

Managing the Melting Poles:

A study of environmental protection management in the Arctic and
Antarctic

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Abstract

Despite drastically shrinking ice sheets in both the northern- and southernmost point of our planet, the reactions to it are of quite different character. In the Antarctic, the melting ice is unconditionally linked to global warming and disaster, whilst the Arctic sees unveiling economic opportunities. In this essay, the authors attempt to conclude why the environmental protection policy differs in the two polar zones. Using a customised version of regime theory, they examine the different regime structures in terms of origin, rules, decision-making procedures, norms and principles and compare these findings to actions of regime members. They find that the regimes are in fact polar opposites; differing history, legislature, norms, principles and procedures strongly shape the work on environmental protection.

Key words: Arctic, Antarctic, regime theory, environmental protection policy, natural resources

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1. Introduction

To drill, or not to drill - that seems to be the question of the century when action for environmental protection battles the instincts of the oil based capitalistic modern society. As global warming causes the ice in the two polar zones to melt drastically, this debate has followed the dwindling ice sheet as it reveals potential oil reserves and with it potential national wealth. In the Arctic region, the previously peaceful sharing of fishing areas has switched to a climate of border tension where nuclear armed submarines travel down below the seabed to pin flags on possible hydrocarbon resources (Parfitt 2007). Since drilling has occurred for quite some time within the national borders of the Arctic States, the debate is not only about whether you should or should not drill, and potentially destroy the already vulnerable and unique landscape, but also which state has access to which new emerging territory and resources, causing state ministers to scrutinise the UN Convention Law of the Sea (UNCLOS) (The Economist 2014).

As if though that wasn't enough to create tension between the states, the melting ice also unveils a new trade route that has been on merchants' agenda since the middle ages - the Northwestern Passage. This route drastically shortens the shipping distance from the East to the West as well as escapes the additional costs of passing through the Suez Canal (Al Jazeera 2016). As the passage is open for longer periods each year, it becomes more economically profitable to use causing an increasing amount of traffic to pass through it. This has caused headlines to focus on the Arctic and the arising tensions in the region. But what about its diametrical opposite?

The Antarctic does not draw as much attention in regards to border conflicts, military action and economic profits. Rather, the region centers awareness towards climate change with it's dramatically shifting ice spread (NSIDC 2016). Despite the fact that the Antarctic in fact does house border tensions, military presence and possible natural resource reserves just like its northern counterpart, this is rarely covered by the media as the area is completely devoted to peaceful research cooperation (Teller 2014).

It is however in the realm of environmental protection the regimes differ the most; the Arctic cooperation's weapons of choice are recommendations, disaster preparedness and laissez-faire politics whilst the Antarctic works within a rigid system of rules and regulations.

In this essay, we attempt to explain this difference in environmental protection policy by applying regime theory on both cases. By doing this, we try to determine whether differences in how each regime arose, which rules apply, which actors are present in decision-making procedures as well as which sets of norms and principles dominate the area can explain this. Starting with a presentation of Krasner's classic regime theory, which forms the basis of our analysis, we then move on to introduce our funneled version of the theory, slightly straying away from the realist epistemology upon which classical regime theory is based.

In our version, we first examine the origin of the regimes in order to determine to what extent conclusions can be made by comparing the two and then examine the current regimes by using operationalised versions of the highly theoretical concepts. This is believed to create a clear, concrete and norm focused approach to regime theory use. Also, adding acts of behaviour and discourse examination as a complement to the proposed strict reading of official documents in the classical definitions, turns this essay slightly towards a social constructivist direction, implying that behaviour and language create our worldview and furthermore our norms and policies.

Lastly, we discuss the implications of our results; how they are connected, how reliable they are, which variables have the strongest impact and whether the reality of Arctic and Antarctic behavior match the norms projected by the regimes.

1.1 Purpose and research question

As the formulation of the research question reads “Why does environmental protection policy differ in the two polar zones?”, the purpose of this essay is of both societal and scientific importance. First, the two polar regions are generally forgotten about when discussing international cooperation and conflict (Bajrektarevic 2011: 17). It seems that only military activity or economic prosperity will draw attention to the areas, making the Arctic region the star of the show whilst the Antarctic settles for being simply the other polar zone with penguins.

But seeing as the two cases share many traits, such as military presence, urgent environmental threats and emerging economic possibilities, it is of highest importance to examine these cases from more angles and perspectives to reach an explanation as to why cooperation regarding environmental protection has been comparatively more effective in the Antarctic, in order to better protect the Arctic ecosystems from further damage due to economic exploitation. In addition, this research will supply comprehensive empirics on cooperation regarding environmental protection internationally, providing examples of what works and what does not.

We bring a scientific contribution to the field by using our slimmed version of regime theory as a tool to map the cooperation in our cases. The comparison made in this essay using our operationalisation focused model of the highly theoretical regime theory is designed to study cooperation in situations dependent on an international effort and common intention and not limited to the polar context. Seeing as the dynamics of a regime, once again connecting to the societal importance of this essay, affect its ability to effectively create meaningful policy, studying this subject closer is vital if we are to better advise or affect policy makers.

2. Theoretical Framework

To think about the world in terms of regimes is a commonly used tool in academia to better understand international cooperation, as it isolates the different components of a cooperative endeavour; allowing for them to be analysed individually. This chapter covers the previous research conducted in the field as well as a presentation of the branches of regime theory that will be used and modified in this essay.

2.1 Previous Research

Stephen D. Krasner is often viewed as the godfather of regime theory and his research lay the groundwork for much of the theoretical approaches both in the academic field and those presented in this essay. In the more specific field of polar regimes, an essay would be lacking if it did not mention the work of Oran Young, the Krasner of polar research. Young has worked from many theoretic perspectives but has, as far as we are concerned, not compared the poles to the extent we will in this essay.

Timo Koivurova did however do a comparative study of the polar regimes in 2005, yet his research focused purely on the hard variables, rules and procedures, with a focus on international law. We have taken the analysis one step further by also including norms and principles which, in our opinion, gives a more comprehensive view of the polar regimes.

