Seeing Like a State in a Society of States

The social role of science and technology in the northward expansion of the international society

Justiina Miina Ilona Dahl

Thesis submitted for assessment with a view to obtaining the degree of Doctor of Political and Social Sciences of the European University Institute

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Department of Political and Social Sciences

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Preface

At the time when I enrolled as a graduate student at the European University Institute in the autumn of 2011, all of the eight member states of the 1996 established Arctic Council had recently published a new official national Arctic policy. These policy documents narrate a specific, prosperous future for the melting northern periphery of the world. In this narration, the eight Arctic states stand among the few winners in what can be described as an anthropomorphic global climate change lottery. This status is due to the expectation that the twenty-first century will witness major changes in the geography of this region. These changes are expected to enable the opening of new global trans-shipment routes on top of the globe, the harvesting of natural resources that have previously been locked and hidden in permafrost, as well as the push of agriculture and increased quality of living for human settlement further northwards. The original plan in this thesis was to trace and analyze some of the fundamental ideas and values constitutive of the modern international order through these contemporary narrations directed towards the international audience. The final research project ended up as a comparative case study of these types of official policies reaching back half a millennium. The path that led to this change of temporal scale is one that began far from the Arctic where I had spent the five years leading up to my enrollment at the EUI.

For the first year of my graduate study I visited the office of my thesis supervisor, Professor Christian Reus-Smit, at the EUI more or less regular intervals of every fortnight. The agenda of these meetings was always the same. They consisted of discussions about the summaries of the histories of the Arctic and the eight Arctic states that I had dug up and sent to Chris beforehand. The reason I was doing this historical review was because Chris did not think my original research idea was all that interesting. After having spent the past three years digging up the official paper-trails of what are, in hindsight, several failed attempts of similar sovereign-supported attempts for appropriation of the Arctic than the contemporary ‘sovereign Arctic dreams’ consist of, I believe it is safe to say that Chris was right: The ebb and flow of these attempts during the past half a millennium does, indeed, make a much more intriguing international phenomenon to explore than the former.
It goes without saying that one does not write a Ph.D. dissertation with the temporal and spatial scale of this one by sitting at the office of one’s supervisor in Florence. Anyone who has ever taken on the type of comparative, international system-level, inductive, work that I present in the following pages also knows that one does not endure the uncertainty associated with this research approach without being able to rely on a host of amazingly generous, kind, and above all, patient people. The list of individuals who enabled me to take on what could be described as the expansion of my original project into the unknown, and to endure with the uncertainty associated with every step this process, is an especially long one. It is also a list that has its origins in years of work, study and every-day life far away from the beautiful Badia Fiesolana where the origins of the intellectual labor for this thesis are. In order not to make this already long thesis an even longer one, I will, however, begin the following, shorter version of the list of acknowledgements from Florence.

The first person I extend my gratitude towards in completing this work is Chris. He has seen and commented on not only the good and the bad, but also the really, really bad (that on more than one occasion border-lined with mad), drafts of the work. During my first year, when the analytical framework of the thesis began to include more and more questions related to different sciences and technologies, it was also Chris who directed me towards the second supervisor of this project, Professor Trevor Pinch. During my second year of graduate study, Trevor welcomed me at the Cornell Department of Science and Technology Studies. During my visit there I learned the basics of this multidisciplinary discipline. Was it not for his intellectual guidance and personal encouragement, I would also have ended up taking an exit from the thesis before ever setting foot into an archive. It was also at Cornell where I met my most inspiring peer-support group consisting of Sahar, “Papa” Chris, and Chris-Chris (not to be confused with the first mentioned Super(visor)-Chris). Multiple times during the past four years, when I was not sure I had it in me to finish this work, these three kind souls convinced me that I could (and should) continue with it.

At the EUI I have had the good fortune to belong to a social constructivist peer-support group consisting of Andrea, Maja, and Payam. These three know exactly how bad it can get before the silver lining of the argument finally appears. My office mate at the EUI, Simon, also belongs to this gang. I will acknowledge him separately as he was the one
who asked me all the tough questions that got my argument rolling at the time when I was really stuck. He also diligently sat next to me through the full emotional and intellectual roller-coaster that the final six months of this thesis writing entailed. At the EUI, I also want to acknowledge Johannes, Piotr, and Diana, as well as the always welcoming Department of History and Civilization, for providing me with a more coherent perspective on how and where to do, read, and research the ‘histories of the Arctic that never were’ the primary empirical material thesis consists of. During the past four years I have also, on occasion, stuck my foot into the Department of Law. There I want to especially thank the brilliant Jacobien for her all her deep philosophical insights. In terms of intellectual support and inspiration, I also, want to extend my deepest thanks to the full staff and students at the Cornell Department of Science and Technology Studies, the Scott Polar Research Institute, and the Aleksanteri Institute where I held visiting fellowships while conducting the research that went into this thesis.

During the international archival and public library work that went into the completion of the thesis, and what turned into presentation “tours” at a handful of different conferences, I have, as well, accumulated a personal debt to a multitude of friends and family outside the walls of academia. These friends have provided me with save havens to work, prepare, relax, and recharge my batteries. In the US, I want to especially thank my American “dad” Edwin for keeping my stash of Reese's Peanut Butter Cups full, and getting me safely from Connecticut to Ithaca. My American “mom” Deborah and her partner Todd have, in turn, made their home and family in Gig Harbor my home and family in Gig Harbor. During the past four years I have spent weeks if not months sitting at their kitchen table, and at Deb’s office typing away essays, chapters, presentations, and a wide array of all kinds of papers. In the US I want to extend my warmest thanks also; to Carole for letting me have free use her sauna (for a Finn this makes a world of difference); to Linda and Norton for the same favor, as well as for all the inspiration and spiritual guidance; and to Michelle B. for being a more and more fabulous friend year after year. The archival and library work I conducted in Norway is, in turn, indebted to the support of; the staff (and the sauna) of the Finnish embassy; my old embassy god mother, Maarit; and Ingrid who I have had the good fortune to have as part of my life since one sunny summer in Iceland a decade ago. It was during that summer that I also met Martin. During the past years has kept on encouraging me to get out of my linguistic comfort zone of Swedish and into learning the skills in cross-communication with the
other Nordics. Hammering down the chapters while completing some teaching training in Maastricht would, in turn, have been a very lonely task was it not for Michelle L., Leonie, Magda and Nisida.

Despite the density and extent of my travels, my biggest gratitude and debts remain with my friends and family back home in Finland. They have endured, not only my physical, but also emotional, absence during the past four years. That is because when I have gone back home, I have normally come with a long list of work I needed to complete during those stays. In my northern motherland I want to first thank Kaisu and Börje for putting me up in Sipoo for the whole duration of my stay at the Aleksanteri Institute, and work in the archives of the Finnish Foreign Ministry. This thesis would be of a very different quality and quantity without your help. I also extend special thanks to my travel-companion and partner in most crimes, Mari, for making it her mission to regularly make sure I did not forget that there are other things in life than just work. My two brothers I thank for always having their sister's back. I extend my especial gratitude to my littlest friend Maisa, who always manages to keep her auntie grounded, centered, and lured into new adventures. During the writing of this thesis I have also been blessed with the help of my own great aunt Anneli and “Opa” Rudolf. This thesis, like most things in my life I, nevertheless, owe first and foremost to my parents, Kirsi and Jussi, and their endless support and understanding of my travelling, working, and rather eccentric interests in life. Last but not least, I want to thank my best friend, the greatest explorer I have ever known, my grandmother, Kirsti, and our guiding light in the eleventh floor, my grandfather, Toivo. I dedicate this thesis to their loving memory.
1. Introduction

John Hoffman begins his 1998 work on the concept of sovereignty by explaining how, despite its prominence in the study of International Relations (IR) and international law, the notion still “bothers our politicians, it bothers the public and it bothers academics” (Hoffman 1998, 1). Hoffman’s description continues to be accurate almost twenty years later. One concrete example of this prominence of questions of sovereignty at present are how these three audiences reacted to a private research mission that planted the Russian flag on the seabed underneath the North Pole in 2007. After this mission’s visual material of the process of flag-planting went viral, the then Canadian Foreign Minister, Peter MacKay, gave a public statement where he explained how: “This isn’t the 15th Century...You can’t go around the world and just plant flags and say ’We’re claiming this territory’” (BBC News 2007). The flag planting was, as well, followed by a general increase in public concern about Arctic sovereignty. In this discussion, the, at the time, still unresolved sovereign border-issues in the Arctic Ocean became narrated in terms of “a scramble for the Arctic” and a possibility of a “meltdown” of the global political order on top of the world (Borgerson 2008; Macalister 2010; Mahr 2010). This increase in public concern over Arctic sovereignty issues was matched by a similar rise in academic publications on the topic.

Klaus Dodds (2010) used the media frenzy associated with the Russian flag-planting to discuss international institutional aspects of sovereignty from the standpoint of the politics that go into making territories calculable, legible, and divisible in international maritime law. Philip Steinberg (2010) wrote a critical response to this discussion. He argued that Dodds’ analysis did not give a detailed enough account of the unevenness of the politics of authority that go into the maintenance of sovereignty as the main organizational principle of the international politics of the littoral Arctic states. At the same time as this academic discussion about the politics of international institutional authority and sovereignty was heating up, a much more practical, institutionally organized process related to it continued in the Arctic Ocean with much less public commotion. This process is the peaceful and painstakingly slow territorial appropriation of specific parts of the Arctic Ocean, according to the rules of the United Nations Convention on the
Law of the Sea (UNCLOS), connected to certain scientific explorations undertaken by Canada, Norway, Denmark, Russia, and the United States during the past two decades.

The explorations these five states have taken in association of UNCLOS have taken and are taking place in areas of the Arctic Ocean, which, at the time, were yet to be given an official status in international law. These areas consist of the seabed and ridges of the Arctic Ocean floor over which four of these five states can, on the basis of their ratification of UNCLOS, lay official claims for specific rights of ultimate territorial authority. In the more specific terms of UNCLOS, the four Arctic states that have ratified the convention – Canada, Norway, Denmark and Russia – can make claims for extended continental shelf-territories up until 350 nautical miles from the limit of their official territorial sea baselines (UNCLOS, Part VI, Article 76). Once established these states will have exclusive rights over “the mineral and other non-living resources of the seabed and subsoil together with living organisms belonging to sedentary species” in these zones (UNCLOS, Part VI, Article 77). In order to validate these extensions to the standard limit of continental shelf-territories at the 200 nautical mile –limit from the territorial sea baselines, the states need to collect detailed geographical information of the formation of the seabed in the areas they wish to lay claims to. This information is then presented to the Commission on the Limits of the Continental Shelf (CLCS) for further evaluation (UNCLOS, Part VI, Article 76). The gathering of this data is a process that all of the littoral Arctic states have been, in co-operation with one and other, engaged in during the past two decades.

The international collaboration between the littoral Arctic states in the collection of the natural scientific knowledge for the purposes of territorial appropriation through UNCLOS has also been publicly and academically reported on as well as politically commented upon (Baker 2010; Byers 2013, 71-82; Riddell-Dixon 2008). The discussions about the concept of sovereignty in this context have, in general, been much less animated than those associated with the Russian flag-planting episode. The differences in style and content in these engagements are not of central importance when they are used as illustrations of how the concept sovereignty remains a central, contested, topic in global politics of the twenty-first century. In Hoffman’s terms, how it continues to bother politicians, the public, and academics. They become more significant when they are also referred to as examples of some of the dominant analytical contexts in which
sovereignty is being discussed at present in International Relations (IR), political geography and international law.

When discussed as examples of some of the central analytical contexts in which sovereignty is debated at present, the aforementioned descriptions illustrate how, within IR, international law, and political geography, these debates, for the most part, follow the traditional, hegemonic, disciplinary research paradigms of these disciplines. These traditional frames of reference can be summarized with analytical concepts such as great power politics, traditional as well as critical geopolitics, and normative as well as practical questions related to boundary-making. When approached as such, there is one specific, traditional disciplinary school of IR that the previous literature on Arctic sovereignty can be seen to rarely refer to. When contextualized according to the conceptual frameworks of this school, the ongoing process of extension of the sovereign rights of the four littoral states further in the Arctic Ocean according to the framework of UNCLOS becomes an example of yet another empirically observable, repetitive international practice in the modern, global political universe. This practice consists of the gradual, extension of the geographical scope of the European-origin, Westphalian international authority structure to cover almost all of the surface areas of the Earth. Within this missing, English School of IR, this process has been conceptualized as the expansion of international society (Bull and Watson 1984; Buzan 2014, 60-77; Linklater and Suganami 2006, 146-153).

When discussed in terms of the English School, as the expansive practices of the four littoral Arctic states follow the international legal regimes in new territorial appropriation, the extension of the specific rights of these states into these regions will not only extend their externally recognized ultimate territorial control further. They will also expand the overarching authority structure of the modern international states-system into yet another previously little-known-of region currently outside of the scope of this framework. The connection between the legal and the scientific spheres of the European-origin international society (EIS) in the processes through which sovereignty as the main organizing principle of the system behind it have been institutionalized is particularly clear in this contemporary Arctic context. That is first, because of the aforementioned dependence of the extensive continental shelve – claims on the collection of specific new, scientific data of the Arctic Ocean. Secondly, because all of the members of the CLSC
that evaluate this data are technical specialists in the natural sciences, not international legal experts (UNCLOS, Annex II, Article 2). It is the development of these types of connections between specific forms of techno-scientific knowledge production, international law, and the concept of sovereignty that this thesis sets out to further investigate, illustrate, and theorize. The principal result of this study is the development of a new, constructivist framework of analysis aimed at the further facilitation of the discursive, historical study of the genesis of the normative foundations of the contemporary global order. The development of this theoretical framework unfolds in this thesis as follows.

The first substantive chapter of the thesis, Chapter Two, presents an overview of the main historical and sociological approaches in the study of the genesis of EIS organized according to the principle of sovereignty. This overview achieves three things. First, it outlines the main approaches to the study of two specific processes the study of the genesis of the modern international order has been organized according to. The first is the emergence, and the second the expansion of the EIS. Secondly, it gives an overview of how these studies accord for the development and change of different, international institutions and organizations in legitimate natural and technical knowledge production as well as international law in the EIS. This overview illustrates how these studies have a tendency to accord science and technology primarily with a utilitarian, and not a socially constitutive, role. What I mean by this is that science and technology – or more accurately specific sciences and technologies – feature as part of the historical sociological study of the genesis of the modern international society. They are, however, not analyzed as socially coordinated and organized institutional human practices for legitimate natural and technical knowledge production. Instead, they are studied as mechanical tools that have enabled the expansion of the EIS by increasing the “interaction capacity” between different states and peoples (Buzan and Little 2000, 80–84). The third achievement of this overview is the beginning of the more abstract, theoretical discussion of what kind of frameworks and aspects of social power are overlooked, or in terms of Science and Technology Studies (STS) black-boxed, as a result of this utilitarian treatment of science and technology in these accounts.
Chapter Three moves onto a more detailed description of one specific type of previous analysis of the emergence and expansion of the EIS. This approach describes the constitutive power of inter-subjective values, norms and principles in these processes in terms of periodically stable, but historically variable, international constitutions. After summarizing the basic features of this analytical approach, the chapter turns to show how it has been empirically applied to the study of the expansion of the EIS. Through this overview I illustrate how the studies that follow this approach, have described and empirically illustrated the constitutive role of ideas, norms, and principles in what I outline as the ‘social’ expansion of the EIS. That is, expansion of this international society that has primarily entailed increases in the numbers of its legitimate sovereign members. This focus has left the study of their constitutive role in what I conceptualize as the, in contrast, predominantly ‘material’ or ‘geographical’ expansion of the EIS largely unaccounted for. By this I mean the expansion of the EIS through the extension of the ultimate territorial authority of states that are already its members into previously unknown or little-known-of regions through voyages of exploration and settlement. These two forms of expansion are interlinked as the latter has often involved the forceful extension of rule over peoples. They are, however, not interchangeable.

In terms of the concept of sovereignty, what I term as the social expansion of the EIS has been predominantly associated with the development and change of hegemonic definitions for who the legitimate holders of sovereignty in an international society are, can, and should be. The material or geographical form of expansion has, in contrast, been primarily associated with negotiations over how the territorial exclusivity of the existing members of international society should and can be established and maintained, as well as how it can legitimately be expanded into previously unknown or little-known-of terrains outside of the framework of war. Through the more detailed discussion about the basic international institutions the organization of these two forms of expansion can be seen to have been associated with it in the EIS, I begin the development of an alternative, constructivist framework of analysis for what I conceptualize as the co-production of international institutional networks in legitimate knowledge production and in international law in the EIS. In the context of the two forms of expansion of the EIS this framework translates to a study of, how the international organization of different, legitimate ways of knowing, organizing and governing the natural world have been inseparably linked with
questions of who are and can become sovereign agents and what their basic prerogatives and responsibilities are perceived to be in the international society (Jasanoff 2006b, i).

Theoretically the new framework of analysis that I develop in the second half of Chapter Three builds on two different disciplinary approaches that analyze the role of ideas, beliefs, and norms in the organization of human affairs. The first one is the social constructivist historically oriented study of the genesis of the European-origin international society in IR. The second, what in STS, has been conceptualized as the study of the co-production of science, technology, and society. In more specific terms, in developing this framework I argue that, what Reus-Smit defines as the constitutive hierarchy of international institutions in the context of the EIS, has been co-produced with the stabilization and change of another, interlinked, but not interchangeable, one. In order to facilitate for historical comparison, I conceptualize the original framework as the ‘social’, and this second, as the ‘material’, constitutive hierarchy of international institutions of the EIS. Together these two constitutive hierarchies of international institutions make up what I term, following Bruno Latour’s distinction of how governance of the non-human and the human world has been organized in Western cultures, as the ‘double-constitutional structure of the EIS’. I present the social side of this framework in detail in the first part of Chapter Three. The new, material-side is, in turn, discussed at length in this second part of the chapter.

In short, in what I term as the material constitutive hierarchy of international institutions the equivalent of the level of legal and diplomatic fundamental institutions of the international society is represented by a similarly historically contingent, but periodically stable, epistemic authority structure of the EIS. This basic form of international institutional co-operation between states defines the elementary rules of practice for legitimate knowledge production, as well as what is considered to be rational governance of the material world in the EIS. In brief, it defines the common consensus over what is known, how it is known, and what the knowledge is deemed to be good for. Similarly to the original, social, fundamental institutions, the legitimacy of the epistemic authority structure is only partially based on the accumulation of empirical knowledge through the spread of practical regimes for legitimate natural and technical knowledge-production in the international society. Its more elementary social power is, instead, derivative of the material equivalent to the most basic level of social, international institutions in Reus-Smit’s framework: the constitutional structure. Also similarly to the original analytical framework, this
material constitutional structure consists of a three-fold set of deep, inter-subjective, normative elements. In order to allow for comparison of their composition across different historical periods, I conceptualize these elements as: ‘the norm of the role of Western humanity in nature’, ‘the developmental paradigm of the international society’, and ‘the organizing principle of operational sovereignty’. Like the three elements of the social constitutional structure they are mutually interconnected and dependent, forming a single, historically contingent, but periodically stable, coherent, fundamental normative system of the international society (Reus-Smit 1999, 33).

The following four chapters describe the content of the three norms of the material constitutional structure and the form of the epistemic authority structure in relation to those of the previously analyzed social ones at different times during the emergence and expansion of the EIS. The organization of this research follows a specific combination of constructivist research methodologies from STS, History and Philosophy of Science (HPS), and IR. In practice this combination of methods means that each of the four empirical chapters begins with a macro-historical review that describes what I term as the four revolutions in the epistemic authority structure of the EIS, and the corresponding status of the social constitutive hierarchy of international institutions as presented in Reus-Smit. After these macro-historical reviews the chapters continue with two or three in-depth comparative-case studies consisting of the analysis of the discursive justifications used for the constitution and mobilization of sovereign power for the exploration and eventual settlement of previously unknown or little-known regions in the Arctic. The key feature in all of the attempts under analysis is that they are characterized by a lack of previous natural and technical knowledge of the materiality of these regions of expansion. I argue that due to this lack of previous knowledge in justifying and organizing their expansive actions to international as well as national audiences the governing elites of states and the epistemic communities associated with these attempts reflect upon the foundational levels of the double-constitutional structure of the EIS. The study of the co-production of the social and material constitutive hierarchies of international institutions of the EIS that follows this research logic and method of discourse analysis unfolds chronologically according to what I conceptualize as the four revolutions in the epistemic authority structure of the EIS.
The first empirical chapter, Chapter Four, begins with an overview of what within HPS has later been conceptualized as the Scientific Renaissance (from the end of the fourteenth until the beginning of the seventeenth century). It then moves onto a discussion of the concomitant emergence of what I term as the social constitutional structure of the absolutist international society of Westphalia. After this macro-historical overview, the chapter continues with the empirical analysis of the different levels of international institutions in the material constitutive hierarchy of international institutions. The primary research material in this analysis consists in the discursive justifications for the constitution and mobilization of sovereign power for the exploration and settlement of the previously unknown or little-known-of northern regions by the legitimate holders of sovereignty and specific international epistemic communities in the sixteenth and early seventeenth centuries. The first of the three attempts of northward expansion of the international society through settlement at this time is Francois I’s decision to support the exploration and settlement of New France between 1532 and 1542. The second is Elizabeth I’s attempt to extend her sovereign authority into a region she, in 1577, named Meta Incognita. The third case study is, in turn, made up of Carl IX’s efforts to expand the territorial borders of the newly independent Swedish state further northwards through the increase of Swedish settlement in the northeastern parts of the Kola Peninsula at the turn of the sixteenth and the seventeenth centuries. The more abstract, theoretical argument about the co-production of the two sides of the double-constitutional structure that follows is that, at this time, the revolution in the material side contributed to, or more accurately, co-produced, a revolution also in the social one.

