, Norway, the United States and Russia. However, in the Arctic Council there are eight-member states which consist of the five previously mentioned states plus Finland, Iceland and Sweden (Arctic Council). In this study, I will include the International Relations (IR) theoretical framework of structural realism in order to understand the five Arctic states behavior in the race for fossil fuel in the Arctic. I will also include the theoretical debate between Kenneth Waltz and Scott Sagan (2013) on the spread of nuclear weapons because I argue there are parallels between the race for nuclear weapons and the race for fossil fuel in the Arctic. By using a structural realist lens and the Waltz and Sagan (2013) debate to analyze the situation in the Arctic, I argue will contribute with a new perspective in IR on the topic of the Arctic region because the use of structural realism to study this aspect of the Arctic, has not been conducted before.

Based upon the existing research and the theoretical framework, I argue in this thesis that the Arctic is a vulnerable region because of its enrichment of fossil fuels in an age of global
scarcity. This by both considering the environmental concerns of the exploitation of natural resources, and the continuation of territorial disputes. Based upon this, I argue that the Arctic states will behave in accordance to the structural realist school, in its national interest to exploit the Arctic of resources, and always in the protection of its national security with further militarization of the region.

Furthermore, to strengthen my argument I will conduct both a quantitative and a qualitative content analysis of the five actors’ Arctic strategies. I argue that this will provide me with a greater understanding of the race for fossil fuels and also the militarization of the region. In order to understand what effect fossil fuel scarcity, have on the Arctic region, one must understand the actions and interests of the five Arctic states as they are the ones with the ability to extract the energy resources.

This bachelor thesis will begin with a brief overview on the effects of climate change in the Arctic. Due to the melting glaciers, climate change becomes a main variable in the possibility to extract resources in the Arctic, this conceptualization will be returned to in section 2.0. This part will also consist of the states’ efforts or future plans in extracting resources in the Arctic.

Afterwards, I will introduce the main disputes in the Arctic from the 1960s until today. I have chosen to include this section, so the reader can understand the multiple layers and complexity of territorial disputes. Territorial disputes are of great concern in the race for fossil fuel because currently there is no state that owns the North Pole and unlike Antarctica, the Arctic is not a continent, but it is an ocean consisting of drifting ice that melt and expand during the different seasons (Gunitskiy 2008:261).

Moving on to the next section, I will introduce the literature review. The literature review will begin by presenting the IR theoretical perspective of structural realism which will include the core realist’s concepts and the Waltz versus Sagan (2013) debate. This theoretical section aims to create an understanding of the behavior by the five Arctic states. Thereafter, I will introduce the debate on the correlation between resource scarcity and conflict. I am introducing this debate because it pin-points the importance of fossil fuels for states and their dependency up on it.

After I have outlined the literature review I will move on to the method. I will present the two methods I have chosen to conduct. The two methods are, one quantitative content analysis, and one qualitative content analysis. The data that will be analyzed in both methods are the five states Arctic strategy. I will also clarify how the methods were conducted in order to remain the transparency and validity of the research.
Finally, the last section will include an analysis. The analysis will include the findings of the two methods and an extensive investigation on how fossil fuel scarcity affects the Arctic region in order to operationalize the research question, **what does the increased fossil fuel scarcity mean for the Arctic region?**

### 2.0 The effects of climate change in the Arctic and the extraction of fossil fuels

Climate change is a key variable when analyzing the Arctic region. It is important to understand the effects of climate change before one tries to understand the race for fossil fuel as the two are correlated.

What is important to realize, is that the effects of climate change play a crucial role in the Arctic, mainly because it is creating access to the underlying fossil fuels. In only fifty years the global temperature has increased with 1.1 Celsius which have resulted in the melting of the Arctic glaciers (Keil 2014:162). In 2012 it was measured that it was the lowest amount of ice since they started to measure ice in 1979 (Keil 2014:163). Because of this, in the summer, ice ratings are decreasing with 12 percent each decade which will result in an Arctic free of ice in the summers in the coming future (Keil 2014:163). The effects of climate change are enabling the five Arctic states to extract energy resources from the Arctic, however extracting fossil fuels does not come without consequences. The main concern of environmental activists is the possibility of oil spills (Greenpeace, 2019). Due to the extreme weather conditions in the Arctic the risk of oil spill also increases. Greenpeace (2019) outlines that the U.S. Department of Interior found when reviewing the company Shell’s plans on drilling in the Alaskan Arctic Ocean, that there is a 75 percent chance of a major oil spill if any company tries to extract resources. Furthermore, Greenpeace (2019) also points to the fact that no company has ever successfully managed to clean up a major oil spill. Instead, in the 1989 Exxon Valdez oil spill of 11 million gallons of oil in Alaska, the company spent $2 billion trying to clean up the spill, however they only managed to clean up 7 percent of the spilled oil (Greenpeace, 2019).

Furthermore, because of climate change there have been changes in the geopolitical, socio-economic and military-strategic structures (Keil 2014:162), specifically seen in the extraction of non-renewable resources. Even though extracting fossil fuels in the Arctic is very problematic due to the extreme weather, the process has already begun. The Russian oil company ‘Gazprom’ have started to produce oil from the Arctic ocean north of Russia.
(Greenpeace, 2019). Efforts to extract oil can also be visible by the other Arctic states, for instance, Trump stated that it would allow drilling for offshore oil and gas in the Arctic, however this was later blocked by a federal judge due to Obama’s ban on oil and gas drilling in the Arctic (Davenport 2019). The United States did also in 2017 pull out of the Paris Climate Agreement which shows their lack of commitment in protecting the climate (Mooney 2018). Furthermore, another action taken by the Unites States which shows it engagement in the race for fossil fuels, is the sanctions the state putted upon Russia. The United States sanctioned seven of Russia’s richest men and 17 governmental officials (Harris, 2018). Several of the individuals that were sanctioned are oligarchs and this sanction will prevent them from doing business with any big company or bank in the West (Harris, 2018).

So, what disputes have actually taken place in the Arctic between the five actors? In the next section I will present the main disputes in the Arctic. I have included this section to clarify for the reader that the disputes in the Arctic are very complex and difficult to solve, which is why some disputes that began in the 1960s are still ongoing (Todorov 2017).

2.1 Interstate disputes in the Arctic from the 1960s until today

In this section I will present some of the main disputes in the Arctic. I have chosen to include this part because I want to highlight that the Arctic has a history of disputes with some still occurring. The purpose of this section is to clarify to the reader that the Arctic is already under pressure, and therefore, the ability to access non-renewable resources is only fueling the situation.

To begin, one notable incident in the Arctic took place in August of 2007 when a Russian submarine planted a Russian flag on the seabed of the Arctic, 14,000 feet below the North Pole (Gunitskiy 2008:261). It is believed that the act by Russia was a symbolic move as the state had in 2001 submitted a territorial claim which was later denied due to the lack of data supporting it (Chivers 2007). However, during the Russian excursion they did also collect geological samples that they hoped could support their claim that parts of the Arctic seabed is an extension of the Russian continental shelf (Holmes 2008:323-324). The continental shelf is considered to be 200 nautical miles from the state’s baseline (Article 76, UNCLOS). Furthermore, before the famous planting of the flag, the leader of the expedition Artur Chilingarov had stated on Russian television that “We must determine the border, the most northerly of the Russian shelf” (Chilingarov in Chivers 2007). The Canadian foreign minister stated in response to the act, “You can’t go around the world and just plant flags and say, ‘We’re claiming this territory.’”
Not only did Canada make a statement about the Russian action, but they also reaffirmed its commitment to expand the Canadian military presence in the region (Holmes 2008:324). Denmark at the same time, launched an expedition to the Arctic (Holmes 2008:324). The United States did not react in the same aggressive manner as Canada or Denmark, but it has considered to add two new polar icebreakers to its territory in the Arctic (Holmes 2008:324).

Norway on the other hand, did not respond immediately to the Russian action, it is argued by Holmes (2008:424) that one reason for that could be that Norway previously had admitted that their continental shelf does not reach the North Pole. Moreover, another argument is provided by Gunitskiy (2008:265) who states that Norway did not condemn the action because of the economic cooperation they have with Russia (Gunitskiy 2008:265). Norway and Russia are cooperating in the process to extract oil in the Arctic (Gunitskiy 2008:265). Norway is a state that have a long history and experience of drilling for oil in the region, which is very helpful to Russia (Gunitskiy 2008:265). However, the relationship between Norway and Russia has not always been friendly. Russia and Norway have had a forty-year dispute over the maritime borders in the Barents Sea (Harding 2010). The two states claimed a territory of 175,000 square kilometers. Finally, the two states reached an agreement by signing a treaty dividing the area equally between the two states (Harding 2010).

