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Is the Polar Code living up to its purpose?

A case study of the Polar Code as regulating Arctic shipping

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Master's thesis in Political Science - STV-3900

June 2020



Acknowledgements

This past year has been interesting and eventful, and I would not want to have been without it. It has also been tough, and I would not have completed this thesis without the help and support from a handful of people.

I want to extend my sincerest thanks to my thesis advisor Marc Lanteigne for being a great support throughout this process. You have provided me with much valuable input and helpful advice.

I also wish to express gratitude to Piotr Graczyk at the Norwegian Research Centre AS (NORCE) for being of great help. The Polar Code would not have been the topic of this thesis had it not been for you, and for that I am thankful.

While working on this thesis I have come across many people who contributed to this project, through an interview or otherwise. I have learned something from all of you, and I am very grateful for all your contributions.

My deepest appreciations also go to my long-time friends Linda Larsen and Marit Barbo for their immense support and encouragement. Friends and co-students at Lesehuset deserve thanks for interesting and helpful conversations, whether academically relevant or not.

Alta, 25th of May 2020

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Abstract

The Arctic region holds valuable resources, and with the melting of sea ice shipping is thought to increase. The polar waters contain safety hazards that one will not encounter while sailing elsewhere, and that is why shipping in polar waters need to be regulated differently than shipping in other regions of the world. The Polar Code was adopted by IMO in 2015 and came into force in 2017. It is a set of mandatory goals aimed at regulating polar shipping to increase safety onboard and protect the environment. This thesis looks into the Polar Code negotiations and analyses the Polar Code in light of institutionalism by doing a case study of actors from Norway, Russia and China. Actors from all of these cases were present during the Polar Code negotiations, but to different degrees active. There is wide agreement that the Polar Code is a needed and useful set of regulations, but that it is a work in progress and still need improvements.

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1 Introduction

The Arctic region holds valuable resources and opportunities, and therefore actors from different corners of the world are looking this way. Not only Arctic actors are interested in the possibilities the area already can and might come to offer in the future. These opportunities are not only connected to natural resources of various kinds. It also includes marine transportation for different purposes. Shipping through Arctic waters has up until recently not been very common. This due to reasons such as non-navigable shipping routes or shipping routes with limited navigation possibilities, safety hazards of different kinds, and huge economic expenses related to ship construction and the like.

Shipping at sea is a common use of transport across the world, increasingly so in the polar regions. This has led to the need of some regulations for safe shipping activity. Polar waters pose hazards one does not face other places in the world, and for that reason a different set of safety regulations have come into place in these regions, called the International Code for Ships Operating in Polar Waters (the Polar Code) (IMO, 2014b, p. 1). The Polar Code includes goal-based regulations as well as prescriptive regulations, and the aim of which is to provide safe ship operation in polar waters and protection of the polar environment. The topic for this thesis is the negotiation process that led up to the Polar Code and the implementation of the Polar Code in Arctic waters. This topic was chosen out of my interest for Arctic shipping, and how this relates to sustainable development and use of the Arctic areas. From there I was introduced to the Polar Code as regulating safe and responsible shipping through polar waters. The research question is twofold:

“How did the negotiation process for the Polar Code go about? Which opinions and experiences regarding the Polar Code in Arctic shipping can be found among actors from Norway, Russia and China?”

The two parts of the research question are complementary and together provide an understanding of the Polar Code. Given the fact that the Polar Code recently came into force, there has not been done much research on the subject. A research project such as this thesis could in that regard be of use. This combined with the climate changes happening in the polar areas that will ultimately lead to increased navigable shipping routes as well as a possible increase in safety hazards show to the relevance of writing this thesis. Also, the Polar Code is applicable in both the Arctic and the Antarctic. For the sake of narrowing down the area of study, only the former will be in focus.

As the research question indicates, this thesis will be in the form of a case study of three cases, being Norway, Russia and China. The reason for choosing these will be explained more in-depth in sub-chapter 4.2 as part of the methods used. What is important to keep in mind while reading this thesis is that the aim of it is not to find the objective truth regarding the function of the Polar Code. The aim is rather to highlight different perspectives actors might have on the Polar Code. Different perspectives might lead to different opinions and experiences, and that is what I wish to show. The varying statements on the subject are equally important to bring forward and acknowledge.

1.1 Composition of the thesis

An outline of what this thesis will look like is in order. It will contain background information, a theoretical framework for analysis, the methods applied to collect the empirical data material, presentation of the empirical data, an analysis of the empirical data and concluding remarks. These will be following the introduction which made up the first chapter.

The second chapter of this thesis, following the introduction, will be on the background of the Polar Code, meaning the situation in the Arctic and in Arctic shipping before the Polar Code came along. It shows what the climate changes and the navigable shipping routes were like. Before the Polar Code was a topic in conversations there were other regulations and conventions applying to activity in Arctic waters.

The third chapter will be about the theoretical framework for analyzing the data collected and contribute in answering the research question. The theory to be applied is institutionalism, and two different variations of which will be used to answer each of the two parts of the research question, being the negotiations and the implementation of the Polar Code.

The fourth chapter will describe the methods that were used to collect the data material throughout this research project. It gives a detailed account of how interviews were done and how documents were collected, as well as how this data material was treated. It also presents the three cases that were chosen and explains the reasons for that.

The fifth chapter has the form of a timeline consisting primarily of IMO-reports and IMO-resolutions regarding the creation of the Polar Code, and will thus present the data collected on this subject. This makes up the data material that will answer the first part of the research question. The chapter starts off with a run-through of the IMO-sessions where making the polar guidelines mandatory was treated as well as an analysis of this process, before it moves on to analyzing the role played by the Norwegian, the Russian and the

Chinese delegations. Rational choice institutionalism will be applied in this chapter.

The sixth chapter will present and analyze the empirical data collected to answer the second part of the research question. The chapter will give account of general perspectives of each of the three cases, and then move on to treating information from the cases on different areas related to the Polar Code. The chapter will end with analyzing the Code through the lens of old institutionalism.

The seventh and final chapter of the thesis will contain concluding remarks for afterthought.

1.2 Definitions

This thesis will contain a few central concepts that might need brief definitions beforehand. This sub-chapter will provide just that and attempt to explain why they have a place in this thesis.

IMO: The International Maritime Organization, commonly known as the IMO, is of great importance for this thesis. It is a body within the United Nations and was adopted in 1948. It was the first organization to handle maritime affairs exclusively (IMO, 2013a, p. 2). Because this has been the area of work for IMO since it was first established, it was within the IMO that conversations and initiatives towards regulations for shipping through polar waters first took place. This further led to the creation and adoption of the Polar Code within the IMO. The IMO is thus the creator of the set of regulations being analyzed in this thesis.

The Polar Code: The International Code for Ships Operating in Polar Waters, also referred to as the Polar Code, was adopted by the IMO in 2014 and entered into force on January 1st of 2017. It is divided into two parts, the first part is about safety on board while sailing through polar waters, and the second part is about environmental protection. The Polar Code is rather special compared to most other sets of regulations in that the safety part is based on a goal-based standard as opposed being prescriptive. This means that it sets goals that each actor bound by the Code is obligated to meet, but how this is done is mainly up to each individual actor to decide. As stated in the Polar Code: “*The goal of this Code is to provide for safe ship operation and the protection of the polar environment by addressing risks present in polar waters and not adequately mitigated by other instruments of the Organization*” (IMO, 2015b, p. 5).

Goal-based standard: The IMO has advocated a goal-based standard as opposed to a prescriptive standard for the documents and the conventions they adopt. As is explained in a report from the Maritime Safety Committee (MSC) of the IMO, “*goal-based standards are*

high-level standards and procedures that are to be met” (IMO, 2011a, p. 3). This means that instead of adopting strict rules that everyone is obligated to follow, the IMO adopt a set of common goals that everyone needs to meet. It is up to each actor how one meets these goals. This gives much more leeway than black-and-white rules that must be obeyed. The Polar Code is partly based on this standard, and so this will play a central role in analyzing it.

Flag state: A flag state is any state that has a ship sailing under its flag. States across the world can be flag states, unrelated to them being coastal states or not, or port states or not. There has to exist a genuine link between a ship and the state who’s flag it sails under, and it can only sail under one flag at a time (Arctic Council, 2009, p. 53). Several vessels sailing through the Arctic sail under the flag of flag states from all over the world and not only of Arctic states.

Port state: A port state is a state with a port where ships can enter (Arctic Council, 2009, p. 54). There are several ports across the Arctic, and these are divided between several states in the region with a coastline. Both flag states and port states are central in making sure provisions for safe shipping are being followed. Port states in the Arctic have a central role related to the regulations set by the Polar Code. Russia being one of these.

Destination shipping and transit shipping: Destination shipping is when navigating to or from at least one Arctic port (Moe & Stokke, 2019, p. 25). Transit shipping is when the Arctic Ocean is used as a shortcut between the Atlantic Ocean and the Pacific Ocean (Arctic Council, 2009, p. 162).

2 Background

In order to discuss the use and the effect of the Polar Code, one needs to paint a picture of the situation which the Code was adopted into. This chapter will do that by explaining how the situation in the Arctic was before the year 2017, which is when the Polar Code came into force (IMO, 2015c, p. 3) It will highlight changes in sea ice and opening up of shipping routes, and the increase in shipping activity partly resulting from this. A selection of substantial regulations for shipping and maritime activity applying to the Arctic waters before 2017 will be explained. This will be useful information to build the following chapters of this thesis on.

2.1 Arctic shipping routes are opening up

The Arctic Marine Shipping Assessment (AMSA) by PAME at the Arctic Council contains thorough research on Arctic shipping prospects which has been the foundation for recommendations on future action by the Arctic Council, Arctic states and others. Among these is one that suggests making parts of the Arctic Guidelines mandatory (Arctic Council, 2009, pp. 6-7). Sea ice in the Arctic has decreased gradually since the 1950's. Throughout the 21st century we can expect a retreat in Arctic sea ice, but the region will still contain ice to some extent during the winter seasons. The summer season will be increasingly longer with ice-free or nearly ice-free seas. The Global Climate Model (GCM) simulations of Arctic sea ice are not able to predict exactly what future Arctic marine operating conditions will be like, including length of navigation season (Arctic Council, 2009, p. 35). From this it is clear that the sea ice in the Arctic will lessen, but to which extent transportation using these sea routes will be possible is not as apparent.

Smith and Stephenson (2013) also present research done on the navigability of Arctic shipping routes, which shows that due to climate change we will continue to see a decline in late-summer sea ice in the region. Towards the end of this century we will have a seasonally ice-free Arctic Ocean. Their research support the AMSA-report saying that by midcentury the region will be much more navigable than it is today, and also states that open water vessels will be able to complete trans-Arctic voyages in September when sailing across the Northern Sea Route (Smith & Stephenson, 2013, p. 1192). The possible increase in shipping activity in the area adds to the need for greater stewardship from the Arctic states as well as the users of this marine environment (Arctic Council, 2009, p. 25). This points to the need of regulations along the lines of the Polar Code.

2.2 Arctic shipping is increasing

In their assessment of Arctic shipping above the Arctic Circle at 66.4 degrees North between 2010 – 2014 Eguíluz, Fernández-Gracia, Irigoien , and Duarte (2016) explain that Arctic shipping traffic has increased in the Arctic Ocean, and a total of 11 066 ships operated here in 2014. The majority of these fell within the category they termed “*other*”, which included supply vessels, research vessels, vessels conducting surveys and logistics service for industry, and any vessel that does not fall under the categories of fishing, cargo, tanker or passenger (Eguíluz et al., 2016, p. 1). Their assessment also shows that the Northwest Passage (NWP) was mostly used between July – October, and these were primarily sporadic transits by one or two cargo vessels. Since 2014, this passage was not regularly used for shipping because the sea ice was too thick for safe shipping. The Northeast Passage (NEP) on the other hand, was continuously used by cargo vessels and tank vessels and had an increase in 2014 (Eguíluz et al., 2016, p. 3). There are models showing increasing access for transoceanic shipping which could give support to this kind of transport being the most important factor for Arctic shipping, but results presented in this assessment show that access to and exploration of Arctic resources are in fact the dominant factors (Eguíluz et al., 2016, p. 4).

In their research article on sea ice decline and trans-Arctic shipping routes in the 21st century, Melia, Haines , and Hawkins (2016) state that shorter trade routes will become more available as a results of declining sea ice. This could have economic implications globally. The vast majority of shipping activity in the region consist of destination shipping between ports within the Arctic. The decline in Arctic sea ice during the summer has led many to believe that the Arctic will to a greater extent be used for transit shipping, where the Arctic Ocean is used as a shortcut between Pacific and Atlantic ports. This could lead to substantial economic benefits in the form of such as reductions in fuel consumptions and increased trip frequency. This would also reduce the global shipping emissions (Melia et al., 2016, p. 9720). The results from their study show that using Arctic routes will not be as beneficial for all, depending on which ports one travel between. Arctic routes as an alternative to the Suez Canal or the Panama Canal will be less beneficial when shipping to or from southerly ports of Shanghai. For North American shipping, using the Northern Sea Route (NSR) will take longer than using the Panama Canal. For shipping to or from European ports, shipping through Arctic routes will be faster than shipping through the Suez Canal (Melia et al., 2016, p. 9726).

2.2.1 Arctic shipping for economic security

The motivation for taking part in Arctic shipping can be manifold. One issue that is very probably a reason for this is economic security. The concept of security is not only one unit. It consists of several different aspects, and economic security is only one of many. Other examples are military security, environmental security and energy security. Economic security is an important part of national security, and most other forms of security are also in close connection to economics in some way. The state's military, communications, energy and transport, to name but a few examples, are dependent on economy which thus makes economic security relevant here (Tamošiūnienė & Munteanu, 2015, para. 3). Traditionally, national security has been almost completely related to military power and force. This is known as hard power and differs from several types of what is known as soft power (Nye Jr, 2009, p. 160). The more contemporary view of security is more diverse and includes examples like those listed above.

As mentioned, economic security is connected to national security and has usually been treated according to the possible threats posed externally to the state. This can include threats to technology, raw materials, food and fuel. Such a threat to supply is a negative effect of interdependence on the international arena (Cable, 1995, p. 313). This means that for the sake of the economic security of the state, access to and supply of resources such as minerals, oil and gas are important (Cable, 1995, p. 315). This can be traced back to Arctic shipping, which is central in transporting such resources, as well as food, to some communities in remote Arctic regions. Arctic shipping thus has a very direct link to economic aspects and economic security of many states across the world. With the melting of the sea ice in the Arctic, this links the Pacific Ocean to the Atlantic Ocean in a way they have not been connected in the past (Wassmann et al., 2015, p. 43).

2.3 Regulations applying to Arctic shipping before 2017

The Polar Code came into force as a regulator of shipping in polar waters in 2017 (IMO, 2015c, p. 3). Before this, there were other agreements applying for shipping in the Arctic, and several of which still apply today. A selection of these will be presented here and paint a picture of the governance of Arctic shipping that was present at the time the Polar Code was introduced.

2.3.1 United Nations Convention on the Law of the Sea (UNCLOS)

The United Nations Convention on the Law of the Sea (UNCLOS) was adopted in 1982 (Jarashow, Runnels, & Svenson, 2007, p. 1589), and it regulates law and order in all the world's oceans and seas. It contains rules to govern the use of these oceans as well as the use of the resources they contain (UN, 1982, p. 25). This Convention sets the boundaries of different zones in the seas and specifies which rights the given coastal state has as well as which rights ships sailing for other flag states have. Article two of the UNCLOS states that the sovereignty of a coastal state extends beyond its land territory and internal waters, and this area is called the territorial sea of said state. Article three sets the length of the territorial sea at 12 nautical miles from the baselines determined in the Convention (UN, 1982, p. 27). In Article 17 the "*Right of innocent passage*" is explained. It states that ships of all states have the right of innocent passage through the territorial sea of any coastal state (UN, 1982, p. 30). Article 19 explains innocent passage as not disturbing the peace, good order or safety of the coastal state, and as long as it happens according to the Convention and other international laws (UN, 1982, p. 31). The contiguous zone adjacent to the territorial sea is defined in Article 33. According to this article, a coastal state has the right to prevent and punish infringement of its laws and regulations. This zone may not extend beyond 24 nautical miles from the baseline from which the breadth of the territorial sea is measured (UN, 1982, p. 35). Article 55 defines the exclusive economic zone (EEZ) as the area beyond and adjacent to the territorial sea. In the EEZ, the state has sovereign rights over the natural resources, establishment and use of structures, and marine research (UN, 1982, p. 43). Ships of other states has the right to navigate and of other internationally lawful use of the sea (UN, 1982, p. 44). Especially significant for coastal states in the Arctic is Article 234 about ice-covered areas, which explains that coastal states do have the right to adopt and enforce non-discriminatory laws and regulations against pollution within the limits of the exclusive economic zone where presence of ice during most of the year cause hazards to navigation and pollution (UN, 1982, p. 115). These are a few of the articles in UNCLOS which numbers a total of 320 (UN, 1982, p. 21).

2.3.2 International Convention for Safety of Life at Sea (SOLAS)

The International Convention for Safety of Life at Sea (SOLAS) has been adopted in many different versions over the years. The latest one, which is still applicable today, is from 1974. It is referred to as SOLAS 1974. The main objective of which is to lay down minimum standards for the construction, equipment and operation of ships. This is to ensure safety. It states that

this convention applies to all ships entitled to operate under the flag of a state which government has agreed to this convention (IMO, 1980, Article II). In chapter one, regulation one of the Convention the application of the regulations is specified to only ships engaged in international voyage, meaning it does not apply to ships traveling within national waters. Excluding the chapters that make further specifications, this is the only regulation as far as vessels bound by the convention goes (IMO, 1980, Regulation 1). The resolution MSC.386(94) was adopted on the 21st of November of 2014. It contained chapter XIV of SOLAS which makes the Polar Code applicable to SOLAS-vessels voyaging in polar waters. The safety part of the Polar Code was made mandatory to all SOLAS-vessels through these amendments to the Convention. At the time this chapter was adopted it did not apply to ships owned by or operating for a contracting government to SOLAS (IMO, 2014a, p. 3).