2.2 International regime theory

International regime theory as a subject of study contains a plethora of definitions, models and ideas from which to chose from. In this this paper we will use Stephen D. Krasner's definition of regimes, which reads as follows:

International regimes are defined as principles, norms, rules and decision-making procedures around which actors' expectations converge in a given issue-area. (Krasner 1983a: 1)

As neither principles, norms, rules and decision-making procedures are easily grasped concepts that can be viewed in the same way in all contexts, further definition is needed. For

the sake of continuity, we will present Krasner's own definitions of the concepts: which state that

[p]rinciples are beliefs of fact, causation and rectitude. Norms are standards of behaviour defined in terms of rights and obligations. Rules are specific prescriptions or proscriptions for action. Decision-making procedures are prevailing practices for making and implementing collective choice. (Krasner 1983a: 2).

In chapter three we will amend these definitions as we see room for improvement, but Krasner's definitions will nonetheless work as the basis for our research.

2.2.1 Categorising regimes

In no way are regimes all the same; claiming so would severely limit the study of them. Puchala, Hopkins and Oran Young have suggested several ways of categorising regimes, a few of which are of particular interest to our subject.

First, we must separate diffuse regimes from more specific regimes. Diffuse regimes span over multiple issues and act as *superstructures*, affecting more specific regimes or *substructures* that govern a very specific issue (Puchala & Hopkins 1983: 64). This can be exemplified by the specific regime that govern Antarctic affairs which is deeply embedded in diffuse regimes of sovereignty and environmentalism.

Second, regimes differ in their degree of formality. Some regimes are bound by rigorous legislation and governed by a central body, a formal regime, while others rely purely on informal convergence of self-interest on certain issues and gentlemen's agreements, an informal regime (Puchala & Hopkins 1983: 65).

Third and last of Puchala and Hopkins categorisations, regimes change in two distinctly different ways, *revolutionary* and *evolutionary*. Evolutionary change is characterised by a gradual change in norms, often on account of newly attained knowledge (Puchala & Hopkins 1983: 65). On the contrast, revolutionary change constitutes an uprooting of the current power structure, completely changing the norms of the regime (ibid.: 66).

Moving on to regime creation, Oran Young presents a division of regime origins based on his studies. According to Young, international regimes arise mainly from coordination problems or cases where individual pursuits of interests lead to collectively unsatisfactory outcomes. He narrows down the process of regime creation to three categories; *spontaneous orders*, *negotiated orders* and *imposed orders* (Young 1983: 97).

A spontaneous order occurs without intentional coordination from the included actors. Therefore, the theorisation around these are not well understood (Young 1983: 98). Negotiated orders, on the other hand, arise through conscious attempts to reach an agreement on a specific matter, which results in expressed formal rules or agreements. Negotiated orders can in turn, according to Young, be divided into two subcategories; "*constitutional*" *contracts* and *legislative bargains*, where the main difference between the two is what actors are present during the negotiations. In the "constitutional" contracts, the actors subject to a new or

developed regime are directly involved in the negotiations, whilst in legislative bargains those actors are not, but rather represented in relevant talks (ibid.: 99).

Lastly, imposed orders share similarities with spontaneous orders, as they do not need full consent between the included regime actors, but differ in the sense that imposed orders arise under the orders or coercion from one or more dominant actors. They rely heavily on the dominant actor to take responsibility, whether that actor wants to or not (Young 1983: 100).

What difference does it make whether a regime is categorised as one order or another? Even though regimes in reality fall somewhere in between the categories, the categorisation provide ideas for how they are best to be examined and some predictions about future behaviour of the regimes. For instance, imposed orders are likely to be best understood with theories of power relations whilst a spontaneous order is better off to be looked at in the light of behavioural patterns (Young 1983: 102). The latter categorisation would also be likely to not require high transaction costs for wide spreading results, and not restrict the liberties of the participants directly, but rather through social pressure (ibid.: 105). Imposed orders would be much more likely to restrict liberties, but through the work of a dominant actor. Important to add is that these types of orders are often disguised as negotiated ones internationally, when the order becomes so natural and accepted that it's origin of coercion is forgotten (ibid.: 101, 104).

In contrast to spontaneous orders, negotiated orders are costly and more restrictive on rights and liberties. They are the most commonly occurring form of arrangement internationally, and thus best understood in terms of regime dynamics (Young 1983: 99, 105). They are more resistant to social change in one or more states according to both Young but also instinctively with basic democratic reasoning claiming that the more negotiation and discussion, the slower the process, from which it also follows that negotiated orders with more actors with legislation right, the less prone the regime is to change rapidly based on one member's interests (ibid.: 106).

We conclude by introducing the concept of feedback, wherein Krasner theorises that the interplay between the causal factors and the regime goes both ways; a regime has the ability to change the very norms and principles that created it in the first place (Krasner 1983b: 361). Adding this strand of regime theory to theoretical toolbox allows us to examine whether the norms within society have changed independently from the regime, or if the regime is the catalyst for the change.

2.2 Critique against regime theory

Over the years a lot of thought have been given to the central critique to regime theory; *do regimes matter?* The most regime-positive authors, such as Young and Hopkins, argue that regimes permeate the international system. In their view, a sustained pattern of behavior inevitably creates a congruent regime (Krasner 1983a: 1). The other extreme is best represented by Susan Strange. She believes that the concept of regimes is an elaborate scam,

concealing the real causal factors related to economy and power that actually affect the behavior of states (Krasner 1983a: 1). As we use regime theory to conclude on causal factors, it is evident that we do not agree to this critique point. We have however taken notice of her other concerns, such as the theory's imprecision, and have thus worked out a highly operationalisation based and concrete version of it (Strange 1983: 342).

The majority of writers on the subject position themselves in between the two extremes and are commonly referred to as modified structuralists. They concede that regimes *can* have an impact but only in cases where self-action produce pareto-nonoptimal results (Krasner 1983a: 2). We position ourselves in between the modified structuralists and Hopkins and Puchala in that we don't agree with the notion that cooperation only occurs when there is no better solution but neither do we think all repeated patterns of behavior are regimes.