In Chapter Five I first summarize what I conceptualize, following Reus-Smit, as the configurative phase of the social international institutions of the absolutist society of states in the early eighteenth century. I continue by contextualizing the description of this phase with another macro-historical discussion about the changes in international institutionalization of technical and natural knowledge production in what has later been conceptualized as the Scientific Revolution (from the seventeenth until the late eighteenth century). After this macro-historical overview, the chapter moves onto two qualitative case studies of what can, in hindsight, be regarded as failed attempts to expand the international society northwards through settlement in the eighteenth and early nineteenth centuries. The first case consists of the discursive analysis
the reorganization of governmental policies in foreign relations, economics, and education under the rule of the Hat party in Sweden between 1738 and 1766. The second case is, in turn, comprised of a discursive analysis of the justifications given for the constitution and mobilization of sovereign power for the geographical eastwards expansion of the ultimate territorial authority of the Russian Empire. The first part of this expansion was directed further into Siberia, and the second into what became known as Russian America between 1799 and 1867. The more abstract theoretical argument that follows the combination of these macro- and micro-level analyses is that the revolution in the international institutions in the material side of the double-constitutional structure of the EIS was— at this time—conservative and configurative rather than transformative of the social ones.

The epistemic revolution under macro-historical review in Chapter Six is what in HPS has later been conceptualized as the Industrial Enlightenment (from the late eighteenth until the mid-nineteenth century). The description of the change in what was known, how it was known, and what the knowledge was deemed to be good for in the EIS associated with this process is combined with a summary of the emergence of what I conceptualize as the modern, social constitutive hierarchy of international institutions. In the second part of the chapter I, in turn, analyze what I claim is another example of revolutionary co-production between the two sides of the double-constitutional structure of the EIS through two, comparative case studies. The first of them consists of Soviet Union’s attempts to expand the ecological outer limits of feasibility of settlement further northwards through increased industrialization of its northern regions between 1928 and 1952. The second case study comprises, in turn, of an analysis of Finland’s Arctic Ocean policy, developed as part of its international negotiations for independence between 1918 and 1920, and which contributed to the political agenda of the state until 1944.

The last empirical chapter of the thesis, Chapter Seven, begins with an overview of what I argue can be regarded as the fourth international system-wide revolution of the epistemic-authority structure of the EIS. This process of change in what is known, how it is known, and what the knowledge is deemed to be good for has later been conceptualized as the Environmental Revolution. I begin the formulation of this argument by describing the international institutionalization of the accumulation of new, techno-scientific knowledge associated with this revolution in the EIS. Through this description I illustrate how the accumulation and spread of
this knowledge has, in certain regards, led to similar revolutionary changes in definitions of what is considered as good and rational governance of the material universe in the international society as the revolutions in the epistemic authority structure of the EIS reviewed in the three previous chapters. After this discussion I move onto an overview of Philpott’s explanation of what he argues represents the second revolution in the social, international authority structure of the EIS that he dates to the 1960s. Through this discussion I explain how, despite of the stabilization of what I conceptualize as the new, ecological epistemic authority structure of the post-modern international society, the previously dominant, old industrial one is also still deemed as legitimate. That is even though their corresponding material constitutional structures are in many ways incompatible and in contradiction with each other. Because of the difference in temporality of, what I argue is the latest revolutionary change in the material constitutive hierarchy of international institutions of EIS, the analysis of its different elements and how it has influenced its social equivalent through individual case studies in the second part of Chapter Seven differs slightly from that of the previous ones.

Unlike in the previous chapters I begin the second, case study-based part of Chapter Seven with a more general discussion about the organization of contemporary legal regimes for the geographical expansion of the international society. Through this discussion I explain why one of the three elements of the material constitutional structure of the EIS – operational sovereignty – does not form part of the individual state-specific case studies of this chapter. After this explanation I move onto the discursive case studies of the constitution and mobilization of sovereign power in exploration aimed at the expansion of the ecological outer limits of feasibility of specific type of settlement further northwards. The three cases of this chapter consist of the qualitative foreign and Arctic policy analyses of Norway, Canada, and Russia. The more abstract, theoretical argument of international institutional co-production that unfolds through this analysis is based on the observation of how the governing elites of these states use the elements of both, the old and the new material constitutive hierarchies of international institutions, in justifying the constitution and mobilization of sovereign power and resources for the increased exploration of the Arctic at present to national as well as international audiences. I argue that this presence of both the old and the new institutions of this framework illustrates the slow change in the fundamental ideas, norms, and principles associated with the measures of progress,
development, and good governance of the material universe in the EIS at present. It is, however, too early to predict whether this change will have a revolutionary or conservative impact on the social side of the constitutive hierarchy of international institutions, or whether the organization of the EIS according to the different principles of sovereignty represented in this analytical framework will in itself remain functional.

The thesis concludes by first discussing the two main types of co-production of the two sides of the double-constitutional structure that I have identified through the study of the composition of the material constitutive hierarchy of international institutions at different times during the emergence and expansion of the EIS. In short, how revolutionary changes in the material side of the double-constitutional structure of the EIS co-produced, on the one hand, revolutions on the social side. On the other hand, a revolution in the material international institutions could also be absorbed into the further configuration and conservation of the social ones. It then moves onto a discussion about the strengths and weaknesses of the multi-disciplinary, multi-method, constructivist approach that has been advanced in this work for the study of co-production of science, technology and international society. This discussion takes place through a review of what some of the main implications of the different combinations of methods and materials in this thesis can be seen to be to three other, already established strands of similarly multi-disciplinary sociological study of the genesis, constitution, and change of the modern global political universe. The first is the more general constructivist and critical study of the role of ideas, norms, and principles in the genesis and change of the international society. The second is the study of the possibly generative, peaceful power of epistemic communities in the international society. The third is the research of international institutions and norms within STS.
2. The Origins of the Modern Global Order

The two main schools in IR – neoliberalism and neorealism – have not traditionally paid substantive analytical attention to the institutional aspects of sovereignty beyond its status as the main organizing principle in the international system. One of the key reasons for this is that the study of the origins of the modern global order of sovereign states has, in general, not formed a central problem in either of them. Instead of being aimed at explaining the historical generation of the modern international political structure, the research of these schools has predominantly focused on describing the politics that take place within the already established system of states (Ruggie 1983, 283). This lack of analytical attention on the genesis of the international system is associated with how both of these systemic strands of study treat the motivations of its primary agents; states. In short, both of them regard states as being principally animated by the same, universal, unchanging form of means-ends, utilitarian rationality, associated with survival under the conditions of anarchy (Ruggie 1998, 4–13). According to neorealist analyses, the politics in this international structure take the form of an un-changing game of great-power politics under anarchy (Waltz 2001; Waltz 1979; Mearsheimer 2003). Neoliberals follow a similar overarching, systematic logic. The main difference of the former is that neorealists direct their attention primarily to the analysis of the coercive power of armed force. Neoliberalist studies are, in turn, focused on describing the potential of interdependence between interest-optimizing states to foster habits of cooperation in the anarchical system (Keohane 1989; Keohane and Nye 2011; Ikenberry 2001; Richardson 2010, 222-223).

Reus-Smit (2008) presents an excellent summary of how the aforementioned overarching systemic-logic has influenced the historical study of the origins of the modern global order in the neorealist and neoliberal strands of international theorizing. According to Reus-Smit (2008, 395), once the aforementioned “law-like lessons” of history have been distilled into this type of “single monotone story”, the analysis of historical events in these schools has not been seen to be of much use for the study of contemporary international relations. This positivist treatment of history that characterizes both the neoliberal and neorealist approaches has come under heavy criticism during what John Hobson (2000) calls the ‘sociological turn’ in IR.
One of the main areas of focus in sociological studies of IR has been the opening up of the 'black-box' of the structural background condition of anarchy in the international system. In contrast to the claims advanced by neorealists and neoliberals, historically-oriented social constructivist studies of IR have illustrated how the logic of anarchy has not led to uniform behavior of states in the European-origin international society (EIS) (Price and Reus-Smit 1998, 266–267; Price 2006, 255–259; Finnemore 2004). Following Alexander Wendt’s (1992, 395) influential assertion, sociological approaches have emphasized that anarchy is “what states make of it”. Another central area of analytical interest in the sociological turn of IR has been the study of the formation of the modern international system as the formation of an international society. Hedley Bull (2002, 10) – one of the leading figures in the international society approach – contends that sovereign states have formed not only systems of states where “the behavior of each [is] a necessary element in the calculations the other”. They have also created international societies based on a recognition of “certain common interests and...some common values” (Bull 2002, 12).

In this chapter I describe the main approaches in sociological and historically oriented international theorizing about the origins of the modern international order in IR. The focus in this overview is on how these studies accord for the development and change of different, international institutions and organizations associated with legitimate natural and technical knowledge production as well as questions of diplomacy and international law. I organize this overview according to the study of two interlinked processes in the international society - approach. The first one is the emergence of the EIS, and the second is the expansion of the EIS. I begin this description by giving a brief overview of the similarities and differences in the analysis of the genesis of the modern order in two main strands of this type of international theorizing – the social constructivist IR and the English School approaches. I then move on to a more detailed explanation of how some of the central works of these schools describe the processes of emergence and expansion of the EIS from the early-modern Christian international order into the contemporary global order. I borrow from constructivist studies of History and Philosophy of Science (HPS) to illustrate how the analysis of these two processes have attributed science and technology primarily with a utilitarian, and not a socially constitutive, role. By this I mean that science and technology – or, more accurately specific sciences and technologies – feature as part of the analytical frameworks associated with the qualitative study of the emergence and
expansion of the EIS. They are, however, not analyzed as socially coordinated and organized institutional, human practices for legitimate knowledge production. Instead, they are studied as mechanical tools that have enabled the expansion of the international society by increasing the “interaction capacity” between different states and peoples (Buzan and Little 2000, 80–84). I use the co-productivist framework of analysis from Science and Technology Studies (STS) to explain how, consequently, one crucial field of international institutional innovation has been noticeably overlooked by these IR approaches.

The institutions in the field of international institutional cooperation that has been previously neglected in the historical sociological analyses of IR are responsible for the transformation of the heteronymous system of early-modern European polities that lacked detailed maps of even their own terrains into the modern, epistemologically unified international society of similarly distinguished and measured, territorially clearly demarcated and centrally governed states (Scott 1998, 2-3). I paraphrase Bull (2012, 15) in describing the type of structural, social power associated with this institutional organization as the establishment, maintenance, and change of ‘the common epistemology and understanding of the natural universe’ of the EIS. I conclude the chapter by illustrating how some of the ‘black-boxed’ aspects of this social rather than utilitarian power of science and technology in the historical research of the genesis of the international society are repeated in the organization of the study of epistemic communities in the present.

2.1. The Middle Ground of International Theorizing

In summarizing the main characteristics of the international society approach that in IR is most often associated with the English School, Tim Dunne (2008, 268) argues that its main feature is that it analyzes the practice of states as “shaped by international norms, regulated by international institutions, and guided by moral purposes”. This approach is similar to institutional, social constructivist international theorizing, which holds that “people make society and society makes people” in a continuous two-way process that is best studied by focusing on the element that links these two spheres together; namely, rules (Onuf 2013, 4). This type of social constructivist, institutional study of the international system has been summarized by Emmanuel Adler in the following words: “Constructivism shows that even our most enduring
institutions are based on collective understandings; that they are reified structures that were once upon a time conceived ex nihilo by human consciousness; and that these understandings were subsequently diffused and consolidated until they were taken for granted” (Adler 1997, 322). Dunne (2008, 296) also acknowledges this similarity between the two analytical approaches and argues that together they constitute the middle-ground of IR theorizing. Despite these similarities, the methodological approaches to the study of the origins of the contemporary system in the two schools are not the same. Martha Finnemore (2001) has described some of their main differences from the standpoint of constructivism, and Barry Buzan (2001) and Ole Wæver (1999) from that of the English School.

According to Finnemore (2001, 510), constructivist analyses of the role of norms, institutions, and values in the international system often follow the analytical approach of constitutive causality. With this method Finnemore refers to Wendt’s (1998) definition of social constructivist, constitutive international theorizing. According to Wendt (1998), this research approach aims to empirically explain how historically contingent, yet periodically stable, social phenomenon are instantiated, or in other words, put together, in the global political universe. The focus of analysis in this framework is on the description of ideas as causes of specific, international actions and institutions. Wendt (1998, 107) explains how ideas in this framework are analyzed to hold causal power to the extent that they function as “independently existing and temporally prior mechanisms motivating and generating” specific types of behavior. Michael Barnett and Kathryn Sikkink (2008, 74) describe this type of ideational constitutive causality in terms of how the adoption of some rules or behavior, at the same time, render other types of action "possible, difficult, or unimaginable". Finnemore’s reference to this method that does not form a part of the English School approach maps out some of the differences between the English School and the social constructivist approaches from the standpoint of constructivism. Barry Buzan’s (2001) description does so, in contrast, from the standpoint of the English School.

According to Buzan, one of the major differences between the English School and historically oriented constructivism of IR is how the analysis of the constitution of the global political universe within the former is often organized around three core concepts. These are; world society, international society, and the international system (Buzan 2001, 474–479, 483). Buzan (2001, 476) summarizes English School theorizing as being focused on explaining how these
three elements are “in continuous coexistence and interplay” in the global political universe. Ole Wæver (1999) provides a third conceptualization of the differences in methods between the two approaches. In brief, Wæver (1999) argues that social constructivist and English School international theorizing differ the most in that the former often deals with open ethical debates of the international society, which are often omitted from the latter’s research agenda. Wæver’s (1999) comparison of the schools, however, concludes in an acknowledgement that the two approaches are much alike in their positions on the role of ideas and identity in the formation of the international society.

Buzan (2014, 35) in a later volume also acknowledges that the English School and constructivism “run most closely in parallel” with historical, constructivist work on the role of norms in the creation of what Reus-Smit (1997, 557-558) conceptualizes as the fundamental institutions of international systems. I will next describe the similarities and differences between these two analytical approaches from the standpoint of what kind of ideas, norms, and values are distinguished as central in the formation of the modern international order and its fundamental institutions within some of their major works. The aim of this overview is not to give a comprehensive account of English School theorizing or historical institutional constructivism in IR. It is, instead, to first describe, how the interplay between international techno-scientific knowledge production and the expansion of the legal and political international authority structure of the EIS are described within these schools. In other words, the focus in the overview is on how large-scale, international system-wide changes in science and technology in the European-origin international system are approached within the English School and historical sociological IR. The aim of the later part of this review is, in turn, to compare this to how these approaches portray and conceptualize the role of international institutions related to the development of international law and diplomacy in the two structural processes through which the modern international order is analyzed to have developed within the English School. That is the study of the emergence and the expansion of the EIS. I will begin by further explaining how these two terms are used in the structuring of the analysis of this approach.
2.2. The Emergence and Expansion of the EIS

The analysis of the origins of the modern order within the English School is generally bound to studies of two interlinked and mutually constitutive processes. These are, the emergence of the international society of territorial states in Europe, and its gradual, global expansion (Bull and Watson 1984, 6). The emergence of the international society in the classical English School works is generally dated to specific diplomatic and international legal processes that began in the fifteenth century (Buzan 2014, 61-70). I will next explain the basis for this dating in two of the major works in the first wave of English School theorizing (Dunne 2003, 66-67). These are Martin Wight’s *Systems of States* and Adam Watson’s *Evolution of International Society*. The aims in this overview are twofold. First, it is to give an account of the main frames of reference used for this dating in these works. Second, it is to advance a more comprehensive description of the ways these works deal with the role of different sciences and technologies in this part of the genesis of international society. In order to do so, my review will also compare this English School analysis with key social constructivist historical studies of this time period in HPS.

**Emergence of the EIS**

Wight (1977, 129-152) situates the origins of the modern system of states to a dual process that took place in Europe between the fifteenth and the early eighteenth century. This process consisted of the breaking down of the old international constitution of *Respublica Christiana* and the concomitant emergence and stabilization of new fundamental principles for co-existence of European polities under the new conditions of anarchy. Wight (1977, 129-152) dates the beginning of this process to the Council of Constance of 1418 and the end to the Congress of Utrecht 1712-13. According to Wight (1977, 129), the international society of Western Europe that “became progressively clearer” through diplomatic negotiations in and between these two conferences was characterized by six central internal marks. These were; “first, sovereign states; second, their mutual recognition; third, their accepted hierarchy; fourth, their means of regular communication; fifth, their framework of law; sixth; their means of defending their common interests” (Wight 1977, 129). According to Wight (1977, 129-152), the processes through which the meaning of these six basic international institutions of the Western European international
society were negotiated were accompanied with a change in the content and manner of three other basic forms of cooperation in this international society. These were diplomatic negotiations, the dynamic of great power politics, and the codification of international legal scholarship.

When referring the origins of the new international society of states that stabilized in the early eighteenth century, Wight also mentions the influence of the Scientific Revolution in the aforementioned dual-process of breaking down the old and the social construction of the new foundations for international order. He does so, however, only in relation how it contributed to changes in the balance of military power in Europe. Wight, as well, refers to the contribution of the European voyages of discovery to the two processes. He does so, in turn, only in relation to how they changed the practice of commerce in the European international system (Wight 1977, 113–115). From the standpoint of contextual, historical study of knowledge production and dissemination in HPS, Wight’s reference to the Scientific Revolution as well as the voyages of discovery in these, practical contexts, completely overlooks the social aspects related to the codification and insemination of the new technologies and knowledge associated with them. I will next further describe this overlooked element and the types of international networks of social power its neglect black-boxes in Wight’s analysis of the emergence of the Western European international society international society at this time. I will begin this description by referring to Steven Shapin’s (1996) contextual, constructivist historical study of the Scientific Revolution.

Two crises of pluralism

Shapin’s (1996, 12) analysis of the Scientific Revolution describes the emergence of new means for natural and technical knowledge production in the fifteenth, sixteenth, and seventeenth-centuries as constitutive of an international system-wide change in what was known, how it was known, and what the knowledge was deemed to be good for in Europe. Shapin’s organization of the analysis of knowledge-production according to these three aspects is one illustration of how his historical study explores what can be describes as the utilitarian as well as social roles of science in the formation of the early-modern European international society. In other words, his analysis addresses how the changes in knowledge production and education in Europe at this
time contributed to and were reflective of the more general revolution in “the authority and effective scope of institutions” that had previously been responsible of the regulation of human conduct in Europe (Shapin 1996, 124). In relation to the three formative processes associated with the emergence of the international society mentioned by Wight - the religious wars, the discovery of the New World, and the break-down of the old feudal order – Shapin’s contextual, historical study of sciences and technologies does not describe them as having held primarily an instrumental role in this process. Instead, he studies them as foundational to it.

One example of the constitutive analysis of the role of science and technology in the emergence of the Western European international society in Shapin’s work is how he describes their contribution to what can, following Daniel Philpott (2001, 4), be characterized as two international-system-wide crises of pluralism of this time. The first of these crises was a crisis of pluralism in international political organization. It is associated with the aforementioned breaking down of the old, international constitution of Respublica Christiana. The second was its concomitant crisis of pluralism in legitimate knowledge production in the EIS. Philpott (2001, 4, 95-149, 256), in line with Wight, has described how the former was solved with the adoption of a new international administrative apparatus based on the idea of sovereign equality and religious tolerance. The latter can similarly be argued to have been solved with the adoption of new basic rules of practice for natural knowledge production within the new European, Christian international society of states (Shapin 1996, 119–166). In terms of international institutionalization this means that the emergence of the six, central internal marks of the international society distinguished by Wight was accompanied by the emergence of a new international authority structure for legitimate knowledge production in the new international society. The constitutive social power of this change in the international networks of legitimate knowledge production in the emergence of the EIS discussed in Wight’s work has been described within HPS through the application of idiom of co-production to their constructivist, contextual analysis (Shapin 1996; Toulmin 1990; Dear 2001).

**Social construction of scientific knowledge**

Jan Golinski (2005, 11) describes contextual, social constructivist, historical studies of science and technology as studies that direct attention towards practices through which scientists and
technologists always reconfigure the social world at the same time as they create natural knowledge. In the terms of Shapin and Simon Schaffer (1985, 332), these studies highlight how the intellectual products that scientists create do not occupy a separate polity to that of social or political society. Instead, they constitute an essential, inseparable element of the political and social activity in and between states. In such studies of the role of natural and technical science and technology in the emergence, expansion, and change of specific societies, is not treated as being somehow outside of the political, cultural, and institutional. Instead, in the words of Jasanoff (2006c, 2), these co-productive constructivist studies of science and technology, “aim to evaluate, how sociotechnical formations, loop back to change the very terms in which we human beings think about ourselves and our position in the world”. In other words, these studies treat all social collectives, such as the international society of states, and the things and knowledges, as well as the peoples they are made of, as co-produced (Latour 1990, 155-156, 164, 168-169).

From the standpoint of the aforementioned social constructivist studies, Wight’s conceptualization of the new sciences and technologies in the processes of the destruction of the old and the emergence of the new international society in Western Europe international society is predominantly utilitarian. This means that his analysis neglects the constitutive social power associated with the Scientific Revolution as described in constructivist, contextual studies in HPS. One of the processes that Wight’s analysis does not reflect upon as a result of this is how the accumulation of new questions about legitimate knowledge production at this time led to the formation of new institutional networks of legitimate knowledge-production in Europe. Consequently his analysis also does not account for how the formation and spread of these networks was constitutive of the emergence of the new international society of states as well as the fall of the old international order. In other words, how firstly, the emergence of the new international society he describes was accompanied by a crisis of pluralism in what was known, how it was known, and what the knowledge was deemed to be good for in the European international society. Secondly, how this crisis in the organization of legitimate knowledge-production contributed to the one of political organization and the emergence and stabilization of the new basic institutions in Europe as a solution to it. This co-production of the fundamental international institutional frameworks of science, technology and politics and law in early
modern Europe is referred to in another one of the central works of the classical English School account of the emergence of the EIS. That is Watson's *Evolution of International Society*.

**Evolution of international society**

In his discussion about the emergence of the EIS in the sixteenth, seventeenth, and eighteenth centuries Watson (1992) acknowledges the constitutive, social power of Italian Renaissance humanism in this process. He explains the constitutive influence of this movement to the evolution of the European states system at the time by describing how it opened up a “direct access to the classical and especially Greek experience, which had been accessible to only a few west Europeans and only in Christian guise” (Watson 1992, 135). Watson (1992, 153) describes the change in what can be described – paraphrasing Bull (2002, 15) – as the common epistemology and understanding of the natural universe, that this access led to in Europe as consisting of new “speculation about the real nature of the world and man’s purpose in it”. The main difference in this speculation to the previous analysis and ordering of knowledge production of the material and social world was, according to Watson (1992, 153), that: “In the Middle Ages the question had been whether something was right or wrong: now it was a question of whether it was true or untrue, beautiful or ugly, effective or futile. A new spirit of earthly realism and new scientific formulae were applied to painting and to politics, to war and to statecraft”.