Another dispute that also erupted in 2007 is the territorial dispute over the Northwest Passage. The Northwest Passage consist of multiple shipping lanes that connect the Atlantic Ocean with the Pacific Ocean through the North American Arctic waterways (Todorov 2017:71). By the Northwest passage the distance between Europe and Asia would cut with 2,500 miles which is up to 30 per cent (Gunitskiy 2008:265 and Todorov 2017:71). The United States views the passage as international water while Canada views it as its territory which then also falls under the Canadian sovereignty (Gunitskiy 2008:265). In the 1960s there was an incident between the two states as a United States ship passed through the Northwest passage. Canada perceived this incident as a “threat to the Canadian sovereignty in the Arctic waters as the US was accused of not having obtained a formal admission of the Canadian authorities for its vessel” (Todorv 2017:71). After this incident there have been similar situations occurring in the Northwest passage at the same time as Canada has tried to claim the territory as its sovereign (Todorov 2017:72).

The previously mentioned dispute between Canada and the United States have similarities to a dispute between Russia and the United States. The Russia and the United States dispute concerns the Northern Sea Route which have affected bilateral relations in the Arctic since the
1960s. Russia, similar to Canada claim the route as a subject to its national legislation (Todorov 2017:62). The United States on the other hand, perceive multiple straits within the passage to be subjects of international water, where the freedom of navigation applies (Todorov 2017:63). There have been several incidents between Russia and the United States in this area, as the United States have tried to sail through the passage which Russia considers a violation of its territory (Todorov 2017:63). Furthermore, looking at each state’s current legislation, Russia views the Northern Sea Route as its national maritime transport route which falls under the national rules of navigation (Todorov 2017:64). Meanwhile, the United States policy in the Arctic focus on the freedom of the seas which is also the top priority (Todorov 2017:64).

Important to highlight before moving on to the next section, is the military advancement in the Arctic. Russia has multiple military facilities in the Arctic. The newest facility is located by Kotelny Island which is notably, closer to the United States Alaska, than Moscow (Ilyushina and Pleitgen, 2019). At this military base, the 250 servicemen that operate there have supplies so that they can survive for over a year without any outside assistance (Ilyushina and Pleitgen, 2019). The other four states on the other hand, are all members of the North Atlantic Treaty Organization (NATO). After Russia’s increasing militarization in the Arctic, the NATO member-states have agreed to heighten its focus in the North Atlantic (bordering the Arctic) (NATO 2017:5). NATO further encourages its member-states to increase their individual presence in the Arctic, however in a non-provocative way (NATO 2017:5).

After outlining the situation in the Arctic, including some of the main disputes between the Arctic states I will in the next part go through the existing research that have been conducted. I will begin by presenting the structural realist framework and then also introduce the Waltz versus Sagan (2013) debate on the spread of nuclear weapons. Afterwards, I will introduce the IR debate on the correlation between resource scarcity and conflict.

3.0 Literature Review

The Arctic region has become a thoroughly discussed topic within IR. It has become a central topic because there are multiple difficulties and actors involved in the region. As previously stated, the five actors that have territory in the Arctic are Canada, Denmark, Norway, the United States and Russia. As an effect of climate change, the ice in the Arctic has begun to melt, uncovering a great reservoir of oil and gas resources (Johnston 2012: 13-14). With growing population and strong economies, scientists have calculated that the dependence upon energy resources will therefore also increase (Johnston 2017:14 and Campbell 2005:952). In modern times “no highly industrialized society can survive at present without substantial supplies of
oil, and so any significant threat to the continued availability of this resource will provoke the
use of military force” (Klare 2002:27). Thereupon, the reveal of energy resources in the Arctic
has contributed to boundary disputes, environmental concerns and militarization. Furthermore,
in order to understand what effect oil scarcity will have on the Arctic region, it is necessary to
pinpoint the importance of fossil fuel for nation-states. For instance, states are very dependent
on fossil fuel because its crucial meaning for the military functions (Klare 2002: 29).

In the next section, I will introduce the theoretical perspective ‘structural realism’ which I
will use in order to understand state’s behavior in the Arctic. Afterwards, I will also introduce
the debate between Waltz and Sagan (2013) on the spread of nuclear weapons. I have chosen
to study this debate because it will highlight the parallels between the race for nuclear weapons
and the race for fossil fuels. Thereafter, I will include the IR debate on resource scarcity. The
debate questions if resource scarcity can develop into conflict or even war. I argue that this is
an important debate to include because it draws upon different perspectives on the effects of
resource scarcity on global stability. I have chosen to include these two debates in this thesis
because they provide a solid understanding of the situation in the Arctic and an explanation to
why and how states act in the international system. The structural realist framework explains
what states focus on and how they behave in relation to power and competition of resources,
while the resource scarcity debate clearly outlines the value of fossil fuels to states and what
consequences it has.

3.1 Theoretical perspective

Because the focus of this thesis is to analyze what effect fossil fuel scarcity has on the Arctic
region, I have decided to use the theoretical tool of structural realism to study this case. Before
presenting the theoretical debate between Kenneth Waltz and Scott Sagan (2013) on the spread
of nuclear weapons which I argue is a debate that can be applied to the Arctic situation, I will
briefly outline the core assumptions of the structural realist school of thought. By doing so it
provides a clearer understanding of states behavior in the international system. I argue that
structural realism will enable me to understand why the actors in the Arctic are prioritizing the
extraction of fossil fuels above the protection of the climate. Furthermore, I also argue that the
theoretical concepts of structural realism will provide an understanding of the structure of the
Arctic and how it has changed in relation to the process of climate change.
To begin, structural realism, also sometimes referred to as neorealism, is a system-level theory in which Kenneth Waltz argue, is important when studying international politics because,

to say that it would be useful to view international politics from the system level is not to argue that the system determines the attributes and the behavior of states but rather to keep open the theoretically interesting and practically important question of what, in different systems, the proportionate casual weights of unit-level and of systems-level factors may be (Waltz 2010:48-49).

As stated in the name of the theory, structural realism focuses on the structure of the international system. The structure of the international system is explained by Waltz as “international structure emerges from the interaction of states and then constrains them from taking certain actions while propelling them towards others” (Waltz 2008:74). He then specifies that the international structure is defined by two aspects and that being, first: that we live in a state of anarchy, second: being the distribution of capabilities among different units (Waltz 2008:74). Furthermore, Waltz distinguishes between old realist thinking with newer ideas by arguing “Old realists account for political outcomes mainly by analyzing differences among states; new realists show why states tend to become like units as they try to coexist in a self-help system, with behaviors and outcomes explained by differences in the positions of states as well as by their internal characteristics” (Waltz 2008:83-84).

Another important concept within structural realism is that of ‘power’, in the realist thought the man is born with the desire for power (Waltz 2008:78). Morgenthau (in Waltz 2008:78) recognized that in a world of scarce goods and no arbiter of resources the struggle for power will prevail but not because a man was born evil, but because of the will of wanting. This belief, ‘the desire for power’ is also what Morgenthau (in Waltz 2008:78) outlines as one main source of conflict. With that being stated, applied to states, a state in accordance to realist thinking should always aim to maximize its power (Morgenthau in Waltz 2008:78). Specifically, “Power in a neorealist theory is simply the combined capability of a state. Its distribution across states, and changes in that distribution, help to define structures and changes in them” (Waltz 2008:79). Even though power is a crucial concept in the structural realist thought, in severe situations the main concern of a state is and will always be its security (Waltz 2008: 79).

Furthermore, another important aspect in structural realism is that of ‘national interest’. National interest can be described as “a neoclassical realist model begins by positing that state officials inevitably have some conception of the national interest in the face of potential external threats” (Dueck 2014:272). However, the process of identifying a national interest and assemble
the right resources to pursue the goal is difficult and both domestic and external factors can influence the pursuit of the interest (Dueck 2014:272-273).

In the next part, I will present the debate on the spread of nuclear weapons between Kenneth Waltz and Scott Sagan (2013). I have chosen to include this debate because it highlights the security aspect as well as there are certain parallels between this debate and the situation in the Arctic.