3. Method

Without further ado, this section will focus on how the theoretical framework described in the previous section will be applied to our cases. Seeing as the different concepts defined in regime theory are quite inapplicable to empiric cases in their original form, the operationalisation of them used in this essay will require thorough presentation.

Seeing as regimes, according to the theory of Oran Young, arise from a problem or when not having a regime in place would lead to undesirable outcomes, examining the origin will not only give readers a historical introduction to the cases but also establish which problem the regimes in each of our cases arose from (Young 1983: 97). Also, categorising the regimes by their origin will help evaluate the cases' comparability. Should it be evident that the cases are of the same regime category, the origin might not bring answers as to why they act differently towards environmental protection today but instead justify the use of them as cases in a most similar research design and thus amplifying the importance of the differences found later on in the essay. Should they on the other hand differ considerably in their origin, that would simply bring possible answers to our research question. Either way, examining the origin and history of the regime is important, in order not to miss out on any misleading variables or correlations.

Moving on to what constitutes a regime itself, we base our study on Krasner's definition, meaning that a regime is constituted by rules, decision-making procedures, norms and principles. Yet, they will not be operationalised as four individual concepts independent from each other. As becomes clear in the definitions of the terms, the four parts of what according to Krasner makes a regime could be divided into two categories; the hard and the soft variables¹. This division is based on how much the researchers read into the variables and might affect the result.

The hard terms here are rules and decision-making procedures because of their nature as clear and defined, leaving little room for subjective interpretation. There is not too much arguing as to what a rule is, and Krasner's definition is applicable to empirical material without alteration. The same goes for decision-making procedures, as these procedures often have strict guidelines and are well documented. Of course, situations where decisions are made behind closed doors exist, but even in those cases there is much room for interpretation of how it happened. What happened would be another question, but following Krasner's definition, that is not of too much importance since it is the practices that should be in focus (Krasner 1983a: 2).

¹ The categorisation of the terms as *hard* and *soft* is not used in Krasner's original theory, but used here to clarify and justify the division.

However, since our cases are subject to international regimes, looking at every rule and its groundwork would not only be beyond the scope of this essay, it would also be irrelevant considering the focus of this research. Therefore, both the hard and the soft variables focus on three major topics; economic activity, environmental protection and military activity. We believe this operationalisation translates well to Krasner's definitions whilst staying focused to the research subject and do not require too much further justification.

Proceeding to the soft variables, norms and principles, we find that they leave more room for subjective interpretation by nature. Krasner's definition of norms paint a picture of norms and behaviour as a one way communication, spelled out in what is allowed and what is expected. This definition is, in this essay, believed to be too limited as well as too extensive simultaneously. It is limited in the sense that it is a term more commonly appearing in other schools of international theory with different epistemology, here forced into a rigid realist theory set. The term norm is therefore not done justice by only seeing it as guidelines for behaviour. Norms are instead here believed to be equally affected by behaviour in turn and in order to paint a more truthful picture of a regime, this relationship need to be made visible in the operationalisation.

It is however too extensive as it doesn't specify what behaviour is, whose behaviour should be examined, and how different behaviour should be internally ranked by importance. Looking at the rights and obligations for all behaviour of all actors in all subjects would naturally be far stretching the scope of this essay, but we argue that using a proxy variable, further defined right after the following passage regarding principles, will translate the material looked at to a fair and comprehensive portrayal of the ruling norms in each regime.

The second soft variable, principles, also requires a process of limitation and operationalisation to properly fit into the epistemology of the essay and transform from theoretical concept to useable tool. In the theoretical definition, principles are "(...) beliefs of fact, causation, and rectitude" (Krasner 1983a: 2), which in many ways resembles our reading of norms. Both terms are in great connection to morals and righteousness, the basis of their difficulty to be objectively measured, and are believed to be justifiably portrayed using the same proxy variable.

The proxy variable used in this essay², meaning a variable that may not be relevant itself but serves in place of unobservable or immeasurable variables, operationalises this highly theoretical part of regime theory into a handy research tool. It thus works as an interpreter for norms and principles in our material, focusing on the same three areas as the hard variables. When using it, we are looking for expressions of approval or disapproval, recommendations of conduct and beliefs of causality in the material. By doing this, we manage to not only map the existing norms and principles, but also get a sense of how they are prioritised.

Taken into account when operationalising norms and principles this way is Puchala and Hopkin's warning regarding the causality of the term, where they claim that principles

² To conserve space, this proxy variable is henceforth referred to as *normciples*.

and norms are not to be induced from behaviour (Puchala & Hopkins 1983: 64). We argue however, coming from a background of social constructivism, that principles, norms and behaviour are interlinked beyond a causal relationship where norms and principles create behaviour and claim instead that the three affect each other perpetually.

The one criteria for using proxy variables is that they correlate well with the causal variables, in our case norms and principles. We note that examining the two individually would give a more comprehensive and accurate study, but considering the scope of this essay we find that designing an adjusted proxy variable is a good substitute to an extensive study using both variables. Regarding the reliability of our proxy variable, we argue that since it is created by the cases' regimes themselves, it by definition correlates with the norms and principles of the regime.

The hard variables and soft proxy variable described here are then applied to the two cases the Antarctic and the Arctic to map the current regimes in the areas, whilst the theory of regime creation helps label how they arose and what characteristics could be expected. Based on the findings of these steps in the research, we then proceed to discuss the findings and compare them to empirical examples to conclude the strength of the regime as well as which differences could answer our research question. The research design of this essay therefore has the characteristics of a qualitative, comparative case study, with elements of discourse analysis when analysing norms and principles. Our hopes are that comparing two cases will widen the research and the possibility to draw more reliable conclusions, whilst keeping the depth of a qualitative case study by not including more than two cases. The research also has a theory developing ambition, combining different approaches to regime theory to create one explanatory model.

3.1 Material

Given the complexity of regimes, not one set of material will give a satisfactory answer to our research question. To remedy this, each of our three regime characteristics; decision-making procedures, rules and normciples will be analysed based on different material.