The above examples from Watson’s work illustrates how he acknowledges the constitutive power of the new Renaissance arts and sciences in the emergence of the new basic rules of practice for political organization in the early-modern international society of sovereign states. His description of this interconnectedness between the emergence of the international society of states and the spread of the new natural sciences and technologies in Europe, however, does not acknowledge or allude to the international, institutional aspects they were also associated with. In more specific terms, Watson does not explain how or where the aforementioned new speculations took place, nor the means through which they achieved stability. He also does not refer to what the conclusions of the new speculation were or how the evaluation of the legitimacy of the answers to the new questions were judged if they were no longer associated with the previous epistemic authority of Christianity. Thirdly, his account of co-production does not
describe what kind of collaboration and coordination problems the emergence of the new forms of knowing posed to the new sovereign polities of Europe.

In terms of the emergence of the new, hegemonic organizing principle of sovereignty as the bases of international order in Europe, Wight’s analysis also fails to elaborate on how the new forms of knowledge production were connected to the new ideas associated with the division of sovereign terrains. More specifically, how the emergence and spread of the new sciences and technologies referred to by Watson contributed to the emergence and stabilization of a specific new frameworks of international coordination of the activities of states. This framework dealt with the organization of practices through which the ultimate territorial authority of the new sovereign states could be legitimately established, maintained, and expanded into new regions within as well as outside of the context of Europe. I will next open up all of the aforementioned criticisms in more detail through the introduction of some social constructivist works in IR that have also dated, conceptualized, and theorized the emergence of the EIS of sovereign states in the fifteenth, sixteenth, and seventeenth centuries. The focus in the works under review is the description of how territorial sovereignty emerged and stabilized as the main organizing principle of European international relations.

Social construction of early-modern sovereign territorial spatiality

John Ruggie (1998, 180) has also traces the historical origins of the modern international order to the fifteenth, sixteenth and seventeenth centuries. The bases for this dating in Ruggie’s (1998, 180) work is an argument about the emergence and stabilization of one “distinctive feature of the modern [international] system of rule”. The feature in question is the differentiation of its “subject collectivity into territorially defined, fixed, and mutually exclusive enclaves of legitimate dominion” (Ruggie 1998, 180). One of the enabling processes in the emergence and stabilization of this new form of spatial differentiation of international politics at this time was, according to Ruggie (1998, 185), the development of the single-point perspective in Renaissance arts. In his own words: “The concept of sovereignty...represented merely the doctrinal counterpart of the application of single-point perspectival forms to the spatial organization of politics” (Ruggie 1998, 186). Despite this reference to the constitutive, social role of Renaissance sciences and technologies to the emergence of the international system of states, in his more detailed
explanation of the emergence of the states-system at this time, Ruggie (1998, 186-191), only refers to the processes through which the new territorial rulers in Europe were socially empowered. That is to say, in the end he credits the transformation of the space-time experiences of Europeans during the Renaissance with a utilitarian and not a socially constitutive role in the emergence of the early-modern international society of states (Ruggie 1998, 177-187).

In more specific terms, Ruggie (1998, 187) explains how the social empowerment of the sovereign territorial rulers at the time under analysis took place through three levels of “the newly formed social aggregations of power: the domestic social structure, the territorial formation, and the collectivity of territorial units”. The central feature in the new empowerment of sovereigns at all of these levels was, according to Ruggie (1998, 187) a shift in the purposes for which rulers could deploy coercive power in a manner that was regarded as legitimate by their subjects. In terms of historical, social constructivist conceptual analysis of sovereignty, the focus in Ruggie’s analysis of territoriality explains the origins of only two distinct aspects of the concept in the modern system of states. The first is sovereignty as the bases for the basic rules of practice through which human collectives are differentiated from each other. The second is the process through which the legitimate use of coercive power has been allocated and centralized to the sovereign state (Thomson 1994). The aspect of sovereignty Ruggie neglects in his focuses on these two aspects is how it also defines how different terrains are, can and should be, legitimately differentiated from each other. In terms of Carl Schmitt (2003, 48, 82–83, 148, 172–191), Ruggie’s analysis neglects how the change in spatial consciousness in Europe he refers to also contributed to the emergence of another, new spatial order in international law at the time. This order consisted of the basic rules of practice through which the new sovereigns could appropriate new territories under their rule in Europe, as well as abroad, in the New World.

The neglect of the territory-making aspects of sovereignty in Ruggie’s work, I argue, is associated with how his analysis does not include any reference to the wider system-wide changes in the organization of legitimate knowledge production the change in spatial consciousness was associated with. I elaborated upon these black-boxed institutional aspects in knowledge production above when discussing Wight’s and Watson’s works in relation to specific co-productivist studies of HPS. These aspects are also overlooked in Jens Bartelson’s (1995) genealogy of sovereignty and the majority of the essays in Thomas Biersteker and Cynthia
Weber’s (1996) edited collection of essays on state sovereignty as a social construct. Using the terms of Alexander Murphy (1996, 87, 90), one of the correspondingly under-analyzed dimensions of sovereignty in these analyses is how questions of sovereignty have been associated with the emergence, spread and stabilization of specific, hegemonic, territorial ideals in the EIS.

Sovereignty as a territorial ideal

According to Murphy (1996) the stabilization of sovereignty as the hegemonic organizing principle between the conduct of polities in the EIS has included not only the stabilization of new forms of governing relations between states. It has also comprised of the stabilization and spread of specific hegemonic territorial ideals. In short, the coordination and cooperation between sovereign states that follows the principle of sovereignty has ended up promoting particular, hegemonic, spatial ontologies. These ontologies are associated with how political, social, and economic issues have come to be understood in similar territorial terms by different members of the international system (Murphy 1996, 88-91). Murphy follows a functionalist analytical frame in his social constructive study of this constitutive power associated with the territorial ideals in the EIS between the seventeenth and twentieth century. The main problem he seeks an answer to is how the sovereign territorial ideal was eventually able to crowd out competing conceptions of how power might be organized in the international system. This framing and contextualization of sovereignty as the primary organizing principle in the international system he touches upon some of the aforementioned co-productive elements in between the organization and institutionalization of science, technology and politics within international society. Murphy’s analysis of this process, however, also ignores two aspects related to the international institutionalization of knowledge-production and sovereignty I referred to above in the discussion of Wight’s and Watson’s works.

The first is how the territorial ideals associated with sovereignty that he refers to have been connected to more general shifts in the organization and re-organization of the production of legitimate natural and technical knowledge in the EIS. The second is how these ideals relate to the organization and re-organization of the relationship between sovereigns, peoples, and newly discovered or previously poorly mapped terrains inside, as well as outside, of Europe. This latter
criticism can also be translated in the terms of the two major processes analyzed in the English School: the emergence and expansion of the EIS. In this context, what is missing in Murphy’s analysis is a description of how sovereignty as a territorial ideal has always been associated not only with the emergence and stabilization of the international system of states in Europe. It has also been associated with the way this rule has been expanded to cover regions outside of the original geographical scope of the European international society. I will next elaborate further on this aspect of sovereignty through a more detailed description of how the role of science and technology has been analyzed in the process of expansion rather than emergence of the EIS. Because the two processes are analyzed as largely mutually interconnected, I will begin this review with a reference to Bull's description of the processes through which the early-modern Christian international society discussed above transformed into what he conceptualized as the European international society in the eighteenth and nineteenth centuries.

From the Christian to the European international society

In Bull’s analytical framework, the emergence of the European international society follows the formation of what he conceptualizes as the formation of the earlier Christian international society. Bull dates the processes that led to the emergence of this new order to the eighteenth and nineteenth centuries. According to Bull, they consisted primarily of negotiations for new institutional meanings associated with the organizational principle of sovereignty in the international society of states. Bull identifies four main ideas that emerged at this time and were constitutive of this new international order. These ideas were related to the new basic prerogatives and responsibilities the legitimate members of the new European international society became associated with at this time. According to Bull (2002, 33), this new ‘membership criteria’ of international society included the acknowledgement that all of the sovereign members of the European international society; “have the same basic rights”, “the obligations that they take are reciprocal”, “the rules and institutions of international society derive from their consent”, and that “political entities such as Oriental kingdoms, Islamic emirates or African chieftaincies should be excluded from membership”. According to Bull (2002, 31-36) the corresponding basic international institutions to these basic rules were, in turn; international law; diplomacy; preservation of balance of power; war; and great power politics.
In his description of the emergence and stabilization of the aforementioned ideas and international institutions, Bull explains how this process was also accompanied by two other, major ideological shifts in the previous Christian international society. The first one was the change in the hegemonic doctrine of international law from a naturalist to positivist position in the international system. The second was the more general shift in the bases of collective judgements for what were the bases of rightful membership in the international society. Previously these had been discussed in terms of dynastic principles that highlighted the specific rights of sovereign rulers. Now they were predominantly guided by a framework that was dominated by discussions of rights of nations or people and the concept of civilization (Bull 2002, 33-34). This description of the eighteenth- and nineteenth-century changes in the coordination of relations between polities is in many ways structured in a similar manner to Wight’s discussion of the emergence of the basic marks of the Christian international society of states. This similarity in descriptive structure also applies to the way Bull conceptualizes the role of science and technology in this transformation. In brief, like Wight’s his analysis also does not refer to the concomitant to this political transformation, re-organization of what was known, how it was known, and what the knowledge was deemed to be good for that in the EIS. These changes in knowledge production and organization have been referred to in HPS in terms of the Industrial Revolution and Industrial Enlightenment. Even though these aspects are missing in Bull’s (2002) work they are, not missing from a later collection of essays edited by Bull and Watson (1984).

Expansion of the EIS

Watson’s essay in the 1984 volume “The European International Society and its Expansion”, explains how the emergence of the European international society and its basic institutions, analyzed and conceptualized by Bull, did not take place only through the re-organization of the previous Christian, intra-European order. It was equally constituted through the expansion of this order outside of Europe. According to Watson this global expansion of the international authority structure of the European international society in the eighteenth and nineteenth centuries was partially facilitated and justified through the progress of the Industrial Revolution. To use Watson’s (1984, 27) own terms, through the changes in economic and military power associated with the Industrial Revolution Europeans became “increasingly convinced of the superiority of their capabilities…and also of their institutions and moral values” (Watson 1984,
In the same volume, Michael Howard (1984) also refers to what can be described as co-production of ideologies of progress associated with the Industrial Revolution and the expansion of the European international society.

In Howard’s (1984, 33) words, the process of technological and scientific change in Europe associated with the Industrial revolution was one through which, “Europeans gradually developed an ascendancy over the rest of mankind which was, by the end of the nineteenth century, to become global and absolute”. Like Watson, in his further elaboration of the influences of the new technologies and sciences in this expansion, Howard references not only their utilitarian but also social powers. The difference in his explanation of this social, constitutive power associated with the new sciences and technologies to Watson’s is that it moves in the opposite direction to Watson’s analysis. That is to say, the technologies and sciences of Europeans convinced not Europeans but others of their supremacy. According to Howard (1984, 40): “By the beginning of the twentieth century non-European communities were becoming familiar with a different type of European: one whose claim to rule them rested not on charismatic power but on communicable technical and administrative skills”.

The aforementioned conceptualizations of the social roles of industrial sciences and technologies in the emergence and expansion of the European international society in the eighteenth and nineteenth centuries have been heavily criticized by later studies of this process. This critique can be summarized with the more general critique of Eurocentrism and lack of analytical depth in the classical English school approach. In the words of Buzan (2014, 62), these early works have been criticized for presenting a “historical story of what happened and with what consequences, rather than an attempt to explain why expansion occurred”. In the words of Hobson (2012, 225), the, “classical English School pluralism,” focuses on, “the exceptional rise of the West in isolation of other civilizations through the monological idiom of the Eurocentric ‘logic of immanence’”. I will next discuss these two strands of criticism in more detail by focusing on how some of the works in which they are presented describe the roles of science and technology in the dual process of emergence and expansion of the EIS. I begin by referring to Hobson’s (2004) analysis of Eastern civilizations’ contribution to the emergence, expansion and change of the Western society of states. I then move onto an overview of Edward Keene’s (2002) analysis of the moral purpose behind the expansion of the European international society. I conclude this overview by
comparing Keene’s argument to Thom Kuehls’ (1998) critical constructivist study of
governmentality and sovereignty in the eighteenth century, and Jordan Branch’s (2014, 3)
analysis of the origins of the international system, “at the intersection of cartographic depictions,
political ideas and institutions”.

**Eurocentric denial of Eastern agency in the classical expansion story of the English School**

One of Hobson’s (2012, 222-228) primary criticisms of the analysis of the emergence and
expansion of the European-origin international society in the classical works of the English
School is their selection of a purely Euro-centric historical record for the bases of their analysis of
these processes. In illustrating how this Eurocentrism leads into a somewhat distorted
description of the origins of some of the generative powers in them, Hobson (2012, 225) refers to
his 2004 study of these processes through different primary sources. In this study, Hobson
(2004, 116-119, 121-128) uses primarily sources from Eastern civilizations such as China and
the Ottoman Empire. Through the analysis of these sources Hobson describes how the early-
modern “navigational revolution”, and “‘energy’ and ‘proto-industrial’ revolutions” of Europe did
not have their origins in the isolated indigeneity of Italian city states as the Eurocentric accounts
often acclaim. They were rather the result of dialogues between Italian merchants and the
regions of the Middle East and China (Hobson 2004, 116–119, 121–128). His analysis of these
types of “Eastern contributions” to the rise of the Western international society is not only
limited to the exploration of the exchange of knowledge between Italy and the Eastern world. In
this volume Hobson (2004, 190-218) as well describes how some of the technologies associated
with British industrialization, such as the steam engine, could be connected to earlier Chinese
innovations, such as hydraulic bellows pumps that were used for draining mines. Hobson (2002,
225) has later described his approach as one that better accounts of the “Eastern contributions to
the rise of Europe and to globalization” (Hobson 2012, 225).

The aforementioned examples from Hobson’s work illustrate how individual sciences and
technologies take a central stage in his co-productive analysis of the emergence and expansion of
the European-origin international society and the intensification of its interactions with Oriental
civilizations. Despite of this prominence of specific sciences and technologies in Hobson’s
analysis, his interest to them remains primarily at the level of what I have above discussed as the
utilitarian rather than social role of science and technology in the emergence and expansion of the EIS. In more specific terms, Hobson’s analysis focuses on the description of the dispersion and assimilation of what he conceptualizes as specific “resource portfolios” from Eastern to Western civilizations. What he leaves largely unexplored is how the exchange of these portfolios influenced the development and change of what I, by paraphrasing Bull (2002, 15), above conceptualized as the common epistemology and understanding of the natural universe in the EIS. With these concepts I refer to the understanding and analysis of scientific knowledge production as a collective, international process, within the EIS (Golinski 2005, 7; T.M. Porter 1996, ix). I describe the international institutional aspects associated with the emergence, maintenance and change of this common epistemology and understanding of the natural universe in the EIS in detail in the next chapter. At this time, I will instead move on to review one more work that criticizes the classical English School account of the processes of emergence and expansion of the international society. That is Keene’s analysis of the inter-subjective moral justifications European states used in the legitimation of the expansion of their authority over new peoples in the seventeenth, eighteenth and nineteenth centuries.

**Moral purpose of the expansion of the EIS**

Keene begins his theorization of the expansion of the EIS by referring to Bull’s aforementioned analysis of the emergence of the European international society. Keene (2002, 1-39) argues that previous commentaries on this process have not noted how the formation and change of this order was complimented with the emergence of a new, collectively defined moral purpose for the global expansion of this new authority structure. In summarizing the difference of the ideological organizational principles of these two orders Keene (2002, xi) explains how, in the European international society the negotiation of basic rules of practice were primarily dedicated to the promotion of religious and cultural toleration. In the extra-European realm these negotiations were, instead, “dedicated to the goal of promoting a particular idea of civilization, transforming ‘uncivilized’ cultures and social, economic and political systems along the way” (Keene 2002, xi). In describing what the civilizational ideas of the new extra-European order of European polities consisted of Keene uses some of the central works in European legal theory, and administrative documents in the colonization of North America and the Dutch East-Indies between the mid-
seventeenth and nineteenth century. He summarizes these ideas by illustration how they were bound to a particular hegemonic idea of “good government” in the EIS (Keene 2002, 7).

This ideal consisted of specific inter-subjective beliefs of progressivity associated with commerce, European sciences and technologies, and specific forms of organization of human administration. In his further discussion of this ideal Keene refers to what I have above described as the social rather than utilitarian roles of science and technology. The first reference to this social, constitutive power of science and technology is Keene’s work is a reference to how the hegemonic definition of good government promoted a more or less common definition of what the marks and measures of material development were in the EIS. The description of this definition in Keene’s work is close to Murphy’s aforementioned functionalist analysis of sovereignty as a model of territorial governance. That is as Keene (2002, 112) explains that it defined progress “in the sense of economic and technological progress” as it had taken place in Europe.

The second reference to the social roles of science and technology in Keene’s work is a reference to the moral dimension associated with civilization. In Keene’s (2002, 112) own words a full, equal, sovereign member of an international society needed to be, “a civilized society...based on an educated and refined population, and good government based on fair and effective political, administrative and judicial systems” (Keene 2002, 112). Keene (2002, 60-96) describes the constitutive power of these hegemonic ideas in the expansion of the EIS by illustrating how they featured in the American, British, as well as Dutch colonialist and imperialist practices. In this description, Keene comes close to Thom Kuehls’ (1998) analysis of the constitutive power of sovereignty in terms of environmental governmentality. Similarly to Murphy, Kuehls (1998) outlines this argument about international environmental governmentality in terms of sovereignty as an organizing principle that since the beginning of the seventeenth century has promoted and spread specific hegemonic territorial ideals in the international system. Where Kuehls’ discussion of this operational aspect of sovereignty can be viewed as in keeping with Keene’s description of hegemonic ideal of good governance is also where his work is distanced from Murphy’s research on the constitutive power of a sovereign territorial ideals. That is in how Kuehls (1998, 41-42) characterizes the development of these hegemonic practices associated
with sovereignty primarily in relation to the expansion, rather than emergence, of the European-origin states-system.

In relation to Keene, Kuehls’ analysis illustrates how in defining the standard of civilization the imperial and colonial governments not only shared a measure for the level of the civilization of peoples. They also shared a set of common, socially constructed rules of practice for how to come to terms with the characteristics of the new environments they encountered in the process of expanding their authority into new regions through colonialism and imperialism (Kuehls 1998, 38). In short, Kuehls’ analysis illustrates how the parameters of the civilizational relationship in the extra-European order were not only defined in terms of the relationship and definition of good governance between Europeans and other peoples. They were also defined in terms of the discussions about the relationship between Europeans and other peoples and nature.

From the standpoint of HPS, what is missing from Kuehl’s as well as Keene’s study of the moral purpose of the expansion of the EIS is, again, a reference to the international, institutional frameworks through which the common rules of practice associated with the definition of “good governance” of the material universe were negotiated in Europe. In terms of Jasanoff (2006c, 2), they lack a reference to the, “untidy, uneven processes through which the production of science and technology,” have been and are, “entangled with social norms and hierarchies” at the level of the EIS. Some of these processes have been conceptualized and described in detail in relation to questions of territoriality and territory-making through the spread of different technologies within critical, political and human geography (Huxley 2007, Elden 2013, Strandsbjerg 2012). The technologies of territory-making covered in these analytical frameworks have raged from sanitary technologies, philanthropic practices, architecture to medical knowledge, and methods of measurement to transport and communication (Huxley 2007, 192). One of the main differences of this approach to the description of territory-making to the English School and social constructivist studies referred to above is the concentration of analysis on the different technologies and how they are interlinked with one another through different networks. In brief, these studies in geography are generally focused at the description of the power of the different technologies of territory-making in different micro-level networks (Elden 2009, xiii–xxxii; 2013, 17, 328). The focus in English School and historical sociological IR is, in turn, on the description of the networks of power associated with these technologies at the
macro-level of the international system. Jordan Branch’s (2014) work on cartography provides one, more concrete, example of how these differences in focus play out in analysis.

Branch’s work describes the co-production of one material technology – that of cartography – and the ways in which political authority became re-organized according to the principles of territorial representation in the emergence of the EIS in early modernity. His analysis of this emergence and stabilization of specific hegemonic material and social practices of rule in the international society of this time also follows the co-productive analytical approach to the study of the emergence and expansion of the EIS. In brief, Branch analyses how the new cartographic technologies of this time changed the spatial consciousness of European governing elites and concomitantly contributed to the emergence of territorial sovereignty as the new organizing principle of European politics. Branch argues that these cartographic technologies of spatial representation were first developed and applied, at the level of the international system, as solutions to the common coordination and collaboration problems of Europeans in the New World. In other words, the new technologies of governance and spatial ontologies they supported first emerged and stabilized as the bases of coordination and collaboration of intra-European interests in the extra-European realm. The successful application of these technologies to these problems also furthered the emergence of the EIS as they later became the hegemonic tools through which political authority was legitimately defined and delimitied in the affairs between states in the Old as well as the New World (Branch 2014, 7-8, 100-119).

Where Branch’s work differs from the more detailed historical studies of territory-making in political geography is that he goes beyond the development of an individual technology or territory in a specific national or international legal context. Branch uses his more detailed comparative case studies of cartographic technologies from different national and international contexts to describe the co-production of cartography as a specific internationally organized regime and the emergence as well as expansion of the EIS. As such his work moves beyond the analytical levels of one individual technology, networks of power associated with it, territory or culture. Instead, he uses these levels of analysis to primarily describe specific aspects in the genesis of the modern international system, and its fundamental international institutions. In the next chapter I will elaborate more on what kind of questions this type of multi-level, institutional analysis about the social roles of science and technology in the formation of the modern
international order enables and how. Before moving onto this discussion I will conclude this overview by describing one of the implications of the previous dominance of studying science and technology with a utilitarian rather than constitutive analytical frame in the context the historical sociological study of the emergence and expansion of the EIS. Namely, the way the study of the possibly generative power of epistemic communities in contemporary international regime-negotiations has been developed within IR during the past couple of decades.