3.1.1 Waltz vs Sagan Debate

For the purpose of understanding the five actors’ intentions and behavior in the Arctic region, I argue for the importance of analyzing the theoretical debate between the structural realist Kenneth Waltz and Scott Sagan (2013) who argues from an Organizational theory. This debate focuses on the spread of nuclear weapons, however the relevance to my topic is the theoretical concepts they are discussing which I will draw upon in the analysis. As well as there are clear parallels between the nuclear arms race with the fossil fuel race in the Arctic.

In this debate, Kenneth Waltz (2013:4) argued that states coexist in a state of anarchy, where ‘self-help’ is the fundamental priority of a state in an anarchic structure. Therefore, states will prioritize its own security in order for the protection of their own (Waltz 2013:4-5). Waltz (2013:37) argued that a gradual proliferation of nuclear weapons is better than non-existing or accelerated proliferation. He strengthened this argument by pointing to the structure of the system by stating “the chances of peace rise if states can achieve their most important ends without using force. War becomes less likely as the costs of war rise in relation to possible gains” (Waltz 2013:5). Another point Waltz (2013:6) made, was that it is important to look at the gains versus the losses of a potential war. A state would not enter into a war or put itself in a situation of high risks if the gain was not compatible (Waltz 2013:6). However, in the modern world with new technology always developing, it is harder for states to calculate the capabilities of one’s opponent (Waltz 2013:7). This argument can also be linked to the nature of war. If war was breaking out in the Arctic, it would be in a very difficult climate. Therefore, it would be hard to calculate gains and losses.

In contrast to Waltz, Sagan (2013:42) analyzed the spread of nuclear weapons from another theoretical perspective, namely organization theory. Organization theory challenges the arguments that were previously stated by Waltz, that states act in a self-interested rational way (Sagan 2013:46). Sagan (2013:42-43) outlined two main arguments against the spread of nuclear weapons. Firstly, Sagan (2013:42) argued that professional military organizations have
different interests and behavior which can result in deterrence failures and accidental war. Secondly, Sagan point to the fact, that future nuclear-armed states will be missing a civilian control system (Sagan 2013:43). Since the focus of the thesis is to study the situation in the Arctic through the lenses of structural realism, I argue Sagan’s (2013) perspective is not apt to describe the case.

The parallels that I draw from the race for nuclear weapons to the race for fossil fuels is firstly, what Waltz (2013:6) states regarding the difficulty to calculate the gains versus the losses of a potential war. This is visible in the race for fossil fuel as the extreme weather is affecting both the working environment and the execution of a possible conflict. Secondly, that self-help is the fundamental priority of any state and states will always focus on their security (Waltz 2013:4). The increasing militarization of the Arctic region is considered a threat and therefore states have to protect their own sovereignty and security.

This debate is contributing with a theoretical perspective to understand the situation in the Arctic region. It does so by outlining the parallels between the nuclear arms race and the race for fossil fuel in the Arctic by outlining actors’ behavior in international relations. I will specifically emphasize the importance of security, power and interest when studying the states behavior in the Arctic, because it provides the understanding that actors will always seek more power and prioritize their security and interests above anything else. After reviewing the theoretical framework of structural realism, in the next section I will introduce the debate regarding resource scarcity in correlation to conflict.

3.2 How likely is it that resource scarcity will lead to conflict?

After reviewing the theoretical perspective of structural realism, I will now study the debate on resource scarcity. There has been extensive research conducted on the relation between resource scarcity and conflicts. Energy resources such as oil and gas are natural resources which means that it only exists in limited quantities and will in the future not be able to meet the high demand (Klare 2002:28). Henceforth, with the increasing demand on oil and gas resources together with the limited quantities of it, the end of oil is considered a threat to states national security (Klare 2002:28). The academic debate questions whether resource scarcity can develop into conflicts or even war. On the one hand, scholars (Klare 2002 and Homer-Dixon 1991) argue that conflicts can be sparked because of resource scarcity. While on the other hand, scholars question this assertion (Knecht 2012 and Le Billon and Cervantes 2009). Thus, in this thesis, connecting this debate to the theoretical conceptualizations of structural realism is a valuable contribution to
both scholarships as it will enable a better understanding of the structural reasons that lead to states being in conflict with each other.

I will begin analyzing this debate by reviewing Klare’s (2002) work. Klare (2002) is a pioneer within the topic of resource scarcity. In his book ‘resource wars’ he conducted a comparative case study of three regions (the Persian Gulf, the Caspian Sea and East Asia) which have higher probability of conflicts arising due to resource scarcity (Klare 2002). Klare (2002) used both governmental documentations and statistics as his data. For instance, he used documents from the U.S. national security council and the U.S. department of energy and a statistical review of world energy (Klare 2002). However as his analytical framework he used a ‘strategic triangle’ which consisted of three key factors: ”the politics of oil security, the dynamics of demand and supply, and the constraints of geography” (Klare 2002:50). Klare (2002:50) argued that these three factors are significant in order to determine both the likelihood and the location of future conflicts over oil resources. Furthermore, he also outlined that one factor is able to produce a potential conflict however, all three must align in order to produce a war (Klare 2002:50). Klare (2002:213) further argued that resource wars will be the central issue within the global security environment. Correspondingly, he states “That conflict over oil will erupt in the years ahead is almost a foregone conclusion. Just how much violence, at what levels of intensity, and at which locations, cannot be determined” (Klare2002:29). Furthermore, he continued by outlining that geography plays an important role when discussing the correlation between oil resources and conflicts (Klare 2002:28-29). He pointed to the fact that multiple oil reservoirs are found in either contested border zones or in areas of continued violence (Klare 2002:28-29). This statement is important to note, as the Arctic is a region with history of multiple boundary issues, which I outlined in the section on interstate disputes (Johnston 2012:14).

Another perspective is provided by Homer-Dixon (1991). Homer-Dixon (1991) conducted a research article that was based on a causal-path analysis on the parallels between environmental change and acute conflict. Homer-Dixon’s (1991:86) casual-path analysis was based on a figure that outlined environmental effects, social effects and conflict types. The figure that Homer-Dixon (1991) used was based on the data in Richard Warricks and William Riebsame’s article ‘Societal Response to CO2-Induced Climate Change: Opportunities for Research’. He argued that “such an analysis can help bring some order into the profusion of predictions concerning these issues, and it can also help researchers address several of the impediments to research mentioned above” (Homer-Dixon 1991:85). He also made use of both historical and contemporary data at both the regional and societal levels (Homer-Dixon 1991).
The scholar reached the argument that developing countries are more at risk by the effects of climate change than already developed countries (Homer-Dixon 1991:88). He also argued that scarcity is a potential source of conflict between nations (Homer-Dixon 1991:78). In regard to climate change, Homer-Dixon (1991:95) also acknowledged how the economy can be affected. He recognized that export markets will result in short-term economic gains for the elite of a nation, while effects of climate change can result in damages of infrastructure (Homer-Dixon 1991:95). Furthermore, he argued that, as forests are being shed, wood will as a result become a scarce resource and therefore, be expensive which will in turn affect poor families that use wood for fuel (Homer-Dixon 1991:95). There is a clear parallel between Homer-Dixon’s statement and the effects of oil scarcity. As oil is of limited quantities the prices will go up and because the resource is important for a state to function, it will create a self-help system where each state will protect its own interests and national security. However, it is important to underline that Homer-Dixon (1991:88) reached the conclusion that developing countries are more sensitive to climate change (some of the countries he discussed are: Philippines, El Salvador and Honduras (Homer-Dixon 1991:82-83)), meanwhile the five actors in the Arctic consist of the two Great Powers: Russia and the United States, and three developed states: Canada, Denmark and Norway.