The rules of the regimes are in our case contained in official documents and agreements, accessible to the public. For the Arctic that means a number of treaties, directly or indirectly linked to our subject matter. For the Antarctic, its two large all-encompassing agreements are the clear choice. This section will focus specifically on rules regarding resource extraction as it includes both economic activity and environmental protection.

The decision-making procedures are more complicated. We have chosen to limit the material to the official rules of procedure for decisions in the organisations, particularly focusing on who is included and how a decision is made. By doing so we might miss out on potential power imbalances and other underlying factors, but given the scope of this research, the chosen material is believed to be sufficient. Future research should however

conduct interviews to investigate the underlying power dynamics of each regime and if there are alternate, informal, ways of ruling the regions.

The material that will form the basis for our analysis of the proxy variable norms are official declarations that reflect the visions and goals of the organisations. For the Arctic Council this means the Iqaluit Declaration from 2015 and for the Antarctic Treaty System (ATS) the Ministerial Declaration on the Fiftieth Anniversary of the Antarctic Treaty. The preamble reflects the purpose of the organisations and their structure, and thus also defines the principles on which the regime relies. These declarations also contain recommendations of conduct meaning what constitutes good and bad behavior - in other words norms.

If we had unlimited resources, we would have preferred working with extensive interviews to properly map the inner workings of the regimes. However, seeing as we add the element of comparing what the regime is on paper with how it actually acts to cover potential disparities, we believe that the material chosen with our preconditions is sufficient.

4. Empirics

In an attempt to make the theoretical application on the cases more meaningful to the readers, we begin this section with a brief overview of the history of natural resource exploitation in both areas as well as the current numbers on how much resources there actually are.

Oil extraction in the Arctic region has been active since the 1970's, so there is no doubt that the area holds oil, and a lot of it. The question is just how much there is and who has access to it - both legally and from an environmental and territorial perspective (Noble & Maddock 2015). Most reports agree on an estimation of 90 billion barrels of oil hiding under the melting ice sheets, making it host to a fourth of the globe's total oil reserves, accompanied by 1,669 trillion cubic feet of natural gas (Conley 2013: 2; Ghoneim 2013).

The situation on the other side of the globe is quite different. Although it was a centre for whale and seal oil extraction in the 19th century, there has never occurred any drilling for hydrocarbon (Peterson 1988: 64). The existence of large oil reserves in Antarctic is in fact a highly debated claim. Some reports estimate that there could be up to 200 billion barrels of oil hidden in and around the continent, which would make it the world's third largest oil reserve (Teller 2014; Fogarty 2011: 4). These claims are disputed and even if they are correct, the extraction process would be extraordinarily expensive, if possible at all (Teller 2014). This could however change, seeing as melting ice caused by global warming could make access to the resources easier. An additional point to consider is that the very belief that there is oil can be as prominent a factor as if there actually is oil, creating a sort of Eldorado effect.

But could access and the amount of resources really be the entire truth as to why drilling for oil occurs in the Arctic but not Antarctic region? In the following section, we compare the regimes of both areas to see if differences there could provide a more thorough explanation.

4.1 Regime origin

As stated in chapter three, examining a regime's origin could tell us a great deal about which undesirable outcome the regime was put in place to avoid as well as determine which regime category it belongs to. The categorisation in turn would then predict how vulnerable the regimes are to social change, which is of interest in this research considering that Krasner himself states that a change in rules and decision-making procedures leads only to a change within the regime whilst a change in norms and principles changes the regime itself (Krasner 1983a: 4). If a regime is more vulnerable to social change, it would therefore be more

probable to change itself. When it is the highly sensitive environments of the poles that are at stake, a more rigid regime regarding environmental protection is desirable.

4.1.1 Arctic Origin

Since the Arctic region connects the main actors of the Cold War geographically, it should come to no one's surprise that policy as well as standards of behaviour were heavily influenced by this tension until the late 80's. Balance of power was the prevailing superstructure, dividing the region into two camps with the Soviet Union on one side, spreading out over almost half the area, and the United States and their NATO allies on the other³ (Young 2012: 166). The fall of the Soviet Union brought an abrupt shift to Arctic politics. From being a heavily militarized area with traditional security issues at the top of the agenda, focus now turned to cooperation and peace. Typically referred to as the starting point for this shift is Gorbachev's famous speech "Arctic zone of peace" in 1987, in which the president suggested cooperation between the Arctic states on multiple areas; one being a common strategy for environmental protection (Young 2012: 166; Koivurova 2005: 208).

This overthrowing of old norms and principles, what Puchala and Hopkins would call a revolutionary change marking the start for a new regime in the Arctic, was concretised when the eight Arctic states were invited on Finland's initiative to confer the matter in Rovaniemi in 1989 (Koivurova 2005: 208; Arctic Council 2015c). In this conference, held the same year as the symbolic fall of the Berlin Wall, the outline for two important first steps to the current regime was laid; the International Arctic Science Committee that came into practice in 1990 and the Arctic Environmental Protection Strategy that was signed in 1991 (Young 2012: 166).

The latter came to be of great importance as it not only identified the environmental priorities, but also created international environmental protection treaties and strategies for the area (Koivurova 2005: 208). This was then well incorporated in what came to be the current regime, the Arctic Council. The Council was officially founded in 1996 with background in talks between the eight Arctic countries, assisted by numerous organisations mostly portraying the interests of indigenous peoples in the Arctic Region, but also other countries and the International Arctic Science Committee (Arctic Council 2015c).

To summarise, the regime was put in place to better regulate cooperation on environmental protection in the area. Signed by the Arctic countries, but with six indigenous peoples organisations as permanent members, the regime has the characteristics of a negotiated order, but without having all of the affected parties part of voting (Young 1983: 98). Considering the fact that one fourth of the regime is constituted by superpowers, on one of which's initiative the regime was created in the first place, it might be better understood as a de facto imposed one. This would make it vulnerable to the shifting wills of superpowers, which will be analysed further in the discussion.

³ A map of territorial claims and disputed areas in the Arctic is available in Appendix 2.