**Epistemic communities**

The epistemic communities approach in IR first emerged in the 1970s. The focus of the early studies in this field was on the analysis of how the diffusion of new ideas and information produced by knowledge-based experts could contribute to the development of new patterns of cooperative international behavior (Bueger 2014, 39–40). Since the 1970s, and especially since the 1990s, the scope of case studies associated with the field has grown at the same rate with the enlargement of fields of international institutional co-operation. Studies of epistemic communities have come to include analysis of international expertise groups ranging from trans-governmental legal regulatory networks of product exchange, to policy making professionals in the field of global governance. More specific examples of these groups include international lawyers, economists and political scientists, as well as the study of epistemic practices of the International Maritime Organization, the United Nations Monitoring Group of Somalia, and special Advisors of the United Nations (Antoniades 2003; Bueger 2015; Kennedy 2001; Slaughter 2004). I will next use Mai’a Corss’ (2013) review article of the state of this sub-field of international institutional study to illustrate how the expansion of the framework of epistemic communities has not managed to explain an important aspect associated with *techno-scientific* epistemic communities. This aspect is associated with how, in terms of Karen Litfin’s (1994, 9) study of discursive power of techno-scientific experts in environmental regime formation, specific scientific language has become the “primary source of legitimation” in specific international regime negotiations.

**Epistemic communities twenty years later**

Cross begins her 2013 review article of the status of the epistemic communities approach in IR by arguing against the latest, and arguably widest, application of the framework by Emmanuel
Adler and Vincent Pouliot (Cross 2013, 146–147). By this, Cross refers to Pouliot and Adler’s (2011) argument for the enlargement of the applicability of the original concept, with the introduction of an overarching category where it could be fitted as one subset. This category is what they call communities of practice. Cross (2013, 147) concludes her argument against this particular enlargement of the framework by explaining how the communities of practice approach resolves what she claims is, “the problem of defining epistemic communities too narrowly”. However, it does so by introducing a framework that encompasses “nearly every type of observable phenomena in IR” (Cross 2013, 147). Despite this caution against over-stretching the framework of epistemic communities, Cross’ (2013, 137–138, 143–145, 147) own suggestion for the revision of the framework also includes an additional level of analysis. Her suggestion is that the approach should be expanded to include analyses of more types of internationally cohesive groups of publicly acknowledged professional experts as epistemic communities. These groups would include groups of diplomats, judges, defense experts, and international lawyers (Cross 2013, 147–160). According to Cross (2013, 141), this extension would, “enhance our understanding of the successes and failures of international policy formation”.

I claim that while the above is certainly true, such extension also directs attention further away from one aspect of techno-scientific power in policy coordination that has not been addressed in the previous revisions of the epistemic communities framework (Antoniades 2003; Dunlop 2000; Krebs 2001; Sebenius 1992). That is how, in terms of Litfin’s (1994) study of the discursive powers of techno-scientific experts in environmental regime formation, “science”, or more precisely very specific sciences, such as statistical quantification, have gained the status of what Litfin (1994, 9) deems, “primary source[s] of legitimation,” in different international regime negotiation. I have already mentioned one way of approaching and conceptualizing the institutional study of the role and power of science and technology at the level of the international system. That is the co-productive, historical analysis of the formation of international networks of science and technology and the basic rules of practice of the international society in the study of the emergence, expansion and change of the international society.

In relation to the study of the possibly generative power of epistemic communities in the international society, the discussion of co-production would enlarge the framework to consist of
the study of not only reformatory epistemic communities, but also conservative ones. By following Robert Cox's (1981, 128-130) conceptualization, this would mean that the study of epistemic communities would not only contain aspects of problem-solving international theorizing. That is, descriptions of solutions to specific problems within the already established institutional frameworks of power. It would also include aspects of critical studies, which aim to illustrate how these international frameworks of power came to be, and how they could also be different. I will next move onto a more detailed discussion of one way that a critically oriented, historical study of the social rather than utilitarian role of science and technology in the emergence and expansion of the EIS could be organized and undertaken. This discussion will take place partially through the further categorization of the expansion of the EIS into processes I describe as the ‘social’ and the ‘material’ or ‘geographical’ expansion of the EIS.

2.4. Summary

In this chapter I presented an overview of how science and technology in contrast to international law and diplomacy have featured in the English School analysis of the emergence, expansion, and change of the EIS, as well as the social constructivist study of the historical constitution of the modern international order. I used historical studies of the social construction of scientific knowledge in HPS to illustrate how these studies have limited the study of science and technology to what I called utilitarian roles in these processes. By this I mean that materiality and technology matter in the analytical organization of the previous historical sociological study of the genesis of the modern order. The materiality under analysis has, however, always already been bridged by science. That is to say, when it is entered into the framework of study of the emergence and expansion of the EIS it has already been made legible, calculable, and representable in a similar manner as it would be described in contemporary techno-scientific terms. The analytical step and question that is left unanswered is, how, and more importantly, why, societies and individual states in the modern international society have come to engage with that materiality in similar ways. In other words, how states have come to understand, analyze, and represent the natural and material world in a similar manner. I conceptualized the corresponding missing reference to international institutionalization of legitimate knowledge-production in the international society as a neglect of the social and cultural implications of
science and technology in the formation of the modern international order. I concluded the chapter by illustrating how some of the black-boxed aspects of this social rather than utilitarian power of science and technology in the historical research of the genesis of EIS are repeated in the organization of the study of epistemic communities at the contemporary.
3. Seeing Like a State in a Society of States

In the previous chapter I argued that existing accounts of the emergence, expansion, and change of the European-origin international system (EIS) have almost systematically ignored the social role of science and technology in these processes. I described how one of the consequences of this has been the black-boxing of specific types of international institutional frameworks in the historical sociological analysis of the genesis of the modern international system. The institutions in question have guided the transformation of the heteronymous system of early-modern European polities that lacked detailed maps of even their own terrains into the modern, epistemologically unified international society of similarly territorially demarcated sovereign states. In this chapter I advance an alternative, constructivist approach through which to conceptualize and operationalize the analysis of the formation, change, and constitutive power of these institutions in the emergence and expansion of the EIS. In relation to the epistemic communities approach, this framework enables the description of their constitutive role in the changing contours of different international social orders. Theoretically it builds on two different disciplinary approaches that study the role of ideas, beliefs, and norms in the ordering of human affairs. The first one is the social constructivist historical study of the genesis of the EIS. The second approach is, what in Science and Technology Studies (STS) has been conceptualized as the study of the co-production of science, technology, and society. The development of the framework unfolds as follows.

I begin the chapter with an explanation of the analytical background of the core concepts of the two aforementioned disciplinary approaches. I start this overview with an introduction to Philpott’s work on what he terms the constitutive authority structure of international society. I continue with an explanation of Reus-Smit’s approach to constitutional structures that are associated with what he calls the constitutive hierarchy of international institutions. I then move onto an illustration of how these two frameworks have been applied to the analysis of the expansion of the EIS. Through this discussion I demonstrate how the research on the genesis of the modern international system they undertake has been focused on one specific aspect of sovereignty as the main organizing principle in the EIS. That is, how it facilitates the international
coordination and collaboration of the actions of states under conditions of anarchy by defining
who the legitimate holders of sovereignty are, can and should be. Next, I illustrate how, as a result
of this focus, these studies have described the constitutive role of norms, principles and ideas in
what I conceptualize as the ‘social’ expansion of the EIS. That is, its expansion through increases
in the number of legitimate members. This focus has left the study of the constitutive role of
norms and other ideas in what I conceptualize as the associated ‘material’ or ‘geographical’
expansion of the EIS largely unaccounted for. By this I mean the expansion of the EIS through the
extension of the ultimate territorial authority of states that are already members of it into
previously unknown or little-known regions. I continue with a more detailed discussion about
the similarities and differences between these two hegemonic and interlinked (but not
interchangeable) forms of expansion of the EIS. After this discussion I move onto an illustration
of the different types of structural and institutional power that are black-boxed as a result of the
lack of previous analytical attention on the material or geographical expansion of the EIS in
constitutional International Relations (IR). This discussion ultimately takes the form of an
alternative multidisciplinary analytical framework - which integrates elements of IR and STS –
for a constructivist and historically-oriented study of the genesis of the contemporary
international institutional order. I conclude the chapter by presenting a novel approach to
combining the constructivist research methodologies in these two disciplines. I employ this
methodological framework in the operationalization of the empirical study of the make-up and
change of the main elements of the new analytical framework at different historical times in the
following four chapters.

3.1. International Constitutions and the Emergence and Expansion of the EIS

One strand of social constructivist study within IR considers the different social, ideational, and
normative origins of rules that sovereign states have adopted to help facilitate their coexistence
under the conditions of anarchy (Reus-Smit 2004, 81-82). The general aim of this type of
constructivist study is to explain the emergence and stabilization of different strands of
empirically observable, interactive, inter-state behavior in world politics at different times. The
strands of behavior under analysis in this framework include international intervention, regime-
formation, and the organization of coercive violence (Finnemore 2004, 14; Reus-Smit 1999;
Thomson 1994). I will next give an overview of one specific conceptual approach to this type of constructivist analysis – the study of what Daniel Philpott (2001, 11-27) has conceptualized as the constitution of international society and Reus-Smit (1999, 26-39) as its constitutional structure. In this overview I will focus on three specific aspects of these studies. The first point of focus is what kind of questions these analytical concepts have been developed to answer. The second is how these questions relate to each other. The third aspect under review is how they describe the previously discussed processes of the emergence and expansion of the EIS.

**International constitution as an authority structure**

Philpott’s (2001, 3-10) analysis of the emergence and expansion of the international society of sovereign states rests on the concept of an international constitution. With this concept he refers to a specific foundational framework of authority accepted, and adhered to, by most independent actors in an international society at most times (Philpott 1999, 566–567; 2001, 11). According to Philpott (1999, 567) this framework consists of “a set of norms, mutually agreed upon by polities who are members of the society, that define the holders of authority and their prerogatives”. In breaking up this framework into different foundational elements Philpott explains how the legitimacy of a polity as an independent actor in an international society is defined through what he calls the three faces of authority. The first prescribes who the legitimate polities of an international society are. The second defines who is entitled to acquire this status. The third face of authority, in turn, describes the basic prerogatives and responsibilities of these legitimate, sovereign members of the international system (Philpott 2001, 20–21). According to Philpott (1999, 577), by following the division of this analytical framework of the three faces of authority we “can identify the authority structure of an international society in any time and place”. However, in operationalizing the analytical frame in his own empirical analysis he only concentrates on the analysis of the different authority structures of the EIS.

The empirical focus in Philpott’s (2001, 12) study of the international constitutions of the EIS is on the description of how the content and division of “the traditional troika of executive, legislative, and judicial powers” have been negotiated in some of its major diplomatic conferences. With the division of these powers at the international systemic level Philpott does not refer to anything equivalent to contemporary national constitutions. What he means by this
concept in the international context is, instead, the establishment of rules through which the limits between the realms of the international and the national are defined (Philpott 1999, 567, 579–588). Philpott identifies two prominent revolutions in the inter-subjective ideas constitutive of the EIS that have led to the redefinition of one or more faces of authority that are, in turn, constitutive of this definition. He calls these changes in one or more faces of the international authority structure as “revolutions in sovereignty”. He associates the ideological origins of the first one of them with the progress of Reformation and the second with that of decolonization. In more specific terms, Philpott argues that the progress of Reformation facilitated the surpassing of the medieval international order of heteronomy under *Respublica Christiana* with the sovereign states-system that stabilized in Westphalia in 1648. The second “revolution in sovereignty” Philpott associates with decolonization as well as the collapse of empires after WWII, in turn, facilitated the global expansion of the scope of this order negotiated in 1648 (Philpott 2001, 3-10, 28-45, 75-250).

Philpott’s (2001, 75-250) analytical division of the three faces of authority and his empirical research on the two revolutions in sovereignty in the EIS are illustrative of how his work could also be characterized in more specific terms. This specification is associated with how the focus of his work is on one particular aspect associated with sovereignty as the organizing principle of international relations in the EIS. That is, how it facilitates the international legal definition of who the legitimate *holders* of sovereignty in the EIS are deemed to be. In relation to the expansion of international society, one implication of this focus is how the aftermath of both revolutions was characterized by an expansion of the EIS through an increase in numbers of its externally recognized sovereign members (Philpott 1999, 577-584). In order to explain what the significance of this focus is for the historical study of the constitutions of the EIS I will next elaborate on Philpott’s approach further. I will do this by explaining how it corresponds to Reus-Smit’s historical research of the fundamental institutions and constitutional structures of different international societies of states.

**Constitutional structures as international institutions**

As explained above, Philpott’s operationalization of the concept of international constitution could also be described as an analysis of the history of ideas about who sovereign agents have
been considered to be and what their basic prerogatives have been perceived to consist of at
different times in the genesis of the EIS. The temporal organization of his analysis could, in turn,
be described as being structured according to major diplomatic conferences and concerts in the
history of the EIS. In contrast, Reus-Smit (1997, 555) develops the concept of constitutive
structures of international society in relation to a general problematic and research material
international society that is related to two analytical problems in one specific strand of IR
theorizing. That is, studies that are primarily concerned with, “the deeper institutional practices
that structure modern international society” (Reus-Smit 1997, 555). The first of the two
problems that Reus-Smit argues persist in this field is the inability of the existing theories to
answer the question of why different historical systems of states have created different types of
international institutions to facilitate cooperation and communication between their members.
The second is a failure of these theories to fully account for what he calls the “generic” nature of
these different basic institutional practices. By this he means how they have managed to
transcend changes in the balance of power and the re-configuration of interests of individual,
The analytical framework Reus-Smit drafts for explaining this historical variability and the
generic nature of fundamental international institutions takes the form of what he calls the
“constitutive hierarchy of international institutions” (Figure 1).

![Figure 1. The constitutive hierarchy of international institutions in the modern international society of sovereign states (Reus-Smit 1997, 559).](image-url)
The most basic level of this constitutive institutional hierarchy is built upon what Reus-Smit terms ‘constitutonal structures’. These international institutions consist of specific ensembles of deep constitutive values. When further describing this most fundamental form of international institution Reus-Smit (1999, 30-31) references the international system-theory of Kenneth Waltz (1979, 74). He explains how they are, “‘constitutional’ because they incorporate the basic principles that define and shape international polities, and they are ‘structures’ because they ‘limit and mold agents and agencies and point them in ways that tend toward a common quality of outcomes even though the efforts and aims of agents and agencies vary’” (Reus-Smit 1999, 30-31). Much like Philpott’s three faces of authority, these constitutional structures undergird what constitutes a legitimate actor in international society, who can become one, and what the basic parameters for rightful action for these independent actors are(Reus-Smit 1999, 30–31). Even though they answer similar questions, the two analytical frameworks are not identical in their definition of the primary elements of the international constitution.

Reus-Smit’s framework of constitutional structure consist of three interlinked and mutually constitutive elements: the moral purpose of the state, the organizing principle of sovereignty, and the norm of procedural justice (Figure 2).

![Figure 2. The constitutive structure of international society (Reus-Smit 1997, 567).](image)

The norm of pure procedural justice in the constitutional structure describes the prerogatives of sovereign states in the international society (Reus-Smit 1999, 32). It corresponds more or less with Philpott’s third face of authority. The hegemonic belief of the moral purpose of the state, in turn, provides the justificatory foundations for this norm as well as the organizational principle
of sovereignty. Reus-Smit (1999, 31) describes it as purposive, because it entails, “the reasons that historical agents hold for organizing their political life into centralized, autonomous political units. He describes it as moral because such purposes, “always entail a conception of the individual or social “good” served by autonomous political organization” (Reus-Smit 1999, 31). The beliefs are hegemonic, “not because are the only conceptions of the moral purpose of the state propagated in a given historical context, but because they constitute the prevailing, socially sanctioned justification for sovereign rights” (Reus-Smit, 1999, 31).

The content of the norm of pure procedural justice in Reus-Smit’s framework corresponds to Philpott’s third face of authority. The definition of the organizational principle of sovereignty, in turn, has a similar focus to the first and second ones. There is, however, no equivalent to the element of the moral purpose of the state in Philpott’s analytical framework. I will next explain some of the consequence of these differences and similarities in the two frameworks in relation to how they explain and analyze the process of expansion of the EIS. This explanation takes place through two distinctive steps. First, I will further describe Reus-Smit’s definition of fundamental institutions, which is a level of analysis also not described in Philpott’s work. Second, Reus-Smit does not directly address the expansion of international society in the work that I have reviewed above. He has, however, approached it directly in a later volume (Reus-Smit, 2013). The second step will consist of the comparison of the general arguments he makes about this process in this later work with Philpott’s analytical frame.

**Fundamental institutions of the EIS**

In Reus-Smit’s analytical framework the middle-level is represented by what he terms fundamental institutions. These institutions consists of “those elementary rules of practice that states formulate to solve the coordination and collaboration problems associated with coexistence under anarchy” (Reus-Smit’s 1997, 557). In the modern international society, these basic institutional practices manifest as contractual international law and multilateralism. For Reus-Smit (1999, 87-157), the equivalent to such practices in what he calls the absolutist European society of states of the Westphalian era were, in turn, natural international law and what he conceptualizes as “Old Diplomacy”. Sitting above these basic institutional practices in Reus-Smit’s constitutive hierarchy are issue-specific regimes. These “enact” the basic
institutional practices in “particular realms of interstate relations” (Reus-Smit 1997, 558). Together with the constitutional structure presented in Figure 2, these two layers of international institutional cooperation form what Reus-Smit (1999, 15), following John Ruggie’s (1983, 283) explanation of the generative formulation of international political structure, calls a “generative structure” of international society. Reus-Smit (1999, 15) conceptualizes this hierarchy of international institutions as constitutive because in it “the deeper structural levels have causal priority, and the structural levels closer to the surface of visible phenomena take effect only within a context that is already ‘prestructured’ by the deeper levels”.

Reus-Smit (1999, 87-154) identifies two system-wide changes in the constitutive hierarchy of international institutions of the EIS. The first of these is the same as Philpott’s first revolution in the international authority structure of Europe organized loosely according to the international constitution of Respublica Christiana. However, where Philpott (1999, 578-579) treats Westphalia as the origin of the modern international system, Reus-Smit (1999, 88) argues that the three levels of the international institutions that stabilized in its aftermath were not the same as those of the modern international society. This difference in definition of the origins of the modern international society in the two works is mainly related to the element of the norm of moral purpose of the state in Reus-Smit’s constitutional structure, and the additional focus of his analysis on fundamental international institutions.

Reus-Smit (1999, 88) argues that the reason that seventeenth-century international society cannot be treated as having been based on the same constitutional structures as the modern is because the moral purpose of the state and the bases for sovereignty in this “absolutist society of states” was the maintenance of an organic, divinely-ordained, social order. The consequence of the prevalence of this norm was that the sovereign units of the system did not conduct their international behavior according to a principle of sovereign equality, as argued by Philpott. Instead, they did so according to what Reus-Smit (1999, 93, 101-103) describes as a social hierarchy of sovereigns that took different forms in the international and the national realms. In the domestic affairs of states this hierarchical social order took the form of administration based on specific estates. The status and power of these different social classes within the state was determined and justified with a reference to divine will, which ultimately manifested itself rightfully through the will of the absolutist sovereign. In the international affairs of states this
hierarchy was related to the definition of the relative standing of the absolutist sovereigns of Europe in relation to the Christian God (Reus-Smit 1999, 102–103). As mentioned earlier, the main fundamental institutions through which coordination and collaboration problems of states were solved in this absolutist, Christian international society were also not equal to those of the modern international society (Reus-Smit 1999, 87–121). The origins of the modern constitutive hierarchy of international institutions, Reus-Smit argues, are in what he introduces as the second revolutionary change in the three levels of international institutions in the EIS.

Reus-Smit (1999, 122-154) traces the second change in the constitutional structures of the EIS to the late eighteenth and nineteenth century. The new modern, hegemonic idea of the moral purpose of the state that he argues emerged at the time was the augmentation of individuals’ purposes and potentialities. Reus-Smit characterizes the organizing principle of sovereignty that was interlinked to this new moral purpose as liberal sovereignty, and the norm of pure procedural justice as legislative justice. The corresponding fundamental institutions that stabilized as the bases for the solution of coordination and collaboration of problems of sovereign states along with this new constitutional structure were multilateralism and contractual international law (Reus-Smit 1999, 122–154).

Where Reus-Smit’s analysis of the first constitutional structure of the EIS is temporally in line with Philpott’s analysis of revolutions in sovereignty in EIS, the dating of the second change is not similar to Philpott’s second revolution in sovereignty. That is even though the focus in Reus-Smit’s analysis of the constitutional structures of international society is the same as Philpott’s: the system-wide changes in the definitions of legitimate holders of sovereignty. One of the implications of this difference in timing is how Philpott’s work also draws a distinctive link between revolutions in the international constitution and the expansion of international society through increases in numbers of membership. This link between the emergence and expansion of international society is absent in Reus-Smit’s research on the fundamental changes in the constitutional structure of the EIS. Reus-Smit (2013) addresses this aspect of the genesis of the EIS in a later work that deals with individual rights. Whereas Philpott identifies two major waves of expansions of the membership of the EIS, Reus-Smit identifies five, which he argues were all primarily related to the collapse of European empires.
Individual rights and the expansion of international society

The first of the five major waves of expansion of the EIS through significant increase in its numbers of membership that Reus-Smit (2013) identifies in his work on the role of individual rights in the formation of international society corresponds to the first revolution in sovereignty analyzed by Philpott. Unlike Philpott, Reus-Smit conceptualizes this expansion to have followed not from the rise of Reformation but from the collapse of the Christian Empire, Respublica Christiana, in the Peace of Westphalia in 1648. The second wave of expansion of the EIS associated with the fall of European empires Reus-Smit identifies in his work is associated with the independence of Latin American states between 1810 and 1825. The third wave of expansion accompanied, in turn, the Versailles settlement of 1919. The fourth resulted from post-1945 decolonization, and corresponds with the second international revolution in sovereignty analyzed by Philpott. The last major wave of such expansion Reus-Smit (2013, 3) identifies is the collapse of the Soviet Union and Yugoslav Federation. As Philpott claimed in his two major revolutions in sovereignty, Reus-Smit (2013, 3) argues that the first, second and fifth of these waves had the greatest impact in the expansion of the EIS and the formation of its constitutional structures. The first and the third of these major waves of systemic expansion are also the same as the revolutions in sovereignty analyzed by Philpott. Despite of this similarity in their identification, and that both of these analyses primarily deal with the role of ideas in formulation of the contractual, legal framework of international society, their analysis of the normative foundations behind these expansions differs.