In contrast to both Klare (2012) and Homer-Dixon (1991), Knecht (2012) takes an opposite stand in this debate. Knecht (2012) adopted the theoretical framework of securitization in his analysis in order to study the stability of the Arctic region. Therefore, he approached the issue by using securitization to study discourse between three different spatio-temporal orders (Knecht 2012:38-39). The first period of time he focused on, is the aftermath of World War II up until the 1980s. Second, focused on Gorbachev’s speech in Murmansk in 1987 which was centered around the transformation of the Arctic to a ‘zone of peace’ (Knecht 2012:39). Third, focused on the post-post- Cold War era in which he means from the year 2000 and onwards (Knecht 2012:41). He argued based upon his findings that “Arctic states have differently imagined the spatial configuration of the High North at different times, with severe implications for the politicization and securitization of the Arctic processes, and vice versa” (Knecht 2012:35). Knecht (2012:43) further argued that the Arctic cooperation has been strengthened despite new rising challenges to the region such as the arising economic stakes in the region. Even though Knecht (2012) does not focus on scarcity per se, he is arguing that despite economic stakes which refers to the energy resources in the region, the Arctic has become more stable.
The final perspective in this debate, is presented by Le Billon and Cervantes (2009). The methodological approach Le Billon and Cervantes used was a case study of Sudan, where they “suggest that scarcity is in part a narrative constructed for and through prices” (2009:836). In their article, Le Billon and Cervantes (2009) used different sources of statistics as data. For instance, they used a document of ‘conflict in oil countries’ between 1946-2006 from the Uppsala International Peace Research Institute, as well as they used the statistics of ‘oil prices and oil production’ between the years 1965-2000 from the source BP Energy Outlook (Le Billon and Cervantes 2009). They acknowledged that scarcity can have effects on oil prices and in turn, create a destabilizing structure (Le Billon and Cervantes 2009:842). However, they pointed to the fact that the argument is missing meaningful points. Specifically, that scarcity is a framework which is constructed based on prices, they argue that numerous conflicts happen in a state of oversupply and low process instead of the opposite (Le Billon and Cervantes 2009:842). Therefore, rising oil prices can actually end conflicts because of military victory (Le Billon and Cervantes 2009:842). Furthermore, they also argued that oil scarcity in relation to long-term interstate conflict is to narrow and will therefore miss other types of violence (Le Billon and Cervantes 2009:842).

This debate has provided different perspectives on resource scarcity in relation to developments of conflicts. What I draw upon from Klare’s (2002) research is his argument relating to geography. Specifically, that geography is important in this regard because oil reservoirs are often found in disputed areas which also is the case of the Arctic. However, what I argue he is missing, is the fact that he did not include the Arctic in his research which is the original contribution of this thesis. On another note, what I find interesting in Homer-Dixon’s (1991) research is that he includes climate change in relation to scarcity and conflict. I argue that it is central to discuss climate change when discussing the effects that fossil fuel scarcity has on the Arctic region, because, oil and gas are becoming increasingly accessible in the region due to global warming. However, the scholar focused mainly on developing states whereas I am focusing on three developed states and two great powers, which is also why I am using Waltz (2013) and structural realism as my theoretical framework.

I also think it is important to discuss Knecht’s (2012) article because it contrasts the structural realist perspective as Knecht (2012:42) outlined, a realist thought would predict tension in the Arctic water because of the race for oil and territorial claims. Instead, he argues that there is a higher focus on multilateral cooperation between the five Arctic states (Knecht 2012:42). Moreover, I also argue that it is necessary to include Le Billon and Cervantes (2009) research, as they discuss the importance of oil prices and the oil market. Since Le Billon and
Cervantes (2009) research focuses more on the economic aspect by analyzing oil prices and corporations I argue they are missing the aspect of state-actors and their behavior. I argue this is an important aspect to include, as the structure of the system is created around the actors and their actions.

In summary, this debate has contributed with a broad range of perspectives on resource scarcity in relation to conflicts. However, what I argue is lacking in the debate, is that none are focusing on what increased fossil fuel scarcity will mean for the Arctic region. This is the question that I am investigating by reviewing the previous and ongoing disputes in the Arctic as well as conducting both a qualitative and quantitative content analysis. Thereupon, I argue that the Arctic is a vulnerable region due to its enrichment of oil in an age of global fossil fuel scarcity, taking into consideration both the environmental concerns of the exploitation of natural resources and the continuation of territorial disputes.

4.0 Method

In order to operationalize the research question, what does the increased oil scarcity mean for the Arctic region? I conducted a content analysis of governmental documents by the five Arctic states. The content analysis consists of both a quantitative part and a qualitative part. The quantitative part consists of coding where I searched for how many times particular words are used in each document. Whereas the qualitative part consists of an investigation of the underlying meanings of those particular words. I will specifically, analyze each state’s Arctic strategy as my data. Each state has published its own governmental document in regard to their interests, the identified threats and their policies in the Arctic region. Before I go into detail of how I conducted the content analysis, I will outline the methodological approaches of the existing research in order to clarify what I will contribute with in the field of IR.

4.1 Existing research methods

The existing research has not included any content analysis as their methodological approach. A similar approach was introduced by Knecht (2012), who conducted a discourse analysis of three different spatio-temporal orders, however he focused on the act of securitizing which is a theoretical approach that differs from my chosen theoretical framework of structural realism. I have chosen to use structural realism as the base for the analysis because of its concepts such
as ‘national interest’, ‘sovereignty’ and ‘security’. I argue that these concepts will provide me with an understanding of the five actors' behavior in the Arctic.

Furthermore, the three other, existing researchers conducted a single case study, comparative case study and a theoretical analysis (Le Billon and Cervantes 2009, Klare 2002 and Homer-Dixon 1991). While all these studies produce varying results, what is lacking in the existing research is that none have focused on the actors of one region and their governmental policies. I argue that it is important to analyze the actors in order to understand the effect of fossil fuel scarcity has on the Arctic region because they are the ones that have territory and the opportunity to exploit the energy resources. Therefore, I find it the most suitable to conduct a content analysis of governmental documents instead of conducting a case study or a theoretical analysis. Thus, what is important to outline is that most of the studies (Klare 2002, Homer-Dixon 1991 and Knecht 2012) on the topic of the Arctic have been qualitative studies which I am also doing but I am adding a quantitative part, which I argue will improve the generalizability of the results. In the next section I will outline the structure of the content analysis that I will conduct.

4.2 Content analysis

Content analysis is a research method used in several fields, including IR (Pashakhanlou 2017:448). Content analysis focuses on analyzing the content of communication (Pashakhanlou 2017:449). Pashakhanlou (2017:448) outlines that preferably a complete content analysis should consist of both qualitative and quantitative aspects that should be collected manually and through computer-assisted programs. I have taken this into consideration, therefore I am combining both qualitative and quantitative methods which I will collect both manually and through a computer-based program.

Two important components to a good content analysis are reliability and validity. The two concepts can be defined as “Reliability is the ability of a measure to yield consistent results each time it is used. Validity is concerned with the extent the instruments capture what they are designed to capture” (Pashakhanlou 2017:449). Pashakhanlou (2017:449) outline three factors that make up a content analysis. Firstly, the method is mainly descriptive as it is focused on what is being said, instead how or why something is said (Pashakhanlou 2017:449). Which is also why a content analysis match well to the research questions that ask a what, instead of how and why question (Pashakhanlou 2017:449). Secondly, a content analysis should dissect the communication by dividing the investigation into different themes, concepts or categories
The main difference between qualitative and quantitative content analysis is that the first mentioned investigates latent meanings whereas the lastly mentioned focuses on manifest meanings (Pashakhanlou 2017:449). With that being said, qualitative content analysis centers around interpretation (Pashakhanlou 2017:449). By conducting both qualitative and quantitative content analysis I am also gaining higher reliability and validity as “it is usually easier to gain high reliability with quantitative content analysis, whereas latent meaning affords an advantage in attaining validity qualitatively” (Pashakhanlou 2017:449).

In further detail, I decided to conduct a content analysis of the five states’ Arctic strategy. I specified particular groups that I focused on in these documents. Within the groups are specified words that I argue are somehow related to each other. I decided to include a broader spectrum of words to search for, in order to get the overall picture and underlying meanings of each document. Below I will list the groups and words I decided to focus on:

1. Group 1: Sovereignty, interests and security.
2. Group 2: Environment, climate and global warming.
3. Group 3: Energy and resources
4. Group 4: Fossil fuel, oil and gas
5. Group 5: Territory

I chose to focus on these words because I argue they represent the overall issues that have been highlighted in this thesis. To clarify, group 1, consists of structural realist concepts which I have decided to include because they will enable me to understand if the five actors are acting in accordance to the realist agenda. As well as, the words of categories 2 and 3 are based upon the discussion regarding resource scarcity, and they are the fundamental contributors to the current situation in the Arctic. Furthermore, the words of category 4 are the main concern of this thesis and have been brought up in most sections. Group 4 is also part of the research question and I want to investigate what effects the scarcity of fossil fuel have on the Arctic therefore it only makes sense to include this category. Finally, I decided to include the word ‘territory’ of group 5, because territorial issues are as previously outlined the main disputes in the Arctic region.