2.3.3 International Convention for Prevention of Pollution from Ships (MARPOL)

In addition to having SOLAS and UNCLOS to set the laws and regulations for the oceans and seas of the world, and thus for the Arctic Ocean, International Convention for Prevention of Pollution from Ships (MARPOL) entered into force in 1983. It was a combination of the MARPOL Convention that was adopted at the IMO in 1973, and the Protocol from 1978. Different parts of MARPOL have been updated through the years. It has a total of six annexes. The first of which contains regulations for prevention of pollution by oil, and the second annex is about control over pollution by Noxious Liquid Substances in bulk. Both of which came into force in 1983. The third annex is about prevention of pollution by harmful substances carried by sea in packaged form and came into force in 1992. The fourth annex contains regulations for prevention of pollution by sewage from ships. This annex came into force in 2003. The fifth annex has regulations on prevention of pollution by garbage from ships and came into force in 1988. The sixth and final annex is about regulations on prevention of air pollution from ships. This annex came into force in 2005 (IMO). All of these annexes, which make up the Convention on Prevention of Pollution from Ships, has very central positions in shipping all over the world. They are applicable to shipping in Arctic waters as well and have been so from before the adoption of the Polar Code. Through the resolution MEPC.265(68) amendments to annexes I, II, IV and V of MARPOL were adopted. These amendments to MARPOL made the environmental part of the Polar Code mandatory (IMO, 2015a, p. 1).

Annex I and V of MARPOL regarding prevention of pollution from oil and garbage

states that certain areas can have the status as “*special area*” because they for some reason are considered extra vulnerable and need a higher level of protection than other areas (Deggim, 2009, p. 10). The Antarctic was given the status of being a “*special area*” by MEPC in 1990 and is protected by regulations on zero discharge. The Arctic, despite this environment being similar to that of the Antarctic, is not a “*special area*” under MARPOL (Deggim, 2009, p. 11).

2.3.4 Guidelines for Ships Operating in Polar Waters

In addition to SOLAS, UNCLOS, and MARPOL, there is another set of guidelines that needs to be mentioned in this context. This is the Guidelines for Ships Operating in Polar Waters adopted at the IMO Assembly on its 26th session on the 2nd of December of 2009 (IMO, 2009b, p. 1). This agreement can be considered as the predecessor of the Polar Code as this is what the Code was developed from. These Guidelines have also played an important role in the pursuit of common international regulations for safe polar shipping. For that reason, they will be explained in this sub-chapter to help understand the creation and the role of the Polar Code which will be presented at a later stage in this thesis.

In 1992 the IMO created a working group with the aim of putting together some form of shipping regulations in polar waters. This was done after the initiation of Russia and Germany who had previously raised awareness of the need for this. The working group began the process of finding out what this should look like and what it should contain. In 1998 the content of the regulations had in large part been agreed on. At this point the work took a turn and it was then decided that these regulations would only apply to the Arctic waters and not the Antarctic waters. This because some of the member states voiced their opinion saying that the Antarctic is already covered by the Antarctic Treaty, which means there is no need to add to this by making additional regulations. At the same time, it was decided that these would be in the form of guidelines, and not mandatory regulations (Interviewee 1, 13/12/19).

The Guidelines for ships operating in Arctic ice-covered waters were adopted by IMO in 2002. This was done by MSC/Circ.1056-MEPC/Circ.399. These guidelines are add-on to the regulations set by SOLAS and MARPOL which, as previously mentioned, contain regulations for safe shipping on a global basis and thus also apply to the Arctic (International Maritime Organization, 2010, p. V). After a while with the Arctic Guidelines being applicable, concerns had begun rising regarding its extent, and many were worried it did not cover enough. It was then agreed that these guidelines would also apply to the Antarctic waters. This decision was given urgency by the sinking of the cruise ship MS Explorer in the

Antarctic in 2007 (Interviewee 1, 13/12/19). Work began revising and extending the guidelines to also include Antarctic shipping, which led to The Guidelines for Ships Operating in Polar Waters to be adopted by the IMO in December of 2009 (Interviewee 1, 13/12/19). The guidelines focus on lessening the risks imposed by the harsh polar environments and include demands for ship systems as well as human capabilities (International Maritime Organization 2010, p. V). Simultaneously, it was agreed that these need to be mandatory and not optional guidelines. There needs to be mandatory regulations for everyone in order to ensure safe shipping for people and the environment. This conclusion was reached because the melting of sea ice in the polar regions could possibly lead to increased shipping activity as well as new kinds of shipping operations (Interviewee 6, 20/02/20). Shortly after the guidelines for polar shipping were adopted, the work towards the mandatory Polar Code we have today began (Interviewee 1, 13/12/19).

2.3.5 Reasons for why mandatory shipping regulations were needed

Given the picture just painted on the situation in Arctic shipping up until the year 2017, it shows lacks in regards of safety. Like mentioned in the previous sub-chapter, there was agreement that the guidelines for polar shipping were not sufficient for its purpose of ensuring safety. This led to the decision at IMO to make the guidelines mandatory as opposed to simply recommendatory which is the design they had. This will be especially prominent if the shipping traffic in the region is to increase. The AMSA-report of 2009 also stated that with the melting of Arctic sea ice and opening up of shipping routes comes a greater need for stewardship in the region (Arctic Council, 2009, p. 25). Considering the safety hazards the Arctic Ocean contain there is concern for vessels not properly suited for polar shipping entering the area. This increases the need for heavier regulations by the IMO than has previously been applied. Stronger regulations were needed in regards of vessel safety standards, environmental protection and search-and-rescue capabilities (Smith & Stephenson, 2013, p. 1192).

When stating that Arctic waters could become ice-free at some point during this century, it does give a slightly misleading impression. It would be more correct to call it “*open waters*” as there would still be some ice present that could pose potential safety hazards. Thus, a possible ice-free Arctic Ocean, or open water, during summertime does not mean that navigating through it would include no more safety hazards than one would encounter in non-polar waters. Considering the many different types of ice a vessel would very likely encounter during a short period of time while sailing through the Arctic,

regulations for shipping that specify requirements for these vessels are needed (Chircop, 2009, p. 359). Sea ice is but one possible risk to consider when shipping through Arctic waters. Remoteness (Chircop, 2009, p. 360) and a fragile environment for such as oil spill are a couple others. Given the additional safety hazards in Arctic waters compared to non-polar waters, more demanding standards and “*best-practices*” are required here (Chircop, 2009, p. 361).

3 Theoretical framework

To properly explain and analyze the data answering the research question theoretical frameworks need to be used. A couple of differing but related perspectives will be applied here.

The focus will be on institutionalism. This perspective will be used to analyze what the Polar Code as an institution is like and how it came to be. Data collected through interviews and documents are reflections of this and will together with institutionalism paint a picture of the Polar Code. Given the aim of this thesis, which is stated in the research question, and the data collected accordingly, institutionalism appears to be a relevant choice of theoretical perspective.

Considering that the negotiation process for the Polar Code is of relevance for as holistic of an explanation of the Polar Code as possible, analyzing this through the lens of a theoretical framework is necessary. Staying within the range of institutionalism, rational choice institutionalism will be applied for this purpose. This branch of rational choice theory focuses on studying rational decision-making in institutions and why actors participate in institutions (Weingast, 2002, p. 661). Since this is exactly what the process of negotiating the Polar Code was about, this framework is very much of relevance to better explain it.

Old institutionalism will be used to shed light on the implementation of the Polar Code. It is useful because it can explain what the Polar Code as an institution is like. What distinguishes this type of institutionalism from new institutionalism will be explained.

These are the two analytical frameworks that will be applied. Seen as one branch of institutionalism is insufficient to alone explain the research question, these two types of frameworks that both fall under the umbrella term of institutionalism will be used for analyzing the negotiations and the implementation of the Polar Code. In this chapter these two frameworks will be explained according to the central aspects of each that are relevant for this thesis. Rational choice theory and game theory will be mentioned, as these are in close relation to rational choice institutionalism and need to be explained in order to fully understand this framework of analysis.

3.1 Institutionalism

Before diving into each of these two perspectives, a brief explanation of institutionalism and its development, which has led to the variation of institutionalist perspectives there is, deserves a place here. Institutionalism is an analytical approach to governance and social

science that focuses on studying and explaining institutions (Bevir, 2009, p. 2). It has through time been applied to many different fields of study, one of these is within international relations in political science. Studying international institutions have led to an understanding in the field that previous frameworks have not been equally able to provide (Lake, 2002, p. 142). institutionalism lays down either the structure of formal or informal institutions or the values, symbols and routines individuals gain from it as the basis for the explanations it provides (Peters, 2009, p. 2).

3.1.1 Different variations

Institutionalism can be divided into several different perspectives. First and foremost is there a divide between old institutionalism and new institutionalism. The prior focuses on formal institutions and the importance of rules and laws in public sector organizations (Bevir, 2009, p. 2). It was very much descriptive and normative as opposed to theorizing about institutions, and individual behavior was not accounted for (Peters, 2009, p. 2). After a while, this showed to become less and less sufficient in explaining what was then defined as institutions. This led up to the need for development, and theorists of the approach adapted institutionalism somewhat to the time. As a result, the new institutionalism rose during the 1990's. This perspective of new institutionalism works according to a broader understanding of what defines an institution (Bevir, 2009, p. 2). This has contributed to giving institutionalism as a theoretical framework new relevance. The new institutionalism is also able to answer questions posed by rational choice theory that this framework cannot offer a complete answer to itself. An important question that rational theorists cannot provide an answer to is why individuals join institutions. New institutionalism gives more relevance to how individuals and institutional settings affect one another than old institutionalism does. It can explain how an institution works, how it changes and how it differs from other institutions (Bevir, 2009, p. 3).

3.1.2 Divisions of new institutionalism

New institutionalism can be further divided into sociological institutionalism, historical institutionalism and rational choice institutionalism. These provide different explanations of different features of an institution. Rational choice institutionalism is a coalition of rational choice theory and institutionalism. This perspective focuses on rational decision-making in institutions (Weingast, 2002, p. 661). Sociological institutionalism is closely related to organizational theory and usually looks at organizations in informal and cultural terms rather

than formal and legal ones. Historical institutionalism is more difficult to define as it consists of different perceptions and focuses. Institutions are usually defined by historical institutionalists as formal and informal procedures, routines and rules (Bevir, 2009, p. 3).

3.1.3 What is an institution?

Institutions can be defined in several different ways, a few of which will be elaborated on in the following. These can also be recognized further on in this chapter. Institutions are by some scholars seen as formal organizations, meaning structured institutions, governed by written rules or laws, while others define it more informally, known as unstructured institutions (Bevir, 2009, p. 2). Institutions as being formal is associated with old institutionalism, while new institutionalism operates with a broader definition and therefore also sees informal structures as institutions.

According to John R. Commons, an institution can be defined as “*collective action in control, liberation and expansion of individual action*” (Commons, 1931, p. 648). Bromley (1985, p. 780) refers to this definition and adds that institutional arrangements define choice sets actors operate by. This definition is more on the formalized side of the spectrum. While elaborating on what institutions are and what significance they have, Bromley points to how institutions as structures in which a variety of different activities take place. In order to understand and to fully appreciate choices that are made and collaborations that come to be, one needs to consider the institution they exist within. Institutions thus set the framework for other social phenomena. This shows the importance of institutions and the study of them (Bromley, 1985, p. 781). Bromley also mentions that institutions change and evolve, and they are therefore not consistent entities. As time passes by and society develops, preferences and knowledge change, and this leads to institutions changing (Bromley, 1985, p. 782). This shows that there is an interactive relationship between institutions and society. Loosely defined, institutions can thus be seen as not much more than a perception of how things are done and should be done. Like a lens to see the environment through at that point in time.

Unstructured institutions can also contain acknowledged practices and patterns but are not formalized and are thus not written down as actual rules of the institution. They are simply known as the way things are done. Norms and various cooperative arrangements are examples of such institutions (Shepsle, 2008, p. 4). An unstructured institution is a more difficult unit of analysis than a formalized and structured institution. Collective action, on the other hand, has shown to be a common institution of study (Shepsle, 2008, p. 6). This is, according to Shepsle (2008, p. 5), an institution that cannot be naturally categorized as simply

structured or simply unstructured of nature. It can be well-organized and formalized, but it can also be spontaneous.

While Ken Shepsle of rational choice institutionalism describes collective action as being one form of institution, collective action is just what John Commons of old institutionalism defines an institution to be. Collective action will be circled back to later in this thesis.

3.2 Old institutionalism

It appears to be a common assumption that new institutionalism replaced old institutionalism. Proponents of the theory would argue this is not the case, and arguments for this will be revealed in the coming pages. Firstly, the theory does not solely consist of formal-legal analysis but can also be applied in such as idealistic analysis or social analysis (Rhodes, Binder, & Rockman, 2008, p. 90). Secondly, formal-legal analysis, which is the most common in old institutionalism, can still be very relevant in studying for example political institutions (Rhodes et al., 2008, p. 91). In the following central aspects of this theory will be explained.

3.2.1 Formal-legal analysis

This form of analysis can be defined as “*the study of public laws that concern formal governmental organizations*” (Rhodes et al., 2008, p. 94). However, it does not limit itself to only the written constitutional documents, but also the beliefs and customs connected to it. This means that formal-legal analysis can be used when studying informal organizations as well as formal. It can be applied comparatively by for example comparing institutions up against each other, but it can also be used as a historical analysis and study eras and events (Rhodes et al., 2008, p. 95). It has an inductive way of doing research, meaning the observations and facts about an institution to a large extent speaks for themselves and lead to a theory or a paradigm that is thought to be true.

3.2.2 Antitheses of social setting

Bromley (1985) mentions three different antitheses of any social setting that will thusly be of importance for institutions, two of which are relevant for this thesis which will be shown in the analysis. The first of these two is that of order and change. There is a fine line between ensuring order but at the same time making change a possibility. Social order of some kind is a good thing and, one could argue, a necessity. It is equally important to keep in mind, however, that social aspects change over time. This means that a social order cannot be too

robust. In which case, the rules and norms society live under will not be up to date and adapted to the present-day reality of the society they are meant to govern. It is important to get this balance right, but it is not an easy task. Too much order and not enough change will lay the foundation for what could become a revolution, and too much change with not enough order could cause stagnation (Bromley, 1985, p. 784).

The second antithesis relevant in this context is about individual interests and public interests. The balance between these is also difficult to maneuver as it raises the question of who's interests should count the most. In most situations one of these will likely be less prioritized than the other, as it is very challenging to appease both sides at the same time (Bromley, 1985, p. 785).

Considering these tensions will be present in any social context they do form the possibility for conflict. However, this is usually not the case and the reason for that, according to Bromley, is the presence of institutions and thus collective action. Only through collective action can such issues be addressed and handled. Institutions are what sets limits and regulations and constraints for individuals and are overall rather restrictive to some degree. Despite the loss of freedom individuals do still take part in institutions, and that is because it is better than the alternative which is being without it. Individuals do recognize that collective action to put some restrictions on individuals in society, hence construct institutions, is needed in order to ensure the necessary safety for all (Bromley, 1985, p. 786).

3.2.3 Governance

When studying the works of John Commons one can see clear opinions regarding governance and collective action in society. Commons is an old institutionalist but whether all of his statements can be generalized to other proponents of this perspective is uncertain. The way he sees collective action is not in stark contrast to individualism, except from when speaking of the extreme outer ends of each of them. As a matter of fact, they are usually closely intertwined with each other.

Put simply, an institution is collective action in control of individual action. This control is exercised through sanctions and creates rights and duties that rations economic benefits and burdens for individuals. Collective action is thus meant to equal the playing field in a society by setting some form of guidelines and limitations for what one can or cannot and must or must not do. What is individually desirable is to a certain extent put aside for the benefit of what is collectively good or needed. These are called working rules and they evolve from customary practices when conflicting interests and change occurs. In such disputes what

can be thought of as the good rules and the good customs are chosen over what one could call the bad rules and the bad customs. In this way working rules are constantly being improved and adapted. This happens continuously through collective action and gives the process an evolutionary element. The aim of which is to create the best conditions for all individuals in society. This is where institutions come in (Leathers, 1989, p. 364).

Legal rules are by Commons defined as the working rules of government. He sees judge-made laws as made through artificial selection by the visible hand of the court, which means that humans have actively contributed to this selection. This contrasts with natural selection. According to Commons the judges are guided by public purpose while making such decision regarding legal rules (Leathers, 1989, p. 367). He also stated that the personal characteristics of the judge making legal rules is important (Leathers, 1989, p. 370). This goes hand in hand with the acknowledgement of cultural importance and preferences while studying institutions that can be found in old institutionalism. This shows how actors and institutions have an interactive relation. An institution is meant to influence individuals by constraining their freedom for the collective good. However, individuals through culture and preferences do clearly have an important part in how an institution takes form as well.

Commons paints a picture of government as a rather positive form of collective action, meaning institutions. He describes it as creating sustainable workable mutuality that can stand against economic and political changes (Leathers, 1989, p. 378).

3.2.4 Actors

There are, as mentioned, assumptions that new institutionalism replaced old institutionalism, and therefore is old institutionalism no longer valuable or needed. One reason for arguing why old institutionalism is still valuable as an analytical framework is that it applies historical and philosophical tools of analysis. This is useful because a lot of the study on institutions consists of revealing their ideas and beliefs, as well as studying actors within institutions through observation of behavior in order to give meaning to aspects of the institution. By focusing on meanings in an institution one admits to actors in the institution playing a role that needs to be understood in order to get a complete understanding of it. The beliefs, preferences and actions of the actors will thus influence the broader institution to some extent. These beliefs and preferences will have the opportunity to be passed down to newer members of the institution (Rhodes et al., 2008, p. 103). Old institutionalism is thus not restricted to study only the strictly formal aspects of an institution but can also be applied to uncover several informal aspects such as beliefs within the institution as well as deeper meanings.

3.2.5 Culture

Another aspect of old institutionalism that can be considered as positive and strengthening is the role culture play in analysis. Culture is an important part of explaining changes in human societies, including institutions (Harriss, 2006, p. 184). As previously established, old institutionalism is not all about studying the straight-forward and formalized parts of an institution. It does also acknowledge the importance of beliefs, practices and meanings, as well as the actors within the institution. It is therefore not difficult to believe that culture is also under the microscope in old institutionalism. It is common to assume that people act rationally but this is not always the case. Sometimes people habitually act according to culture and not as a result of thoroughly considered alternatives. This gives significance to culture also in institutions and thus needs to be studied. Rationality as a subject of study is not sufficient by itself. Old institutionalism takes this into consideration and includes cultural aspects into the analysis (Harriss, 2006, p. 187).

3.2.6 How to analyze an institution

The central-most aspects of old institutionalism have been explained in this sub-chapter, but a short summary might be of good use.

Old institutionalism is very much focused on formalized institutions compared to other theoretical perspectives such as new institutionalism. That being said, proponents of this theory do acknowledge that actors with their personalities and preferences hold an important place in any institution, also the formal ones.