Philpott’s (1999, 579-584) analysis of the ideological origins of the two revolutions in sovereignty and the expansion of international society that followed highlights the impact of reforms in hegemonic religious and civilizational ideas in international society in them. Reus-Smit (2013, 1-14), in turn, identifies as the necessary causes in the three aforementioned major waves of expansion the specific demands for individual rights by previously subordinate subjects of the different historical empires. Despite these differences in the identification of the ideational and normative causes of expansion, both discuss the constitutive power of ideas, beliefs, and norms in the emergence and expansion of the EIS in relation to increases in the numbers of its legitimate members. In my discussion of Philpott’s international authority structure above, I described how such discussion explains the changing normative frameworks for sovereignty.
through the focus on definitions of who the legitimate holders of sovereignty are considered to be in an international society. I will next describe how, by focusing on this aspect of sovereignty, both of Reus-Smit’s, and Philpott’s analyses neglect one specific aspect in the stabilization of the principle as the primary organizational principle of international society.

**The material and the social expansion of the EIS**

In her study of the social construction of the meaning of sovereignty and what she terms as the contemporary greening of sovereignty, Litfin (1998, 8) defines the historically variable meanings of the concept as consisting of “a changing practice involving patterns of autonomy, control and authority” in international society. Following this conceptualization Reus-Smit’s and Philpott’s studies can be described as research on the normative foundations on which the stabilization of the hegemonic meanings of these three patterns in international society are and have been based upon. As illustrated above, the more specific focus in these studies has been on the analysis of the social elements of sovereignty in defining who can legitimately hold it, how, and on what grounds. This focus, I argue next, has led to the neglect of another crucial aspect associated with definitions of sovereign control and authority in the EIS. That is how the negotiation and stabilization of the hegemonic patterns of autonomy, control, and authority in the EIS have not only covered discussions about the definition of legitimate and rightful holders of sovereignty. They have also included negotiations for what the legitimate forms of division of different terrains and their materiality can and should be based upon (Litfin 1998, 6). In terms of the history of international law, this aspect of sovereignty associated to how, in terms of Schmitt (2003, 48): “The traditional history of international law is also a history of land-appropriations”.

One way to further highlight the differences between the aforementioned two aspects of sovereignty is to discuss them in relation to what I argue are the two different forms of expansion of the EIS they have primarily facilitated. I term the first one, studied in Reus-Smit and Philpott, as the primarily ‘social’ expansion of the EIS. I define the second, referred to by Schmitt, in turn, as the predominantly ‘material’ or ‘geographical’ expansion of the EIS. In terms of sovereignty, the former has been mainly associated with the international coordination of the basic rules of practice that define who the legitimate holders of sovereignty in an international society are, can and should be. The latter has, in contrast, been principally connected with discussions about how
the territorial exclusivity of the existing member-states of international society is organized and how it can be expanded. These two forms of expansion are interlinked as the material one has often involved the forceful extension of rule over peoples. They are, however, not interchangeable. I will next move onto a more detailed discussion of the differences and interlinkages between them in relation to a description of the international institutions their organization are principally associated with. I begin this discussion with a reference to the origins of the co-productive study of science, technology, and society in STS I referred to already in the previous chapter.

**Co-production of science, technology and international society**

One of the main questions that has guided the formation of the central debates in STS has been, "what counts as “social” about science” (Jasanoff 2006a, 20). One of the more general results of the multidisciplinary research on this question has, in turn, been the recognition that “the production of order in nature and society has to be discussed in an idiom that does not, even accidentally and without intent, give primacy to either”(Jasanoff 2006a, 20). The idiom that has been repeatedly adopted to facilitate such study is the previously mentioned one of co-production (Jasanoff 2006b). In relation to the Foucauldian conceptualization of power/knowledge, Massimo Mazzotti (2008) explains how the multidisciplinary study of science, technology, and society that follows this idiom does not make a definitive distinction between politics and science, or, in other words, between power and knowledge. In terms of institutional analysis, instead of analyzing the dominant scientific and political institutions in societies as two completely separate interacting entities, these studies analyse them as constituting two sides of the same coin (Mazzotti 2008, 9). The caution Litfin makes against oversimplifying her argument about the analysis of the discursive power of epistemic communities in the environmental regime-negotiations of the Montreal Protocol also applies to the interpretation of what this argument about the two sides of the same coin means, and what it does not.

When discussed in terms of Litfin’s caution for the discursive study of expert communities, the co-production idiom does not assert that empirical validity tests in science do not matter for the development of scientific theories. The claim of science and society as two sides of the same coin is rather an argument about the social foundations of the current status of specific sciences in the
interpretation of what is deemed feasible, reasonable, and rational behaviour in relation to the governance of the natural, material universe (Litfin 1994, 15, 29–37). In brief, it is an argument about the socio-technical side of all knowledge production and how it loops back into the terms in which human agents think about themselves and the world (Jasanoff 2006c, 2). What this means in practice is that studies of co-production do not treat the privileged status of specific sciences and technologies on account of their possession of some inherent superior qualities for the provision of objective information about the interests, needs, or characteristics of humans and non-humans. It is rather analyzed as a result of hundreds of years of successful, social co-production of specific values and principles attached to science as well as technology, and what is considered as progress in societies (Golinski 2005, 170–172; Jasanoff 2006a; Latour 1987, 215–219; 1993a, 108–109). I will next translate this argument about co-production to the level of the study of international society. I use the discussion about the interlinkages and differences between the social and material form of expansion of the EIS as the bases of this translation. I will begin the following contextualization effort by referring to Bruno Latour’s description of the hegemonic form of organization of governance in the Western international society since the seventeenth-century in terms of an illusory, yet dominant, “Constitution of the Modern”.

3.2. The Double-Constitutional Structure of the EIS

Latour develops the analytical concept of the Constitution of the Modern while describing one of the defining characteristics of the dominant forms of social studies of science leading up to the 1990s. That is, how they bracket science to be somehow outside of the human world. This characteristic, he argues, is reflexive of how members of Western cultures have never fully considered themselves or their belief-systems as emerging from a similarly socially constructed culture than those studied by Western anthropologists (Latour 1993a, 5-8). In relation to the modern system of knowledge production, this means that members of Western international society systematically forget two things. First, how individual pieces of knowledge were originally produced. Second, how their shared understanding of the natural universe has fundamentally changed through different system-wide epistemic revolutions even after the Scientific Revolution. Latour frames this ‘reluctance to remember’ as a central element in what he conceptualizes as the Constitution of the Modern. This ideational organizational framework
dictates a strict division between the production of knowledge of the material world and the representation of peoples and their interests in politics. In the words of Latour (1993a, 15), it structures the way “humans and nonhumans, their properties and their relations, their abilities and their groupings,” can be legitimately defined and represented in modern societies.

According to Latour one of the defining features of the organization of knowledge production under the Constitution of the Modern is that it insists on drawing limits between, on the one hand, politics and law, and, on the other, science and technology. The former is seen as uniquely involving issues of representation of people, while the latter deals solely with issues pertaining to the observation and representation of non-humans (Latour 1993a, 13–48). In his own works Latour (1990, 1993a, 2004) has empirically unraveled this distinction through the analysis of the social roles of a multitude of sciences and technologies in different administrative and political contexts. His works have also highlighted how the insistence of treating these two spheres as impenetrable by one and other is, in itself, part of the discursive mechanisms through which, what is regarded as the first mentioned objective superiority of Western science and technology to those of other cultures, is maintained (Latour’s 1990, 156–159; 1993a, 30, 44; 2004, 8, 12).

I will next contextualize what I have earlier argued are two previously largely neglected areas of analysis in the emergence, expansion, and change of the EIS with the administrative distinction Latour makes between law and politics on the one side, and science and technology on the other in the Constitution of the Modern. The first of the neglected areas I am referring to here is what I described in the previous chapter as the systematic omission of the social roles of science and technology in the constructivist and English School analysis of the emergence and expansion of the EIS. The second is what I, in the first part of this chapter, illustrated is the dominant focus of constructivist analysis of constitutive ideas, principles, and norms in the organization and change of the social rather than geographical or material expansion of international society. I will use Reus-Smit’s definition of the constitutive hierarchy of international institutions (Figure 1.) as the institutional analytical frame of reference in this contextualization effort.

**Constitutive hierarchy of international knowledge-producing institutions**

When the division presented in Latour’s Constitution of the Modern is translated in terms of Reus-Smit’s constitutive hierarchy of international institutions, this framework can be described
to be representative of the international institutions of the social and political side of this
division. I will conceptualize it in correspondence with the two aforementioned main forms of
expansion of the EIS as the ‘social’ constitutive hierarchy of international institutions.
Correspondingly, I characterize what I content is its parallel, equivalent to the scientific and
technological side of Latour’s “Great Divide”, representation of international institutions, as its
‘material’ counterpart. In this material constitutive hierarchy of international institutions, the
fundamental institutions of the original framework are represented by what I conceptualize as
the historically contingent, but periodically stable, epistemic authority structure of the EIS. With
this structure I refer to the institutional solutions to co-operation problems between states that
have emerged from a set of more general problems related to the legitimacy of natural
knowledge production. Theodore Porter (1996, ix) conceptualizes these types of collective
political problems related to natural knowledge generation and its insemination in the
international system as problems of “distance and distrust”. He explains how these types of
problems emerge and accumulate in correlation with increases in international trade, commerce,
and communication between the different parts of international society. One of the indicators of
how these problems have been solved through international institutional innovations is how the
development and spread of scientific networks in the EIS has, at the onset, taken place primarily

One way to further elaborate on the basic form of international institutional co-operation
between states that takes place in the shape of the common epistemic authority structure, is to
describe how it defines the elementary rules of practice for legitimate knowledge production. In
doing so it also outlines what is considered to be rational governance of the material world in
international society. In paraphrasing Shapin (1996, 12), it constitutes the common consensus
over what is known, how it is known, and what the knowledge is deemed to be good for in
international society. In relation to Reus-Smit’s framework of the three levels of international
institutions (Figure 1), it is equal to such ‘social’ institutions as diplomacy and multilateral
international law. In the material constitutive hierarchy of international institutions on top of this
fundamental institution are issue-specific regimes that guide legitimate natural and technical
knowledge production and dissemination in and of international society (Figure 3).
The issue-specific regimes that are subordinate to the epistemic authority structure include specific standardization measures of knowledge validation in relation to the human, as well as the non-human, world. One example of such forms is the development and spread of statistics (Hacking 1990). Another is the formation of standard cartographical measures (Branch 2014). In relation to Scott’s (1998, 85-306) analysis of the centralization of the governance of individual states in the modern international system, these issue-specific regimes provide the practical technologies for making the members of international society legible to each other. That these regimes are constituted by the epistemic authority structure means that their development follows specific hegemonic forms of representation and thought that dictate what is the proper way of organizing and presenting information about the natural as well as the social world. In other words, the epistemic authority structure constitutes the primary reference point for how international agents such as states organize and communicate their thoughts about the composition of not only the social but also the material universe (Hacking 2002, 14). The legitimacy of the aforementioned individual regimes and the epistemic authority structure is partially established through the accumulation of data about different repetitive aspects of the natural world. The representation and study of these aspects is organized according to the spread of networks of what Latour (1988, 215-257) conceptualizes as similar, standardized
centres of calculation for natural and technical knowledge production in international society. Because of the necessary social, human element in this organization, their more elementary social legitimacy is, however, derivative of what I conceptualize as the material equivalent to Reus-Smit’s social constitutional structure in the material constitutive hierarchy of international institutions.

The most fundamental level of the material constitutive hierarchy of international institutions is represented by a specific interconnected set of intersubjective, international norms, a characteristic shared by its social counterpart. These norms do not primarily deal with the stabilization of hegemonic definitions of the legitimate holders of sovereignty or their basic prerogatives and responsibilities in terms of what Reus-Smit conceptualizes pure procedural justice in the social constitutional structure. Instead, they are primarily related to the stabilization of what I conceptualize, following Bull (2002, 15), as the common epistemology and understanding of the natural universe in the EIS (Figure 4).

![Figure 4. The material constitutional structure of the EIS](image)

Much like the elements of Reus-Smit’s (1999, 33) constitutional structure, the three norms of this material constitutional structure illustrated in Figure 4 form a mutually-interconnected and mutually-dependent normative system of international society that is unified, coherent, and interlinked (but not interchangeable). The first element in this material constitutional structure consists of the material equivalent to what, in the framework of Reus-Smit (1999, 31-31), is conceptualized as the hegemonic belief about the moral purpose of the state. I have
conceptualized this element as the developmental paradigm of international society. It could, however, also be characterized, following Reus-Smit’s conceptual framework, as the material moral purpose of the state. That is, because it includes a similar set of hegemonic, purposive and moral elements to that Reus-Smit conceptualizes in his definition of “the moral purpose of the state”. In short, like Reus-Smit’s definition of the moral purpose of the state, the developmental paradigm describes a set of collectively held beliefs that have led states to organize knowledge production and governance of the material world according to the same principles. These beliefs incorporate a moral element because, like those that constitute the moral purpose of the state, they entail a specific underlying conception of the individual, or social, “good”, that is served by the organization of the governance of the material world according to the hegemonic beliefs that also define what is considered as materially measured development and progress in the international society (Reus-Smit 1999, 31).

The second element in the material constitutional structure of international society is what I conceptualize as the norm of the role of Western humanity in nature. This norm is interlinked with the developmental paradigm in that it also defines what is seen as possible, reasonable, and feasible activity in relation to the governance of the material world inside, as well as outside, of the borders of the EIS. It consists of two hegemonic perceptions related to ideas of the capabilities, rights and responsibilities of individuals who identify themselves as part of this international society in relation to nature. The first perception defines what is thought to be possible, reasonable, and feasible to achieve in relation to the governance of the material world. The second one describes, in turn, the specific rights and responsibilities of the individuals who identify with the EIS towards other peoples. I refer to a norm of Western humanity in nature because of the same reason that Reus-Smit (1999, 32) refers to a norm of pure procedural justice. Reus-Smit (1999, 32) justifies this conceptualization by referring to how this principle dictates “the basic parameters of rightful state action”. I conceptualize the prevailing norm of the role of Western humanity in nature as such because in a much similar manner it dictates the basic parameters of rightful state action in relation to a hegemonic definition of what is considered as ‘good’ and ‘rational’ governance of the material world in the international society. I refer to Western humanity, in turn, because as this framework is developed in accordance with Latour’s
Constitution of the Modern, the framework of the material constitutional structure is only applicable to the EIS.

The third element of the material constitutional structure, the principle of operational sovereignty, is related to, but not interchangeable with, the organizing principle of sovereignty in Reus-Smit’s constitutional structure. Instead of facilitating co-operation and coordination in international society under conditions of anarchy by defining actors that are worthy of sovereign rights, this organizing principle facilitates the organization of the geographical expansion of ultimate territorial authority, autonomy and control of existing member states of international society (Litfin 1998, 6). In relation to the material or geographical and social expansion of the EIS this principle is primarily associated with the coordination of the former. What Reus-Smit’s conceptualization focuses on is, in turn, the aspects of sovereignty associated with the latter.

Much as these two hegemonic forms of expansion of the EIS are interlinked, the material constitutive hierarchy of international institutions is not separate from the original framework developed by Reus-Smit. Both facilitate the description of the collectively held beliefs of historical agents that have made them organize social political life according to specific hegemonic rules. In relation to sovereignty, the rules that Reus-Smit (1997, 567) analyzes define and constitute the legitimate holders of sovereignty in the international system of states. The rules its material equivalent focuses on are, in turn, ones that define and constitute the borders of their ultimate territorial authority. I will next argue that it is also possible to apply Philpott’s claim that without an international constitution, organized interaction between different polities would not be possible to the above formed material constitutional structure. I will do so by further contextualizing this new framework with Bull’s (2002, 15) discussion of what he describes as “the common epistemology and understanding of the universe” of international society in The Anarchical Society.

**Co-production of science, technology, and the international society**

In discussing the difference between international systems and societies Hedley Bull (2002, 15) identifies the formation of some of the shared elementary goals, principles, norms, and values that have been constitutive of historical international societies with a reference to a “common epistemology and understanding of the universe” of an international society. I argue that the
above described analytical framework of the material constitutive hierarchy of international institutions is one way to conceptualize the constitution of these two terms in the context of the EIS. The difference in their creation to Bull’s analysis is that in referring to these terms in relation to the formation of international societies, Bull (2002, 15) refers only to previous historical international societies, not the European one. Unlike Bull, I argue that the negotiations for the establishment and maintenance of the above described material constitutive hierarchies of international institutions, have been a necessary condition in the development, maintenance, and expansion of the EIS. In Scott’s terms, they have enabled the coordination and collaboration of activities of states by defining what it means to “see like a state” in the context of the EIS of states.

Following the co-production idiom of STS discussed earlier, I argue, that similarly to the two aforementioned mechanisms for expansion, the two analytical frameworks of the social and material constitutive hierarchy of international institutions are also mutually constitutive, interlinked, but not interchangeable. That is to say, one cannot exist without the other. One way to clarify this argument of co-existence is to refer to Barry Barnes’ more general definition of science as an inherent part of society. In his proper words: “Just as there can be no communication without shared language, so there can be none without shared knowledge” (Barnes 1988, 37). I will next present this argument about co-production in relation to the “Great Divide” in Latour’s Constitution of the Modern (Figure 5).

Figure 5. The double-constitutional structure of the EIS
Like the two sides of the Modern Constitution in Latour, I argue following the previously discussed idiom of co-production, that all of the levels of international institutions of the material constitutive hierarchy of international institutions are interlinked and intertwined with the ones in the social one in a co-productive manner. This interlinkage means two things for the analysis of the normative and ideological origins of the modern international society of sovereign states. First, as does Reus-Smit’s constitutional structure, the one I describe above also defines legitimate statehood and dictates the basic parameters of rightful and rational state action in the international society. The main difference between the two structures is that the one I define above does so not in primary reference to legitimate holders of sovereignty, but to beliefs about the laws that govern the material universe. The second meaning for the application of the co-productive relation of the two constitutional structures to the analysis of the emergence, expansion, and change of the EIS is that a revolutionary change in one structure can co-produce a revolution in the other. This is, however, not a necessary result of such changes. Revolutions in one can also be absorbed into a further configuration and conservation of the old institutional order of the other. I will next provide an overview of the similar multi-disciplinary method through which I will study these types of co-productions between the two sides of what I conceptualize, following Latour, as “the double-constitutional structure of the international society” during different times of the emergence and expansion of the EIS. As the material side of the framework is a novel one, I will use empirical analysis to also describe the content of its elements during these historical time periods. I will begin the description of this method with a reference to the ontology of the global political universe that the framework and its analysis follows.

3.3. Social role of science and technology in the northwards expansion of the EIS

Like the original constitutive hierarchy of international institutions, the ontological assumptions behind its material equivalent, and the argument about the co-production of the two sides of the double-constitutional structure, follow the more general social constructivist ontology in IR (Reus-Smit 1999, 5). This ontology attaches language with ontological primacy. What this means in more concrete terms is that as things, structures, and actors are identifiable and representable only in relation to the social codes and conventions that languages consist of; they can be argued
to be primarily constituted through discourse. In more specific terms, the codes and conventions of languages constitute frameworks through which actors, things and phenomena become possible as objects of discussion and action between different human agents. This existence is always temporally and spatially specific and pertains to the possibility of also being otherwise (Hansen 2006, 16-18). The reason for this precariousness is associated with the basic characteristic of languages summarized by Lene Hansen (2008, 18) in the following words: “The ambiguous nature of language as both structured and unstable implies that discourses will try to construct themselves as stable, but that there will always be slips and instabilities, building up what Derridarian discourse analysis calls the ‘undecidability’ of any text”.

At the level of the international system the aforementioned social constructivist ontology translates to international structures and agents being mutually constituted, and, hence, always containing the possibility for change (Wendt 1987). In the double-constitutional structure of the international society this constructivist ontology is identifiable in how the social and material constitutional structures are both composed of inter-subjective norms, principles and ideas. Correspondingly, the empirical analysis of the co-production of the two sides of the double-constitutional structure will take place by following the method of discourse analysis. The specific discursive area of focus in this analysis will consist of the communicative practices that mediate the relationship between agents and structures at the level of the international system (Reus-Smit 2008, 406). As the main organizing principle for the differentiation between units and their rights and responsibilities at this level in the EIS is sovereignty, the primary agents under analysis will be what in Reus-Smit’s and Philpott’s analyses are defined as the temporally specific legitimate holders of sovereignty in the EIS. For the study of the co-production of the two sides of the double-constitutional structure the analysis of the different discursive practices of the different holders of sovereignty in mediating their relationship with the EIS will, however, not be sufficient. This insufficiency is associated with the differences in the development of its two sides.

Unlike the social constitutive hierarchy of international institutions, its material counterpart does not rest on previous research. As such the study of the co-production of the two sides of the double-constitutional structure will include a study of the composition of its different elements at different times during the emergence and expansion of the EIS. To fulfil this requirement, the
discursive analysis of the mediations between agents and the international structure will also include other sets of discursive materials by other groups of agents. These agents consist of the different epistemic communities that have been directly associated with the progress and international organization of the material expansion of the EIS. I will next describe the methodological approaches through which the analysis of the discursive practices of these two sets of agents can be used to study the composition of the material, and its co-production with the social, side of the double-constitutional structure of the EIS. I will begin this description by explaining some of the basic parameters the organization of the type of constitutive, social constructivist analysis that the development of the previously analysed and established social side of this structure were based on.