I argue that this grouping of the words will enable me to investigate what effects fossil fuel scarcity have on the Arctic region because it covers a broad spectrum of aspects: the realist concepts of how a state will act and prioritize, the environmental effects, the nonrenewable energy and the territorial disputes. This is a method that had not been conducted in the previous research. However, I am basing the choice of words on the discussions in the existing research.
I conducted these two methods by using the computer-based program MAXQDA. I was using the program through the lexicon search tool service. The lexicon search tool enabled me to search and highlight the previously mentioned words in each document. By doing this, I was also able to go through the documents manually to search for the underlying meanings and interpret each states goal in the Arctic. In the computer-based content analysis I also outline how many times a particular word was used in each document which is the quantitative part of the research.

4.3 Governmental documentation

As previously mentioned, I decided to analyze governmental documents. Specifically, I analyzed the five states Arctic strategy. The documents from each state differed, however this is also what is interesting to investigate. They still provided enough information about the groupings that I had selected, which will be seen in the analysis. Below, I will further explain the document of each state in order to provide a better understanding of the data. It will specifically present where the document was collected and what information they entail.

4.3.1 Canada

The Canadian governmental documentation that I studied in the content analysis is a document called ‘Canada’s Arctic Foreign Policy’ which can be located on the governmental website. The document is divided into different parts and those are (excluding introduction and conclusion):

1. Exercising Sovereignty
2. Promoting Economic and Social Development
3. Protecting the Arctic Environment
4. Improving and Devolving Governance: Empowering the Peoples of the North
5. The Way Forward

This Arctic strategy provided by the Canadian government does not state the year it was published neither in the document nor on the website. Notably, the website was updated in 2017/05/12 which brings me to believe that it is the correct information and that instead of publishing a new Arctic strategy they continuously update the one already existing. It is important to acknowledge this as it affects the validity of the analysis, thus, I argue that I have taken this into consideration and this is a webpage that has been updated.
Furthermore, the document consisted of 27 pages, so it is rather expanded in comparison to some of the other states strategies which will be presented below. As it is expansive, it will provide me with a great foundation in order to understand Canada’s view on each group I have created.

4.3.2 Denmark

Denmark’s Arctic Strategy was also located on the Danish government’s webpage. The document is called ‘Kingdom of Denmark Strategy for the Arctic 2011-2020’ and was found on the government’s website under the category of ‘the Arctic’. Denmark’s strategy is well-developed even more so than the Canadian one. This strategy consists of 58 pages and is divided into different sections and sub-sections. Excluding the introduction and the sub-sections, the five sections in focus in the Arctic strategy are:

1. A peaceful, Secure and Safe Arctic
2. Self-Sustaining Growth and Development
3. Development with Respect for the Arctic’s Vulnerable Climate, Environment and Nature
4. Close Cooperation with our International Partners
5. Implementation and Follow-Up.

As one can tell there are similarities between the headings of the Danish and the Canadian documents as to their focuses. Thus, in contrast, the Danish document has included which years that are in focus which are 2011-2020. By including the years, it also improves the validity of the Danish document because one can know exactly what time-period they are focusing on.

4.3.3 Norway

Continuing, Norway’s Arctic Strategy was also found on Norway’s governmental website. If one search for ‘Arctic Strategy’ on the governmental website, it will show a page outlining the new Norwegian Arctic Strategy that was presented on the 12 of April 2017. This document also included a content page with different sections and sub-sections. The main sections are the following:

1. Our vision- a peaceful, innovative and sustainable north
2. International cooperation
3. Business development
4. A leader in the field of knowledge
Name: Ida Strand

5. Infrastructure- a prerequisite for growth and the green transition

6. Environmental protection, safety, emergency preparedness and response

The Norwegian document included 39 pages, so the length is similar to Canada’s. But what I found notable, was that Norway does not have a heading on security nor sovereignty. Both in the Danish and the Canadian they include this in one way or another in their headings.

4.3.4 The United States

The document that I analyzed in regard to the United States differed from the previous. This document was provided by the US Department of Defense and is a report. Specifically, the report is called ‘Report to Congress on Strategy to Protect United States National Security Interests in the Arctic Region’. The document was published in December 2016. This is the latest United States document on the Arctic, however, there is at the moment a drafting of a new Arctic strategy by the current Trump administration (Lamothe 2019). But the report provided by the Department of Defense is a document on 17 pages which focuses mainly on the United States capabilities, interests and sovereignty in the Arctic region.

Since this document differs from the previous ones both in the structure but also on the amount of information, considering that it is only 17 pages can be perceived as an obstacle. However, the report is very thoroughly written and is very centered around the United States priorities in the region which is the information that I need to operationalize the question.

4.3.5 Russia

The Russian documentation was harder to obtain. In the end, I found the document of ‘The development Strategy of the Arctic zone of the Russian Federation and the national security up to 2020’. Thus, it was not found on the Russian government’s website, however within the material it says, ‘website of the Government of Russian Federation’ and entails links that goes directly to the government website.

The document does not have the same structure as the three aforementioned states. Instead, it is structured by a statement and below the statement there are multiple points. To clarify, they state, “development priorities and key activities” and below they list in alphabetical order their priorities. The data also differs from the other papers as it only contains 12 pages.
5.0 Analysis

As previously outlined, the purpose of the thesis is to investigate what the increased fossil fuel scarcity means for the Arctic region. To discover the answer to this, I conducted content analysis on the five main actors Arctic strategy, including both qualitative and quantitative results. In this section, I will begin by presenting the result I got from the quantitative content analysis. Afterwards, I will present the findings from the qualitative content analysis.

5.1 Content Analysis Quantitative results

To begin, I will present the frequency of the words and groups that I have chosen. The two tables below will outline the frequency of each word in each document, but also the frequency of each group. Below in table 1.1 the size of the square outline which word or group was the most visible in each document. From left to right is the United States, Denmark, Norway, Canada and Russia. Group 2 which includes the words environment, climate and global warming is seen clearly being the predominant words in the Danish strategy but also in the Norwegian and the Canadian documents. While, Group 1 consisting of the word’s sovereignty, interests and security was the most frequently mentioned group in the United States document. Lastly, it is visible that in the Russian document the group that was the most frequently used was group 4 which consist of the word’s energy and resources. Furthermore, Table 1.2 builds upon Table 1.1 by specifying how many times the specific word or the whole group have been mentioned in each document. I have chosen to include this table as well because it provides clarification and simplification of both the differences and similarities between the focus of each state.
Table 1.1 Describes the frequency of each word in each Arctic Strategy. From the left: The United States, Denmark, Norway, Canada and Russia.

<table>
<thead>
<tr>
<th>Code System</th>
<th>Unite...</th>
<th>Denm...</th>
<th>Norway</th>
<th>Canada</th>
<th>Russia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1: Sovereignty, Interests, Security</td>
<td>68</td>
<td>38</td>
<td>17</td>
<td>39</td>
<td>31</td>
</tr>
<tr>
<td>Group 2: Environment, Climate, Global</td>
<td>41</td>
<td>189</td>
<td>64</td>
<td>56</td>
<td>45</td>
</tr>
<tr>
<td>Group 3: Fossil Fuel, Oil, Gas</td>
<td>4</td>
<td>89</td>
<td>29</td>
<td>30</td>
<td>4</td>
</tr>
<tr>
<td>Group 4: Energy, Resources</td>
<td>8</td>
<td>116</td>
<td>33</td>
<td>21</td>
<td>46</td>
</tr>
<tr>
<td>Group 5: Territory</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Sovereignty</td>
<td>6</td>
<td>13</td>
<td>3</td>
<td>23</td>
<td>1</td>
</tr>
<tr>
<td>Climate</td>
<td>6</td>
<td>108</td>
<td>14</td>
<td>25</td>
<td>9</td>
</tr>
<tr>
<td>Environment</td>
<td>36</td>
<td>85</td>
<td>50</td>
<td>31</td>
<td>39</td>
</tr>
<tr>
<td>Global warming</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interests</td>
<td>17</td>
<td>19</td>
<td>4</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>Resources</td>
<td>6</td>
<td>74</td>
<td>23</td>
<td>16</td>
<td>30</td>
</tr>
<tr>
<td>Oil</td>
<td>3</td>
<td>60</td>
<td>15</td>
<td>16</td>
<td>2</td>
</tr>
<tr>
<td>Gas</td>
<td>1</td>
<td>35</td>
<td>16</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>Fossil Fuel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Territory</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Energy</td>
<td>2</td>
<td>49</td>
<td>9</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>Security</td>
<td>45</td>
<td>7</td>
<td>10</td>
<td>1</td>
<td>27</td>
</tr>
</tbody>
</table>

Table 1.2 Describes the frequency with numbers of each word in each Arctic Strategy. From the left: The United States, Denmark, Norway, Canada and Russia.
What this data is telling me at a first glance of these numbers is that the focus on the environmental sector is high and a great emphasis is placed on the frequency of these words. As well as, Denmark stands out in regard to the frequency of group 2 by mentioning these three words in total of 189 times. In contrast, the United States mentioned the words of Group 1 almost twice as many times as the other states which to me clarifies that their main focus in the Arctic region is to preserve the sovereignty, interests and security. Another noteworthy point is that Russia and the United States only mentioned the words of group 3, four times. The words of group 3 consist of fossil fuels, oil and gas which I argue would be some of the main interests in the Arctic. Thus, Russia is putting more emphasis on group 4 which focuses on energy and resources which clearly have parallels to group 3, as one can use the word ‘resources’ to include both oil and gas which we saw previously in the work of Klare (2002), where he used the term ‘resource wars’ but was focusing on fossil fuel scarcity.