4.1.2 Antarctic Origin

Although colonisation of the Antarctic region started during the explorer's voyages in the 16th, 17th and 18th century, dispute over claims were not viewed as too much of an issue until the United States questioned the very principle of the Antarctic being as open as any other land area to national appropriation in the interwar years (Peterson 1988: 32, 35). The expression of interest by the U.S. in making a claim in the region in 1939 was therefore secondary to the official stance of not making any claims of their own as well as viewing all other current claims as illegitimate. Other states backed this position, among them the Soviet Union and Japan, demanding to be consulted in the future of the Antarctic (ibid.: 36).

In the shadow of this, some overlapping claims had however caused tension and conflict in the area. Argentina, Chile and Great Britain had interest in many of the same islands and territories, without reaching an agreement on the right to the area. Great Britain even tried to bring the matter to the International Court of Justice, but the Latin American countries refused, citing different reasons for doing so (Peterson 1988: 36). Whilst Argentina viewed their claims as axiomatic, Chile was more prone to ease the tension temporarily by revisiting the idea first proposed by the United States in 1948 of freezing claims when the superpower wanted to escape becoming trapped in the Great Britain and Latin American dispute (ibid.: 37).

As the tension between the three states with overlapping interests almost led to outright naval conflict, negotiations of the region's future had to speed up. These were generally unsuccessful, but did nonetheless bring attention to the south, causing other actors to demand involvement by referring to international practice of allowing every interested nation access to discussions. This meant, to the original seven claimholders'⁴ and the United States' discontent, that the Soviet Union, as well as South Africa, Belgium and Japan, had to be included in the talks (Peterson 1988: 38; Secretariat of the Antarctic Treaty 2011).

It wasn't until talks about a new Polar Year, meaning worldwide research collaboration on the poles, accumulated in the International Geophysical Year in 1957 that the negotiation process took a proper turn. Launching a huge scientific collaboration in a climate of latent border conflict was not in the interest of any state, making the states with research stations or activity in the Antarctic region more prone to reach a decision and resolve current problems (Koivurova 2005: 205). By agreeing to disagree by freezing all current claims in order to properly focus on improving the environment for scientific research, the Antarctic Treaty was created in 1 December 1959 by the 12 countries either holding territorial claims or sponsoring the International Geophysical Year (Peterson 1988: 40-1; Koivurova 2005: 206). In regards to natural resource exploitation, a conscious decision not to include either permits or bans in the first draft was made in order to have it signed and ratified in the first place (Peterson 1988: 49).

In conclusion, the regime was put in place to prevent a territorial dispute that would interfere with research projects in the region. Freezing the claims shows that reaching an

⁴ For a complete list and map of the claimholders in the Antarctic, see Appendix 1.

unanimous agreement on borders and territorial claims was not of the highest priority, rather, it came secondary to successful research cooperation and was thus left to be dealt with should a problem arise again.

The decision was preceded by negotiations and signed by the involved parties without middle hands making the origin of the Antarctic regime fall under the category negotiated order and the subcategory “consultative” legislation following Oran Young’s definition. In contrast to the origin of the Arctic regime, the process started hundreds of years ago and the final constellation was not the result of a revolutionary change such as the Russian change of attitude, rather it was what is called evolutionary, meaning that it evolved slowly over time influenced by all actors with interest in the area.

4.2 Rules

In this section we will present the rules that regulate resource extraction in both regions. As we’re following Krasner’s definition of rules as specific prescriptions or proscriptions for action, any regulation that touches on resource extraction is included below. The two regimes represent diametrically opposed ways of regulating behavior and will be presented individually and then compared.

4.2.1 Arctic Rules

The current set of rules making for a regime in the Arctic is constituted by the Arctic Council, and this “set” of legally binding agreements for all eight Arctic countries only consist of two agreements; Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic and Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic (Arctic Council 2016). In other words, no regulations regarding oil and mineral extraction are formulated in international agreements or laws between the Arctic nations, leaving regulations up to the individual countries and claims on Arctic resources unrestricted (Ghoneim 2013). The national set of rules concerning resource extraction are broadly prescriptive and not proscriptive (ibid.).

There are however agreements on a global level that need to be taken into consideration before jumping to the conclusion that the Arctic region is beyond saving from oil hungry vultures. Even though the outcomes of the Arctic Council are mostly non-binding and we are currently lacking a comprehensive set of global restrictions for oil extraction, a set of rules that have come to play an important role in the Arctic is UNCLOS (Koivurova & Molenaar 2009: 25). UNCLOS regulates the territorial rights of international seas and is thus of high importance when states aspire to claim potential oil reserves that may or may not be within their national territory. By including “solid, liquid or gaseous mineral resources” in their definition of resources in article 133, international oil and mineral extraction would have

to follow UNCLOS and International Sea-bed Authority regulations (UNCLOS 1982: 69; Koivurova & Molenaar 2009: 25). However, it should be noted that the US has not yet ratified the convention (UNCLOS 2016).

Despite the fact that the Arctic Council only has two legally binding agreements, there are several guidelines regarding offshore oil extraction stipulated by the council, including recommendations for transportation and pleads for a precautionary approach to hydrocarbon extraction (Koivurova & Molenaar 2009: 27).

Another set of regulations that are applicable are a set of amendments to previous legislation on maritime activities called the Polar Code. The regulations are created by the International Maritime Organisation (IMO) and will prohibit discharge of oil, noxious substances, sewage and waste from ships (World Maritime News 2015). In addition it will also implement a classification system for ships in an attempt to prevent an oil spill (IMO 2016). The amendments have been agreed on and will be implemented from January 1 2017 and onwards (*ibid.*), but as several environmental NGOs have noted there is little promise of enforcement and all it takes is one major oil spill to severely damage the Arctic ecosystem (Mathiesen 2014).

In conclusion, legislation on resource extraction and transportation in the Arctic exists but is aimed at damage mitigation; more or less waiting for the next oil spill to occur but knowing how to react to it once it does.