An institution is defined as collective action restricting individual action. This shows to an institution having a purpose. As has also been explained here, according to old institutionalism, the purpose of an institution is to ensure safety for individuals in a society, for the collective good. This means that individual freedom does need to be restricted to some degree. The playing ground needs to be leveled and individuals need to follow common regulations. These can be legal rules or other agreed upon regulations that are accepted by actors in the society.

Creating an institution is not without challenges, and that is why a couple antitheses one is confronted with in any social settings have been explained here. The first is that of order and change, and the second is that of individual interests and public interests. The latter antithesis is closely related to the definition of an institution that has already been mentioned several times here as part of old institutionalism.

An institution of this kind is created to execute some sort of governance, whether on a

governmental level or not. According to John Commons, who has contributed with a great deal of work to old institutionalism, sees collective action for governance as a rather positive thing. He sees working rules in society, or the institution, as constantly being replaced and approved and adapted as needed, and this is done by actively choosing the “good” custom or rule over the “bad” custom or rule. This is called artificial selection.

3.3 Rational choice institutionalism

Rational choice institutionalism is a part of new institutionalism. The area of study in rational choice institutionalism is the role institutions play leading up to social and political outcomes (Hall & Taylor, 1996, p. 936). Rational choice theory has not been able to explain why actors participate in collective action and institutions (Scott, 2000, p. 7).

This framework shows through its analyses that institutions handle several problems with collective action. What has become rather clear is that actors take part in an institution because the benefits of it are higher or the costs following with it are lower than they would be without participating in the institution. This means that actors weight the costs and benefits with different alternatives up against each other and often make the rational decision of becoming a member of an institution (Hall & Taylor, 1996, p. 943).

3.3.1 Four central aspects

Especially four aspects of rational choice institutionalism are important to keep in mind when using this approach for analysis. First, institutionalists of this perspective assume that actors have a fixed set of preferences. They are also believed to behave instrumentally and strategically to maximize their satisfaction of these preferences (Hall & Taylor, 1996, p. 944). Second, politics is considered to be a series of collective action dilemmas. Collective action dilemmas are situations where an individual act according to maximize the satisfaction of one’s own interests and the outcome of this is likely to not be the best for a larger collective. An outcome makes at least one actor better off but none actors worse off could be found. The lack of an institution could lead to such outcomes when actors are pursuing their self-interests. Third, strategic interaction is important for political outcomes. Actors are driven by strategic calculus which will affect one’s expectations about how others will most likely act. Institutions can through influencing alternatives or providing information lead members towards a better outcome than what would be the case without the influence of the institution. Fourth, this perspective holds its own way of explaining how institutions originate. Each institution has a function, and it is the value and meaning this function has for actors that

motivate them to participate in the institution. Hence, cooperation in an institution will be a central key to realize this value (Hall & Taylor, 1996, p. 945).

3.3.2 Institutionalism and rational choice theory in international relations

As has already been mentioned in this text, institutionalism is an umbrella-term for a variety of different analytical perspectives. Tools from such as economics, game theory and collective action are all used, all of which make up a part of what is collectively termed rational choice theory. These are often used when international cooperation could be beneficial. Institutionalism in international relations has features in common with realism, as both see states as the central actors and that states pursue their self-interests in a rational manner. State interests can include security of some sort, for example of environmental aspects (Abbott, 2008, p. 6). In order to analyze the behavior of the state, institutionalists look at the state as a “*black box*” which excludes domestic factors from the analysis. States are also assumed to be rational and egoistic (Abbott, 2008, p. 10).

Institutionalism used in international relations study both the “*demand*”-side as well as the “*supply*”-side of international institutions. States as members of an institution will have certain demands about what they expect to get out of participating in it. These benefits will be a motivation to take part in an institution. The conditions need to be viable in order to create an institution, meaning what supplies the institution. This can be rather tricky without the presence of a central global governance. These conditions are also subject of analysis for institutionalists. This shows how international institutions give to its member states what they demand and how certain conditions supply to an institution (Abbott, 2008, p. 6).

3.3.3 Two-level game theory

Two-level game theory by Robert Putnam is an approach within rational choice theory designed for the field of international relations. It also holds a focus on domestic politics and the combination of these from a model that can give a good understanding of complex political affairs that shape international law and such. In this theory, domestic institutions and procedures as well as international negotiations are subjects of study. It shows how government officials have to balance the job of playing chess on two different chess boards at the same time, the domestic and the international. This will affect their actions on the international level as they have to appease actors on the domestic level (Abbott, 2008, p. 23). A weakness with this model, as well as other models within rational choice theory, assume that non-state actors only operate on the domestic level. This is not the case as several interest

groups and non-governmental organizations are making attempts at influencing issues being dealt with on the international level. The influence of non-state actors in international affairs has also grown. Much of this can be seen in organizations like the United Nations (Abbott, 2008, p. 24).

3.3.4 Rational choice theory

Rational choice theory stems from a thought process originated in economic science which assumes that actors are motivated by money and profit. Self-interests will then dictate the choices an individual make. Rational choice theory takes this a step further, stating that all actions one make are rational, and costs and benefits are evaluated before a choice is made (Scott, 2000, p. 1). The theory also holds a very individualistic focus, assuming that all social phenomena are made up of individual actions (Scott, 2000, p. 3). If actors do not act rationally and practically, that means there could be just about any reason for the choices being made. This would make interpreting them very challenging and one could not draw conclusive motives from studying them, nor predict future acts.

According to this theory, an individual goes through two selection processes before making a choice. Starting off with all relevant alternatives, one selects all the feasible alternatives one can choose based on such as financial and legal restrictions. One then chooses the most preferable alternative out of all the feasible ones. If the preferable outcome of the situation is the same as the most preferred alternative will lead to, one is acting rationally. The restrictions which affects the selection of the feasible alternatives are understood as having no impact on the actor's preferences. In addition to an actor basing choices on rationality it is assumed that preferences, being an actor's motivation, are stable and do not change. The restrictions, however, can change. This is what leads to alterations in behavior.

Another important aspect of rational choice theory are the actor's expectations, or beliefs. The expectations an actor has provide a look into the knowledge and experiences regarding the alternatives, restrictions and possible outcomes of the situation the actor has. Expectations do influence the preferences of an actor, but like already mentioned, it is the preferences that motivate actions (De Jonge, 2012, p. 8).

Each and every action one makes is not necessarily perfectly rational when seen alone. Some actions are not a result of an actor's preferences in that specific situation. This because actions often are part of bigger plans (De Jonge, 2012, p. 11).

One issue that rational choice theory cannot seem to provide a decent answer to is

explaining collective action, meaning why actors cooperate in various types of groups. If individuals act rationally and the only rational thing is to act according to self-interests, the theory cannot sufficiently explain why individuals in fact tend to take part in groups and cooperate with others where one also needs to consider other actor's interests and preferences. According to rational choice theory this is irrational behavior (Scott, 2000, p. 6). Rational choice theorists state that it is legitimate to take part in a decision-making apparatus that is taking into account individual intentions and has an agreed upon policy. This means that the theory does provide an answer to why an individual would take part in a group where the benefits are calculated to be higher than the costs, and this would be beneficial over the alternative of not being a part of the group. However, it does not explain why individuals would join a group if one would gain the same benefits by not joining. By the logic of rational choice theory, rational actors would be free riders whenever they have the possibility and thus have no reason to take part in collective action. In real life though, individuals do take part in such groups. This points to rational choice theory as-is being insufficient as an explanatory framework (Scott, 2000, p. 7). The solution to this was for rational choice theorists to look to institutions, which led to rational choice institutionalism as an analytical framework to be born.

3.3.5 Game theory

Important for rational choice theory is game theory which, as rational choice theory, was created by mathematicians and economists. This model addresses how rational decision-makers with differing interests make decisions in a given situation (Sigmund & Hilbe, 2012, p. 1). Such a situation is in game theory referred to as a game. As in any other game, actors participating in this game, being the decision-makers, are called players. These can be individuals or groups of individuals acting as one unit. States are probably the most common example of a player on the international arena of politics. Players make decisions that at some point will end up in an outcome. What nature the game has been of, cooperative or non-cooperative, compromising or filled with conflict, will have the ability to affect what the outcome will be like (Williams, 2012, p. 45). In a cooperative game reaching agreements will be a possibility, while in non-cooperative games the players will not commit themselves to any form of agreement (Williams, 2012, p. 46).

A differentiation of the nature of a game is that between a zero-sum game and a non-zero-sum game. The former is a game where the interests of the players are opposing and only that. In which case one player would need to get what they want on behalf of the other player

who will not get what they want. A non-zero-sum game consists of players with some opposing interests but who at the same time might have some common interests. One of the players can get what they want without it necessarily having any negative effect on the other player. This could be the desire of reaching an outcome where one's own interests are preserved without having to go through the liability of a conflict of some sort (Williams, 2012, p. 45).

Considering game theory derives from rational choice theory, the belief in rationality holds a central position here as well. Players are thought to be instrumentally rational and thus acting according to what will maximize utility the most. That means, their own utility based on their own interests. The desired outcome is therefore not always the same for all players. Expressed differently, that a player acts rationally only means that they act with a purpose. This essentially means that their actions and choices can be analyzed and to a certain degree given meaning to by uncovering the motivations behind them. One needs to keep in mind that a player will always choose according to the information they have, and this may not always be sufficient or even true to reality. It might lead to them acting irrationally when seen more objectively, which can lead to very poor outcomes (Williams, 2012, p. 47).

It is commonly believed that players choose strategies for the game. A strategy is a plan that specifies the choices a player makes at every situation that might occur during the game. In a game with a strategic-form structure players simultaneously select strategies before the game begins (Williams, 2012, p. 46). This is in contrast to extensive-form where players make moves in sequence, meaning that they make a choice from the alternatives they have at hand right then and there (Williams, 2012, p. 51). In a game of strategic-form with two players, being the actors participating, the strategy adopted by one of them is affected by the strategy of the other. One cannot necessarily always know how the other player thinks, what information they have or what decision they will make, and this leads to much guessing from both sides. Out of all the alternative strategies each player has there is always one that would be the best choice to match the best alternative strategy the other player has. When each player chooses the best alternative they have the game is in a status called Nash equilibrium (Sigmund & Hilbe, 2012, p. 1). Connecting this to rationality which has previously been mentioned, strategy pairs that are in Nash equilibrium are the only rational strategies to choose in a game. Any other strategies are inconsistent with rational choice theory and is not purposeful (Williams, 2012, p. 48).

A common exemplification of the game theory in practice is the Prisoner's Dilemma, also known as Arms Race game (Williams, 2012, p. 46). This addresses the question of

whether the best option for a player would be to cooperate with other players or not. In the Prisoner's Dilemma each player can choose between the strategy of cooperating c or defecting d . If they both choose to cooperate c they would get the reward r that gives better utility than the punishment p they would both gain if both were to defect d . If one player chooses to defect d and the other player chooses to cooperate c , then the one defecting would gain a payoff for temptation to defect t and the other player would get a payoff lower than reward r which can be called the sucker's payoff s . Given these alternative strategies and the possible outcomes, a rational player will always choose to defect d and the outcome would thus be punishment p for both players (Sigmund & Hilbe, 2012, p. 4).

Having explained the concept behind the Prisoner's Dilemma, it is time to connect rationality to this. Two perfectly rational players in such a game would both end up with a worse outcome than they would if they had both chosen irrationally according to rationality as explained above. If they had both been rational, they would choose to defect d because it would give each of them the chance to gain the payoff for temptation to defect t which is the most desired outcome for each of them. However, this would lead them both left with punishment p , which is in Nash equilibrium. Had they been irrational, they would have chosen to cooperate c which would leave them with the outcome reward r (Williams, 2012, p. 48).

A game can be of differing nature. The players could choose to cooperate for the best possible outcome for each of them. What is referred to as a "*helping game*" is a situation where each player needs to decide whether or not letting each other have benefit b by giving up a certain cost c . If the total gain for each player would be better by giving each other something in order for something else in return, the game would be in Nash equilibrium by cooperating. On the other hand, if the cost c would be too big of a loss for each player compared to the benefit b one would gain, the Nash equilibrium for both players would be to not cooperate with each other (Sigmund & Hilbe, 2012, p. 2).

3.3.6 How to analyze an institution

Rational choice institutionalism is basically rational choice theory applied to collective action. The rationality of an actor is therefore a central assumption here as well. Not only in as actor thought to act rationally, but also egoistically and only wanting to maximize one's own utility. Rational choice institutionalism is meant to explain why actors participate in institutions when, according to rational choice theory, this is in fact irrational. The short and straight forward answer to that is: because it is a better option than the alternative, which is to

not participate in the institution.

This theory then explains using the same idea of rationality as in rational choice theory why actors cooperate and take part in collective action, even when they might give up something they otherwise would not have to. Such can be seen in the Polar Code negotiations. Actors do this for the exact reason of maximizing one's own utility. They realize that in order to do this the most rational choice is actually to cooperate, and sometimes even give up something in one's own interest to reach a higher goal one has. Important to keep in mind when speaking of rational choices being made by actors is the limited amount of information one usually has. Another benefit of institutions is in fact enhanced access to useful information, which is something an institution tend to be focused on generating. Using prisoner's dilemma from game theory one can demonstrate how the most rational thing to do is actually to cooperate rather than go solo.

4 Methods

In this chapter the research methods used for collecting data in this project will be explained. This project is qualitative in nature, and this compared to quantitative research methods will firstly be explained. Considering this thesis will be a case study, what characterizes this will be specified, along with arguments for why this is a fitting choice for this thesis. The sub-chapter on case study will also in turn explain why these three cases were chosen. During this research project two different qualitative methods have been used, interviews and document analysis. Each of these will be presented, while the relevance and operationalization of them will be specified. This chapter will end with reflections regarding the methods and how they have been used in this project, as well as possible weaknesses and issues related to it.

4.1 Qualitative research methods

To highlight the research question of this thesis I have chosen a qualitative approach.

Qualitative research methods are characterized by doing in-depth research on a limited area. This in contrast to quantitative research methods which largely are about studying something that can be expressed using numbers. This can give information about a large area but will not be able to tell much more than for example the number of incidents or to which extent something is the way it is. This can explain how things are to a certain extent, but not in-depth, and not why. This shows how qualitative methods are focused on depth, while quantitative methods are focused on width (Brinkmann, Tanggaard, & Hansen, 2012, p. 11).

Given the research question for this thesis, choosing a qualitative approach was the most natural. Qualitative research methods will be more suited to gain in-depth information about opinions and experiences related to the Polar Code. The need for in-depth information rather than more general information is also the reason why narrowing in on a selection of cases was decided on, as opposed to collecting all possible data on this subject. Considering the Polar Code has been in force for no more than two years, there will not be too much written information in the form of published documents that can answer the research question. This is why the interviews done for this thesis have played a significant role, while documents have added to this. This combination of qualitative methods has shown to be valuable for answering the research question. The aim of this methods chapter is to explain why a qualitative approach has been chosen, how these qualitative research methods have been used and why they have been applied the way they have, why these exact cases have been chosen, and lastly give some reflections around the methodological aspects of the thesis.

4.2 Case study

As briefly mentioned above, narrowing in on a few cases will allow for more in-depth research than generally gathering information on the subject would. A case study is doing research on one specific case, or one unit. A comparative case study (CCS) means looking into a few selected cases and comparing these up against one another (Sasaki, 2011, p. 2). According to Lesley Bartlett and Frances Vavrus the comparative case study as a research method is built on two logics of comparison. The first is the “*compare and contrast logic*” and the second is a “*tracing across*” sites or scales. (Bartlett & Vavrus, 2017, p. 6). The “*compare and contrast*” logic of comparison is the way of isolating units from things around it rather than looking at connections between the unit and factors in the environment. The “*tracing across*”, on the other hand, looks at linkages across place, space and time (Bartlett & Vavrus, 2017, p. 7). They also emphasize that different questions are better suited for one of these logics than the other (Bartlett & Vavrus, 2017, p. 8). For this thesis, the “*compare and contrast*” logic is a better fit. This allows me to answer the research question from the perspective of different viewpoints and then make comparisons between them. This could show similarities and contrasts between cases.

The choice of cases was made with the desire of variation in mind. This because cases with different characteristics might have differing opinions and bring a variation of information about the topic. Considering the research question for this thesis revolves around opinions and experiences with the Polar Code as a regulator for polar shipping in the Arctic, choosing cases with activity in Arctic shipping was an important first step. The three chosen cases are Norway, Russia and China. Opinions and experiences of relevant actors from these cases have been collected as data in this project.

4.2.1 Norway

Norway is one of eight Arctic states and one of five Arctic coastal states. This makes Norway prone to high activity levels in Arctic shipping. The Norwegian economy is also connected to this shipping activity, which means it holds great relevance for Norway as a state as well as other Norwegian actors (Norwegian Shipowners' Association, 2014, p. 16). Norway was a natural choice for that reason, as well as several other reasons. Like mentioned in the sub-chapter “5.2.1 Norway”, Norwegian delegates played a significant and central role in the negotiation process of the Polar Code, which gives Norway a very direct link to it. Both their participation in these negotiations and their opinions and experiences related to the Polar Code in practice will be highlighted in this thesis. As opposed to the following case, which is

also an Arctic coastal state, Norway is of a fairly small size. This could mean that the Norwegian state and other Norwegian actors might provide different information related to the research question than a state of a larger caliber. It should also be mentioned that this is the only Western case chosen, which could entail different information being provided by the interviewees and possibly the documents published by Norwegian actors. Lastly, me being Norwegian and writing this thesis from a Norwegian university means finding valuable information provided by Norwegian actors is easier than information provided by actors from other states.

4.2.2 Russia

Much the same reasons why Norway was chosen as a case also apply for why Russia was chosen. Russia is, like Norway, an Arctic coastal state which relies heavily on shipping in the region. Russia puts much emphasis on their Arctic regions whether it relates to shipping or other activity. Much of this plays an important role in Russian economy (Duhaime & Caron, 2006, p. 21) and might be a reason why they want such a central role in Arctic affairs.

Russian delegates also participated in negotiations for the Polar Code and played central roles in this. These reasons apply to both Russia and Norway and make them both natural choices. Russian actors could give different opinions and might express different experiences than Norwegian actors. Russia is a bigger country with a bigger economy and more shipping activity in the Arctic than most other states. The economy of Northern-Russia amounts to two-thirds of the circumpolar economy (Duhaime & Caron, 2006, p. 21). The Yamal LNG is part of this. Russian actors might have made experiences Norwegian actors have not. Actors from both of these cases could provide useful and honest information that could answer the research question of this thesis. Much of this information might be similar across cases which will only add to the credibility of it, at the same time as differences between the cases might end up highlighting different aspects.