What I mainly draw upon from this data is that the main emphasis is placed on the environmental section. Thus, when analyzing the data in more depth one will realize that it is mostly not because they ought to protect the environment in all aspects. Instead these words are used so frequently to justify the extraction and economic gains of the fossil fuels which I will present in the next part, the findings of the qualitative content analysis.

5.2 Content analysis Qualitative results

As the quantitative content analysis outlined, the environmental sector was used with the most frequency. However, the purpose of a qualitative analysis is to look at the underlying meanings of a document (Pashakhanlou 2017:449). Therefore, I will now with the qualitative research dig deeper to see why the environmental sector was in focus and what this really means. As well as I will also investigate the focus of the other categories.

The first section will analyze the state’s use and view of group 2 which include the words: environment, climate and global warming. The second section will investigate the state’s focus on group 3 (energy and resources) and 4 (fossil fuel, oil and gas). The third section will analyze group 1 (sovereignty, interests and security) and 5 (territory). Finally, the last part will summarize the overall findings from the qualitative content analysis.

5.2.1 The environmental motives in the Arctic

This section will present the five actors’ view on the environmental sector in the Arctic. I will begin by presenting each state’s overarching view on climate change. Afterwards, I will go
more in-depth in each state’s view on group 2: Environment, climate and global warming, in order to pinpoint similarities and differences.

To begin with, all states did acknowledge that climate change was occurring and is affecting the Arctic region however, each state expressed their concern in different ways. For instance, Denmark recognized the implications of climate change and addressed the importance of global action by stating “Climate change has major implications for the global, regional and local climatic and environmental conditions and requires decisive global action.” (Denmark Arctic Strategy 2011-2020: 9). Whereas, the United States raised its concern over climate change in relation to their military training and exercises in the Arctic “Accordingly, DoD will continue to conduct training and exercises in the Arctic as elsewhere and will assess its required force posture in light of the rate of environmental changes and geopolitical challenges” (The United States 2016:10). Meanwhile, both Norway (2017: 3) and Canada (2017:2) addressed the effects of climate change in relation to resources and economic gains. Finally, Russia discussed climate change in relation to what measures that needs to be taken, such as early detection and prediction of natural and man-made disasters, as well as they underlined the importance of good infrastructure (Russia Arctic Strategy 2013:6-7). Already it is clear that each state has chosen to focus on particular issues which I will investigate further. Below, I will outline each state’s focus on the environmental sector and interpret their underlying meaning.

Assessing the five strategies in more depth, I noticed that Denmark, Norway and Canada had similar approaches when discussing the environmental sector. Notably, all three states did have the highest frequency of the environmental sector in their strategies. The three states did focus on outlining effects of climate change and the risks that occur as consequences. Denmark for instance noted the melting of the Greenland ice sheet as an important effect of climate change (Denmark Arctic strategy 2011-2020:35). While, Norway emphasized that climate change does not only affect the Arctic region, but it is affecting the whole globe (Norway Arctic Strategy 2017:3). Meanwhile, Canada discussed the effects that oil spills have on the environment by recalling the oil spill in the Gulf of Mexico (Canada Arctic strategy 2017:12). Another aspect the three states had in common was their view upon themselves as a state with the responsibility to protect the climate. Denmark argued that they are to pursue a vigorous climate policy in the Arctic and elsewhere to meet the aforementioned challenges (Denmark Arctic strategy 2011-2020:49). Norway argued that because the effects of climate change is global, they will ensure their responsibility to the protection of the climate in the Arctic (Norway Arctic Strategy 2017:3). Furthermore, Norway also views itself as being in the forefront when discussing extraction of fossil fuels due to its extended history of extracting the
resources and will therefore in the Arctic, build upon this (Norway Arctic Strategy 2017:3). Canada follows the two aforementioned, by arguing that they are an Arctic power who will take upon a robust leadership for sustainable development and environmental protection of the region (Canada Arctic strategy 2017:3).

What I draw upon from these findings is that the three states are concerned over the effects of climate change. However, they do not take a stand against the extraction of fossil fuel, in fact, Norway even views itself as being in the forefront in extracting fossil fuels. This, I argue is contradictive to the concern of climate change and the role of leadership in protecting the environment. I would like to draw a parallel between these findings and the research conducted by Homer-Dixon (1991). The scholar (Homer- Dixon 1991) presented the relation between climate change and acute conflict. We are in fact as previously outlined, witnessing a process of climate change in the world but in this case especially the Arctic region, as all three states noted. We are also witnessing a developing militarization of the region. Noteworthy, Homer-Dixon’s (1991) research was centered around developing nations which is not the case in the Arctic, however, I argue that his study is still relevant to this case. It is relevant because fossil fuels are a globally limited resource which most of the world is still, today, dependent upon and the end of fossil fuels does not only affect the five Arctic states but the whole international system.

Moving on to the analysis of Russia and the United States view on the environmental sector. The two states took a different approach to the environmental sector than the previous three states. Neither had the highest frequency on the environmental sector, as the previous states. Instead Russia had the highest frequency on group 4 which consisted of energy and resources. While the United States had the highest frequency on group 1, which was sovereignty, interests and security. What I find the two states have in common, is the concern over security. To begin, Russia uses the term ‘environmental security’ throughout the document. For instance, Russia discusses effects of climate change but centers it around their own territory by pointing to risk of human impact on the environment such as “in the sphere of nature and the environment stands increase technological and human impact on the environment with increased probability of reaching its limits in some areas adjacent to the Russian Federation Arctic Ocean”, following by stating the effects “potential sources of contamination, high levels of accumulated environmental damage” in the Russian Arctic Ocean (Russia Arctic Strategy 2013:3). Furthermore, another interesting aspect is Russia’s statement on their responsibility to protect the environmental security, which according to them, includes: cleaning up the Arctic region from pollution, further promoting development of technology for extraction of natural resources.
that are more sustainable, as well as continuing to develop public environmental monitoring in the region (Russia Arctic strategy 2013:7).

Moreover, the United States encourages states to develop economic and energy resources in a sustainable way (The United States report 2016:3). However, other than that, when ‘environment’ is mentioned it is mostly in regard to the military activities such as “the Commander of U.S Northern Command is responsible for advocating for the capabilities required to operate in the Arctic environment” (The United States report 2016:4). What is important to realize is that the United States document did differ from the others, as it was not an Arctic strategy per se, but a Report on strategy to protect the United States national security interests in the Arctic region. Which can explain the lack of focus on the environmental sector. However, I would yet again like to point out that the United States did pull out of the Paris Climate Agreement and therefore do not have to take that into account. Another key point is Trump’s effort in trying to allow drilling for fossil fuels in the Arctic Ocean (Davenport 2019).

After reviewing Russia’s and the United States’ take on the environmental sector I find it interesting how the two states are mainly concerned with the effects of climate change in relation to their territory or military and does not regard the global aspects as the previous three states. This, I argue coincides with Waltz theoretical school of thought. As in the state of anarchy, ‘self-help’ is the fundamental priority (Waltz and Sagan 2013:4). The two states are great powers in the international structure and will always act in their self-interest and will always prioritize their own national security (Waltz 2008:79). Russia has also already begun drilling for fossil fuel in the Arctic, as previously stated. Considering Russia’s role as a great power, the economic advantage of fossil fuel, and its cold-war history with the United States, I argue Russia is taking the race for fossil fuel in the Arctic seriously and views it as a struggle for power between the states. The United States on the other hand, is starting to show its developing interests in acquiring fossil fuels. I argue, that the two states will prioritize the extraction of fossil fuels before the protection of the environment because they want to part-take in the struggle for power (similar to the debate on the race for nuclear weapons between Waltz and Sagan (2013)), as well as they need to ensure the national security.