4.2.2 Antarctic Rules

The rules that govern activity in the Antarctic are contained in two main policy documents; The Antarctic Treaty from 1961 and the Protocol on Environmental Protection to the Antarctic Treaty (PEPA) from 1998. At the time of writing this essay, fifty-three countries have signed the treaty.

One important function of the treaty is that it suspends any territorial claims in the Antarctic as they were when it was signed into law. It does not renounce any claims but prohibits any new claims (The Antarctic Treaty, 1959: IV). Albeit not a perfect or particularly just solution, it has limited the amount of territorial disputes.

The PEPA amended the Antarctic Treaty by committing the parties to “(...) the comprehensive protection of the Antarctic environment and dependent and associated ecosystems” and “(...) designate Antarctica as a natural reserve, devoted to peace and science” (PEPA 1991: 2). It also outright prohibits mineral resource extraction in article 7 (PEPA 1991:7). However, the treaty in its entirety will be up for review in 2048 and if three fourths of the signatories vote to abolish it, resource extraction could once again be a legal act (Davison 2013). In addition, maritime activities in the waters surrounding Antarctica are also legislated by the same maritime laws as the Arctic.

The two legally binding treaties, containing direct and indirect rules for activities in the region, clearly separates the Antarctic regime from its Arctic counterpart. Seeing as it contains both proscriptions and prescriptions of behavior, the rule-mechanisms of the regime are prominent. This indicates what Puchala and Hopkins call a formalised regime, the regime is legislated and monitored by an international bureaucracy (Puchala & Hopkins 1983: 65).

Not only is it a formalised regime, one could argue that it is the definition of one. As discussed in chapter three, the Antarctic Treaty itself constitutes the regime while the Arctic regime is a cooperation that so far has had lackluster results in the rule-department. This discrepancy in formality might be one of the reasons for the difference in environmental policy.

4.3 Decision-making procedures

If a regime is to have an impact, there has to be a system to implement the collective will of its members. As the effectiveness and inclusivity of these systems play a major role in the identity of the regime, we have in this section chosen to look closer at two factors that affect decision-making procedures; who is included in the decision process and how the decisions are made.

Let's first establish the difference in memberships between the Arctic Council and the Antarctic Treaty System. The Arctic Council has eight permanent members; Canada, the Kingdom of Denmark, Finland, Iceland, Norway, the Russian Federation, Sweden and the United States of America (Arctic Council 2015b). In addition to those, six organisations representing indigenous groups from the region hold special positions as "permanent participants" (Arctic Council 2016). This means that they have consultative rights and are included in decision-making, although not allowed to vote. A lower tier of participant status, observer, is granted to non-arctic states after approval by the council. The observers are to strictly observe, not intervene and this is the only way for a non-arctic state to be allowed in the sphere of Arctic Cooperation (Arctic Council 2016). The eight permanent members also take turns chairing the council, which also gives them the ability to decide what path the Arctic Council will take during their term (Koivurova 2005: 211).

Decisions regarding the Antarctic Treaty are made during Antarctic Treaty Consultative Meetings (ATCM). At the start of the cooperation, participation was granted to the original twelve signatories that conducted scientific research on the continent; Argentina, Australia, Belgium, Chile, France, Japan, New Zealand, Norway, Russia, South Africa, the United Kingdom and the United States of America (Secretariat of the Antarctic Treaty 2011). There is however one crucial difference, membership is open to any state who at the time are "conducting substantial research activity there". So far there have been seventeen recognised applications for participation; China, Germany and India to name three (Secretariat of the Antarctic Treaty 2011; Koivurova 2005: 206).

There are however very few differences in how decisions are made. The Arctic Council requires consensus for a decision to be regarded as legitimate, in reality granting a veto to all eight members (Arctic Council 2013). The ATCMs are considered a quorum if two-thirds of the consultative parties are represented and decisions can be made in several ways depending on the topic (Secretariat of the Antarctic Treaty 2015). Similar to the Arctic Council they are all made on a consensus basis.

This is admittedly a fairly brief overview of the subject, restricted by the scope of this essay, but the question of participation is of vital importance to our analysis. By allowing other states to participate in the decision-making process, it is possible that the Antarctic regime gain a more legitimate status than its Arctic counterpart. The reason for the limited membership in the Arctic Council might be connected to the fact that almost all of the territory in the Arctic region is claimed by the “Arctic States”, whilst all Antarctic claims are recognised as legitimate but frozen. This is however a weak argument, since climate change makes the Arctic a global issue, not a national one.

4.4 Proxy Variable: Normciples

As mentioned in the chapter on methods, we have chosen to create a proxy variable that will reflect the causal properties of norms and principles, referred to as *normciples*. In examining the latest declaration from the Arctic Council, the *Iqaluit Declaration*, and the *50th Anniversary Declaration* from the Secretariat of the Antarctic Treaty we find similarities but also important differences in projected norms and principles.

Firstly, both documents describe the goal for the concerned regions with phrases regarding peace and cooperation, but there are vital differences between the two descriptions. The Arctic Council projects the idea that peace and stability is something to *maintain*, meaning that without constructive cooperation there would be chaos and violence. This indicates that the Arctic regime is based on a worldview found in the realist tradition of international relations. In contrast, the Antarctic is to be used exclusively for peaceful purposes, in the interest of all humankind. By emphasising the *exclusivity* of peace, any military action constitutes a non-normative behavior whereas in the Arctic Council, all discussion on military matters is banned following the Ottawa Declaration of 1996 (Nord 2016).

Reaffirming the commitment to maintain peace, stability and constructive cooperation in the arctic (Iqaluit Declaration 2015)

Recognizing that it is in the interest of all humankind that Antarctica continue to be used exclusively for peaceful purposes and shall not become the scene or object of international discord (ATCM XXXII 2009)

This also taps into the idea of the Antarctic as *the last wilderness*, an uninhabited landscape too unique to disturb. This idea is reiterated in descriptions of the continent and in arguments for increased environmental protection. This idea leads in to another major difference between the two regions we have to recognise - their inhabitants. Whilst the Arctic Council clearly states that they are

[r]ecognizing that the Arctic is an inhabited region with diverse economies, cultures and societies (Iqaluit Declaration 2015),

the Antarctic does not have an indigenous population or permanent population to speak of. The norms projected by the Arctic Council reflects that when dealing with Arctic affairs one has to consider the indigenous population. This matters since decisions have to be made based on the question “What is the best option for the people living in our region?”, instead of “What is the best option for the Arctic region?”. This is exemplified in the reception of the creation of the Arctic Economic Council, seen below. It clearly links economic initiatives as beneficial to the people of the Arctic whilst specifying the need for *responsible* action; a wording that is consistent with the Arctic Council's more lenient view on economic activity.