4.2.3 China

China as the third case in this thesis was chosen because they are not an Arctic state and could therefore have a very different outlook on things related to the Arctic region than both Norway and Russia as Arctic states will have. Not only Arctic states ship through Arctic waters, which means not only Arctic states are likely to have opinions on and experiences with the Polar Code through Arctic shipping. A portion of all ships that ship through Arctic waters are of flag states outside the Arctic (Zhang, Meng, & Zhang, 2016, p. 54). China is one

of these non-Arctic states that ship in this region. Much of their activity consists of shipping LNG from the Yamal peninsula to China, which is but one example of why Arctic shipping is of great economic importance for them (Deng, 2018, p. 64). Their presence in Arctic shipping will most likely bring with it some experiences with the Polar Code in practice. China has for a while been talking about the Belt and Road Initiative and wants to connect the “*Polar Silk Road*” to this (Moe & Stokke, 2019, p. 43). This shows their seriousness regarding Arctic shipping. One should also not forget that China is emerging as a global power, and not only in the Arctic (Breslin, 2010, p. 52). It is therefore interesting to investigate their role in Arctic shipping and their opinions on and experiences with the Polar Code.

4.2.4 Composition of cases

All in all, this composition of cases for the thesis does have good aspects of providing valuable information regarding the research question. It consists of Arctic states and a non-Arctic state, a small state and bigger states, in addition to Western and Asian states. All of these were participants in the negotiations for the Polar Code, however active or not. They are all active in Arctic shipping and will likely contribute with valuable information regarding the Polar Code. Different actors will probably see the same issue from different viewpoints and will then have made different experiences. That means they will all likely contribute with some new information.

4.3 The two methods used

While explaining the methods used, I will primarily refer to a book on qualitative methods edited by Svend Brinkmann and Lene Tanggaard called “*Kvalitative metoder: Empiri og teoriutvikling*” published in 2012. The two qualitative methods used in this thesis are interviews and document analysis. These methods were chosen for a couple of reasons. Published documents related to the subject of research is of value in basically every research project. For this thesis, published documents from meetings in IMO, proposals for the Polar Code, and agreements under IMO are primary sources that could provide important background information which the research question can be analyzed in light of. Previously published research articles will also be used in this thesis, as it can contribute with information collected through research done by others on this subject. This will be secondary sources and will therefore have already treated various primary sources. It will thus be complementary for the primary information in the form of documents and interviews collected for this thesis.

Interviews have provided important information. Firstly, because the Polar Code has only been in force for the past three years and access to written information regarding opinions and experiences with the Code are limited. Not a very substantial amount of time has passed, and therefore research articles and published statements on it are lacking to an extent. That is all the more reason why this thesis will be of use for this area of research. Limited amount of relevant published documents has brought along the need to collect information otherwise. Interviews have shown to be a valuable method as such. Interviewing people who have relevant insight into the subject and can contribute with honest information in line with their own professional work have proven to be of great significance. They have up-to-date information that is not necessarily put in writing yet. Secondly, providing straight forward information about such a topic is not always something one would feel as comfortable with having one's name attached to. Interviews offer a chance to have one's opinions heard, while having the opportunity to be anonymous. For these reasons, interviews have played a central role in collecting information.

4.3.1 Interviews

The interview as a research method is very common within qualitative research. This gives the chance to gain insight into such as experience and attitudes (Brinkmann et al., 2012, p. 17). Both of which are areas that need to be highlighted in this thesis. An interview can be done in several different ways. The most common one is done face-to-face between two people, but it can also be done over the phone, online or in questionnaires. An interview can also have different purposes and last for different durations. Jaber Gubrium and James Holstein emphasizes that an interview is not a neutral technique that can retrieve answers from the interviewee without affecting them. Rather, it is an active interaction between people (Gubrium & Holstein, 2003). Characteristics as such are important to keep in mind both when interviewing as well as when working with and using the information provided in an interview. Interviews can be done in a variety of different ways, containing fixed questions in a fully structured interview or open questions in a rather informal and unstructured interview, or something in between. The research project will set the framework for which form of interview is to be used (Brinkmann et al., 2012, p. 24). This to make sure which ever research method is applied will be the best one to collect the necessary information for the project as they will be suited to provide different kind of information. For the research done in this project I have chosen to use interviews that lean towards a semi structured form as I see these best fit to put the focus on specific topics during the interview and let the interviewee decide

which information they would like to enhance within these topics.

Interviews was chosen as a method for collecting data due to a limited number of published documents on the subject, in addition to the liberty of speaking freely that it gives to the interviewees. The process of collecting data therefore primarily began with interviews. After having landed on which focus my thesis would have, I attended the Arctic Circle Assembly of 2019 in Reykjavik, Iceland where I did five previously planned interviews with scholars and people in the business and got one written reply to the questions I had. These interviews helped in giving a good picture of the area of focus for the thesis and gave me the opportunity to participate in useful conversations about the topic. Considering these were the first interviews I have done they also gave me important experience in using the method that I brought with me into the interviews conducted on a later stage. After the interviews done at the Assembly it became clear that some minor adjustments to the research question was needed. The interviews gave me the chance to work with the area of focus and thus pinpointed some possible weaknesses that could need improvement. These interviews therefore primarily worked as preparations for my further research.

The interviewees were found and contacted primarily using snowball effect. The snowball effect is when participants of a study recruit other participants for the study (Naderifar, Goli, & Ghaljaei, 2017, p. 2). While visiting the Arctic Circle Assembly, one of the interviewees referred me to someone else who could possibly provide useful information for my thesis. Being introduced to or advised by interviewees to contact someone in specific has been common in my research. The people I have interviewed have shown to be very knowledgeable in their field and have been able to point me towards others that have also provided good information for my thesis. After having sent them an email or having been introduced to them over email, a vast majority of these agreed to do an interview with me. Professors and other academics I knew prior to this research project also led me to some good interviewees. While most of the interviewees were reached using this snowball effect, some were also found otherwise. These were contacted because of their professional work position or previous experience with the subject, also per email. The interviewees consist of academics and researchers, people who contributed in the negotiation process of the Polar Code, and people who have experience with the Code in practice. A total of eleven interviews were collected in addition to two written replies to the answers I had sent per email, excluding the ones I got during the Arctic Circle Assembly.

An interview guide is helpful as it can set the framework for the interview and help the interviewer stay on track as the interview progresses. It can be as detailed or as general as the

interviewer would like it to be (Brinkmann et al., 2012, p. 28). Prior to each interview, an interview guide was put together. The topics that needed highlighting were largely the same across several interviews, hence many of the same questions were asked in several interviews. Although, each interview guide was made with the specific interviewee and their area of expertise in mind. Each interviewee had knowledge on one specific field and were therefore primarily asked questions related to this. In the interview guide, the questions were usually grouped together into topics. Examples of which are questions regarding the interviewee's own work and relevant experience, questions regarding the negotiation process towards the completed Polar Code, questions in relation to opinions and experiences with the Polar Code, possible needed improvements with the Code, and questions related to the activity of Arctic shipping and the future aspects of which. Most of the questions were rather open and meant more for putting the focus of the conversation to where I saw necessary. The questions in the interview guides were therefore guidance and not fixed.

Some of the interviews were done with people I had the chance to meet in person, while some were done using Skype or over a phone call. Like mentioned earlier, these were very much in the form of rather semi structured interviews. This also connects closely to what Holstein and Gubrium mentioned about interviews being active interactions as opposed to a neutral technique. It is important for a researcher to keep in mind the role they will play in such an interaction and the way it can affect the quality of the interview as well as the feelings and impression the interviewee is left with afterwards. Prior to the interview, each interviewee was informed of their right to be anonymous and their right to remove themselves from the project at any given point until the thesis is to be submitted. When given permission from the interviewee, the interview was recorded on an Olympus Digital Voice recorder WS-853 borrowed from the university. Each interviewee was also informed about the form of consent that I had made for these interviews. It contained information about the project, contact information for myself and my supervisor as well as Norsk senter for forskningsdata (NSD), what participation in the research project through an interview would entail, in addition to the rights of the interviewee. On the final page of this form they could sign their name consenting to their identity being used in the thesis or wanting to remain anonymous, as well as consent to information on them, meaning the statements from the interview and the form of consent, being stored until May 2020 after the thesis had been submitted. The interviews were conducted according to the interview guide which was explained in the previous paragraph. Like mentioned earlier in this chapter, the duration on an interview can vary. The interviews I did very much confirmed this as they did not consist of one common length but lasted

between 20 minutes to more than an hour.

The interview recordings and the written answers to my questions have been stored on a password-protected computer. Their initials rather than their names have been used when storing these. Each interviewee was also assigned a number. This also goes for the cases where the interviewee consented to having their name used. This was done as a precautionary measure. The forms of consent were stored in a different folder on the same computer, also using their initials rather than their names. They signed their names on these forms and either consenting to their identity being revealed or wanting to remain anonymous. For this reason, it has been important to keep both recordings and forms of consent secured where only I myself can access them. Information about the interviewees and the interviews were kept on one password-protected computer.

After having done the interviews the researcher needs to transcribe this into a written document that can be used further in the research project (Brinkmann et al., 2012, p. 33). After having collected the interviews, the audio recordings were transcribed. These were kept in yet a different folder on the same password-protected computer using the same initials as used for the recordings and the forms of consent. These were printed out and kept as hard copies in addition to digital documents. After having used the information from an interviewee in the thesis, the interviewee has had the chance to consent to the information being used that way or ask for changes to be made.

4.3.2 Document analysis

Document analysis is a very common research method within social sciences, as doing research very often would require the use of some sort of documents to some extent. This is thus a very versatile method that can be used for many purposes, and is often seen in combination with data collection through interviews (Brinkmann et al., 2012, p. 153). Central challenges that we need to address when applying this method are such as which criteria we put down when collecting the documents needed, how to access relevant data material, as well as how to analyze and present the data (Brinkmann et al., 2012, p. 154). All of which will be looked into in the following.

The documents collected for this research project have consisted of primary documents, meaning first-hand information about an event. Examples of which in this thesis are reports and resolutions from sessions at IMO. Secondary sources are sources that have in some way treated primary sources, examples of which are research articles that consist of a literature review of other sources (Hox & Boeije, 2005, p. 593). Documents from the archive

called IMODOCS at the website of IMO such as reports from sessions, the Polar Code with its closely linked SOLAS- and MARPOL-conventions, as well as the guidelines for ships operating in polar waters are of much relevance and have thus been collected. Documents from actors such as Sjøfartsdirektoratet who participated in the negotiation process towards the Polar Code in addition to having experience with the Code in practice also have much value for this thesis. All of which are primary documents. Research papers published on the subject, which are secondary sources, have also been collected and have a substantial role here. Some of these were collected from databases such as Oria and Google Scholar, and some have been sent to me as recommended data from several of the interviewees. All the documents used have been in English or Norwegian.

4.3.3 Reflections around the methods

There are both strengths and weaknesses connected with qualitative research. A clear positive side of it is the in-depth knowledge one can get as opposed to solely have the widespread and general information quantitative research provides. The qualitative and the quantitative complement each other well in that sense. Qualitative research methods allow the researcher to gain information on a deeper and more explanatory level than quantitative research can. However, the coin side with this quality is that the data one collects will be rather subjective and not easily generalized. Qualitative methods also use data material that are in some way produced by humans rather than statistical numbers. The wording humans have used to describe a phenomenon can be more nuanced and give very realistic depictions. This is to a large degree lost when only doing research according to statistics. People are on the other hand more vulnerable to flaws than mathematics are. They can have a wrong impression of something that they present as the truth, and different people can interpret the same phenomenon in different ways. This can be a weakness, but it also helps highlight the differing opinions and perspectives there are of the same issue.

There are ethical issues attached when using interviews as a research method. Considering this is a method where other people are very much participating, there are certain strict regulations and considerations that need to be respected and followed by the researcher. One of which is voluntary informed consent. People who are in some way participating in a research project has the right to give their voluntary consent to it, as well as have all the information about the study that is required to make an informed decision. All the information needed was given to each of the interviewees prior to their participation in my research project. This to make sure they all knew what their participation would entail, and not feel

like they were being led astray in any way. Confidentiality is another important aspect. The researcher is obligated to keep information about the subjects of the study confidential. Information about someone participating in a research project cannot be communicated in a way that will damage the person, neither in a way that the person has not consented to (Allmark et al., 2009, p. 49). This has been taken very seriously in my research project, which the form of consent given to interviewees is an example of. The rights and well-being of the interviewees has been very important to me as a researcher, and I have constantly made myself aware of how I interact with each interviewee and how this is affecting them. I have kept clear of topics or questions that would have had an obvious negative effect on the interviewee.

5 Polar Code negotiations

The negotiation process leading up to the finalized Polar Code we have today began shortly after the Guidelines for Ships Operating in Polar Waters were adopted in 2009. This as a result of the shortcomings the Guidelines alone had, not being mandatory amongst other aspects (Interviewee 6, 20/02/20). The subject of working towards mandatory regulations were first addressed at the 86th session of the IMO sub-committee MSC in 2009 (IMO, 2009a, p. 69). Afterwards this was worked on by other committees and sub-committees until the adoption in 2014 by MSC (IMO, 2014b, p. 1) and in 2015 by MEPC (IMO, 2015c, p. 3).

5.1 IMO-sessions

The creation of the Polar Code was primarily done by the Marine Environment Protection Committee (MEPC) and Maritime Safety Committee (MSC). The sub-committees Ship Design and Equipment (DE) followed by Ship Design and Construction (SDC) of MSC had the primary responsibility for the work. Using official reports from these IMO bodies as well as material gathered through interviews and research articles, this chapter will start off by explaining the negotiation process from the beginning in 2009 to its end in 2014. This will be followed by a section on which role the delegates from each of the cases played.

5.1.1 MSC 86

Denmark, Norway and United States made the proposal that the sub-committee DE, as well as other suited sub-committees, should develop mandatory requirements for ships operating in polar waters (IMO, 2009c, p. 2). This proposal was made at the 86th session of MSC in 2009. There was full agreement among the members that there was a need for such requirements. However, there were discussions revolving around the extent of these regulations (Interviewee 6, 20/02/20). It was then decided at this session of MSC that the subject would be included in the work program for DE 53. This was a high-priority item and the aim was to complete this in 2012 (IMO, 2009a, p. 11). Norway volunteered to take the lead on this work (Interviewee 1, 13/12/19). Delegates at this session expressed that the regulations applying to the Arctic does not necessarily have to apply to the Antarctic, and vice versa. It was also mentioned that whether such regulations should be mandatory or not is a decision that should be made at a later stage (IMO, 2009c, p. 111).

5.1.2 DE 55

For its 55th session the subject of the Polar Code was on the agenda for DE, which is to be seen in the official report from the session submitted on the 15th April in 2011 (IMO, 2011c, p. 1). The discussions regarding the scope and content of the Code continued after having been a topic at the 54th session of DE as well. Prior to the 55th session the Member States had been invited to submit documents on the further development of the Polar Code (IMO, 2011c, p. 22). After having looked at the available documents regarding the framework and structure of the drafted Polar Code it was decided that the Code should initially apply to SOLAS passenger and cargo ships due to the mediate need for mandatory regulations here, and non-SOLAS vessels would be discussed at a later stage (IMO, 2011c, p. 23). It was also agreed that the Code should have a goal-based structure but include prescriptive requirements where needed (IMO, 2011c, p. 24). The current IMO ideology is that their work should be goal-based as opposed to prescriptive. They state that it is not up to the IMO to write regulations or standards, but rather to set goals. This will give the flexibility for others in deciding how to reach these goals (Interviewee 1, 13/12/19). The Code cannot conflict with the Antarctic Treaty or UNCLOS (IMO, 2011c, p. 24). Regarding discussions on the environmental chapter, the sub-committee decided that the draft Polar Code would include this. Relevant documents were to be sent to other sub-committees and committees for further consideration (IMO, 2011c, p. 26). Also decided on at the 55th session was to create a Working Group on Development of a Mandatory Polar Code (IMO, 2011c, p. 27), as well as a Correspondence Group on Development of a Mandatory Polar Code that was to be coordinated by Norway (IMO, 2011c, p. 28).

5.1.3 DE 56

After having been discussed at the 55th session of DE, it was also brought on the agenda for its 56th session. The report from that session was dated to the 28th of February in 2012 (IMO, 2012c, p. 1). The outcome of NAV 57 and MEPC 62, which had looked into documents furthered to these sub-committees by DE 55, was presented at DE 56. Issues they had addressed related to such as polar vessel traffic monitoring and voyage planning in addition to environmental aspects (IMO, 2012c, p. 21). When it came to the application of the Polar Code, the sub-committee agreed to urge the MSC and the MEPC to make it mandatory. Also in the discussion on the application of the Polar Code, the Chinese delegates suggested that government and service ships are excluded. The sub-committee then reaffirmed its previous decision that non-SOLAS ships are to be considered at a later stage (IMO, 2012c, p. 23). In

addressing the jurisdiction of the coastal States, it was decided that the sub-committee would only handle technical matters at this point in time, while legal matters were to be addressed later (IMO, 2012c, p. 25). The subject of the environmental issues was also on the agenda. Many delegates supported the inclusion of both safety and environmental aspects in the Polar Code, yet several voiced that there are polar areas not regulated by MARPOL and these need to be addressed (IMO, 2012c, p. 26). These are a few of the issues discussed at the 56th session of the IMO sub-committee Ship Design and Equipment. This session is one in a succession of meetings where the negotiations towards the Polar Code took place.

5.1.4 MEPC 62

As was requested by DE 55, the Legal Office of the Organization provided options for how to make the Polar Code mandatory (IMO, 2011d, p. 1). To which request, three possible options were presented. The first was to make the Polar Code mandatory only under SOLAS, the second option was to make the Polar Code mandatory under both SOLAS and MARPOL, and the third option was to make it mandatory by developing a new stand-alone convention (IMO, 2011d, p. 2).

5.1.5 MEPC 63

This session of the MEPC addressed the options for how to make the Polar Code mandatory provided by the Legal Office of the Organization and presented in the previous session of the committee. It was decided during this session that amending already existing instruments, such as SOLAS and MARPOL, would be the best option, as long as the Code does not become fragmented. It was also agreed that the Polar Code would only include new issues and requirements that other instruments do not contain (IMO, 2012a, p. 62).