**Big history, huge comparisons, and a focus on change**

One of the approaches of the type of constitutive, social constructivist analysis that the social side of the double-constitutional structure developed by Reus-Smit is based upon, is the analysis on moments of change instead of continuity and repetition. The reason for this is the aforementioned ontological primacy this approach attaches to language. In short, studies that follow this approach ascertain that during moments of social and political change, specific ideational propositions constitutive of the international society become especially visible. That is because at these times old prominent ideas, norms, and principles need to be actively defended against new ones in a complex process of justification and argument (Reus-Smit 2008, 416). The identification of such moments is one part of this type of social constructivist historical analysis. One way of doing this is the tracing of the genesis of specific, empirically-observable international phenomena in the international system (Finnemore 2003, 14). The phenomenon that I use as the bases in the organization of the study of the co-production of the two sides of the double-constitutional structure at different times during the genesis of the EIS is the aforementioned material or geographical expansion of the international society into previously unknown or little-known terrains currently outside of its scope. In the organization of this study I use a specific combination of macro-level historical description that draws on secondary literature and micro-level comparative case-study analysis based, in turn, on different discursive primary sources.
The first set of secondary literature I use consists of studies in History and Philosophy of Science (HPS) that have identified and described different processes through which questions about the facticity and credibility of knowledge claims about the natural and technical world have accumulated in the EIS. For macro-level historical comparative purposes, I conceptualize these moments as revolutions in the epistemic authority structure of the EIS. The second macro-historical literature I use is Reus-Smit’s study of the constitutional structures and Philpott’s research on the international constitutions of the EIS. With the conceptualization of the first of these macro-historical frames I use in structuring the case-study analysis I do not assert that these time periods would be characteristic of some coherent and cataclysmic events that “fundamentally and irrevocably changed what people knew about the natural world and how they secured proper knowledge of that world” (Shapin 1996, 1). Instead, this categorization is driven predominantly by what Shapin (1996, 6-7) calls the “present-oriented” interest that the organization of the historical analysis that follows the double-constitutional structure is characterized by. This characterization is connected to the more general rationality in the type of historically oriented, critical constructivist international theorizing the original framework of constitutive hierarchy of international institutions also follows.

The critically-oriented historical constructivist study of IR that Reus-Smit’s study of constitutional structures follows accords special importance to interpretative historical analysis of specific international structures and phenomena. The reason for this that this type of research enables the illustration of how the organization of international cooperation between states has followed different predominant logics at different times. By describing these logics and how they have been institutionalized, critical constructivists establish how seemingly obvious forms of contemporary international politics could also be changed in the future (Finnemore 2004, 4-6; Reus-Smit and Price, 1998). This critical constructivist analysis follows a philosophy of history, which, contrary to the neoliberal and realist strands of international theorizing discussed in the previous chapter, “denies that a singular history of international relations is possible, acknowledges the scholar’s role in constructing history, and recognises that explaining how ideas constitute agents and action requires us to situate them within culturally and historically specific contexts of argument and justification” (Reus-Smit 2008, 414).
That the study of the co-production of the two sides of the double-constitutional structure of the international society follows the aforementioned philosophy of history means that I also acknowledge that the distinctions in the history of science and technology I make with the concept of revolution in the epistemic authority structure of the EIS are artificial and that this historical study could also be organized otherwise (R. Porter and Teich 1986). However, I claim, by further following the critical historical constructivist approach to the study of history, that the two macro-historical frames together offer a strong starting point for a study that is primarily interested in describing the differences in social roles of science and technology at different times during the emergence and global expansion of the EIS (Reus-Smit 1998). This is especially so given that, in further accordance with the historical constructivist method, I complement this macro-historical review with detailed micro-level, comparative in-depth case studies that in all-but-one case consist of different attempts of material or geographical expansions of different member-states or aspiring member-states of the EIS (Reus-Smit 2008, 411).

From the study of scientific paradigms to constitutional structures

In selecting the different micro-level cases of material expansions of the existing or aspiring members of the EIS for the purpose of studying the co-production of the two sides of the double-constitutional structure I adapt one discursive method developed for the study of scientific paradigms in Sociology of Scientific Knowledge (SSK) to the study of international constitutions. The approach in question argues that a specific type of discursive study of the two sides of a scientific controversy allows for the identification of the social elements of the scientific paradigms in which the controversy arose. The type of discursive study of these two sides should be causal, impartial, symmetrical, and reflexive (Bloor 1991, 7). The reasons why following these postulates allows for the identification of the social elements of disciplinary paradigms is associated with the necessarily social nature of all knowledge claims I referred to in the previous chapter. The main rationale for the translation of some of the elements of this discursive methodology of controversy studies from SSK to the study of the material expansion of the international society is related to one specific characteristic of this type of expansion. That is how it has often taken place into previously unknown or little-known regions to the existing centers of
sovereign power. This lack of prior accumulated knowledge, I argue, corresponds to the situation of scientific controversies when they first emerge.

In the original framework of controversy studies in SKK, the focus on scientific controversies as case studies is further justified in relation to the lack of experimental, accumulative data associated with what can be conceptualized as the possibly revolutionary side of the controversy. The relevance of its application to the material expansion of the EIS to unknown or little-known territories is thus clear. In short, due to this lack of appropriate experimental verification both sides of the scientific controversy will, in structuring their arguments, rely on a pre-negotiated framework of assumptions, standards, purposes and meanings of the discipline from which it first emerged (Bloor 1991, 13–16). This framework is what Thomas Kuhn (2012, 43-51) refers to as a disciplinary-specific scientific research paradigm. Corresponding to this research rationale, I argue that because of the lack of accumulated experiential knowledge of the regions under attempted expansion, in their discursive justifications for the constitution and mobilization of sovereign power for these types of expansive efforts, sovereigns rely on the elements of the constitutional structures of the international society. In order to highlight the socially constitutive rather than utilitarian or practical power of the constitutional structure on the material side of the framework, I also apply a further method of analysis in the following case selection and study. That is, I narrow the case selection further to consist of cases of what, in hindsight, can be regarded as failed attempts of material expansion of individual states into previously unknown or little-known regions. In the organization of the analysis of the discursive mediations between agents and structures in such cases I follow a combination of the reflexivity and impartiality postulates of SKK and intellectual historian Reinhart Koselleck’s distinction of historical study between discursive horizons of expectation and the spaces of experience that follow them.

**Horizons of expectation and spaces of experience**

The central analytical concepts I use in the organization of the discursive study of the different elements of the double-constitution of the EIS in the cases of, in hindsight, failed attempts of material expansion of the EIS, are Reinhart Koselleck’s (2004, xxii–xxiii) horizon of expectation and space of experience. With this temporally-oriented distinction, Koselleck highlights how no
precise expectations can ever be deduced from experimental statements. That is, because a horizon of expectation cannot be transferred into a space of experience without interruption of interpretation. In other words, the future is something that cannot be experienced, only expected (Koselleck 2004, 268–270). In developing this conceptual distinction, Koselleck highlights how the comparison of horizons of expectation with spaces of experience can be especially illuminating of the prevailing norms, values, and ideas of societies at times of when a planned public activity is characterized by a general lack of previous experimental substance. For the analysis of the possibly generative power of fundamental norms, ideas, and values in different international, national, and regional societies, this means that they are best identifiable at times when there are not prior existing spaces of experience (Koselleck 2004, 269–275, 279, 281, 288).

The interplay between horizons of expectation and spaces of experience that I use in structuring the following case study selection and analysis is associated with the ebb and flow of sovereign interest in the exploration and eventual settlement of previously unknown, or little-known, regions in the Northern circumference. The focus in the analysis of the elements of the double-constitutional structure through these cases will, following the reflexivity and symmetry postulates as well as Koselleck's discussion about identification of norms and the previous lack of experience, be on the discursive horizons of expectation for the constitution and mobilization of sovereign power for the exploration of these regions. The geographical focus of the attempts under analysis is related to the other abovementioned specification that further narrows down the case selection criteria. That is, the focus on settlement.

The final case selection criteria follow Robert Kohler's (2002, 16) definition of one specific role of natural and technical sciences in the processes through which European empires expanded. In brief, the finally selection of nine cases (out of ten) consists of attempts to ‘push the ecological outer limits of feasibility of settlement’ in the international society further northwards (Kohler 2002, 16). This further narrowing of the case selection criteria and the decision to focus on the Arctic, I argue, allows for the best elaboration of all of the elements of the material constitutional structure, as well as of the study of the co-production between it and the social side of the double-constitutional structure. This focus also breaks down one of the main previously hegemonic categorizations of longue-durée research on human engagement with the Arctic in the
global political context. That is, the treatment of the desires that have driven sovereign engagement in northern explorative efforts as somehow fundamentally different to their southern counterparts. Following this case selection criteria some of the following cases do not, strictly speaking, represent, what can now be regarded as failed, geographical expansions of the EIS into previously unknown regions. They do, however, represent ones of its more general, material expansion through settlement of previously little-known ones. Before moving onto a description of how the analysis of the double-constitutional structure of the EIS that follows the above explained combination of methodologies unfolds in the following four chapters, I will elaborate a little more on the type of knowledge that is produced through this analysis and what are its limitations.

Histories of the Arctic that never were

As explained above, the focus in the analytical framework of the double-constitutional structure as well as its analysis is on sovereign states. Correspondingly, the selection of epistemic communities for analysis is on ones that have held or hold privileged positions at the global cores of the international system of sovereign states. By focusing on these actors my analysis will silence a multitude of other voices, horizons of expectations, common epistemologies, and understandings of the natural and social universe at the regional, national and local levels. The case studies and the analytical framework would benefit in descriptive detail from the extension of the collection of primary research materials to these types of alternative and additional ones. This detail is, however, not what the case studies in this work are researched for. The main purpose of the combination of macro- and micro-level analysis in the following four chapters is, instead, to provide one possible, empirically and theoretically grounded, answer to the question of how, as part of the genesis of the modern international order and its expansion, states have come to agree on basic rules for how a state “sees” and is seen in the EIS. The description of this answer unfolds in the next four chapters as follows.

Each of the following four chapters begins with a macro-historical review that describes what I have above termed as revolutions in the epistemic authority structure of the EIS and the corresponding status of the social constitutive hierarchy of international institutions. After these
macro-historical reviews each of the chapters continues with two or three in-depth comparative case studies about the justifications used for the constitution and mobilization of sovereign power for the exploration and eventual settlement of previously unknown or little-known regions in the Arctic. The cases in these parts of the chapters can, with the privilege of hindsight, be described as consisting of "histories of the Arctic that never were". The combination of macro- and micro-level analysis in these chapter is used to describe the content of the different elements of the material constitutive hierarchy of international institutions and their relation to the social one at specific historic intervals. These intervals are organized according to what I argue by referencing previous studies in HPS constitute four revolutions of the epistemic authority structure of the EIS. These revolutions are: the Scientific Renaissance (from the end of the fourteenth until the beginning of the seventeenth century), the Scientific Revolution (from the seventeenth until the late eighteenth century), Industrial Enlightenment (from the late eighteenth until the mid-nineteenth century), and the Environmental Revolution (from the mid-twentieth century until the beginning of the twenty-first).

3.4. Summary

In this chapter I first gave an overview of Philpott’s study of international authority structures and Reus-Smit’s constitutive hierarchy of modern international institutions. I then used this revision to argue that the expansion of the European-origin international society has taken place not only through increase of membership but also through the extensions of the ultimate territorial authority of its member states. I conceptualized the first type of expansion as the social and the second the material or geographical expansion of the EIS. I moved on to argue that Reus-Smit’s and Philpott’s analyses illustrate the constitutive power of ideas, norms, and principles in this social expansion of the EIS. I used insights of the study of the co-production of science, technology and society in STS to develop a complimentary to these frameworks new one to enable the study of their constitutive role in the social as well as material expansions of the EIS. Following Latour’s Constitution of the Modern, I conceptualized the new framework as the double-constitutional structure of the international society. In the following four chapters will I study the co-production of its two sides, the social and the material constitutive hierarchies of international institutions, at specific times during the emergence and expansion of the EIS by
following a specific combination of discursive methods from constructivist IR, STS, and HPS. The times periods under analysis are characterized by the accumulation of novel, controversial natural and technical knowledge claims in the EIS, and Philpott’s and Reus-Smit’s study of its constitutions and constitutional structures.
4. Renaissance as Origin

The institutional innovation of Renaissance Italy is often treated as the origin of some of the basic institutional practices of the modern international system of states. When tracing the change of the international system of Europe from heteronomy under *Respublica Christiana* to the system of sovereign states, Wight (1977, 151), for example, argues that the basic parameters of the latter were “first worked out in detail regionally, in Italy”. Watson (1992, 4–5, 156–162), in turn, dates the origins of the notions of the territorial state, the balance of power, and representative diplomacy to Renaissance Italy. The origins of the latter are also traced to the practices of Italian city-states by Garrett Mattingly (2009, 55). By comparing the role of ideas and values related to the systemic norm of pure procedural justice in the Renaissance society of states and the modern international one, Reus-Smit (1999, 63–86) argues against the feasibility of these interpretations.

In this chapter I do not take direct issue with any of these previous descriptions about the influence of the institutional innovation in Renaissance Italy on the formation of the international society of territorial states. That is because, unlike in these works, the focus of the chapter is not on the analysis of the basic rules of practice for the organization of the relations between peoples and polities in Renaissance Italy. It is, instead, on the influence of the development, spread and stabilization of specific fifteenth and sixteenth century arts and sciences in the emergence and expansion of what Reus-Smit (1996, 103; 1999, 87–121) conceptualizes as the international society of absolutist states.

In more specific terms, in this chapter I apply the co-production idiom from Science and Technology Studies (STS) to the concomitant study of the Scientific Renaissance and the emergence and stabilization of what Reus-Smit conceptualizes as the constitutive hierarchy of the social international institutions of the early-modern absolutist society of states. The starting point for his analysis are the basic rules of practice that emerged to coordinate sovereign objectives in the organization of the governance of peoples in the late fifteenth, sixteenth and seventeenth centuries. The one in this chapter is to study how the concomitant, revolutionary, change on the other side of the analytical framework of the double-constitutional structure of the EIS relates to the emergence and stabilization of these new rules of practice in its social one. The
following argument about co-production of science, technology and the EIS is that the emergence and stabilization of the new, social international institutions of the absolutist European states-system that Reus-Smit analyzes in his work were co-produced with the emergence and stabilization of a new epistemic authority, and a corresponding novel material, constitutional structure of the absolutist international society. This argument unfolds as follows.

I begin the chapter with a macro-historical overview of what I conceptualize as the revolution in the epistemic authority structure of the EIS associated with the Scientific Renaissance. I compliment this review with a discussion about what, in previous IR literature, has been studied as its concomitant emergence and expansion of the international society of sovereign states in the fifteenth, sixteenth, and seventeenth centuries. In this overview I frame the argument about the revolutionary co-production of a system-wide revolution in both sides of the double-constitutional structure of the international society by using Philpott’s concept of a crisis of pluralism in international organization. I do this by first discussing the basic parameters of Philpott’s analysis of the crisis of pluralism in political organization in *Respublica Christiana* that his analysis illustrates gradually accumulated in the fifteenth, sixteenth and seventeenth centuries. In this discussion I illustrate how Philpott’s analysis focuses on the role of new ideas, values, and norms in the emergence and stabilization of the Westphalian sovereign states system in the seventeenth century associated with what I have conceptualized as its social, foundational institutions. That is, the emergence of a set of common basic rules of practice for the definition of who were, or could be, legitimate holders of sovereignty, and what their basic prerogatives and responsibilities were. I then explain how this focus covers only one of the two foundational aspects related to the principle of territorial sovereignty that developed and stabilized in the Western Christian international society at this time.

What Philpott’s analysis of the early-modern revolution in sovereignty neglects is the re-organization of the basic rules of practice for the geographical expansion of the international society through the expansion of the ultimate territorial authority of these members into previously unknown, or little-known, regions. I argue that this oversight is mainly the result of the failure to see how the re-organization of material or geographical expansion at this time did not take place primarily through international political, legal, and diplomatic negotiations. The re-definition of the basic principles of what I conceptualize as the organizing principle of
operational sovereignty took place, instead, in relation to the institutional re-organization of scientific and technical knowledge production associated with the progress of the Scientific Renaissance. I continue the macro-historical analysis by describing the content of the institutional reorganization of legitimate natural and technical knowledge production in the absolutist international society associated with the Scientific Renaissance. In terms of this thesis this discussion is equivalent to the description of the epistemic authority structure of Renaissance, absolutist Europe. The macro-history concludes with a contextualization of the argument of the socially constitutive roles of Renaissance sciences and technologies in the emergence and expansion of the international society with Reus-Smit’s analysis of the constitution of the constitutive hierarchy of the, social, international institutions of the international society of absolutist states in the sixteenth and seventeenth centuries.

In the second part of the chapter I turn to the empirical analysis of the different elements of the new material constitutional structure of absolutist Europe constitutive of the Renaissance epistemic authority one, which I argue emerged and stabilized in accordance with the new social one posited in Reus-Smit. This analysis takes place through three comparative case studies of constitution and mobilization of sovereign power for the exploration and eventual settlement of the unknown or little-known-of in the sixteenth and early seventeenth century. The first case of this chapter is made up of the discursive horizon of expectation in association to Francois I’s decision to support the exploration and settlement of New France between 1532 and 1542. The second is that of Elizabeth I’s attempt to extend her sovereign authority into a region she named *Meta Incognita* in 1577 and 1578. The third case study of the chapter is Carl IX’s efforts to expand the territorial borders of the newly independent Swedish state further northwards through extended Swedish settlement in the eastern parts of the Kola Peninsula at the turn of the seventeenth century. The horizons of expectation in these three cases did not turn into comparable spaces of experience. Therefore, I conceptualize them as representing failed attempts to geographically and materially expand the international authority of the absolutist European international society by following the new material constitutional and epistemic authority structures of Renaissance Christianity.
4.1. *Respublica Christiana* and the Scientific Renaissance

Previous analyses of the ideological origins of the Peace of Westphalia have associated the stabilization of the new constitutional framework negotiated in Osnabruck and Munster with the emergence and spread of different international system-wide cultural and ideational shifts in Europe in the century and half leading up to 1648. Wight (1977, 139–141) highlights the role of the prior diplomatic negotiations in relation to the Italian Wars in this emergence of sovereignty as the main organizing principle of European international relations in the seventeenth century.

As mentioned in the introduction to this chapter, Watson (1992, 163–168) relates the emergence and stabilization of the sovereign states-system in the seventeenth century to the spread of specific ideas related to political organization that first emerged in the system of Italian city-states. In his study of the origins of the modern sovereign states-system Philpott (2001, 75–149) connects Westphalia to the spread of Protestantism among the governing elites of European states in the sixteenth and seventeenth centuries.

Philpott identifies the emergence of new Protestant polities and ideological blocks in Europe in the sixteenth and early seventeenth-centuries as one of the main sources for the development and stabilization of the new international authority structure. This spread of Protestant ideas among the governing elites of Europe, he claims, contributed to the accumulation of a ‘crisis of pluralism’ in international society based on the overarching authority of *Respublica Christiana*. As mentioned in Chapters Two and Three, by this crisis Philpott means the increase of different claims for how the legitimate holders of sovereignty in a polity were ultimately defined. This crisis, he argues, was eventually solved with the adaptation of a new international constitution of the international society that was based on an idea of toleration of religious pluralism and a clear definition of all of the three faces of authority (Philpott 2001, 123–149). In this chapter I argue that Philpott’s analysis of the accumulation of this crisis of pluralism neglects two essential elements related to the organizational principle of sovereignty that also stabilized in Westphalia.

The first element Philpott overlooks is how the new organizational principle of sovereignty did more than simply redefine the legitimate holders of sovereignty. That is, it did not only settle who could aspire to become a sovereign state, and what the basic prerogatives and responsibilities of the new sovereigns were in the EIS. The new sovereignty principle also redefined the elementary
rules of practice in relation to the peaceful establishment and maintenance of the territorial borders of the sovereign states within the new international society of states. These rules of practice were then applied to the expansion of those borders into previously unknown, or little-known, regions outside, or on the outskirts of, Europe. In the previous chapter I summarized these aspects as constituting the practices related to the organizing principle of operational sovereignty of the EIS. The stabilization of these new basic rules of practice are associated with what I claim is the second neglected element in Philpott’s analysis.

The second aspect of sovereignty that I argue is missing in Philpott’s analysis is how the accumulation of the crisis of pluralism in Respublica Christiana was associated with emergence and spread of what, in the terms of this thesis can be conceptualized as a new dominant common epistemology and understanding of the natural universe of the new international society of states. This new epistemology ran contrary to previously dominant formal configurations of ways to explain and understand the constitution of the material universe in Europe. In the field of History and Philosophy of Science (HPS), the emergence, accumulation and organization of the new epistemological and ontological frame have been conceptualized as the Scientific Renaissance (Dear 2001, 33–48). I will next describe what this change in the common epistemology and understanding of the natural universe in Renaissance, which I term as the first revolution in the epistemic authority structure, consisted of in more detail. The aim of this description is to draw attention to the different types of co-productive elements that can be identified between this revolution and the one described by Philpott. I will, hence, begin by referring to the negotiations that reorganized the basic rules of practice associated with operational forms of sovereignty in the international society at this time. I will then move on to a more detailed discussion of how these negotiations were connected to the emergence of what I argue makes up the first European, international-system wide epistemic revolution associated with the Scientific Renaissance.

Organization of the geographical expansion of the Christian and European international society in the fifteenth and early sixteenth centuries

In the beginning of the European Age of Discovery, different European powers were organized according to a plethora of mechanisms raging from the feudal order of land ownership, to a plurality of crowns, royal houses, and independent cities. The Respublica Christiana provided
these different polities with an overarching source of authority (Grewe 2000, 12; Schmitt 2003, 59–66, 87). Wilhelm Grewe explains how, even though the papal claims that provided the highest form of authority in the Respublica Christiana were regularly met with opposition by secular European powers, they were also regularly referred to at times of conflict. The overarching international authority of papal claims is visible, for example, in how they became the hegemonic frame of reference in the legitimation of the early expansion of the ultimate territorial authority of European powers into previously unknown regions in the beginning of the Age of Discovery (Grewe 2000, 123).

The first legal dispute between sovereign European powers over the status of, and authority over, new territories related to the progress of voyages of discovery that was solved through the papal international authority structure of Respublica Christiana was the dispute over zones of expansion between Portugal and Spain in the 1470s. This dispute was solved with the Treaty of Alcacovas in 1479, which drew what would become the first of a handful of demarcation lines for the zones of expansion between the two kingdoms (Grewe 2000, 229–232). The legitimacy of the new type of material, through colonization, and geographical, through extension of geographical scope, expansion of the Christian international society associated with this treaty was justified by the Donation of Constantine. According to this fraudulent Roman imperial degree, the Pope had been bestowed with the ultimate authority over the Western Christian Empire and Christians with the “right to take charge of all parts of the world which were either uninhabited or occupied by heathens” (Grewe 2000, 123). The next new voyages of discovery that raised the need for the political reorganization of the basic rules through which the Christian states were justifying their expansion of territorial authority into new regions after the signing of the Treaty of Alcacovas were those of Christopher Columbus (Grewe 2000, 229–245).