In summary, the five states’ have similarities and differences when approaching the environmental sector. What I argue is important to highlight is that no state has expressed that they are against the extraction of fossil fuels. I further argue, that the actors show concern and take on role as leaders to protect the environment, only to justify the extraction and future extraction of fossil fuels. I argue that Homer-Dixon’s research can be used here because both of his aspects are visible. Firstly, there is a process of climate change. Secondly, there is an
ongoing militarization of the region. I further argue that the states are acting in a structural realist way because they are acting in their self-interests and for the protection of their national security because the world is increasingly dependent upon fossil fuels, and as Klare (2002:28) argued, the future without fossil fuel is considered a threat to states national security.

After I have now reviewed the five states focus on the environmental sector. In the next section, I will analyze the states’ view and motive when it comes to fossil fuels itself.

5.2.2 The race for fossil fuel

In this section, I will continue the analysis of the five states Arctic strategy. However, this part will focus on their expression concerning fossil fuels. When analyzing their view on non-renewable resources, I will also include the aspects of energy and resources as both can be related to fossil fuels. These are group 3 and 4 of the method. I chose to connect them in the analysis because the five states uses different terms when discussing extraction of fossil fuels. Also seen with the previous research, as Klare (2002) mainly uses the term ‘resource wars’ when analyzing the consequences of fossil fuel scarcity.

Yet again, there are visible similarities between Denmark, Norway and Canada. However, it is not as clear as it was in the previous section. Denmark explicitly stated that “In the oil and gas sector, licensing rounds have been held biannually since 2002” (Denmark Arctic Strategy 2011-2020:25). They furthered continued to explain that “An area of more than 200,000 km2 offshore South and West Greenland is now covered by 20 exploration and exploitation licenses, and in 2010 seven new exploration licenses were issued in Baffin Bay off the coast of Northwest Greenland.” (Denmark Arctic Strategy 2011-2020:25). Whereas Norway, discussed the importance of oil and gas already in their foreword. They stated that half of Norway’s undiscovered nonrenewable resources are to be found in the Barents Sea and that oil and gas operations have the possibility to provide the state with new opportunities (Norway’s Arctic Strategy 2017:2). They also argue that “Globally, there is a growing need for food, energy and raw materials. There are abundant fish and energy resources in the Arctic, and also minerals, which the world is going to need more of” (Norway’s Arctic Strategy 2017:3). Canada, on the other hand was not as explicit. However, Canada focused on its legal rights to extract resources “Canada will secure international recognition for the full extent of our extended continental shelf wherein we can exercise our sovereign rights over the resources of the seabed and subsoil” (Canada Arctic strategy 2017:7). Thus, what is interesting to note is their later statement “As
an emerging clean energy superpower, Canada will continue to support the responsible and sustainable development of oil and gas in the North” (Canada Arctic strategy 2017:11).

I argue that all three states are clearly part-taking in the race for oil in the Arctic. They might not be as progressive as Russia that have already began the process of extracting fossil fuels, however they have a clear aim in extracting resources. Relating back to Klare (2002:213), it is visible that fossil fuel scarcity is a central issue within the global security environment. Another key point addressed by Klare (2002:28-29) is that oil reservoirs are often found in contested border zones which is the case of the Arctic, with multiple territorial issues. This is a clear concern of the all states’ visible when they discuss the protection of their sovereignty. Especially visibly in Canada’s argumentation to its legal rights. Using the lenses of structural realism, I argue that the states have a desire to achieve power in the race for fossil fuel. They also want to protect their national interests by claiming more territory, so they can extract more resources. They also protect their national security by ensuring its own supply of nonrenewable resources. I argue that fossil fuel scarcity is creating a very unstable and vulnerable Arctic region with both concerns over the environmental aspect due to extraction of fossil fuels and a progressive militarization of the region.

Thus, both Russia and the United States approached this subject differently, in fact, they did not discuss fossil fuel in details. However, Russia did state that a priority in the Russian Arctic is to develop and implement a system of state support of different economic entities that have operations in the region. They particularly aim to do this in the development of hydrocarbon resources (Russia Arctic strategy 2013:3). Whereas the United States argued that “these economic and security concerns may increase the risk of disputes between Arctic and non-Arctic nations over access to Arctic shipping lanes and natural resources” (the United States report 2016:7). Even though the two great powers did not discuss fossil fuels in details, the information that has been presented previously can compensate that. Russia has already begun extracting fossil fuels in the Russian Arctic (Greenpeace) and is developing technology that are supposed to be more sustainable when extracting resources (Russia Arctic strategy 2013:7). The United States on the other hand, is showing more interests for the fossil fuels in the Arctic. Clearly visible in Trump’s effort in trying to allow drilling for fossil fuels in the Arctic Ocean (Davenport 2019), coupled with the works on a new Arctic strategy (Lamothe 2019) and by pulling out of the Paris Climate agreement (Mooney 2018).

One aspect that clearly shows the tension between the two states is the sanctions that the United States putted on seven of Russia’s richest men and 17 governmental officials (Harris, 2018). This affected the Russian oil business, as previously stated, because most of the
individuals that were sanctioned were oil executives (Harris, 2018). Through the lenses of structural realism this can clearly be seen as a move in the struggle for power between the two states. The leader of each states has shown its willingness in extracting fossil fuel in the Arctic Ocean and are eager to start and continue the process. Based upon this information and Klare’s (2002:28-29, 213) research that resource wars will be central and that it will erupt in the years ahead, I argue that the race for fossil fuel will prevail and this will create a destabilizing Arctic region with environmental impacts and militarization that can lead to problematic disputes and even conflicts.

5.2.3 The aspects of security and interests in the Arctic

After reviewing both the environmental focus of every state and their view on fossil fuels, this section I will focus on analyzing, group 1 (Sovereignty, interests and security) and 5 (territory). I have chosen to analyze these two groups together because the disputes over territory are related to the concern over sovereignty and security.

In this sector there is a different dynamic than what has been presented in the two previous sections. The main reason to this is that Denmark, Norway, Canada and the United States are member states of NATO. However, even though the four states are members of the alliance they still have very different approaches when discussing these four themes. Denmark states that their “security policy in the Arctic is based on an overall goal of preventing conflicts and avoiding militarization of the Arctic” (Denmark Arctic strategy 2011-2020:10). However, Denmark also outlines that “enforcement of sovereignty is exercised by the armed forces through a visible presence in the region where surveillance is central to the task” (Denmark Arctic strategy 2011-2020:20), while also recognizing that they are protected by the NATO Article 5 of ‘collective defense’ (Denmark Arctic strategy 2011-2020:20). Norway takes a similar approach by stating that “the role played by the Norwegian Armed Forces in exercising sovereignty and authority and providing situational awareness in the north is an important element of the Government’s overall Arctic policy” (Norway Arctic strategy 2017:18). Norway also points to the fact that the Russian military activity in the Arctic has increased (Norway Arctic strategy 2017:18). Thus, at the same time, they state that their membership in NATO is the cornerstone of Norway’s security policies (Norway Arctic strategy 2017:18). Continuing, Canada is very clear when discussing these themes. One of Canada’s main policy in the Arctic is to exercise its sovereignty (Canada Arctic strategy 2017:3). Canada further states that the primary responsibility of the national government is to protect the national sovereignty and...
integrity of the borders (Canada Arctic strategy 2017:10). Finally, on the last page of the
document Canada states “When positions or actions are taken by others that affect our national
interests, undermine the cooperative relationships we have built, or demonstrate a lack of
sensitivity to the interests or perspectives of Arctic peoples or states, we respond” (Canada
Arctic strategy 2017:26).

Moreover, the United States follows a similar approach as the previously mentioned states.
The United States outlined that one of its objectives in the Arctic is to “enhance the capability
of U.S. forces to defend the homeland and exercise sovereignty” (the United States report
2016:2). They also emphasize the desired end-state for the Arctic “a secure and stable region
where U.S. national interests are safeguarded, the U.S. homeland is defended, and nations work
cooperatively to address challenges” (the United States report 2016:2). The United States does
also recognize its membership in NATO and how it reassures the defense of North America
and the collective defense (the United States report 2016:9).