5.1.6 MSC 91

The subject of making the Polar Code mandatory was on the agenda for the 91st session of the MSC. This because of the urgency from DE 56 to work on making it so. The MEPC 63 is referred to for already having discussed this issue (IMO, 2012b, p. 34). The discussions and decisions regarding this are presented in the report for this session published on the 17th of December in 2012 (IMO, 2012b, p. 1). After a proposal from Argentina, it was agreed that the way forward in making the Polar Code mandatory should be to structure it according to already existing provisions and measures regarding safety and environmental protection. This way the structures would be integrated as opposed to fragmented. It was also expressed in the

report that it would further be up to DE to lead the discussion towards this goal (IMO, 2012b, p. 35).

5.1.7 DE 57

On its 57th session the DE sub-committee further worked on the mandatory Polar Code. It was then decided that ships operating in polar waters should have a Polar Ship Certificate and a Polar Water Operation Manual. The definition of Category C ships was also finalized (IMO, 2013c, p. 29). Some participating in the negotiations wanted strict regulations, while others wanted looser regulations. Environmental NGO's wanted maximum level protection, while China for example was opposed to this due to the huge significance shipping has for their economy (Liu, 2014, p. 553).

It was challenging to find regulations to agree on due to this, but it was then decided to categorize vessels according to limitations of operation and then differentiate between the regulations set for each of these categories. The limitations, or the category, would then be in the certificate of that vessel (Interviewee 6, 20/02/20). The draft chapter 15 on environmental protection was completed and MEPC 65 was asked to consider this with the aim of adopting it (IMO, 2013c, p. 29).

5.1.8 SDC 1

The MSC decided in 2013 that there would be a restructuring with the sub-committees (IMO, 2013b, p. 70). As a result of this, DE was no longer a sub-committee and the work was divided between Ship Design and Construction (SDC) and Ship System and Equipment (SSE) (IMO, 2013b, p. 67). In the IMO sub-committee SDC, the issue of developing a mandatory Polar Code was on the agenda for their 1st session. They then agreed to the draft International Convention for Ships Operating in Polar Water (Polar Code), and asked MEPC 66 and MSC 93 to consider this with the aspects of adopting it along with the related amendments to SOLAS and MARPOL (IMO, 2014c, p. 19). The Part I-A (IMO, 2014c, p. 16) and Part II-A (IMO, 2014c, p. 18) of the draft Polar Code was presented at this session after having been worked on by the working group.

5.1.9 MSC 94

The 94th session of the MSC through the MSC resolution MSC.385(94) adopted the safety part of the Polar Code in 2014 (IMO, 2014b, p. 1). The MSC resolution MSC.386(94) adopted amendments of the International Convention for the Safety of Life at Sea, 1974. This was in the form of "*Chapter XIV Safety Measures for Ships Operating in Polar Waters*"

(IMO, 2014a, p. 2). This chapter of SOLAS makes the regulations in the Polar Code mandatory.

Some of the regulations in the Polar Code applied to already existing vessels. Giving mandatory regulations that could require changes on the design of a vessel can be challenging. Some already existing vessels could possibly not be able to operate any longer. For that reason, requirements to such as ice strengthening only applied to new ships. The idea in making regulations for shipping is not to stop the activity. There are differing interests to consider, so negotiating such regulations will always require a balance (Interviewee 6, 20/02/20).

5.1.10 MEPC 68

The 68th session at the MEPC adopted the environmental part of the Polar Code in resolution MEPC.264(68) (IMO, 2015c, p. 3), and in resolution MEPC.265(68) on the 15th of May in 2015 adopted amendments to the International Convention for Prevention of Pollution from Ships which made the Polar Code mandatory (IMO, 2015a, p. 1). In negotiating the regulations for the Polar Code, there were some disagreements on the environmental regulations set for the Arctic. The Antarctic did already have status as a “*special area*” under MARPOL and was therefore regulated by strict regulations as a result of this. Several participants in these negotiations wanted as strict regulations in the Arctic as there was in the Antarctic. This because the Arctic environment is fragile in the same way as it is there. The Arctic is still not a “*special area*” under MARPOL, but the regulations applying to this region did in the end turn out very good (Interviewee 6, 20/02/20).

5.1.11 The negotiation process analyzed

As has been demonstrated here, the Polar Code underwent substantial negotiations and discussions in several parts of the IMO before its final adoption in 2015. By looking at this through the lens of rational choice institutionalism we can unwrap this period and better understand the nature of this process. Before applying this perspective of analysis, one needs to keep in mind the purpose of it, as well as the scope and limitations. The area of study for rational choice institutionalism is rational decision-making in collective action, which is considered a form of institution. Theorists of this perspective often uses it to explain why institutions occur and why actors take part in it. It contains elements of both rational choice theory and game theory that can help explain how an actor is assumed to act rationally and how a situation where multiple actors having to make decisions can possibly play out.

It has already been mentioned that several suggestions were made during the negotiations that were not included in the final Polar Code. All of the three cases under focus in this thesis had to give up something in order to reach regulations all the members could accept. Why they willingly gave that up is something that should be further discussed. Why there was such a strong initiative and apparently full agreement to get in place mandatory regulations is also a topic for analysis. Maybe deeper motives or negotiation strategies can be detected. Aspects like these will be addressed in this sub-chapter.

5.1.11.1 Why was the Polar Code created?

Rational choice institutionalism can be used to take a shot at explaining why the Polar Code was created to begin with. To do that we first need to go back to the fourth aspect of the theory that was presented by Hall and Taylor (1996). An institution has one or several functions and values that actors want or need. This is often a unique composition of functions and values that one cannot get elsewhere. The Polar Code does that. It contains a set of regulations for safe shipping in polar waters that takes into account both safety onboard a vessel as well as environmental safety. There is no other institution in the world that offers similar safety regulations. The need for it combined with the lack of it ultimately worked as a motivation to create the Polar Code.

Following a parallel track of the explanation, we start off with the assumption that actors have a fixed set of preferences and interests and they will want to act strategically and egoistically to satisfy these. The actors, or members, who participated in the development of the Polar Code also had interests that one can assume acted as a generator for their behavior. Norway, Russia and China were three of the participants in this development. On the international arena, states will act according to their own state-interests which often relate to security of some sort. This can be in the form of economic security, military security, environmental security or something of the like to ensure national security. The Polar Code is based on the need for strengthening of security, and the different kinds of security just mentioned can in some way relate to the Code and to polar shipping. What one needs to keep in mind though, and something that tends to be overlooked in rational choice institutionalism, is that states are not the only actors on the international arena. Other actors such as NGO's are especially common in the UN. The IMO is a UN-organ and we see this trend here. Actors that participated in the negotiations for the Polar Code were not just government representatives. Actors such as environmental groups and actors from the market were among these. The delegation that represented each state consisted of more than just government representatives

(Norwegian Maritime Authority, 2015, p. 1). Several organizations were also present as observers, many of these at MEPC-sessions were environmental organizations (IMO, 2011b, p. 45). All actors, governmental or not, played significant roles in the negotiations. So, to conclude this paragraph, actors on the international arena do not only consist of states but also possibly several other influential actors. These all have preferences and self-interests that are often related to aspects of security, and they will always try to pursue these. The next step for each actor would then be finding out how best to meet these self-interests.

When analyzing how actors make a decision, rational choice institutionalists do this in light of a central aspect of the theory, which is rationality. As it derives from rational choice theory it is built on the assumption that actors are rational when making a decision. Before an actor makes a decision, be it as an individual or be it in a unified group such as the delegations participating in the Polar Code negotiations, a sequence of filtering out alternatives occur, and this ultimately leads up to a final decision. After finding relevant alternatives and then which of these are feasible to choose based on possible restrictions, one at last weights all the feasible alternatives against each other and chooses the most feasible alternative. If the outcome of this alternative is the same as the most desired outcome one has, then one has acted rationally. One has acted with a purpose. The purpose will always be to maximize utility of one's own interests. This is the line of thought one follows before deciding how to reach maximum utility. We assume that actors participating in the Polar Code negotiations were also rational and acting in a rational manner to meet their own interests as best can. This would rather naturally lead up to the assumption that every decision either of the actors made was the most feasible option at the time and could give them maximum utility. Keeping in mind that every actor might not have the same desired outcome, every decision might not seem as the most rational alternative to choose for everyone but the decision-maker themselves.

There are a few other factors that will play in when making a decision. The first of these is information. Put more correctly, limited information. One can never have absolute information when making a decision. Since basing a decision on limited information is basically unavoidable a decision-maker should take this into account and take measures to gain as much information as possible before choosing an alternative. Which information an actor has when making a decision is important for analyzing the rationality behind it. An actor can only make a rational decision based on the information one has available. One way of doing this is by joining an institution. Rational choice institutionalists see several benefits with participating in an institution, and one of these are increased access to useful

information. In dealing with topics like security onboard vessels sailing through polar waters and protection of marine environment against human interference, cooperation across state borders and with different kinds of experts on the fields seems very rational and useful. These areas are not done enough research on and the potential safety hazards connected to polar shipping are not sufficiently mapped out. Considering this is rather dangerous activity and making mistakes can potentially have great consequences, actors did recognize back in the early 1990's that common regulations set by collective action is needed. At this point it is time to turn back to the composition of functions and values each institution has. We can see a function and a value with the Polar Code one cannot find in any other institution of any form, nor can each individual actor accomplish this alone. One of the most central aspects of an institution is the capability to share information. The information sharing seen in the Polar Code comes across as highly necessary and appreciated when looking into the negotiations as well as the experiences which will be discussed later on in this thesis.

Moving on to cooperation through collective action according to rational choice institutionalists. This is in most cases a possible option in dealing with a problem and it also tends to prove itself rather feasible when the decision-maker goes through the process of filtering out alternatives. When trying to explain why actors often tend to join an institution rather than going alone, the focus shifts towards benefits of cooperation. Information sharing is one benefit. Another is the stable structure the institution provides its members. The collective activity takes place within this structure and is in that way centralized. In the case of the Polar Code, these structures are provided both by the committees and sub-committees in the IMO that developed the Code as well as by the Code itself. Both levels contain guidance for how collective action should be taken.

As assumption number three of Hall and Taylor (1996) explains, institutions have a strategic benefit for political outcomes. Through the stable structure and sharing of information an institution can affect the alternatives decision-makers have and lead the members towards a better collective outcome than what would have been the case without the assistance of the institution. The polar areas being as sensitive and as hazardous as they are, it is highly important to make the best possible decisions and reach the best outcomes possible. Agreeing on a useful Polar Code and using this as a common standard to follow is an example of that. The second assumption of Hall and Taylor (1996) is that of politics being a series of collective action dilemma. This means that an individual actor might make a decision that will not be the best one could choose for the sake of the collective. Institutions set the structures needed to make sure this does not happen and actions that are being taken will thus lead to the

best possible outcome for the society as a whole. Before the Polar Code was adopted and came into force, several Arctic coastal states had their own sets of regulations for shipping through their Arctic waters. This is still the case today, and seemingly for Russia more than any other state, but improving the Polar Code will possibly work towards less national regulations and more uniform regulations under the Polar Code accepted by all.

The aspects mentioned here are benefits with cooperation that actors such as states will usually be aware of and consider when deciding whether or not to join an institution. If we circle back to the question of why actors join an institution, the answer does seem clearer after having assessed it through the eyes of a rational choice institutionalist. Explained in few words, actors join an institution because the benefits of it are higher or the costs of it are lower than they would have been had they gone with the alternative of not joining the institution and rather gone forward with the task alone. Costs and benefits are weighted against each other and often, especially in international relations, actors reach the conclusion that cooperation and collective action is more beneficial than going alone. Assuming that actors have self-interests, assuming that actors are rational and act purposefully according to their self-interests, and assuming that actors have sufficient information about the benefits of joining an institution or the costs of not joining an institution, one could claim that actors will naturally want to be a part of an institution rather than going alone.

There are a couple of factors that need to be mentioned in this context. That is the idea of having a bigger plan, and the criticism towards the theory for assuming perfect rationality. An actor might sometimes make a decision that will not give them the most desired outcome they could reach in said situation. In an institution, actors often have to give up something they want for the sake of the collective good. For that reason, there has been claimed that institutions are not viable, and it is better to go alone and not having to worry about the preferences and interests of anyone else. In rational choice theory there is an assumption that when a decision-maker has a bigger plan and a higher agenda to reach than simply what each individual decision one makes alone can provide, one will make decisions that will not lead to the best possible outcome available at the time because this will eventually lead to a higher goal. Actors cooperated in the Polar Code negotiations for their own safety among other things. They would probably have agreed to proposals that they did not fully support, because they had a higher purpose and a bigger plan with it.

When it comes to the criticism of rationality, this goes for both rational choice theory and rational choice institutionalism. Actors have been known to not always act rationally, whether it is to reach a higher purpose or not. There cannot always be detected a rational

process of thought that leads up to a decision. Emotions or a lack of thorough consideration of alternatives and outcomes could be laying at the bottom of a decision being made. If one cannot count on actors to be rational when making decisions, one cannot study decisions to find motives or make predictions. There is no necessary link between preferences, rationality, and decisions.

5.2 The role of the cases in the negotiation process

Several different member states of the IMO were involved in the negotiations for the Polar Code, however active or passive. Three of which are Norway, Russia and China. Considering these are the cases focused on in this thesis, it is useful to look into their role in the negotiations. This sub-chapter will do that primarily by pointing to the number of proposals submitted and what some of them contain, as well as which approach to the negotiations the delegations of each state seemed to have adopted. The role they played in the negotiations could offer a new understanding of the opinions of the Polar Code throughout the previous three years.

5.2.1 Norway

Norway has shown support for the Polar Code after the adoption of it, which can be seen in a Norwegian white paper on cooperation for safety at sea (Nærings- og fiskeridepartementet, 2019, p. 32). The Norwegian delegates did also play a very central role in the negotiation process of the Polar Code. As mentioned above in sub-chapter “5.1.1 MSC 86”, Norway along with Denmark and USA initiated the process of making the polar guidelines into mandatory regulations for shipping in polar waters by submitting a proposal to MSC on its 86th session in 2009. After this proposal was approved and it was decided that the sub-committee DE would take the main responsibility for developing the Polar Code, Norway volunteered to take the lead on this. When it comes to the Norwegian delegates, they played a constructive role in the negotiations. They were focused on having regulations for polar shipping in place for the sake of the safety onboard vessels as well as protection of the environment (Interviewee 4, 13/02/20). The Norwegian delegates submitted a total of 28 proposals (Bognar, 2016, p. 113). There were disagreements during the negotiations regarding how strict the regulations for the technical requirements would be. Norway were among the members who leaned towards setting strict regulations to ensure safety as best could.

Norway sent a full proposal for the environmental part of the Polar Code. This was in large part approved, and the regulations for protection of the environment that the Code has

are very much the regulations Norway proposed (Interviewee 6, 20/02/20). Norway has been a strong proponent of a ban on use and carriage of heavy fuel oil in the Arctic all along, but this is a subject that everyone else does not agree on (Interviewee 1, 13/12/19). Regarding the environmental part of the Polar Code, Norway did argue for the regulations to be as strict in the Arctic as they are in the Antarctic. The Antarctic has a status of being a “*special area*” under MARPOL because of its sensitive environment. Norwegian delegates did point out that the Arctic is a sensitive area much like the Antarctic, and that is why there should be similar regulations.

5.2.2 Russia

In her paper on Russia’s proposals in the Polar Code negotiations Bognar (2016) has identified a few issue areas represented in Russian proposals. During the negotiation process towards the Polar Code the Russian delegation submitted a total of 15 proposals. This is fewer than most of the other Arctic coastal states. They also had three statements and four interventions which is more than any other Arctic state had. This indicates that Russia had strong opinions regarding the subject being discussed, and also that their opinion was different from that of the other states who took part in the discussions. Co-sponsoring of proposals are common in such negotiations. It is a way for several participants to show their support for the proposal before it is up for decision. Russia was not a part of co-sponsoring any proposals. This to some extent points towards isolation in their participation during the negotiations (Bognar, 2016, p. 113). Also prominent regarding Russia’s role in the negotiations is that many of their proposals are responses to submissions made by others or to decisions that had already been made. As Bognar puts it, their proposals are therefore more reactive than they are proactive (Bognar, 2016, p. 114). Several of their proposals seem to act against the aim of this Polar Code, which is to create globally uniform minimum standards (Bognar, 2016, p. 129).

Their submitted proposals regarding the environmental part of the Polar Code related to such as oil pollution and the possibility of a ban on the use of heavy fuel oil, and the possible need for port reception facilities (Bognar, 2018, p. 35). Environmental NGO’s submitted proposals to DE 56 wanting to ban the use of heavy fuel oil in the Arctic, as well as regulate discharges of grey water, reduce the impact of black carbon and regulate emissions by creating special areas. Russia was then against the creation of special areas and areas for control of emissions. They argued that for this to be legal, parties to MARPOL have to agree to it (Bognar, 2018, p. 38). During the negotiations there were also discussions on a complete

prohibition of discharge of oil and oily mixtures. After the decision had been reached by MEPC, Russia attempted to make exceptions to this regulation (Bognar, 2018, p. 39). Considering it was decided to have a prohibition on the discharge of oil and oily mixtures, port reception facilities for ships to offload such waste had to be discussed. Russia did not agree to this, and the reason is connected to the previously mentioned case regarding the creation of special areas. If there are not enough port reception facilities to uphold the ban of discharges, the ban cannot stand. Being opposed to the requirement of port reception facilities was thus used to overturn the decision on the special areas (Bognar, 2018, p. 42).

5.2.3 China

China issued an Arctic white paper in 2018, in which they state that they hope everyone will join them in creating a “*Polar Silk Road*” in Arctic shipping, and that they abide by the Polar Code. They also mention that China is a “*Near-Arctic State*”, and that the Arctic conditions have a direct impact on China’s climate and economy (The State Council The Peoples Republic of China, 2018). As for the Polar Code negotiations, China was a participant but not a very active one. Their aim at the time of the negotiations might not have been to have a prominent role, but rather to be present during the process (Interviewee 1, 13/12/19). They have made a few statements and proposals, a couple of which will be presented here.

In the report from DE 56 called DE 56/25 it is documented that the Chinese delegates made a suggestion regarding the coverage of the Polar Code, saying government and public service ships should not be bound by it. To this the Sub-Committee reaffirmed its previous decision that non-SOLAS vessels were to be considered at a later stage. This meant that all vessels that have to abide by SOLAS would also need to abide by the Polar Code (IMO, 2012c, p. 23).