The political solution to the coordination of expansive activities of European states that followed Columbus’ discovery of what he thought were islands off of China in 1492 became the first application of the international authority structure of Respublica Christiana into the organization of co-operation between European polities in the New World. This insertion of the old European authority structure into the governance of European activities in the, at the time still completely unknown, New World took place through the drawing of the later famous line in Pope Alexander VI’s edict Inter caerterae divinae in 1494. This demarcation line was enforced in a slightly revised
version by the Spanish-Portuguese Treaty of Tordesillas later the same year. This revision was subsequently confirmed by the Papal bull *Ea quae* in 1506 (Green 1993, 6; Schmitt 2003, 87–89).

When other European sovereigns first entered the Age of Discovery they did not directly defy the legitimacy of this extension of the elementary rules of international practice under *Respublica Christiana* into the territorial appropriation of the previously unknown.

Henry VII of England was the first European sovereign to indirectly defy *Inter Caertera* by attempting to extend his sovereign authority into new areas through supplying a letters-patent for exploration with sovereign authority. This letters-patent was issued to John Cabot in 1498 and entitled him to sail in the “eastern, western and northern seas” (Wilson 1996, 18). In comparison with similar documents of the time, it seems to have purposefully left out the mention of southern seas, where the Treaty of Tordesillas was concurrently being executed (Wilson 1996, 17–18). Francois I of France was the second sovereign to attempt an expansion of sovereign authority by means of issuance of letters-patents. Francois relied upon the authority of the *Respublica Christiana* in justifying his claim to lands discovered under these letters-patents. This reference to it, in itself, underscores the perceived overarching international authority of the *Respublica Christiana* in the organization of international affairs of different European polities at this time. Before the third official voyage of discovery that Francois I supported, the French sovereign persuaded Pope Clement VII to declare that the aforementioned bull of Alexander VI only applied to lands already discovered, not those later found by representatives of other sovereigns (Morison 1971, 341).

I claim that the aforementioned symbolic acts of Henry VII of England and Francois I of France support Mattingly’s (2009, 18-19) and Grewe’s (2000, 7) arguments that in the early sixteenth century the European polities formed some sort of a common European society. The polities of this society, though not unified in form, shared some fundamental norms and an overarching legal consciousness that were rooted in a common Christian value-base. This value-base was associated with the loose, yet overarching, international legal and political order of *Respublica Christiana*. What I argue has been neglected in the previous analyses of the constitutive role of new ideas in how this order was successfully replaced with the Westphalian system of sovereign states in the seventeenth century is how its crisis of legitimacy analyzed by Philpott was partially co-produced with Reformation, partially with the increase of new knowledge associated with the
progress of exploration and colonization. The accumulation of this knowledge was, in turn connected to the progress of the concomitant crisis in pluralism in natural and technical knowledge production. The emergence and solution to this crisis has later been conceptualized as the Scientific Renaissance.

**Scientific Renaissance**

One of the three main sources of the emergence, accumulation, and spread of the crisis in pluralism in natural and technical knowledge in the fifteenth-, sixteenth, and seventeenth centuries was the progress of the Age of Discovery and the accumulation of new experimental knowledge associated with it. The two other major sources were the increased access of Europeans to original Ancient sources of knowledge, and the progress of Protestantism. The accumulation of new natural and technical knowledge associated with these three sources and the new ways it started to be codified contributed to a more general, radical reshaping of the mental world of early modern Europeans. This change included dramatic modifications in previously hegemonic European philosophical ideas concerning being, God, knowledge and nature (Feldhay 2006, 729). The progress and spread of these new ideas was further facilitated by the invention of movable type in printing as well as the increase in relations between different parts of *Respublica Christiana* and the outside world at this time (Dear 2001, 3–79). I will next give a brief overview of the emergence of the new international epistemic communities that began to form in relation to the development and spread of these new forms of knowledge. In order to explain how this change in knowledge-production stabilized as a new Renaissance, epistemic authority structure, the focus in this overview will be on illustrating how the new epistemic communities situated themselves in respect to the existing authoritative canon in codified knowledge that translated what was known, how it was known, and what the knowledge was deemed to be good for also dictated by *Respublica Christiana*. I begin this overview with a reference to how the spread of the Ancient sources of knowledge associated with the Scientific Renaissance was facilitated.

**Renaissance revolution in the international organization of natural knowledge production**

Until the late fifteenth century, original Greek and Roman sources had been available only for a very small circle of Christian scholars. With the invention of Gutenberg's movable type in
publishing in 1436, and the migration of Greek scholars to Europe after the raid of Constantinople by Ottoman Turks in 1453, direct access to the original works of the physics of Aristotle, the mathematics of Archimedes, and the astronomy of Ptolemy became available to larger publics (Toulmin 1990, 5; Watson 1992, 152). Another contributing factor in the spread of these works in the sixteenth century was the general increase in interactions between different parts of Europe that took place through the increase in international commerce at this time (Dear 2001, 6, 16; Kamps 2008; Pope 1997, 128; Shapin, 1994, p. xv; Troubetzkoy 2011, 39). According to Rita Feldhay (2006, 729), one of the results of these developments was that during the sixteenth and seventeenth centuries, natural knowledge gained a new significance and status in the mental world of Europeans leading to a radical change in “religious conceptions of salvation as well as philosophical ideas concerning being". I have conceptualized this revolution as constituting a part of the revolution in the previous common epistemology and understanding of the natural universe of the early-modern European international society. In order to explain the crisis of pluralism in legitimate and rational natural and technical knowledge production associated with this revolution, I will next elaborate upon how this case differs from the previously dominant common epistemology and ontology in Europe in codified canon of knowledge.

The production of codified natural and philosophical knowledge of the material world in Medieval Europe had largely been confined to dogmatic questions of Religion, salvation, and the interpretation and preaching of the coming of end of the World (Reeves 1984; D. Thompson 2005; Schmitt 2003, 59–62). Marjorie Reeves has conceptualized the previously dominant epistemology and understanding of the universe in the following words: “The prevailing mood inherited by medieval people was one of pessimism concerning the future. The world was slipping downhill and the signs of its final degeneration were already present. The only possible attitude was one of repentance and watchfulness for the End. The Middle Ages lived in the consciousness of being in the End-Time....it was the End which now provided history with meaning and structure, and the greatest remaining event was Last Judgement” (Reeves 1984, 41). Instead of contributing to this interpretation of the end-times, the new renaissance epistemic communities became focused in the revival of the Ancient texts, and the assimilation of the new natural knowledge from the voyages of exploration to the newly available canon of previous
knowledge of the Ancients (Vogel, 2006). This new focus does not mean the progress of the new sciences and technologies took place outside of the overarching Christian culture of the time.

Unlike the contextualization of the analysis of the crisis of pluralism in knowledge production of the seventeenth century sometimes makes it seem, the emergence and spread of new empirical, theological and philosophical knowledge associated with the Scientific Renaissance in the preceding two centuries did not take place outside of the more common cultural heritage of Western Christianity (Feldhay 2006, 727–728). In relation to the re-emergence and spread of Ancient sources, it was the Latin Church that first introduced the Ancient Greek scholars as part of its canon of approved intellectual authorities (Dear 2001, 3, 15-18). In turning towards the Ancients, the new Renaissance humanist epistemic communities were, hence, not turning away from the previous organization of political and epistemic authority in Respublica Christiana. They were, instead, relying on the second major intellectual authority that the medieval international order dominated by the idea of a common Christian community had been built upon. That is, the legacy of the Roman Empire (Watson 1992, 138–139). The main differences in the epistemology set forth by these new, European sixteenth century epistemic communities to those of their predecessors was instead in the way they used the Ancient sources in producing new knowledge, and what they argued the new knowledge was good for.

**The epistemic authority structure of Renaissance Christianity**

Instead of relying on previous scholastic forms of Aristotelianism, the new Renaissance humanist epistemic communities argued for the need to move towards a more direct engagement and emulation of the previous practices of the Ancients. As a result, the previously dominant scholastic Aristotelianism that had been focused on questions of dogma and theology was replaced with a new focus in learning on the restoration of the past glory of Europe by restoring the highest accomplishments of the Ancients in the arts and sciences (Dear 2001, 10–18, 33). Mikulas Teich and Roy Porter (1991, 2) summarize the new ideas, norms and values associated with the Scientific Renaissance as having led into the emergence and stabilization of “a profound desire to break with the immediate past - to be rid of what were perceived as the dead hands of clerical and ecclesiastical domination, of scholasticism, of feudalism - and to fashion new modes of living, a new sense of self, with the aid of a selective, mythic, reconstruction of the past”.
The aforementioned change in the aim of knowledge production by the new epistemic communities, I claim, is associated in a co-productive manner with the emergence and spread of what Philpott defined as the crisis of pluralism in political organization in *Respublica Christiana* during the century and half leading up to Westphalia. I will next open up this argument by referring to the emergence and stabilization of the new Christian Renaissance epistemic communities as the emergence and stabilization of a new hegemonic epistemic authority structure of European international society. I will use this conceptualization to illustrate how the aforementioned accumulation and spread of new natural and technical knowledge associated with the Scientific Renaissance was inherently connected with the emergence of what Reus-Smit conceptualizes as the constitutive hierarchy of the international institutions of the absolutist, early-modern international society of European states.

**Constitutional structure of the absolutist society of states**

Like Philpott, Reus-Smit argues that the successful re-organization of international relations of Europe according to the principle of sovereignty after Westphalia rests on the earlier emergence and stabilization of an ensemble of new intersubjective beliefs within the Christian international society. Unlike Philpott, Reus-Smit claims that these new beliefs did more than simply legitimize the mandate of the sovereign state as the paramount political institution. They also licensed dynastic monarchs as the new supreme authorities within international society (Reus-Smit 1999, 94). Reus-Smit (1999, 102-107) explains how the dominance of the organizational principle of the sovereign state in this seventeenth century society of states was justified with the common good that was expected to result from the maintenance of a divinely ordered, organic social order in and between the European polities. As mentioned in the previous chapter the highest authority within the polity in this divinely ordained social order was the absolutist sovereign. This embedment of ultimate international authority with the sovereign head of the state was justified and rationalized with a reference to a Divine Will associated with an organic social order based on estates. In the international sphere there was no equivalent dominant description of such divinely ordained organic social order. This, Reus-Smit explains, does not mean that the relations between states in the seventeenth century were organized according to a principle of sovereign equality. On the contrary, in reference to the negotiations in Osnabruck and Munster, the European sovereigns of the seventeenth-century competed with each other for their standing in
another, equally hierarchical, Christian order. That is the order of the sovereigns of Europe in relation to their relative proximity to the Christian God (Reus-Smit 1999, 102–103, 109).

In relation to Reus-Smit’s (1999, 94–101) analytical framework of the three-fold constitutional structure of the international society of the absolutist states, the hegemonic moral purpose of the state was to maintain this divinely ordained organic social order. The hegemonic organizational principle of sovereignty that this purpose was attached to was dynastic sovereignty. The systemic norm of procedural justice that was interlinked with these two elements was authoritative justice. As mentioned in the previous chapter, the focus in Reus-Smit’s description of this constitutional structure is on explaining the content of the basic institutional practices that states referred to in the solution of their coordination and collaboration problems under anarchy in the Christian, absolutist system of states. In this international system the fundamental institutions that these norms constituted were what Reus-Smit (1999, 87-156) conceptualizes as natural international law and “old diplomacy”. As explained in the previous chapter, much like in Philpott’s study of the Protestant Revolution, Reus-Smit’s focus in the analysis of these fundamental institutions is on describing how the legitimate holders of sovereignty were defined at this time. In relation to the previously described Scientific Renaissance, because of this focus his analysis of the aforementioned fundamental institutions and the corresponding constitutional structure neglects to notice the connection between the emergence of the basic rules of practice in this absolutist society of states and the concomitant emergence and stabilization of a new common epistemology and understanding of the universe in Europe. In the analytical terms of this thesis, I argue that Reus-smit’s analysis overlooks how the process that led to the constitution of the new social constitutional structure and corresponding fundamental institutions of the absolutist society of states in Westphalia, was accompanied with the emergence of a new epistemic authority structure and a corresponding material constitutional one on the other side of the double-constitutional structure of the EIS.

Seeing like a state in the sixteenth century Christian Renaissance society of states

The connection between the stabilization of what I conceptualize as the new epistemic authority structure of Renaissance Christianity and the social fundamental institutions of Reus-Smit’s social hierarchy of international institutions is first identifiable in how the progress of the
epistemic revolution of Scientific Renaissance was facilitated. Peter Dear (2001, 8) refers to this connection by explaining how the Renaissance arts and sciences spread among governing elites of Europe “most efficiently through the medium of educational reforms taking place in the schools and universities that trained the élite classes”. The co-productive elements between the revolutions in the two sides of the double constitutional structure of the European international society are also identifiable in how the new absolutist monarchs of sovereign states also became one of the main sources of support for the international-society wide institutionalization of the new epistemic communities beyond universities. I will illustrate in more detail on how this sovereign support of the new epistemic communities, did more than simply serve the purposes of warfare and basic survival of states in the following three case studies. It was also associated with the new social construction of the identity of the sovereigns and the international society of absolutist states. Bruce Moran (2006, 267) has summarized this connection in the following words: “Members of court aristocracies shaped and influences early scientific academies, and participation by the nobility enhanced their respectability”.

In relation to Reus-Smit’s argument of the emergence of the new moral purpose of the state at this time, the coproduction of the new epistemic communities and sovereign rules is visible in how the social hierarchy between the sovereigns not only manifested and determined in relation to the definition of their proximity to God in political and diplomatic negotiations. The new, hegemonic, forms of material culture associated with the aforementioned, new epistemic authority structure of Renaissance Christianity were also used in this negotiation of the standing of the states in the new hierarchy of sovereigns. In relation to the aforementioned crisis of pluralism in political organization as well as natural knowledge production in Respublica Christiana, this argument translates to a claim that, the revolution in the social side of the double-constitutional structure of the international society was co-produced with the one in the material side. Correspondingly the international institutional aspects associated with the solution of both were also co-produced, and, thus, interlinked.

In terms of the material side of the double-constitutional structure of the international society, I argue that two things associated with legitimate natural and technical knowledge production in the international society followed from the accumulation of the new knowledge associated with the Scientific Renaissance. The first was the emergence and stabilization of the aforementioned
new epistemic authority structure. The second was the concomitant emergence and stabilization of a new, material constitutional structure of the new international society of states in Europe. In relation to Ian Hacking’s (2002) definition of historical ontology, the stabilization of the new epistemic authority structure not only led new European states and sovereigns to begin to solve a specific set of common coordination and collaboration problems between them according to this structure. It also led to these states to start to define their common problems according to a new common understanding of the natural universe associated with it. In other words, the stabilization of the new institutional framework through which the processes of what were considered as legitimate and rational natural and technical knowledge production were defined in the early-modern international society, made certain behavior in attempts to govern the material universe seem rationale and feasible. This, in turn, disclosed other possible paths for development, for the governance of the materiality of state terrains, and for interpreting the laws of the material as well as social universe. I will next elaborate on the different elements of this material constitutional structure of the EIS associated with the new Renaissance epistemic authority structure in greater detail through three in-depth discursive case studies. Before moving onto the cases I will briefly sketch what they consist of and how the analysis of these institutions of the material constitutional structure of the international society at the time of the emergence of the EIS unfolds in them.

4.2. The Material Constitutional Structure of Renaissance Christianity

The following three cases consist of three attempts to peacefully expand the ultimate territorial authority of three member-states of the international society further into previously little-known or unknown regions at the peripheries of Europe and beyond. Because of the general analytical methods described in the previous chapter, all of these attempts can be deemed, with the benefit of hindsight, to have been failed attempts of materially and geographically expanding the international society further northwards through settlement. To reiterate the theory and method behind case selection criteria, I will use the definitions of horizon of expectation and spaces of experience in the study of the three elements of the material constitutional structure associated with Renaissance Christianity through these cases. What this means in practice is, that I use the cases to identify and describe the content of the three normative elements that comprise the
material constitutional structure of early-modern European society of absolutist states. I do this by applying the reflexivity and impartiality principles of controversy studies in Sociology of Scientific Knowledge into the analysis of the discursive horizons of expectation in the justifications for the constitution and mobilization of sovereign power into the exploration and the eventual settlement of the unknown.

Because of the temporal difference of the three cases, my approach here will be chronological. This means that I begin with Francois I’s decision to support the exploration and settlement of New France between 1532 and 1542. Elizabeth I’s attempt to extend her sovereign authority into a region she in 1577 named *Meta Incognita* in the 1570s will follow. The final case is Carl IX’s effort to expand the territorial borders of Sweden in the north through the increase of Swedish settlement at the turn of the seventeenth century. I claim that in the first case, we can identify the first emergence of the new norms of the material constitutional structure of the early-modern international society of absolutist states associated with the new epistemic authority structure of Renaissance Christianity. In the English case, this structure and its connection to the emergence and stabilization of the new absolutist social constitutional one are more pronounced. The third case, in turn, illustrates how the stabilization of the new material constitutional structure not only influenced the re-organization of the mechanisms for the establishment of ultimate territorial authority, autonomy and control outside of Europe but also constituted a change in these operational aspects associated with sovereignty in Europe.

**FRANCE**

After the beginning of sovereign territorial expansions of authority by Spain and Portugal into the New World, Francois I of France was the first European sovereign to attempt the expansion of his territorial authority into the New World. The main means for this attempt was the establishment of a permanent new French settlement in a region frequented by explorers officially supported by the French sovereign. As mentioned already in the first part of this chapter, in seeking external validation of the legitimacy of this settlement as a sign of territorial sovereignty, Francois I (like the Spanish and Portuguese sovereigns before him) turned to the international authority structure associated with the Pope. Before the first official French exploratory mission, which focused not on the discovery of a straight to the Orient but settlement, he pleaded for Pope
Clement VII to declare that the bull of Alexander VI only applied to lands already discovered, not those later found by representatives of other sovereigns. The result of this plea was the issue of the aforementioned papal bull of 1533 (Morison 1971, 341).

After gaining external affirmation of the legitimacy of his expansive practices, Francois I issued two similar to the Portuguese and Spanish letters of commission for the commanders of the next French overseas expedition. According to these letters the main mission of these voyages was no longer the previously prominent attempt in French sovereign-supported voyages of discovery to find a Northwest Passage to the Orient. It was, instead, to expand the ultimate territorial authority of Francois I in the newly discovered terrains of the previous explorative journeys by establishing permanent French settlement in them. The commissions in question were issued in 1540 and 1541, and they allowed the commanders of these sovereign-supported voyages to take over territories in the New World in the name of France, on the condition that another Christian prince had not already laid claims to these lands (Green 1993, 17). Three specific aspects of this mission bear emphasis in using it to study the composition of the three elements of the material constitutional structure of the EIS at the time. The first is the question of why Francois I decided to engage with the pope when seeking to expand the territorial authority of France into previously unknown territories. The second is why this first colonization attempt of the French took place in regions that based on demarcating definitions of today would constitute as Arctic¹. The third aspect is related to the change in the initial mission of the first French overseas explorations. I will analyze this aspect in the form of the question of how the horizon of expectation of the French sovereign associated with exploration changed from simply seeking a sea passage to the Orient to seeking to extend his sovereign authority into the New World through the establishment of permanent settlement in the New World. The emphasis in these aspects also enables the further illustration and investigation of two of the co-productive

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¹ Contemporary definitions of what constitute the Arctic include; the July 10°C isotherm; the northern tree-line; and the Arctic Circle (Molenaar 2009, 145-146; Keskitalo 2004, 31). What is ignored in contemporary analysis of the history of the Arctic, in the context of the international political and legal system (e.g. Keskitalo 2004; 2007; Heininen 1999), is that the definition of the extent of the Arctic that these two demarcation criteria invoke is also historically contingent. One of the reasons for this historical contingency is global climatic variation during the last five hundred years. For the case selection of this chapter, regions that would today be considered as sub-Arctic would have been considered as Arctic. This is due to the climatic variations that have later been conceptualized as having constituted the Little Ice Age between the 16th and the early 19th centuries (Mann, 2002).
elements between the revolutions in the two sides of the double-constitutional structure of the EIS at this time.

The first of these co-productive elements under analysis is associates with the claim that in the beginning of the sixteenth century the political and epistemic authority of Respublica Christiana still constituted the dominant international authority structure of Europe. In relation to the geographical or material expansion of the international society this means two things. First, that it was through this structure that the expansion of the ultimate territorial authority of its members to previously unknown regions was ultimately justified. Second, it was also in relation to this authority structure that the constitution and mobilization of sovereign power for explorations of the unknown was rationalized. The second more general argument associated with co-production I elaborate through this case is that with the progress of the Age of Discovery, both sides of the double-constitutional structure of the EIS starts to take form through two crises of pluralism of this international authority structure. These crises undermined the Respublicia’s claim of legitimacy in social and political as well as international epistemic organization. In brief, I argue that, by focusing on the three abovementioned aspects in the analysis of the constitution and mobilization of sovereign French power for the exploration of the unknown, we can identify the old social and material overarching international authority structures, as well as the beginning of the development of the ones that would surpass them by the end of the seventeenth century. In order to answer the three abovementioned research questions in a historically accurate manner, I will begin this case study by giving an overview of the two first overseas explorations Francois I commissioned before issuing the orders that aimed to extend the scope of his territorial sovereign authority into the New World through settlement.