Welcome the establishment of the Arctic Economic Council, and look forward to developing a cooperative relationship with this body in order to increase responsible economic development for the benefit of the people of the Arctic (Iqaluit Declaration 2015)

The Antarctic regime on the other hand presents a contrasting view. As discussed earlier all mining of mineral resources is banned on Antarctica since the adoption of PEPA (Article 7), and ten years later that proclamation was reaffirmed in the 50th Anniversary Declaration. Such a forceful measure indicates that the regime favors environmental protection over economic incentives and the fact that the ATS reaffirms their commitment to it means that it is a core principle of the regime. In sum, the ruling principle is that economic activity is incompatible with peaceful environmental protection and scientific endeavors.

Reaffirm their commitment to Article 7 of the Environmental Protocol, which prohibits any activity relating to mineral resources, other than scientific research (ATCM XXXII 2009)

As discussed in the chapter on rules, the Arctic Council has not implemented any proscriptions of this magnitude. Their policy is aimed more at disaster management and accident prevention, as exemplified in an earlier discussion on the Polar Code. This preference for softer regulation can also be found in the Iqaluit Declaration, the paragraph below focuses on how to deal with an eventual oil spill but does not attempt to limit the root cause of the disaster.

(...) **further recognize** that marine oil pollution prevention, preparedness and response remain a long-term commitment of the Arctic Council (Iqaluit Declaration 2015)

But how do the regimes confront climate change itself? Both regimes recognize the impact of climate change and the effect it will have on their regions (Iqaluit Declaration 2015; ATCM XXXII 2009). The Arctic Council also recognizes that global and national action is needed to combat climate change and acknowledges that greenhouse gas reduction is the “most important contribution” to addressing the problem (Iqaluit Declaration 2015).

Noting with concern the findings of the United Nations Intergovernmental Panel on Climate Change that the Arctic will continue to warm at twice the rate of the global average, increasing the likelihood of severe impacts in the Arctic and around the world, and **recognizing** that ambitious global and national action is needed to reduce climate risks, increase prospects for effective adaptation, and reduce the costs and challenges of mitigation in the long term (Iqaluit Declaration 2015)

Concerned about the implications of global environmental change, in particular climate change, for the Antarctic environment and dependent and associated ecosystems (ATCM XXXII 2009)

Overall, the attitudes towards climate change are quite similar but differ on one point in particular; The ATS makes a clearer connection between human activity and the protection of the environment, a distinction that could be important for the character of the regime.

Mindful to ensure that human activity in Antarctica, including tourism, is conducted in a manner that effectively promotes the continued protection of the Antarctic environment and minimizes cumulative impacts (ATCM XXXII 2009)

An important but not directly related factor is how the regimes deal with territorial disputes. Article IV in the Antarctic Treaty froze the territorial claims as they were at the signing of the treaty (The Antarctic Treaty 1959).

Reaffirm the importance they attach to the contribution made by the Treaty, and by Article IV in particular, to ensuring the continuance of international harmony in Antarctica (ATCM XXXII 2009)

By stressing the importance of preserving the territorial status quo it almost becomes a non-issue, allowing for more productive cooperation on environmental matters and scientific study (Serdy 2009: 181).

4.5 Action

What a regime is on paper is one thing, but in order to paint a realistic picture, a comparison to actual events is in place. We would therefore like to finish this chapter by citing situations where behavior of states have challenged the regimes.

One of the more recent examples is Shell's drilling endeavours in the Arctic waters outside of Alaska. In a controversial decision, president Obama gave Shell permission to drill outside of Alaska in May of 2015 (Liptak 2015), a decision that were to be reversed only one year later (Goldberg 2016). Interestingly, we have not found a single statement from the Arctic Council on this matter, which can be caused by several factors. As we discussed earlier, the chairmanship of the Arctic Council grants quite a lot of power, and seeing as the US chaired the council during this period one has to wonder whether the two events are connected. The strength of a regime is seriously threatened when the actor whose behavior needs to be questioned is also a driving veto-granted force in that very regime.

It is quite telling that we were unable to locate any case of clear breach to the Antarctic norms of behavior, further solidifying the general theme found so far; that the Arctic is a less stable regime than the Antarctic.

5. Discussion

With the results in our hands, what were the differences between the regimes and how important were they for shaping actual policy?

It is in the rules the regimes differ the most. We can see a clear dichotomy where the ATS presents a hard, proscriptive regime and the Arctic Council a soft, more laissez-faire one.

Two important factors that could explain this difference is time and timing. As presented in the chapter on regime origins, the Antarctic regime grew out of an era of exploration where scientific discovery was seen as an imperative. The Arctic Council on the other hand followed an era of power balance and military posturing in the Arctic and we believe this difference to be of vital importance. This revolutionary change in the Arctic contrasts the evolutionary change in the Antarctic, indicating that the dominating world politics during the time the regime came in to being highly affects its future behavior. As for time, the ATS has been active for over fifty years, compared to the comparatively minimal twenty years of the Arctic Council. Recalling Krasner's work on feedback-mechanism, it is possible that the time advantage has allowed the ATS to effectively shape the world's view of the Antarctic. It is also possible, since the environmental regime in the Arctic came so late and oil extraction in the Arctic region has a rigid history, that the same mechanism has ingrained economic imperatives and resource exploitation into the norms of the Arctic States.