Under the 57th session of DE the Chinese delegates made a statement regarding the Special Areas for waste in the Arctic. They expressed that the Antarctic area has status as a Special Area under MARPOL, but the Arctic does not. Keeping in mind the differences between the Arctic and the Antarctic was important and should be taken into account while developing the Polar Code (IMO, 2013c, p. 29).

5.2.4 Analysis of the role of the cases in the negotiation process

The role each case played in the negotiation process has been highlighted and should now be subject of analysis. Rational choice institutionalism can be applied here as well. In addition to explain why institutions occur and why actors take part in them, this theory can also provide

explanations as to how members of an institution are thought to act and why they act the way they do. The focus for this sub-chapter will be to try and detect possible motives and strategies that may lay behind the actions and the behaviors of the cases through the Polar Code negotiations. To do this, aspects like zero-sum game or non-zero-sum game as well as Prisoner's dilemma will be used.

Maintaining the assumptions that actors are rational, they have self-interests and they act in a rational manner according to these self-interests, applies here. The state delegates participating in the Polar Code negotiations were likely all there on a mission to bring the interests of their own state into the negotiation room and into the development of the Code. The purpose of the negotiations was to develop good shipping regulations for polar waters, but each state probably also wanted to maintain their self-interests. Sometimes self-interests do not mesh well with the collective interests. It has already been addressed in this thesis that participants in the negotiations for the Polar Code did not always get their proposals approved. Where collective interests, either with regards to safety onboard or environmental protection, collided with the interests of few participants, the latter would often have to make way for the former. All of the three cases in this thesis made proposals that did not fall through. They all had to give up some of their preferences for the collective interests. This is what an actor would do when having a bigger plan to achieve. One of the costs of being a part of an institution is that one will need to give up some of one's own interests. This cost is lower than the cost of being on the outside of the institution or lower than the benefits one gains by being a member of the institution. That is why an actor will accept that one cannot satisfy one's every preference, but a lot of them will be. It is important to remember that when speaking of being on the inside or on the outside of the institution in the case of the Polar Code, this does not refer to the Polar Code itself. The institution one can choose to be a part of or not is the IMO. As soon as a state is a member of the IMO, they are bound by the regulations set by the organization. This means that the Polar Code does not only apply to the participants of the negotiations, but to every IMO-member. Part III, Article 5 of the IMO Convention states that all the members of the UN can become members of the IMO by becoming parties to the IMO Convention (IMO, 1948, p. 5). Both the MSC (IMO, 1948, p. 9) and the MEPC (IMO, 1948, p. 1) consist of all member. This also goes for the Assembly. When a resolution is adopted this is done by the whole committee or the whole Assembly.

State interests, plural, can include many kinds of interests and interests of many different actors within the state. They are often mentioned together as if they come in one big package. That is not quite the case in real life. When talking of the state interests of the three

cases during the Polar Code negotiations, one ought to ask the question: “*which interests, and who hold these interests?*”. A state is usually treated as a unified actor on the international arena. There are, however, several different actors on the domestic level, and these might not always have unified interests on the international arena either. How the discussions regarding the Polar Code have taken form on the domestic level and who have taken part in this cannot be disclosed based on the information available in this thesis, so one should be careful when attempting to interpret domestic procedures and events in this context. It is worth raising awareness of the interests in possible opposition with the interests that on behalf of the state do make it to the table for Polar Code negotiations. Economic interests and market-based interests are often the primary subject of attention when discussing shipping, whether in the case of polar shipping or otherwise. These are undoubtedly of much importance for the greater good in a state, but that does not mean said state does not hold other and possibly opposing interests related to shipping. That means the state needs to prioritize, and the interests of everyone will not necessarily be met. We have already seen that the Polar Code puts a heavy emphasis on environmental security in the polar region. Especially the applicability of which to the Arctic region has not gone by undebated during the negotiations. It could seem like such as the Russian delegation were leaning more towards the market-based interests than the environmental interests. Russia was among those who tried to lessen the extent of environmental restrictions the most. That being said, they have not come across as being opposed to protecting the environment, on the contrary, but the economic gain that Arctic shipping can give them seem to be of much importance for the economic security of Russia. Economic security could very well be a motivation for participants to base their decisions on. The topic of economic security for Russia will be circled back to when discussing Russian opinions and experiences with the Polar Code. Economic interests and environmental interests are examples of interests that are in stark contrast to each other. There could very well be environmental interests on the domestic level of several participants in the Polar Code negotiations that had to make way for such as market-based interests. It is necessary to keep this possibility in mind even though a proper conclusion regarding it cannot be drawn in this thesis.

As previously mentioned, critique that has been directed towards rational choice institutionalism includes the view on actors on the international arena. The theory holds a focus on states as actors, but there are in fact non-state actors participating in several international hemispheres. Interest groups of various kinds participated as observers in the Polar Code negotiations. This because the topic of regulating polar shipping is one of high

priority for several actors.

Moving on to the actions of state delegations as rational decision-makers. To better understand these, one needs to address the decision-making process one will go through before selecting the most feasible alternative. Available information and available alternatives will strongly affect one's final decision. Limited information and limited alternatives will have the ability to lead the decision-maker towards choosing a less desired alternative. One example of limited alternatives is less leeway from one's own state to negotiate. This thesis does not contain information on it, but the topic of developing the Polar Code has probably been treated at the domestic level of each participating delegation. This brings back the metaphor of government representatives playing chess on two chess boards at the same time. The state delegates negotiating the Polar Code likely had both restrictions and room to negotiate from the domestic level of their state. The state interests they had to preserve and the restrictions they had to follow combined with the task they needed to perform along with others participating in the negotiations does paint a picture of playing two demanding games of chess at the same time. Chess being the strategic and challenging game it is when played on one chess board at a time is a good reference to challenges government representatives are facing when balancing the domestic with the international.

The desired outcome is not necessarily the same for everyone. This has been mentioned before and is worth mentioning in this context as well. Given the variation in actors and interest groups participating in the negotiations, one can quite easily imagine that they had differing desired outcomes for the Polar Code. The ban on heavy fuel oil was a much-debated topic. Environmentalists and Norway were among those who strongly supported this ban, and other strict measures for protection of the environment for that matter. Others were against this, actors from the shipping industry and Russia for example. When facing such different desired outcomes of the same situation, this will lead to different decisions and actions being made, assuming these are all rational actors. The differing desired outcomes can also point towards which higher goal each of them had. Actors from the industry will be focused on securing the best possible circumstances for a profitable shipping activity. The more restrictions there are on Arctic shipping, the more difficult it will be to run a profitable business in the field. Less restrictions and more freedom would be desired by the shipping industry, but the exact opposite would be ideal for environmentalists who do not want the marine environment to be impacted in any way.

The relationship between participants and the Polar Code is very much interactive. Participants try and shape the Code to their liking, and the Code contributes with regulations

that all polar shipping has to abide by. The participants are able to make alterations on the Code, and they will most likely do so over time. The Code will set boundaries for how actors are to deal with shipping in the region, and they will need to make adaptations to comply with the regulations. Members of the institutions and the institution itself with the limitations it sets and the opportunities it provides will affect and change each other in coexistence. This way the Polar Code will always provide what it needs to provide in terms of safe polar shipping.

Certain aspects of game theory will also make use when analyzing the role of the cases in the Polar Code negotiations. The division between zero-sum game and non-zero-sum game is applicable. Whether a game consists of players who have completely opposing interests and will only act selfishly according to these, or consists of players with some opposing and some overlapping interests and see cooperation as an option, will have an effect on how the game will play out and what the outcome will be. In the case of a zero-sum game the players are only focused on making their desired outcome happen and does not take the preferences of other players into account. Cooperation is not a topic in such a situation. International relations are by some considered an all-against-all-arena where each actor, being states, are only concerned about themselves and need to act according to their own interests to get what they want. This is known as the Hobbesian view and as Milner (1991, p. 69) quoted Hedley Bull, he compared it to a zero-sum game. The nature of a non-zero-sum game is not quite the same. Cooperation may not only be possible, but it could even be the most rational choice. In case two actors see that in order to make happen the most desired outcome each of them has, the most viable choice is to cooperate and use each other for that purpose. This can in some cases lead to a better outcome for one-self than going alone would do. The game is then suddenly not competitive in nature but rather a helping game. Parallels can be drawn to the Polar Code negotiations. As opposed to every Arctic state or every user of the Arctic shipping routes coming up with their own sets of regulations for safe shipping in polar waters, all the actors engaged in this activity saw it as best to join forces with this and come up with common regulations. On an overall basis, this would most likely lead to safer shipping in the Arctic than would a large number of separate sets of regulations which would probably be of differing character and quality. IMO as an institution has laid the foundation and set the structures for cooperation through a non-zero-sum game rather than letting actors make their own rules. This could potentially lead to unfair circumstances in Arctic shipping for some actors, but this competitiveness is very much disarmed in a non-zero-sum game like the IMO and the Polar Code make possible. Before moving on from the topic of zero-sum game versus non-zero-sum game I want to point out that before labeling a situation as either one of them,

one ought to consider all the different subjective perceptions of said situation. Who is it that actually decides of what nature the situation is? Will necessarily all the players of the game be under the same perception, that the game is either competitive or cooperative? Which kind of game it is will to an extent dictate how each player acts, but if the players perceive the situation differently this will add a whole new twist to it. Some might be willing to cooperate while others do not see cooperation as an option and will only be focused on acting selfishly to reach the outcome one wants. The information each player has and the perception they are under are factors that need to be considered when talking of a situation either being of a zero-sum game character or a non-zero-sum game character.

Also from game theory comes a well-known example of a game with two rational players, called Prisoner's dilemma. It illustrates the different alternatives each player has and the different outcomes each of the alternatives will lead to, as well as how each player would resonate before making a decision. The big decision each of the players need to make is whether or not to cooperate with the other player. A short recap of the game as is explained in sub-chapter 3.3.5 on game theory: if each player decides not to cooperate the outcome is mediocre, if one player decides not to cooperate then that player gets the best outcome possible while the other player gets the worst outcome possible, and if both players decide to cooperate then they both get a decent outcome that is more desired than the outcome each would get for not cooperating. Attaching rationality to it, a perfectly rational player would always choose not to cooperate because when cooperating one would need to rely on the other to do the same, or else one would end up with the worst outcome possible. This is too much of a risk, and a rational player would go alone and knowingly end up with a mediocre outcome. This also entail that two non-rational players, using the definition of rationality this theory is based on, would both choose to cooperate and thus end up with a better outcome than the mediocre one. If both actors are rational according to rational choice theory and only act with their own interests in mind, they both end up worse off. If they realize that the best option is to trust one another and cooperate, they help each other to help themselves. This is why institutions are a smart choice and actors participate in them. The issue is then the way this theory defines rationality, because in the end the irrational thing to do is to be selfish and act alone according to one's own interest. Now, this example can be applied to the case of the Polar Code negotiations. These negotiations contain many more actors than the two players made an example of in the Prisoner's dilemma. This makes things far more complicated. Whether other actors will cooperate or not becomes less certain and one needs to rely more on a wide variety of players. This will affect the choice one makes even more. The IMO lays the

foundation and sets the structures for dialogue and cooperation, but that does not necessarily mean that each participant in the negotiations will be motivated and plan to act cooperatively throughout the negotiations. Like already mentioned, each participant has their own preferences that they will base decisions on, and it is not given that everyone will have the same desired outcome. Each player in a game always has one option that is the best to choose when the other player chooses the best option they have to choose. This option is said to be in Nash equilibrium, and coupled with the best option the other player has it is called a pair in Nash equilibrium. This option is the only option that is rational to choose. This requires some information about what the other player will decide to do. Cooperate or not cooperate? In a situation like the Polar Code negotiations, the best outcome of the Code would happen if everyone participating were cooperating. Based on the data material presented in this thesis, the different actors did seem overall willing to do that. Disregarding opposing proposals on the environmental part and a few safety related aspects. Like previously mentioned, this is the result of having very different preferences and most desired outcomes while together trying to agree on common regulations. Looking at the negotiations overall, it does not appear to be of a very competitive nature and driven by selfish and solely opposing preferences. It seems to have had communicating and cooperating elements and resembling more a non-zero-sum game than a zero-sum game.

5.3 What is the Polar Code?

After having worked on developing mandatory regulations for shipping in polar waters with regards to both safety on board as well as environmental protection from 2009 until 2015, the International Code for Ships Operating in Polar Waters (Polar Code) was adopted. It came into force January 1st of 2017. It was aimed to supplement other IMO instruments in increasing the safety of ships' operation and lessen the impact it has on people and the environment. This can also be detected in the goal that was set for the Polar Code, which was to *“provide for safe ship operation and the protection of the polar environment”* (IMO, 2015b, p. 5). Through the adoption of chapter XIV of SOLAS in 2014 through resolution MSC.386(94), the safety part of the Polar Code was made mandatory through SOLAS and would thus apply to all SOLAS-vessels voyaging through polar waters (IMO, 2014a, p. 1). It was through the adoption of amendments to Annex I, II, IV and V of MARPOL in resolution MEPC.265(68) in 2015 that the environmental part of the Polar Code was made mandatory through MARPOL (IMO, 2015a, p. 1). The Code contains specifications about such as the ship structure, life-saving appliances and safety of navigation in the safety part (IMO, 2015b,

p. 3). The environmental part sets regulations for prevention of pollution by such as oil, sewage, garbage and harmful substances (IMO, 2015b, p. 4).

Having the Polar Code in place is no doubt a big step in the right direction. It covers a wide variety of issues related to polar shipping. It is, however, one piece in a bigger picture. It is one stop along the road towards safe polar shipping and is thus not the end of the line. This quest for safe polar shipping has had many phases dating back to 1992 when the topic of guidelines for polar shipping was brought to the table, and there will probably be several changes done to the Polar Code we have today. The Code is thus not perfect as is. On the contrary, it is still very much a work in progress, and the Code just happens to be where we are right now.

The negotiation process has shown to be rather cooperative in nature yet did contain strongly opposing preferences regarding some of the regulations. Actors participating in the negotiations seemed in agreement of the need for a more regulated shipping activity in polar regions. Some put more of an emphasis on such as proper ice strengthening on the vessel, proper equipment onboard and proper crew training, while others focused more on getting in place more strict regulations in regards of environmental protection. None of these are wrong to focus on, they are all of great importance for safe polar shipping. The challenge seems to be finding the balance. The balance between regulations strict enough to ensure safety and regulations, but not so strict one can hardly take part in polar shipping activity without breaking rules. This is a challenge that will need to be further dealt with in the second phase of developing the Polar Code.

6 Opinions and experiences on the Polar Code

Before presenting the data material that has been collected during this research project, I wish to remind of the research question that is to be answered, which is as follows:

“How did the negotiation process for the Polar Code go about? Which opinions and experiences regarding the Polar Code in Arctic shipping can be found among actors from Norway, Russia and China?”

Data material for the first part of the research question, on the negotiation process, has already been presented and analyzed in the previous chapter. This chapter will look at the gathered data for the second part. This is a case study, but the data will not be presented one case after another. It will be presented subjectwise where data from each of the cases will be presented and analyzed together to shed light on each subject from different aspects. This will easily show agreement and disagreement about issues across cases.

The purpose of this thesis is not to find the objective truth about the research question being posed, but rather to voice opinions and viewpoints. Different actors might see the same issue in different ways, this is all a matter of perspective. Actors usually do not share the exact same perspective on things. That is not equivalent with either of the perspectives being wrong, they are simply different. Highlighting all perspectives are important, and that is why a variety of different actors have been selected for this thesis.

6.1 General opinions on the Polar Code

The negotiation process of the Polar Code has already been explained, and it showed actors from each of the cases participating. None of which were during the negotiations opposed to the Polar Code being created. The interviews done for this research have also showed this to be the case, though not everyone agree on every aspect of the Code.

6.1.1 Norway

As previously explained, Norwegian delegates were among those who initiated the creation of the Polar Code by stating that the Polar Guidelines should be made mandatory and not simply be for recommendation and guidance. This point towards the Code being of much importance for Norwegian actors from the beginning. In addition to the central role Norwegian delegates played in the negotiations the chair of the correspondence group was Norwegian (Røsæg, 2018, p. 464). The Polar Code is also mentioned in Norway’s Arctic Strategy of 2017, in which it is stated that shipping is an important global activity and it needs to be regulated

through international cooperation to prevent accidents. Ship construction, proper equipment and necessary crew training are mentioned as central factors to do just that. IMO is doing important work related to this and the Polar Code will improve security onboard a vessel and protect the vulnerable environment in Arctic waters. Norway sees international implementation of the Polar Code as important going forward (Nærings- og fiskeridepartementet, 2019, p. 53). This political statement goes hand in hand with the way Norway has presented themselves and their standpoint throughout negotiations and in the time following the adoption of the Code. The Polar Code is welcomed, and it is considered a very good start to draw lessons from and to build on for improvements and further the safety of shipping in polar waters. Being an Arctic coastal state, this is a very important topic for Norway.

6.1.2 Russia

The initiation by Russia in the early 1990's stating that common guidelines for shipping in polar waters need to come into place also shows support for polar shipping being regulated more strongly than it already was. There has been uttered support for the Code in Russia in more recent times as well. In addition to academia, this comes from both political actors and from market-based actors.

In 2018 prime minister of the Ministry of Transport in Russia and Chief for the Federal Agency for Maritime and River Transport, Viktor Olersky, made a statement regarding the subject. During its first year of being in force he stated that the Code had showed itself to be a positive and useful tool for safe navigation and protection of the marine environment. He added that the way the Polar Code is today does not add unnecessary burdens on shipowner. The statement closed off with him saying that Moscow considers it necessary to strengthen the role as a port state with the ability to do port state control (PortNews). Actors from the Russian industry have also shown support for the Polar Code and it is seen as an important step towards development in Arctic shipping. That being said, they do also see issues with it. These relate to discharge of ballast water and use of heavy fuel oil (Mortrans.info). These website articles are written in Russian and translated into Norwegian for the purpose of this thesis by myself using Google Translate.

Despite there being some criticism directed towards aspects of the environmental part of the Polar Code, Russian actors seem to be overall supportive of Arctic shipping being regulated the way it is through the Code. There are many good aspects to it, but it is not working completely optimal the way it is today. The weak control by the state over ships

flying its flag predates the Polar Code. The goal-based approach in the Code gives even more leeway to each state administration, shipowner and classification society in finding safe ways of doing Arctic shipping (Interviewee 13, 17/02/20).

One issue related to the category C ships have also received attention. It is much easier for a category C ship to get the Polar Code Certificate than it is for a category A or a category B ship (Interviewee 13, 17/02/20). Regulation 1.3 in Part I-A of the Polar Code states that in order to get a category C ship certified a documented verification that the ship complies with relevant requirements of the Code is needed (IMO, 2015b, p. 11). This is also all that is required.