What I interpret from this information is that NATO plays a crucial part in each state’s Arctic
security. NATO encourages member states of the Alliance that are also Arctic States to also
ensure its own protection (NATO 2017:5), which we can clearly see that the states are doing
based upon their statements. As Norway pointed to: the increased military activity by Russia in
the Arctic, is an aspect that has also been acknowledged by the NATO alliance (NATO:2017:5).
NATO is concerned over the situation and have raised its awareness in the North Atlantic which
is bordering the Arctic (NATO 2017:5). Relating this information back to the research
conducted by Knecht (2012) who argued that despite new economic stakes in the Arctic, the
region has become more stable. The findings I have just outlined, point to a different reality. I
argue, that my findings are showing a further militarized region and a greater concern over the
stability of the region. States are concerned over their national security with the progressive
threat of Russia. Furthermore, Le Billon and Cervantes (2009:842), argued that conflicts mostly
occur in a state of oversupply and low prices of resources instead of in a state with undersupply
and high prices. However, I argue that this statement does not correlate with the situation in the
Arctic because the Arctic is a region and not one state. The Arctic has the ability to provide not
only the five states with fossil fuel resources but will have a global effect as well.

Russia on the other hand, state that one of their priorities in the Arctic is “provision of
military security protection, and protection of the state border of the Russian Federation in the
Arctic” (Russia Arctic strategy 2013:3). Russia further states that
In order to ensure military security, defense and protection of the state border of the Russian Federation shall provide for: […] providing a favorable operating conditions in the Arctic zone of the Russian Federation, including the maintenance of the necessary level of combat readiness of troops (forces) of the total of the Armed Forces, other troops, military formations and bodies, in accordance with existing and predictable military dangers and military threats to the Russian Federation in the Arctic (Russia Arctic strategy 2013:8).

These statements clearly show Russia’s readiness in the Arctic and their seriousness in the militarization. There is an obvious distinction between Russia’s approach and the four previous states. Russia does not rely on any alliance in the protection of the state but only its own military.

Furthermore, relating this to the debate between Waltz and Sagan (2013), Waltz (2013:6) argued for the importance of looking at the gains versus the loses of a potential conflict. In the situation in the Arctic it is four NATO states versus Russia, which can explain why Russia is so progressive in the development in its militarization of the region. There are high economic stakes in the Arctic which does not only bring interests to the four other Arctic states but globally as well, and therefore Russia needs to be able to protect both its economic interests and its national security. Important to also note is Waltz’s argument relating to the modern world with the development of new technology, this does make it more difficult to predict the opponent’s capabilities, especially in the extreme climate in the Arctic. Thus, Russia is the state that is the most prepared as it has several military facilities in the Russian Arctic. For instance, Russia’s newest military facility is located in Kotelny Island which is geographically closer to the U.S. Alaska than Moscow (Ilyushina and Pleitgen, 2019). At this military base, the 250 servicemen have enough supplies to survive and operate for over a year with no outside assistance (Ilyushina and Pleitgen, 2019). Russia’s military activity in the Arctic is very developed in contrast to the four other states, this clearly show Russia’s commitment in the race for fossil fuels and for the protection of their national interests and security.

In summary, all five states have taken measures regarding security in the North, however some are more progressive than others. The four first-mentioned states’, security measures and statements show that they are aware of the militarization of the region and act accordingly, by expanding their own presence in the Arctic and working closely with NATO. I argue that due to Russia’s intense development of military in the Arctic, the four remaining states also have to further develop their presence in the region because they are threatened by Russia. It is not only a race for fossil fuel in the Arctic, but I argue it is a struggle for power. As Morgenthau (in Waltz 2008:78) argued, in a world with limited resources the struggle for power will prevail because of the will of wanting. This will, is also what Morgenthau (in Waltz 2008:78) argues
to be the main source of conflict. Morgenthau’s argument coincides with Klare’s (2002:28) research, when he states that the end of fossil fuels is considered a threat to state’s national security. Based upon this information, I argue that the militarization of the Arctic region will prevail, because of the will of wanting, the threat of a future without fossil fuels and in order for each state to protect its national interest and national security. Therefore, I am also arguing against Knecht (2012) who argued that the economic stakes are creating a more stable Arctic region, I argue that the economic stakes are destabilizing the Arctic region, it affects the natural environment and generate more interstate disputes and possible conflicts.

5.2.4 Summary of the qualitative content analysis
I have now presented the findings from the qualitative content analysis of the five states Arctic strategy. I used the IR’s theory, structural realism to understand and interpret the states’ motive and behavior in the Arctic. I also used the previous research (Klare 2002, Homer-Dixon 1991, Knecht 2012 and Le Billon and Cervantes 2009) to strengthen my arguments by either seeing parallels or dismissing their statements with my findings. Specifically, I agreed with Klare (2002) that a future without fossil fuel is considered a threat to state’s national security, and that resource wars are a central aspect in the global security environment. I also agreed with Homer-Dixon (1991) on the parallel between acute conflict and resource wars. Thus, based on my findings I argued against Knecht (2012) on the stability of the Arctic region. I also noted that Le Billon and Cervantes (2009) research which focuses on states is difficult to apply to the Arctic region, due to the fact that there are multiple actors involved.

My research question asked, **what does the increased fossil fuel scarcity mean for the Arctic region?** Based upon my findings from both the quantitative and qualitative methods, I argue that the states will act in accordance with the structural realist way and exploit the Arctic, however this will generate real consequences such as further melting of the glaciers, effects on biodiversity, possible oil spills and further militarization of the region. Accordingly, the states are prioritizing the protection of their national interests and security because of the threat of a future without fossil fuels. The Arctic region is a vulnerable region with a questionable future due to its economic stakes and militarization.

6.0 Conclusion
The aim of this thesis was to investigate **what does the increased fossil fuel scarcity mean for the Arctic region?** In order to operationalize the research question, I made use of the IR
lenses of structural realism as well as I overviewed the existing research on the parallels between resource scarcity and conflict. I also conducted a methodological approach which consisted of both quantitative and qualitative content analysis. I argue that by using two methodological approaches it strengthened the reliability and validity of the research. Based upon the methodological approach I found that the United States and Russia have a higher focus on security than the other three states. However, Denmark, Norway and Canada had a higher focus on the environment. Thus, when dissecting the context of the Arctic strategies neither state did oppose to the idea of extracting resources but instead all five showed interest and made effort to part-take in the race for fossil fuels. I argue that their engagement in extracting fossil fuels contradicts their efforts in taking responsibility in protecting the climate. Another finding was that all states had a high focus on protecting the sovereignty, security and interests in the Arctic. Importantly to note is that Denmark, Norway, Canada and the United States are all members of the NATO alliance, which considers Russia to be the main security threat to the Arctic region.

Furthermore, I argue that by combining the four aspects of research, the structural realist lenses, the debate on resource scarcity and the two methodological approaches, this research has answered the operationalized question. The melting of the Arctic glaciers opened up the possibility for economic gains and completely affects the structure of the region and enhances the power-struggles in relation to resource extraction. Therefore, I argue that states will act in accordance with structural realism, by exploiting the Arctic for its national interests and for the protection of its national security. A future without fossil fuel is as Klare (2002) pointed to a threat to the state’s national security. Also, the progressive militarization by Russia in the region is another threat to the four NATO member states. These actions will have its effect on the Arctic region: with further militarization which will destabilize the region, and, the extraction of fossil fuel will have multiple environmental consequences.

The analysis in this bachelor thesis contributed to the field of IR not only by using the theoretical framework of structural realism but also by using a method (quantitative content analysis) that had not been used in the existing research. I also argue that it managed to fill the gap in Klare’s (2002) research as he had not included the Arctic region in his analysis, even though the data that was used differed.

The future research on the topic of the Arctic can further be studied from different theoretical perspectives. For a research project with a greater scope one can do a comparative case study of all nations in the Arctic Council to further investigate the power-struggle over resources.
In conclusion what this thesis highlighted was, firstly, there is a process of climate change affecting the accessibility to extracting fossil fuel. Secondly, there is an ongoing militarization of the region. With that being said, I argue that the race for fossil fuel will prevail and this will create a destabilizing Arctic region with environmental impacts and militarization that can lead to problematic disputes and even conflicts.
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