We would however want to raise the question of whether the Antarctic approach of including the norms and principles in written rules strengthens them and makes them harder to change or dismiss or if there are other stronger factors affecting the correlation. As with all international law, rules only apply as long as states agrees to them and it wouldn't be the first time a big power acts in a manner not previously accepted by the international community if let say the U.S. or Russia were to start drilling in the Antarctic and thus first breaking international law but later might have it be customary (United Nations 2016; MacAskill & Borger 2004).

But, as much as we want to believe in the power of norms and principles, the Arctic drilling case has proven them to be erratic when not backed by legislative power. Also, the legally binding treaty has established a "way" to handle things in the Antarctic, proved by the fact that the treaty was successfully amended in 1998 adding even more proscriptions, clearly showing the power of rules (see the chapter on rules).

As we saw in the chapter on decision-making procedures, who is included in the process matters immensely and this can also be traced back to how the regimes were created. The membership of the Arctic Council has remained static and limited to the Arctic States and permanent participants while the ATS is an ever expanding constellation of states. Following the reasoning presented in the theory on regime categorisation, a regime with fewer members ought to be more sensitive to change in norms and principles of one actor - especially if that

actor happens to be a superpower such as the U.S. or Russia. This could explain the ambivalence seen in regards to Arctic drilling, seeing as the Arctic Council only has eight members and therefore an initiative to drill from one member, particularly a superpower, in itself forms a larger voice than it would in the Antarctic with many more members.

Also, as touched upon in the origin section, seeing as the Arctic regime could be viewed as a de facto imposed order disguised as a negotiated one, the presence of the superpowers might be more influential than what a democratic negotiated order would give them credit for. The impact of having one fourth of a regime be composed of superpowers might then affect its resistance to social or norm change and thus be one part of the explanation as to why the region lacks a legislated long-term environmental protection strategy.

Another point worth touching upon regarding the origins of the regimes and the reasoning in the previous paragraph is that before the current regimes, the two cases differed severely in who was present. Not necessarily meaning who as in different states, the Antarctic and Arctic differed in terms of righteous claims. As the Arctic had state territory surrounding every last bit of the region, leaving only a small part in the middle untouched, the possibility of other actors claiming territory was not evident and the regime could be formed on the Arctic states' conditions. On the other side of the globe, one could argue that nobody's claims were better than the others', seeing as no state had national territory even close to bordering Antarctica.

As far as normciples are concerned, there are similarities in the themes covered but how these themes are confronted differ; the Arctic Council prefers recommendations and soft prescriptions of behavior whilst the ATS doesn't shy away from proscriptions and clear wording. This brings into question if differing superstructures have affected this outcome; seeing as the themes are similar but different in character. The specific regime of the Arctic seem to primarily be a subset of the national security regime and the economic cooperation regime, while the Antarctic is affected by superstructures such as scientific cooperation, preservation of nature and peace. This has skewed cooperation in two different directions, resulting in the differing regimes we have described in this essay. It is however important to note that this type of analysis inevitably suffers from bias, and in order to establish more legitimacy to the argument it should be replicated by other researchers.

The comparison between normciples and actual behavior in the empirics further establishes that the regimes are of differing strength, in this case meaning that the Arctic states do not necessarily live as they preach whilst the Antarctic seems not to have a shift of norms in sight - despite upcoming numbers on oil resources. This can also be connected back to their differing origin; if the Arctic is in fact an imposed order disguised as a negotiated one, the power of the dominant actor is ever present and diminishes the democratic elements of the regime, making it more prone to change.

Lastly, addressing the possible underlying variable that is the availability of the resources, we argue based on the conclusions reached above that whilst it cannot entirely be dismissed, it alone would not explain the different approaches to environmental protection. Since the Antarctic regime has so many legislative members making it rigid towards change, norms and principles translated into rules as well as having been around for a long period of time and thus settling the idea of the Antarctic as peaceful and off-limits, it is unlikely that the

policy would change even if large oil reserves were to be uncovered by the melting ice. Even if oil was to be discovered within a national claim, an Arctic approach seems distant. If peace was chosen over border and resource conflict once - why not again?

6. Conclusion

It has now become evident that the customised version of regime theory used in this essay was sufficient to map the differences between the cases. In this concluding passage, we would like to emphasize three main explanations within regime theory that explains why the Arctic and Antarctic have differing environmental protection policy.

Firstly, the norms of the Arctic regime are geared towards cooperation; but cooperation on a number of subjects where environmental concerns often have to take a back seat. The norms of the Antarctic regime are primarily focused on environmental protection, scientific cooperation and peace; the norms and principles of the Antarctic are also all included in one central legally binding treaty and so are the rules. This amplifies their importance, making actors more prone to following them.

Secondly, the origin of the regimes clearly affects their identity and dynamics. The Arctic's Cold War heritage shaped the power dynamics we see in the region today, allowing for superpowers to continue posturing; complicating cooperation and long-term agreements. The past is also the reason for the Arctic Council's limited and closed membership; a factor that we argue severely limits its legitimacy as the "go to" organisation in the Arctic.

Lastly, the Antarctic's consistency contrasts the inconsistent behaviour of the Arctic members in relation to their on-paper regime and proves the latter regime's lack of strength and the members' probability to pursue short-term gains whilst disfavours the collective good.

6.1. Future Research

Given more time and resources, this study could be extended in numerous ways. Firstly, focusing on the theoretical part, the combinations and modifications made ought to be applied to different cases in order to test its viability and conclude whether it needs alterations to be applicable on more if not all cases. Secondly, as the regime origin turned out to play a bigger role than we first anticipated, further research would dig deeper into this part, also incorporating changes within regimes to help determine where the power in that specific regime lies and thus better predicting behaviour.

Lastly, having concluded several different correlating explanations as to why the cases have differing environmental protection policy, a natural next step to expand the research would be to rank them. This would also bring a more societal approach to the study, as it could be a step towards a policy recommendation to what matters the most when reaching a lasting international agreement on environmental protection.

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Appendix 1. Graphic of the Antarctic Territorial Division



Source: Teller 2014, BBC

Appendix 2. Graphic of the Arctic Territorial Division



Source: Foreign Policy Digest