6.1.3 China

China has also been present during the negotiations for the Polar Code and because they are involved in polar shipping, they too have some experience and opinions on the matter. Their role in the negotiations were rather limited though, but this is not uncommon for China. Liu (2017, p. 66) writes that China tends to take on a more conservative role when it comes to development of international law rather than taking initiative. He also states that it will be difficult to meet all the requirements set by Russia before sailing through the Northern Sea Route, but China has committed themselves to be collaborative with all the rules for sailing along this route and to not challenge any of them. That being said, China does not seem to send substandard vessels through the Arctic. They do seem to be complying with the Code as well as with national regulations (Interviewee 1, 13/12/19).

When it comes to the environmental part, China has been against including this in the Polar Code. They are relying heavily on Arctic shipping for commercial reasons and adding to the regulations and restrictions with regards to the environment could probably take a toll on them. The interests of the Chinese delegation, along with others opposed to heavy restrictions for environmental protection, are in stark contrast with the interests of environmental non-governmental organizations (Liu, 2014, p. 553).

6.1.4 General remarks

The support for the Polar Code does not seem to have lessened over time. The topic of safety is timeless and the importance of which in Arctic shipping only seem to increase as the activity level increases. For that reason, there appears to be full agreement that regulations like the Polar Code are much needed.

As all other IMO regulation, the Polar Code is a result of negotiations between the

member states. Part B of the Code, both the safety part and the pollution prevention part, are recommending in nature and mainly the subject where consensus was not reached during the negotiations. The Polar Code we ended up with is not the most optimal outcome, but it is what could be agreed upon at the time, and the Norwegian Maritime Authority is mainly pleased with the result (Bodil Pedersen, Norwegian Maritime Authority, 13/02/20). Despite there being room for improvement in the Code there seem to be agreement that having it is a good start and that it is important to see it as just that, a start, and not the end result (Interviewee 9, 03/02/20).

6.2 Opinions on the goal-based standard

The goal-based standard is a fairly new way of forming regulations, and the Polar Code is the first IMO goal-based regulation. It differs from the traditional prescriptive standard in which rules are made that need to be obeyed, or else repercussions might follow. In the goal-based approach goals that will provide the regulations in question are being agreed on. How these will be met is essentially up to the each of the actors themselves. This does give a significant amount of freedom to each individual actor, while it gives a significant increase of responsibility for all parts involved in the certification process. As Interviewee 6 stated regarding this, a challenge during the negotiation process for the safety part of the Polar Code was to come up with requirements for functions that could somehow be measured (Interviewee 6, 20/02/20). Goal-based regulations are probably also easier for participants to reach an agreement on. This because it gives each actor a certain level of freedom to decide for themselves how to implement safety measures to comply with the regulations. Prescriptive regulations are very robust and not as dynamic as goal-based standard regulations can be. Prescriptive regulations can also be perceived as rather black-or-white and the same regulations will therefore not work as well for everyone.

The level of freedom provided by the Polar Code is meant to have a positive effect, which it surely has, but this freedom also bring with it some issues the prescriptive standard does not entail. Without specific requirements for how things are to be done, a lot is being left to the interpretation of each actor. That this will lead to varying interpretations and solutions is one thing, that is by design the aim of the goal-based standard. Another aspect of it is the role knowledge will play in this, which is a topic Bodil Pedersen addressed. In order to fully comply with the Polar Code, one needs to have knowledge about the subjects it addresses (Bodil Pedersen, Norwegian Maritime Authority, 13/02/20). The Code contains formulations like “*sufficient*” (IMO, 2015b, p. 15) and “*adequate*” (IMO, 2015b, p. 20). Those who have

long experiences with building ship vessels to voyage through polar waters or with sailing these waters probably know very well what is “*sufficient*” and “*adequate*”. This does not necessarily apply for everyone using these shipping routes (Bodil Pedersen, Norwegian Maritime Authority, 13/02/20). This is where knowledge again comes in. Vague regulations would not be a very big deal if all vessels and certificates were controlled by classification societies, port states or others who have expertise in the field. However, there are actors without such knowledge who are allowed to issue certificates. This means that unsafe ships might be sailing through polar waters. This also connects itself to the subject of port state control. As mentioned by Interviewee 9, one of the areas that could use more specification is the definition of an icebreaker (Interviewee 9, 03/02/20). An icebreaker is necessary to have on voyages in several polar areas, and therefore the requirements for what an icebreaker is should perhaps be specified according to what the actual ice conditions dictate it needs to be. Indeed, there seem to be agreement among several that the Polar Code is unclear on certain subjects and need specifications.

Despite there being benefits with having a goal-based standard in the Polar Code people have their concerns related to it as well. One of the reasons for that is the role knowledge plays in being able to interpret the Code and implement it in secure manners, which was previously mentioned. Another reason is the safety culture actors have and how seriously they are taking the goals set by the Polar Code. Not everyone is as fixed on taking necessary measures to ensure safety, but rather on doing only what they need to in order to be Polar Code compliant (Interviewee 1, 13/12/19).

Another aspect that needs to be addressed when speaking of the goal-based approach as a standard to use is the enforcement of it. A port state or another authority will need to assess each part of the vessel and crew and compare this to each goal set by the Polar Code and decide for themselves if the vessel is Polar Code compliant or not. This is a more difficult task than assessing a vessel according to prescriptive and clear regulations that follow universal measurements. Using a goal-based standard can also lead to uneven conclusions. A vessel in good standard might by one port state or classification society be deemed unfit for polar voyage, while another vessel of lower standard being assessed by a different port state or classification society could be given a Polar Code Certificate. As touched upon by Interviewee 4, different treatments like these are potentially possible because different authorities might interpret the Code differently or assess a vessel based on different levels of knowledge (Interviewee 4, 13/02/20).

6.3 Polar Code coverage

Circling back to what was mentioned in sub-chapter 6.1 about there being agreement that the Polar Code is a good start for safe polar shipping but that it does have shortcomings, we are moving on to the coverage of the Polar Code.

The geographical scope of the Polar Code should be mentioned first. The geographical area in the Arctic where the Polar Code is applicable primarily follows the 60 degree-limit which is the most common definition of what includes the Arctic region. However, it excludes areas along the coast of Norway and Iceland and is drawn further north. This is the same region which the Arctic guidelines applied to and was thus rather naturally brought along to the geographical application of the Polar Code as well. The line is drawn here because it is within this region that the safety hazards the Polar Code addresses are found (Interviewee 6, 20/02/20).

When it comes to the safety part of the Polar Code it only applies to vessels making international voyages while sailing through polar waters. This because part I of the Polar Code is connected to SOLAS which does not set regulations for national voyages (IMO, 1980, Regulation 1(a)). That ultimately means that many of the voyages being made along the Northern Sea Route off the northern coast of Russia fall outside the scope of the security part of the Polar Code by not being covered by SOLAS (Interviewee 13, 17/02/20).

Also stated in SOLAS is the type of vessels that need to abide by it. Excluded from this list are military ships, ships that weight less than 500 gross tonnage, pleasure yachts, ships not propelled by mechanical means, wooden or primitive vessels and fishing vessels (IMO, 1980, Regulation 3). Considering the safety part of the Polar Code is connected to SOLAS, these vessels sailing through polar waters do not have to abide by the regulations set by it. This is a rather long list to exclude from such important safety regulations. Several people have expressed concern with the exclusion of certain vessels from the scope of the Polar Code. Fishing vessels are among the most common vessels to voyage through Arctic waters. This type of vessel tends to meet possible safety hazards more than many other vessels and should therefore be covered by the scope of the Polar Code (Interviewee 1, 13/12/19).

One type of vessel the Polar Code does apply to is cruise ships. These, however, seem to be a huge concern for many people, and are also called “*low probability, high consequence accident*” (Interviewee 1, 13/12/19). After the accident with the cruise ship Maxim Gorkiy that hit an ice floe in 1989 it has in fact been seen as the biggest challenge to rescue operations in the Arctic (Solberg, Gudmestad, & Kvamme, 2016, p. ii). Simply because cruise

ships need certification and need to abide by the Polar Code does not mean they are perfectly safe vessels according to the safety hazards posed by Arctic waters. This brings us back to the design of the safety regulations found in the Code. Because the Polar Code follows a goal-based standard the degree of safety on board will in large be dependent on whether or not actors in the cruise ship industry have the needed knowledge and a strong safety culture. Life-saving equipment often available on cruise ships were also tested during the SARex exercises. The life jacket was not sufficient in providing thermal protection to keep the body heat high enough to survive for five days (Gudmestad & Solberg, 2019, p. 169). Cruise ships will also need to implement training of crew and passengers to prepare them for survival in the remote and harsh polar waters (Gudmestad & Solberg, 2019, p. 173).

6.4 SARex

The SARex-exercises were done off the coast of Spitsbergen in 2016. It had the aim of identifying and exploring gaps between the functionality of safety equipment approved by SOLAS and the functionality required by the Polar Code. The scenario that played off resembled that of the accident with Maxim Gorkiy and took place in the marginal ice zone north of Svalbard. The exercises were done by the Norwegian Coast Guard and the scientific team (Solberg et al., 2016, p. iv). The results from these exercises have given a deeper and thoroughly documented understanding of the harsh and unpredictable conditions one will meet when shipping through the Arctic. These are very important for the further development of safe equipment and safe regulations for survival in polar areas. The most significant findings from this project will be presented here.

During these exercises, equipment like life rafts and lifeboats were tested. These are important for survival and keeping people warm, among other things. However, the wall and the floor of the lifeboat had the opposite effect. The conclusion was despite this that most people would be able to survive for some time in this lifeboat (Gudmestad & Solberg, 2019, p. 166). Only 2 out of 20 people stayed in the lifeboat for more than 24 hours (Gudmestad & Solberg, 2019, p. 171). When the same experiment was done using a life raft, the outcome was not quite the same. It was concluded that it is unlikely that people would survive in this for a minimum of five days (Gudmestad & Solberg, 2019, p. 167). Only one out of 20 people stayed in the life raft for more than 24 hours (Gudmestad & Solberg, 2019, p. 171). It needs to be mentioned that all of the people who participated in these exercises were of good physical and physiological health. Considering the average passenger aboard a vessel passing through the Arctic is not of such good health, these results are likely not completely true to what

reality would be like (Gudmestad & Solberg, 2019, p. 168). Before trying to compare the results from the lifeboat and the life raft, it is important to mention that the project with the lifeboat was done in 2016 and the project with the life raft was done in 2017. The two sessions were performed in different weather, with different people and different equipment for survival (Gudmestad & Solberg, 2019, p. 171). Part of the overall conclusion after doing these exercises is that cruise ships sailing to remote areas of the polar regions would likely encounter substantial challenges in case there is need of a rescue operation. The equipment available today does not fulfill the requirement of a minimum five day survival (Gudmestad & Solberg, 2019, p. 173).

The SARex-exercises show very well that equipment to survive in remote polar regions for a minimum of five days, which is the requirement according to the Polar Code, need to be significantly improved. These are necessary actions to make to ensure the survival of people in case of an accident. A second important aspect for survival is search and rescue (SAR).

6.5 Search and rescue (SAR)

Crucial to survival after an accident has occurred is search and rescue (SAR). In case something happens in the remote and harsh areas of the Arctic Ocean, time is of the essence in making sure no lives are lost. Having the right equipment onboard the vessel is important. That way passengers can stay alive until rescue arrives. There are issues related to search and rescue operations though. Taking the remoteness as well as the challenges in navigation into account, the rescue will often take time to reach the area. There is not a rescue helicopter or a rescue vessel on stand-by in all regions of the Arctic. This lessens the quality of the search and rescue services in the Arctic and makes voyages in the region much more unsafe.

The topic of SAR is not a big focus in the Polar Code either which is a worry worth paying attention to (Interviewee 1, 13/12/19). It includes no specific goals to achieve for what the search and rescue service should be like. It mentions SAR only but a few times. It is mentioned as a source of hazards because there are limited readily deployable SAR facilities which means it increases the risks of voyaging in polar waters (IMO, 2015b, p. 7). It is mentioned in relation to the Manual every Polar Code certified vessel is obliged to have aboard. Specifically, it says that this Manual needs to contain risk-based procedures for SAR (IMO, 2015b, p. 13). The distance from SAR capabilities is also something one needs to take into consideration when planning a voyage (IMO, 2015b, p. 27). The Polar Code is a collection of important goals to achieve for safe shipping in polar waters. SAR is an

extremely important part of safety in polar shipping. The fact that the Polar Code does not contain regulations of any sort for SAR seems wrong. I see this as one of the areas the Polar Code needs improvements on in order to be a sufficient collection of goals for safe polar shipping.

6.6 Crew training

Putting emphasis on things like proper equipment, sturdy ship construction and such is important, but what must not be forgotten is the human factor. On every voyage being taken the crew on board the vessel has an important job to do, and they need to do it right. The right equipment also needs to be used correctly to have the intended effect. A human mistake far out on the remote Arctic waters can in a worst-case scenario have a fatal outcome. This is why crew training for sailing through polar regions is considered a potential worry for many.

The Polar Code chapter 12 states that masters, chief mates and officers in charge of navigational watch are bound to follow chapter V of the Seafarers' Training, Certification and Watchkeeping Convention, also referred to as STCW Convention. It contains the requirements for crew training (IMO, 2015b, p. 27).

As has already been stated, Russia is big in Arctic shipping and have long experiences within the field. Russia is one of the most experienced and has more knowledge on this than most other states using polar shipping routes. One of the most common worries among professionals in Russia is the topic of crew training, especially among crews from non-Arctic states (Interviewee 9, 03/02/20). Such crews will naturally not have the same amount of experience and same level of expertise as crews from Arctic states have. The difference in knowledge and understanding is big between someone who has years-worth of experience sailing through the Arctic and someone who has never been there and might have taken a theoretical course before making a trip through the region but not much more (Bodil Pedersen, Norwegian Maritime Authority, 13/02/20).

Russia and other Arctic states do offer training programs for crews meant to ship in the Arctic (Interviewee 9, 03/02/20). Considering the Arctic states are the most experienced states when it comes to polar shipping, having crews from other countries in the world get their training from such experts would probably be beneficial for everyone involved. The crews getting the training they need for making safe voyages, the flag state who's flag they are sailing under, as well as the coastal states responsible for search and rescue in the region will all benefit from having well trained and knowledgeable crews voyaging through the Arctic shipping routes. Another solution for sending only experienced crews through the Arctic is

for flag states with less experience to hire crews from states such as Russia to handle their vessels through the hazardous polar routes. This is in fact a method being used in certain cases (Interviewee 9, 03/02/20). This shows that these shipowners are aware of their shortcomings and act accordingly to still ensure safe polar shipping. This is a good thing and is one solution to the problem of lack of proper crew training.

6.7 Port state control

As previously mentioned, port states play an important role in making sure the Polar Code is being followed by all ships navigating in Arctic waters. Flag states do have a responsibility to make sure their vessels are Polar Code compliant before making a voyage through the Arctic, but in case this has not been successfully done or in case something happened to the vessel since then, the port state will also have jurisdiction and responsibility to check the vessel, which is called port state control (Bai & Wang, 2019, p. 2). There seem to be wide agreement that the port state as of today does not have the substantial authority to make sure a vessel is suited to travel through their waters. The flag state and classification societies hold much power when it comes to this, but several people in the field would prefer to see that the port state through port state control have the main ability to give a vessel a clearance or not (Interviewee 9, 03/02/20) (Interviewee 13, 17/02/20).

The right of the port state to check vessels in their ports is not new and is not only connected to the Polar Code. It is manifested in UNCLOS which means it applies to ports all over the world. UNCLOS Article 218 on “*Enforcement by port States*” clearly states that a port state has the right to check the discharge of any vessel that is voluntarily in a port of said state (UN, 1982, p. 110). Port state control is not specifically mentioned in the Polar Code itself, but the Polar Code is considered as a complimentary document to SOLAS and MARPOL that applies specifically to the polar regions. The Polar Code with SOLAS and MARPOL together make up the legal regulations in Arctic shipping. Based on this, the role of port state control is set, which include inspection of ship certificate, crew training and ship equipment. These are the tasks that are relevant in this particular setting (Bai & Wang, 2019, p. 3). This port state control only apply to cargo vessels and passenger vessels (Bai & Wang, 2019, p. 11).

The IMO adopted International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel. According to this convention, the port state can check a fishing vessel for the minimum requirement of crew training and the required certificates. They are allowed to check fishing vessels of a state that is not a party in this

convention (Bai & Wang, 2019, p. 5). Like previously mentioned, there is a shortage on port state facilities in the Arctic. This also poses additional problems for checking all vessels voyaging in the region. The port state has the authority to check the vessels that are bound by the Polar Code and enter their port. However, with a lack of ports along the Arctic coasts this loses some of its authority and ability to contribute to safe Arctic shipping. Further port development is needed.

6.8 Pollution

The subject of pollution is a big topic when speaking of polar regions. These regions are much more vulnerable to it than other places in the world and will take more damage from it. It is for reasons like this that protection of the polar marine environment is such a big and important subject to deal with. As mentioned by Interviewee 6, it was due to the possible increase in polar shipping activity participants in the Polar Code negotiations saw it as necessary to agree on measures that would protect the environment (Interviewee 6, 20/02/20).

Central in the discussion on measures for protection of the polar marine environment is the topic of heavy fuel oil. There are disagreements regarding how one should handle the use and carriage of it. There were disagreements during the negotiations for the Polar Code and there still are today. Norway has more or less all along been a strong proponent of a ban on both use and carriage of heavy fuel oil in the Arctic waters (Interviewee 1, 13/12/19). This goes hand in hand with the approach they had towards the Polar Code all along, which was to get in place stricter regulations rather than the opposite to make polar shipping as safe as can possibly be. This has already been mentioned in sub-chapter 5.2.1 on the role of Norway in the Polar Code negotiations. Not only actors actively participating in the negotiations voiced their opinion on the subject. The Norwegian Shipowners' Association has also shown their support for the possible ban on use of heavy fuel oil in the Arctic by the IMO (Norwegian Shipowners' Association, 2017, p. 16). Once there has been an accident, cleaning it up is not done without hazards. MS Northguider is an example of a vessel that got stuck in the ice and it is still there today. This poses a threat to the environment (Bodil Pedersen, Norwegian Maritime Authority, 13/02/20). It was on the 28th of December in 2018 that the Norwegian trawler accidentally ran ashore in Hinlopenstredet on Svalbard. It contained both fuel and oil which pose huge risks for the environment in case of a leak (Faglig forum for norske havområder, 2019, p. 59).

Russia has been voicing concerns towards a ban on use and carriage of heavy fuel oil in the Arctic. This, as well as other provisions included in the environmental part of the Polar

Code, seems to be too strict for Russian actors and could potentially be harmful for the industry (Interviewee 13, 17/02/20). As highlighted in sub-chapter 5.2.2 on the Russian role in the Polar Code negotiations, all the suggestions being made on provisions for environmental security did not find favor with the Russian delegation. They were opposed to the “*special area*” requirements for oil pollution and tried to lessen the strength of them. The environmental part of the Code is not something Russia is entirely content with (Interviewee 4, 13/02/20). Russia has one of the highest levels of Arctic shipping activity in the world, and it is very important for several Russian communities. They are not able to make the rapid switch towards a more environmentally safe shipping activity as the Polar Code demands and as many other states are able to do (Interviewee 13, 17/02/20). The Russian unwillingness to make this switch is not necessarily all based on putting economic gain first. It can also be related to the fact that Russia does need more time to do this, and there are communities and people depending on a functioning Arctic shipping transport in the meantime as well. Russia have done other measures that show their motivation to move towards as secure of a shipping activity as possible.

6.9 Successful implementation?

The Polar Code came into force on January 1st of 2017. More than three years have passed, and authorities have had time to implement it and put it to practical use. Especially two of the cases are relevant to look into when it comes to the implementation of the Code, being Norway and Russia. This because of the role in Arctic shipping they possess, both as participating in shipping and in relation to their work as issuing and controlling Polar Code certificates. Russia is also very central as an Arctic port state. Looking at how these cases have implemented the Polar Code will give a good insight into the practicality of it.

In the case of Norway, the Polar Code has been implemented with a basis in the Ship Safety Act applying to all Norwegian ships no matter where they are located, which means it is incorporated into Norwegian law. In the process of which the amendments to SOLAS have been widened to also include military ships, and the amendments to MARPOL Annex V regarding garbage apply to all mobile units (Røsæg, 2018, p. 468). When it comes to the part about the Polar Code only applying to international voyages, there have been some speculation regarding exactly which voyages fall under that category. It states that a vessel leaving a country and sailing for a port in another country is taking an international voyage. Whether or not this means that a Norwegian vessel leaving a port on the Norwegian mainland heading for Svalbard or the land territory of Norwegian claim in Antarctic is international has

not been clear. For the sake of safety, Norway has interpreted such trips to be international. This means that the absolute majority of vessels operating in Norwegian polar waters are covered by certain parts of the Polar Code (Røsæg, 2018, p. 469).

According to the Russian Constitution, any international treaty Russia is a part of is automatically a part of Russian law (M. & A., 2018, p. 480). This means that as soon as the Polar Code came into force in the beginning of 2017 it was automatically applicable in Russia. This might put extra pressure on Russia when international treaties are being negotiated. As soon as it is adopted on the international level it will apply to Russia as well without them having to formally ratify it. This removes the extra buffer of having to handle such treaties nationally that several other states have. On a legal level, the Polar Code was very soon implemented in Russia. The Russian Maritime Register of Shipping adopted the Guidelines for the Application of the Provision of the International Code for Ships Operating in Polar Waters. These guidelines are used in surveys and when issuing Polar Code Certificates and also contain requirements for both part I and part II of the Polar Code. Despite the fact that the Polar Code automatically became applicable in Russia at its adoption at the IMO, Russia has not changed the rules for shipping along the Northern Sea Route to better comply with the Polar Code. Since then Russia have issued regulations on shipping along this route. Only vessels sailing under a Russian flag are allowed to do ice-breaking and transport liquefied gas. This means that activity along the Northern Sea Route is even more under Russian control than it was before. There are a few other differences between the Polar Code and the Russian rules for shipping in the Arctic. One of these being the scope each of them work by. The Polar Code does not apply to warships and vessels for a non-commercial state purpose, but the Russian rules include also these. The Polar Code is based on the fact that there are few ports and shelters in the Arctic and rescue services are limited, but this is not true for the Northern Sea Route. The Polar Code and the Russian rules use different systems for classification of ice which leads to uncertainty rather than the intended safety. Each of these sets of regulations also classify vessel types differently (M. & A., 2018, p. 481). It seems that Russia wants stricter regulations for the safety part. That is a good thing. Letting go of the rules they have always had and operate only according to the Polar Code might therefore seem like taking a step down and taking higher risks. This seems like a rather legitimate reason for not complying fully to the Polar Code.

One could say that Russia holding on to their own rules is critique worthy, but it is also important to see this in relation to UNCLOS Article 234. This article holds that coastal states bordering ice-covered areas are allowed to establish their own specific rules that do not

comply with the overall rules established by a collective order. It does require that no one should be discriminated against as a result of these rules, and they cannot be softer than the international rules (M. & A., 2018, p. 482). With this as the foundation to assess the Russian rules on, they do come across as more legitimate. The Russian rules are in fact stricter than the regulations in the Polar Code. The fact that foreign vessels are not treated as Russian vessels, however, might be less compatible with UNCLOS Article 234.

6.10 Phase two of the Polar Code

There seem to be a unanimous perception that the Polar Code does have flaws, but it is a good start and not in any way a done deal. It will be up for revision in the IMO and many people have their hopes up for the second round of negotiations. There are hopes it will be as inclusive as possible, including such as fishing vessels (Interviewee 4, 13/02/20). As the SARex exercises show, improved standards for equipment is also a necessity. As has been stated numerous times, there is a need for clarifications and specifications in several areas, which is also something that should be addressed in the coming negotiations.

The second phase of treating the Polar Code has begun, and the application of the Polar Code to vessels not covered by it is a topic here. An up-coming resolution is likely one that urges members to voluntarily implement safety measures in the Polar Code to fishing vessels. In 2019 the 101st session in MSC approved guidance on navigation and equipment (IMO).

6.11 Analysis of the opinions and experiences

The Polar Code is adopted by IMO and its member states, which means it is a formal institution. Formal and legal documents like this bring with them meanings, beliefs and cultural aspects as well, and these should also be brought into an analysis of formal institutions. Formal-legal analysis is the most commonly used within old institutionalism and is well suited to highlight aspects of the Polar Code as an institution.

Seeing the Polar Code in a historical perspective also has a value. Polar shipping has for a while been thought to increase, especially so in the Arctic. This is one of the reasons why the Polar Code was developed. Before the Code there were regulations applying to Arctic shipping, but none that covered the topic of safety in polar shipping to the extent the Polar Code does. SOLAS had already been present for a long time before the Polar Code and is applicable to shipping all over the world, also in the Arctic. This did not suffice in the rough and hazardous Arctic and Antarctic, so additional regulations were needed. MARPOL

had also been in place for a while and applies to shipping all over the world just like SOLAS and covers more vessels than SOLAS does. The polar environments are more sensitive than other areas of the world, and in case harm is done to the environment here it will have a worse impact and be more challenging to deal with than it would other places. That is why additional regulations for protection of the environment were also needed. Ever since 1992 there had been work in the IMO on these exact topics and in 2009 the Guidelines for Ships Operating in Polar Waters were adopted by the IMO Assembly. This was a step in the right direction, but it became clear that more firm regulations were needed. As work on this continued it at last resulted in the Polar Code. It is the latest edition for safety in polar shipping and is to be considered one step along the way to further develop the governance of which. It is not easy to say when we will have reached an end-goal with this, if we ever will. This is likely to be an on-going process for the foreseeable future.

The antithesis of order and change is prominent in a social setting, such as an institution, and should therefore be discussed in relation to the Polar Code as well. The question to answer will then be: How is the Polar Code ensuring order while making change a possibility? The aim of making the Code was to increase shipping in polar waters, which means it needs to be regulated somehow. There needs to be some kind of order in it. Having the Polar Code in place does bring order of some degree. Order in the polar shipping activity that would not otherwise be there in the same way. Yes, a few Arctic coastal states do have national regulations within their territory and the Code does not regulate everything related to polar shipping, but the Polar Code being one unified set of regulations does provide more stability throughout the polar waters. There is also a possibility for change, as we can see now that the second phase of working on the Polar Code has begun. There will likely be renegotiations and changes made to it where this is needed and possible. It was finally adopted in 2015 and things have most likely changed since then. There might have emerged new issues having to be addressed, there may have been experiences with applying the requirements set by the Code and alterations could be needed. After having assessed certain topics of the Code in this thesis, it is clear that it does have shortcomings that should be addressed in the second phase of the Polar Code. In order to adapt the Code to always meet the needs it is intended to, there has to be done research on it to identify shortcomings. This is the overall goal with this thesis.

Individual interests and collective interests are both present in any society. The question here to answer in relation to the Polar Code is: Which interests count the most, the individual interests of each state or the collective interest for them all? Naturally, each

individual state does have a part in the collective. This means that if the collective interests are preserved and prioritized it does not necessarily have to happen entirely on the expense of individual interests. Prioritizing the collective only means that the individual state is prohibited from acting completely as they wish. There are some restrictions one needs to follow. These restrictions will restrain each state to a certain degree, but it will also provide safety they would not otherwise have and ensure them that other individuals cannot act freely and on the expense of oneself. Ultimately, prioritizing collective interests does somewhat restrict freedom of each state, but it also gives them safety they could not gain on their own. Applying this to the Polar Code, one can see the importance of putting collective safety in polar shipping before the individual freedom of each state and of each vessel. That being said, there are still cases of national regulations in Arctic shipping that are not unified with the regulations of the Polar Code. The intention of the Code is to create a unified set of regulations that apply to everyone sailing through Arctic waters and that cover all necessary topics to the extent needed. In that way it would be more suited for the job than other regulations such as national ones, and national standards would be redundant. That means, the national regulations that Russia for example have for shipping along the Northern Sea Route should maybe according to the antithesis of individual interests and collective interests of old institutionalism make way for the Polar Code. That being said, UNCLOS Article 234 states that Russia can implement their own regulations as long as they do not discriminate against anyone and are not less strict than other international regulations, such as the Polar Code. Circling back to the question of which interests should count the most. One could say that collective interests should be prioritized, but that does not mean individual interests should not be met at all. It is all about finding the right balance. Exactly what equals the right balance can be debated, but it just might be that the Russian regulations applicable to the Northern Sea Route help maintain a certain balance between their individual interests and the collective interests preserved by the Polar Code.

John Commons defines an institution as collective action in control of individual action. Collective action equals the playing field in society through setting guidelines and limitations for individuals. This goes hand in hand with the antithesis just mentioned regarding the balance between individual interests and collective interests. Regulations for crew training is one example of this. If the requirements for crew training before a crew is allowed to sail a vessel through polar waters is up to each and every flag state to decide, chances are crews with insufficient training and knowledge will sail in these regions. This could pose a serious safety risk to themselves as well as to others, not to mention to the

environment. By regulating this on a higher level, through international standards like the Polar Code, crews with substandard experience would be prohibited from making voyages through polar waters and the collective safety for the regions would be prioritized. This will ultimately be the best also for those crews that would not reach the requirements and be denied polar voyages. The requirements set in institutions like the Polar Code is what Commons referred to as legal rules, which are working rules of governance. Commons sees these as constant subjects for improvement to set the best conditions for all individuals according to what is at all times considered good or needed. Even though legal rules might deprive individuals of some freedom, they are in a way meant to provide a service for a collective of individuals. This can be connected to the Polar Code as an institution. The legal rules that make up the Polar Code are results of artificial selection and the visible hand by humans as opposed to natural selection. They were developed for a purpose: to govern polar shipping safely.

Actors in an institution matter. They make up the members of the institution and have a great influence on it. Members have to adapt to the institution they are bound by, meaning everyone involved in polar shipping have to make the necessary changes to comply with the Polar Code if they are not already doing so. Or else, they do not get their Polar Code Certificate and will be denied passage through polar waters. The Code does in that sense rule polar shipping. Seen from a different side, the Code is meant to serve a purpose. It is meant to provide safety. What is required for properly providing safety might change over time, and new knowledge might outdate old knowledge. That means the institution, being the Polar Code in this case, will need to adapt to this. The users of the Polar Code make the Polar Code what it is, and they do have the ability to make alterations where needed. Members of the IMO and users of the Polar Code do therefore have an interactive relation with the Code. Studying institutions includes studying their meaning as well as the beliefs and ideas within. The meaning of the Polar Code has been touched upon several times already. The goal of the Code is to provide safety for shipping in polar waters, and members are in agreement that there is great need for it. This represents a move forward in developing polar shipping and will probably in time open up possibilities that the shipping industry might not have had without these safety regulations. Actors thus attribute significant meaning and purpose to it. Within this institution is the belief that members will to a large degree have the freedom to ensure safety based on the goals the Code sets and should not provide strict and direct rules. A reason for this could be to try and meet several different needs and desires at the same time. With prescriptive regulations there is only one right way of doing things, and this might not

suite everyone equally well. By having a set of goals that all are obligated to reach members gain freedom and leeway to do very much as they wish as long as they reach each goal. Members might be more accepting towards regulations of this kind as opposed to some that could seem more forced. This could also have been a reason why the Polar Code was made mandatory through amendments to SOLAS and MARPOL as opposed to having created a completely new set of regulations solely for polar waters. Being connected to conventions members have already agreed to could make them more susceptible to the Code.

Even though old institutionalism focuses on formal institutions, they do not neglect the role culture plays. The Arctic region has always been a very politically stable arena. There has not been war or conflict of some sort. Even though states involved in the Arctic region have had differences and conflicts between themselves, this has not been played out in the Arctic context. It is a peaceful and cooperative area as far as political aspects are concerned. The Polar Code falls well within these lines, and it adds to the close and communicative relations found in Arctic affairs. It was developed through negotiations where every IMO-member who wished to take part could do that. Every participant had the ability to be heard and the Code is by and large agreed on by actors involved in polar shipping. It signals involvement, cooperation and agreement. This enhances the culture that was already present in Arctic affairs. Remembering how culture has been said to at times be the cause of the decision an actor makes, the cooperative culture in Arctic affairs could be in support of that. As opposed to being rational and only going along to maximize utility, this culture could be a factor in leading actors towards collective action.

7 Concluding remarks

For concluding remarks, I wish to briefly point out the findings of the research and some reflections around them. To do that I wish to remind the reader of the research question and the aim of this thesis. The research question as has been previously mentioned is as follows:

“How did the negotiation process for the Polar Code go about? Which opinions and experiences regarding the Polar Code in Arctic shipping can be found among actors from Norway, Russia and China?”

The aim has not been to find the flaws and the well-functioning parts of the Polar Code and generalize these. Rather, it has been to highlight the role in the Polar Code negotiations of a selection of cases and find which perspectives on the Code actors from these cases have. Many of the opinions and experiences have shown to be common across the cases, which give validity to the statements and show that these reflect perceptions multiple actors in Arctic shipping have.

The Norwegian delegation and the Russian delegation were very active throughout the whole negotiation process for the Polar Code. This also goes for the work done on the guidelines that came before the Code. The Chinese delegation were present during the negotiations, but they did not participate very much. They did submit a few proposals, however. The differing activity levels might be connected to the goal of each delegation. China is not an Arctic state but has shown that they want to be a central actor in the politics and the market of the region. Having a seat at the table and being present where dialogue happens is likely desirable in order to do just that. As Arctic states, Norway and Russia have the ability to and might also have the desire to take a leading role in Arctic affairs.

The aim of the Polar Code is to provide safety measures for polar shipping. The major actors in Arctic shipping, such as Norway and Russia, have all along urged the need for such regulations because of the safety hazards in the region. They are experienced in the field of Arctic shipping and know what voyaging through these waters require as far as safety measures and measures for environmental protection goes. Less experienced actors such as China have also recognized the hazardous environment the Arctic Ocean is and that regulations are needed. They have shown support for the Code both during the negotiations as well as after it came into force.

Having analyzed the negotiation process through the lens of rational choice institutionalism, the focus has been much on the possible reasoning behind decisions made as

well as the participation of actors. Scholars have expressed that it is not rational to cooperate and to take part in an institution where one has to think about a collective, but rather, the only rational thing to do is to act alone solely according to one's own preferences. Rational choice institutionalists have argued that institutions are in fact rational. Actors do have preferences that they lay to ground for their decisions, actors are in fact rational when making a decision based on the information one has, and often one will realize that the most rational thing to do is indeed to participate in collective action by joining an institution. An actor will weigh the alternatives against each other and often see that the gain is higher, or the loss is lower by joining an institution than the alternative of not doing so. According to this reasoning, actors decided that taking part in the IMO and that developing the Polar Code was reasonable because otherwise one might not have accomplished what one wanted, which is safety in polar shipping. This is indeed a huge task to undertake, and as has been argued previously in this thesis, the unified Polar Code will probably increase safety compared to what several national regulations could provide. Since each actor does have their own preferences and wish to act on these, there were disagreements on some aspects in the negotiations.

When it comes to the opposing interests, the goal-based standard probably removed the worst sting in those regards. Compared to the prescriptive standard for regulations, the goal-based approach gives much more freedom to each actor. Actors will be able to decide for themselves how they want to reach the goals in the Polar Code. This probably spared the delegates of some long and tough discussion as they would not need to agree on precisely what the regulations would regulate and how they would do it. Regulations with a goal-based standard are easier to reach agreement on. On the other hand, the aspect of knowledge and expertise play a huge role here. If an actor does not know what it takes to have "*sufficient*" equipment for the tasks one needs to handle on an Arctic voyage, it makes it difficult to reach the goal one is bound by.

If the issuing of Polar Code Certificates and the control of vessels voyaging in Arctic waters was more under the control of experienced actors such as the Arctic states, it would take care of much of the problem. This is not the case as of today. There are several classification societies and others who are allowed to issue certificates and check a vessel before voyage that do not have the needed level of expertise. This poses serious safety hazards and is something that should be addressed and regulated more than it currently is.

The scope of the Polar Code is also an issue that keeps coming up. It does not apply to all vessels voyaging in polar waters. Fishing vessels are very common in the Arctic but are not covered by the Code. The equipment supposed to save lives until rescue comes is not

sufficient after all. This also connects with the lack of SAR facilities in the Arctic which is another aspect the Polar Code does not regulate. Should something happen with a vessel in the remote Arctic Ocean, it is not certain that all lives would be rescued. The odds are way worse when talking of a cruise ship than of such as a fishing vessel. Issues like these show which shortcomings we still have when it comes to safety in polar shipping. The Polar Code is clearly highly needed and set important regulations to try and deal with the problem, but there is still much needed work to be done in this field.

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