**Beginning of the French Age of Discovery**

The aim of the first French sovereign-supported voyage that took place in 1521 was the same as that of Columbus: to find a western sailing passage to the Orient. The commander of this first expedition was the Florentine navigator, Giovanni da Verrazano who belonged to, what following the contemporary analytical framework of epistemic communities, could be regarded as the new epistemic community of explorers of Renaissance Europe (Ganong 1964, 99–133; Harrisse 1892, 228; Morison 1971, 278–319). The result of this first constitution and mobilization of sovereign
power for the exploration of the unknown in France was not the discovery of a passage, but rather that of land. After his return, Verrazzano gained support from Francois I for the further exploration of the lands he had encountered. This support was, however, soon withdrawn because Francois I needed the ships he had promised as support for the expedition for the battles he was fighting in relation to the Italian Wars that had begun already in 1494 (Mallett and Shaw 2012). It was during one of the many temporary cessations in these wars that Francois I again authorized an overseas expedition with the purpose of finding the Northwest Passage (Gaillard 1819, 334–335). Francois I commissioned the second official French overseas expedition in 1532. Jacques Cartier, an accomplished French master pilot and navigator, executed it in 1534. The result of this 1534 voyage was the discovery of more new lands further north than those visited earlier by Verrazzano (Cartier 1993b, 3–34; Ganong 1964, 170, 262; B. Hoffman 1961, 117; Morison 1971, 345; Waldman and Wexler 1992, 127–128). Following the general practice of the time, after the voyage Cartier published an account of the expedition. I will next further elaborate on Cartier's first impression of this region. That is because Cartier would be one of the primary advocates for the usage of these lands as the first site of French colonial settlement attempts. In his account Cartier describes the lands near contemporary Newfoundland as having good harbors and the islands he has visited in the area to be fine. His general impression of the terrains in this region was, however, unfavorable. According to Cartier (1993a, 9–10, 14), "the land should not be called the New Land, being composed of stones and horrible rugged rocks....In fine, I am rather inclined to believe that this is the land God gave to Cain". Of the lands he encountered later, while sailing down what is now known as the river Saint Laurent, Cartier (1993a, 16–18, 28–29) developed an opposite opinion. Like Verrazano before him, Cartier (1993a, 22–23) was impressed by the soil of the lands and the variability, quality, and quantity of fruit they bore. After meeting some indigenous people of the land for the second time in his voyage, Cartier (1993a, 22) describes, “their country [as] more temperate than Spain and the finest it is possible to see, and as level as the surface of a pond”. He even names the Bay in which they encountered the indigenous peoples as Chaleur Bay (Heat Bay) (Cartier 1993a, 23).

Cartier returned to France later the same year he had begun his voyage. He had not managed to find the passage that was the main goal of the expedition. His voyage was, however, regarded as a success. This success was determined on the basis of Cartier’s ability to familiarize himself with
the region, and his development of an idea of where to continue looking for the mouth of the passage in a potential subsequent journey. Cartier had also taken back with him two young indigenous men as support of his account. With the help of the information these men provided, Cartier and the merchants who supported him were able to convince the French sovereign of the utility of a follow-up journey. This second journey was to take place in the land Cartier had, during this first voyage, named New France, but which he would also later call Canada. It took place in the Spring of 1535 (Biggar and Wrong 1901, 7; Cartier 1993, 3; Ganong 1964, 241; Morison 1971, 380). Before I move onto the analysis of the change of the horizon of expectation of what was possible, feasible, and reasonable to achieve with the explorative journeys after this second voyage, I will use the accounts and commissions related to Cartier’s voyages to elaborate on the development of the practices of operational sovereignty through which the territorial expansion of the EIS was justified, rationalized, and legitimated at this time. This description is constitutive of the dominant framework for what I term as operational sovereignty in the material constitutional structure of the EIS.

**Operational sovereignty**

The naming of the new land discovered by Cartier is one example of the hegemonic practices through which the explorers, supported by the new sovereigns of Europe, were asserting claims for the expansion of the ultimate territorial authority of their patrons into previously unknown terrains. Another example of such practices is the previously mentioned pursuit of papal affirmation for the legitimacy of such practices. As the knowledge of the voyages of discovery accumulated and spread in Europe, these practices were, however, increasingly, not considered as sufficient for the assertion and maintenance of claims for the expansion of the ultimate territorial authority of the European states into previously unknown or little known of regions outside of Europe. In order to ascertain the legitimacy of the expansion of the territorial authority of France into the lands he had discovered during the first voyage, Cartier also set up crosses in places where the expedition touched land. Next to naming the new territories in honor of the sovereign under whose protection the explorers sailed, this and other types of in-location marking were a common practice in claiming sovereign titles to new territories in the sixteenth century (Green 1993, 7–8). The changes of the international authority structure of Europe were also reflected in further changes in these expansive practices. One example of such changes is
identifiable in how in relation to the mission of settlement the mechanisms Francois I used to enforce the territorial claims of France to the lands Cartier encountered during his second voyage changed.

In the third of Francois I’s commissions to Cartier, issued in 1540, the main expeditionary task was completely different to those that preceded it. In the 1534-issued second commission Cartier was stated to be, “at the wish and command of the King, to conduct, guide, and employ equip and provision three ships for fifteen months, to complete the navigation already begun by you of the lands to be discovered beyond Newfoundland” (Cook 1993, 118). In the third commission, his aim was instead to lead the, “savage peoples living without the knowledge of God and without the use of reason,” to the holy faith (Cook 1993, 135). Before Cartier set sail in 1541, Francois I also appointed another commander, Jean-Francois de la Roque, knight, seigneur of Roberval to become “our lieutenant general, head, leader and captain” for the regions that Cartier had discovered (Cook 1993, 144–151). Similarly to the commission of Cartier, in Roberval’s commission the main aim of the expedition was to set out to provide the indigenous peoples with the, “knowledge of love of God and to bring them under and keep in our obedience...Provided, however, that they not be countries held, occupied, possessed, and ruled by or being under the subjection, and obedience of any princes or potentates our allies and confederates, and likewise our very dear and beloved brothers the emperor and the King of Portugal” (Cook 1993, 145).

The reference to the religious mission in the commissions to Cartier and Roberval reflects another, renewed set of hegemonic practices through which the European sovereigns were justifying the expansion of their ultimate territorial rights outside of Europe. These practices of territorial appropriation were not only associated with the papal claims and religious mission. They were also related to the new practices of establishing and organizing permanent European settlement as another sign of claiming ultimate territorial authority over previously unknown regions outside of Europe (Biggar and Wrong 1901, 11). This aim for expansion of settlement is interlinked with the changes in the idea of Western humanity in nature, and the developmental paradigm described more in detail before. Before describing how it is illustrative of the co-production between the two sides of the double-constitutional structure I will next elaborate on it in more detail in the third Cartier mission and the accompanying one for Roberval.
The principal aim for settlement in the third Cartier expedition is already identifiable in how it did not only include his crew; it also consisted of the subjects of Francois I, who the sovereign had invited to settle the new lands in 1540. Francois I used a strategy similar to other states to allure his subjects to take on this mission; he granted the colonizers specific freedoms. Next to this encouragement of settlement through specific freedoms Francois I also turned to another practice for settlement of new regions as means of assertion the ultimate territorial authority of European states in the new lands; he allowed Cartier to also recruit convicts as settlers (Cook 1993, 135-140). I argue that the beginning of the aforementioned crises of pluralism in Respublica Christiana, and the concomitant emergence of the new social constitutional structure of the international society based on divine right absolutism, are identifiable in the way these practices of expansion through settlement were organized. By this I mean how they were justified and commissioned by the sovereigns with references to the special general responsibilities of Christians towards other people, as well as the papal bulls. I claim that the co-production of the crisis of legitimacy of the international authority structure provided by Respublica Christiana and the emergence of the new material international institutions associated with the Scientific Renaissance are also identifiable in this French case.

The first French voyages of exploration shows the beginning of two interlinked trends in international land appropriation and natural-knowledge production associated with the extension of knowledge of Europeans through explorations. That is, how, as the geographical knowledge of Europeans and the scope of the explorations expanded, permanent organized settlement became an increasingly important mechanism for the assertion of the ultimate territorial authority of states in previously unknown, or little-known, peripheries. I will next elaborate on this aspect of the argument of co-production in more detail in relation the description of the content of the two other elements of the material constitutional structure that I argue the aforementioned changes in the dominant operational aspects of expansive sovereignty were attached to. I will begin the description of the content of these two elements through the discussion of the change in Francois I’s horizon of expectation for what was feasible, reasonable, and possible to achieve in the region Cartier frequented after his second voyage. Samuel Eliot Morison (1971, 415) has conceptualized this change in the horizon of expectation as “the installment of the Saguenay Dream”.

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Developmental paradigm and the Saguenay Dream

The kingdom of the Saguenay is first mentioned in the beginning of Cartier’s report of the second voyage of 1535. This region is claimed to have been brought to the attention of Cartier by the two young men that the explorer had captured during his previous voyage. According to his report, when the new expedition reached the strait of St Peter (the site where the previous voyage had stopped) the captive men informed Cartier that this geographical point “was the beginning of the Saguenay and of the inhabited region, where “the copper they call caigneldaze” came from (Cartier 1993b, 44). Copper, however, forms only part of the promise of new sources of material wealth that became attached to Saguenay in this report. In this account Cartier also explains how he acquired more information of Saguenay when visiting another Indian village, Hochelaga. According to Cartier the Hochelaga villagers conveyed, by touching his silver whistle chain and sailor’s gilt dagger handle, that the metals these items were made of would be found in the aforementioned kingdom of Saguenay. These villagers, however, denied the existence of copper in the region (Cartier 1993b, 65–66). Cartier also gained information of Saguenay later in Stadacona, the village of the two men he had captured in his first voyage.

According to Cartier’s account, after he returned from his exploratory journey for the straight, the chief of Stadacona, Donnacona, assured him that in the kingdom of Saguenay there were not only silver and copper, but also gold. In the words of Cartier (1993b, 75), “And they gave us to understand that in that country the people go clothed and dressed in woolens like ourselves; that there are many towns and peoples composed of honest folk who possess great store of gold and copper”. After having acquired this knowledge, the expedition did not initiate a search for Saguenay. The primary reason Cartier gives for this is that at the time they had been assured of the riches of Saguenay in Stadacona it was already October, and the beginning of winter.

According to accounts from French fishermen, who had been practicing their trade in the coast of the regions Cartier had ventured into inlands seasonally for some years, winter was warned to be particularly harsh. In effect, from the middle of November 1535 until the middle of April 1536 the expedition was frozen in ice in Stadacona, which “was more than two fantoms in thickness, while on shore there were more than four feet of snow, so that it was higher than the bulwarks of our ships” (Cartier 1993b, 79). After the snow melted in July the ships returned to France to report
their new knowledge of the materiality of these previously unknown of regions (Cartier 1993b, 83–89).

To support his new information of Saguenay, Cartier abducted the chief of Stadacona village, and brought him to France, “that he might relate and tell to the king all he had seen in the west of the wonders of the world; for he assured us that he had been to the land of the Saguenay where there are immense quantities of gold, rubies, an other things, and that the men there are white as in France and go clothed in woolens” (Cartier 1993b, 82). Francois I put full faith in the stories of Saguenay that chief Donnacona and Cartier provided him with. A Portuguese spy in the French court reported back to the King of Portugal in 1539 that, “beyond the falls the King of France says the Indian King told him there is a large city called Sagana, where there are many mines of gold and silver in great abundance, and men who dress and wear shoes like we do; and that there is abundance of clove, nutmeg, and pepper. And thus I believe he will again decide to send there a third time seeing his great desire” (Cook 1993, 131).

I argue Francois I’s belief in the material wealth of Stadacona is reflective of the generative power of the new epistemic authority, and the associated material constitutional one. The basis for this argument is, first, that when compared with the findings of the new southern exploratory journeys, the horizon of expectation for Saguenay, described above, correspond with their findings. This is especially apparent with the knowledge gained from the Spanish voyages of discovery and their following colonization efforts in Middle and South America (Kreis 2002). Secondly, Francois I has, in later periods, been characterized as an equal renaissance sovereign to Queen Elizabeth I in England, due to similarities between the two in terms of their patronage to arts, and dedication to the written languages of their respective states (Bris 2010). As such, the sovereign contributed to the emergence, as well as further development, of these new forms of international institutionalization of knowledge production. I will next continue the description of the two elements of the material constitutional structure associated with this new epistemic authority one through a more detailed analysis of the constitution of the Saguenay Dream.

**Epistemic authority structure and the settlement of New France**

Even though Francois I appears to have been convinced of the evidence of Saguenay’s riches, any plans for further exploration were again put on hold while he engaged in yet another conflict of
the Italian Wars between 1536 and 1538. Only after the armistice at Nice in 1538 did Francois I, once more, direct his attention to Cartier and his ambitions to further explore and settle Saguenay (Biggar and Wrong 1901, 11). In September of 1538 Francois I repaid Cartier for the expenses of his second voyage and for his care of the indigenous hostages (Cook 1993, 125). As a response Cartier presented him with a detailed list of what he considered as necessary, “to make the voyage which the King our Sovereign Seigneur wishes to be made to Canada” (Cook 1993, 126). Regardless of these developments, the king did not pay more attention to him or to the cause of colonizing the banks of “the Great River”, as St Laurent had been renamed, until 1540 (Cook 1993, 126–129; Morison 1971, 432–433). As mentioned above in relation to the discussion of operational sovereignty, at this time, Francois I issued a third official commission to Cartier; invited all his subjects to go to “las tierras nuevas” and gave Cartier permission to recruit convicts as inhabitants of the new regions (Cook 1993, 135–140; Morison 1971, 433–434).

Cartier’s third commission was supplemented the following year with a commission to the commander Jean-Francois de la Roque, a seigneur of Roberval (Cook 1993, 144–151). According to this third sovereign-mandated commission, the main goal of Cartier’s third voyage was, next to expanding the sovereign authority of the state into the regions through settlement and missionary work, to “discover more than was done before in the former voyages, and attaine (if it were possible) unto the knowledge of the Countrey of Saguenay, whereof the people brought by Cartier, as is declared, made mention unto the King, that there were great riches, and very good country” (Cartier 1993c, 97). This material change in the horizon of expectation without accumulation of actual experience, I argue, is another illustration of the generative power associated with the emergence of the new epistemic authority structure and the stabilization the corresponding material one associated with it. I will next further demonstrate this argument by further contextualizing the new horizon of expectation related to the Saguenay dream with the more general change in what was known, how it was known, and what the knowledge was deemed to be good for, in the European international society that I associated with the Scientific Renaissance in the first part of this chapter.
The norm of the role of European renaissance humanity in nature

When the changed horizon of expectation for Cartier’s third voyage is compared to the concomitant expansive missions of Portugal and Spain, part of the content of the new developmental paradigm of the Renaissance European international society of states was to spread European, Christian settlement into regions previously uninhabited by Europeans. The constitutional structure of this new “material moral purpose” of the Christian European states is related to the first aspect associated with what I have conceptualized as the third element of the material constitutional structure: the norm of the role of Western humanity in nature. This is the hegemonic definition of the content of the specific rights and responsibilities of the individuals who identify with the international society towards other peoples. The change in this perception with the change of the social, constitutional structure of the international society associated with divine right sovereignty, is, however, not alone able to explain the change in the horizon of material expectations related to the Kingdom of Saguenay. One way to explain the change in the material expectations related to Cartier’s third exploratory is by analyzing the content of the second element in what I argue constitutes the norm of the role of Western humanity in nature. That is, the consensus over what is thought to be possible, reasonable, and feasible to achieve in relation to the governance of the material world.

In relation to the discussion of François I’s changed horizon of expectation following the emergence of the Saguenay Dream, I provided some indications of this element in Renaissance Christianity. The new norm of the role of Renaissance Christian humanity in nature, that I argue was co-produced with the revolution in the epistemic authority structure, is also identifiable in how in the account of the second voyage Cartier challenges the previously dominant Ancient belief that the world is divided into five climatic zones of which only two are habitable. According to Cartier (1993b, 36) the whole earth is, or may be suitable, “for the life and sustenance of humanity”. In a similar manner to other European renaissance humanists, in refuting this old belief he relies on another ancient authority that also reflected the new common epistemology and understanding of the natural universe associated with the Scientific Renaissance. When stating the more theoretical claims of the climatic zones of the earth and the previously unimagined possibilities that the newly discovered lands could offer for settlement, he explains how the Ancient geographers might have been mistaken because they did not “test their
statements by actual experience” (Cartier 1993b, 36). That Cartier is contradicting the Ancient beliefs does not mean that they did not constitute part of the new epistemic authority structure of the international society. Instead, it illustrates how they, together with the new knowledge accumulated through increased voyages of exploration, constituted a new epistemic authority structure of the international society based on which the constitution and mobilization of sovereign resources for the purposes of exploration of the unknown became justified and rationalized.

**Co-production of the new epistemic authority structure of the international society of absolutist states and the crisis of legitimacy of Respublica Christiana**

The possibly constitutive power of the new epistemic authority structure of Renaissance Christianity is visible in the materials of the Cartier voyages. One such example is found in Cartier’s reference to Aristotle, whom he quotes as the authority behind his claims of the completely inhabitable Earth, while justifying the argument of experience as legitimate validation of theoretical statements. Cartier claims (1993b, 36), “Experience is the master of all things”. The co-production of the crisis of legitimacy of Respublica Christiana and the new epistemic authority structure I argue is identifiable, in turn, in the comparison of this more general horizon of expectation for the suitability of the whole earth for human habitation in Cartier’s description, as well Francois I’s desire for Saguenay, with the concomitant accumulation of the new experiences from the earlier Spanish explorations of the south.

In Hackings terms of historical ontology, it seems like these voyages of discovery supported by the Spanish sovereigns in the Middle and South Americas, as well as their Portuguese equivalents, had not only led to changes in extra-European international practices associated with the justification and rationalization of the material and geographical expansion of this international society. They also seem to have led to the emergence of new horizons of expectation for the materiality of previously unexplored regions outside of Europe. This new horizon of expectation, I argue, was associated with a new developmental paradigm, related to the previously discussed redefinition of the old responsibility of Christiandom towards other peoples. The French case indicates how this mission took place through two forms: one was spiritual guidance, the second the introduction of European-style settlement and infrastructure to these same regions. This aim is identifiable in the French official missions for the third Cartier
Aftermath

In May 1541, five ships of the third Cartier mission set sail to the previously visited region with the purpose of settling it. Roberval was not able to join Cartier at this time because he had experienced problems setting up the mission. As such, upon their arrival Cartier sent two ships back to France with a description of the land he had decided to settle, and the activities that they had undertaken to begin the building of the colony (Cartier 1993c, 97–98, 100–102). There is no further description in existing archival material of the expedition of the activities that took place in the following eleven months (Morison 1971, 442). What is known is that the overwintering of the colonists was not successful. In June 1542 Cartier took the three boats, and the handful of settlers who had not perished during the winter, back to France. Even though the mission had not managed to explore or reach Saguenay, onboard his ship were “certaine Diamonds, and quanitie of Golde ore, which was found in the Countrey” (de La Roque, 1993, 108). On his way back, Cartier encountered Roberval, who had only managed to set sail a few months earlier, in Newfoundland. The latter ordered Cartier to go back with him, but Cartier and his expedition, “without taking their leaves, departed home for Bretagne” (de La Roque 1993, 109). The Roberval expedition was also not successful in fulfilling the mission of setting up French towns and churches in the new lands or finding Saguenay (Morison 1971, 451). Meanwhile, the diamonds and gold ore of Cartier turned out to be worthless, leading to the emergence of a popular phrase, ‘faux comme diamants du Canada’ (fake like the diamonds of Canada), roughly equivalent to the present-day English-language saying ‘all that glitters is not gold’ (Couture, n/a).

After the Cartier and Roberval missions were unsuccessful in fulfilling their missions, Francois I did not support another expedition into the unknown lands. His successor, Henry II, did but not through similar official letters patents or commissions as Francois I had provided for the Cartier
voyages. In effect, the support of the sovereign for these colonizing attempts was more a result of the accumulating inner turmoil between the Huguenots and the Catholics in France than of any desire to expand the ultimate territorial authority of the French state into new regions. This also applies to the colonization efforts of the French Huguenots in Florida under the reign of Henry IX in the 1560s (Waldman and Wexler 1992, 114–116, 545–546). It was only in 1578 that a French sovereign again granted another official letter patent for the occupation of new territories in his name in the New World. The license in question was Henry III’s patent to a private French merchant expedition that allowed this mission to expand French authority into territories in Newfoundland that were not previously in the possession of another allied power.

The expedition to whom Henry III granted the license never reached its destination, and it was not followed by the issue of new sovereign support for French expeditions in the form of official licenses (Biggar and Wrong 1901, 38–39). Only under the reign of Henry IV (1589-1610), did a French sovereign again give his continuous support for the attempt of expanding French territorial authority through settlement into the New World in a similar manner to Francois I. The location of these settlement efforts was the same as Cartier’s. The concentration of the activities and horizons of expectation for the colonies and their materiality, however, was completely different to that of Cartier’s third mission. The primary activity that the French settlers were expected to take part in the region according to this new mission was fur trading. The success of the first permanent settlement in this region by Samuel de Champlain was also not based on attempts to transfer French material culture to the new region. It was, instead, based on the adoption of the knowledge of the locals as part of the new framework for the governance of the materiality of the region through the creation of permanent French settlement (Biggar and Wrong 1901, 34–44, 67–157; Moogk 1989; Pritchard 2004, 17–29).

The material constitutional structure in the French case

Above I studied the discursive justifications for the constitution and mobilization of sovereign French power, for the exploration and eventual settlement of the unknown in the sixteenth century. Following the theory of the study of scientific paradigms in controversy studies, I argue that the horizon of expectation these discourses are constitutive of can be used to study the three elements of the material constitutional structure of Renaissance Christianity. When analyzed as
such, the first element of the material constitutional structure of the sixteenth century – the organizing principle of operational sovereignty – seems to have been associated with the increasing need to leave of marks of presence in the new regions, as well as with the establishment of European-style permanent settlement as illustrations of sovereign authority in the previously unknown regions. The new aim of establishing European settlements as a means of materially expanding the sovereign authority into new regions outside of Europe was, in turn, justified and rationalized with a reference to the second element; the Renaissance Christian developmental paradigm of the international society.

The new definition for what were considered as the rational ways of organizing the governance of the material universe in the international society was built on the knowledge of the Ancient sources of authority, and the new knowledge of the voyages of exploration. The first aspect related to the new developmental paradigm associated with the measure of the greatness of the new sovereigns reflected changed expectations for the material revenue from previously unexplored regions. That is, their equivalence to similar material elements discovered in the regions explored in the Middle and South Americas by the Spanish as well as the Portuguese. The second aspect of the developmental paradigm was, in turn, related to the definition of the new material moral purpose of the Christian states. This aspect was intertwined with the aforementioned new operational aspects of sovereignty. That is, the spread of not only Christianity but also European-style settlement into all climatic regions of the world. This change in the material moral purpose of the state, was, as well, connected with the changed, third element of the material constitutional structure; the new definition of the norm of the role of Christian renaissance humanity in nature.

As the concluding discussion of the case indicated, the mode of justification and rationalization for the expansion of the territorial authority of the French state through exploration were revised after accumulation of actual empirical experience of the new regions. When translated into the conceptual framework of this thesis, this revision of the mechanisms of expansion after the accumulation of experimental knowledge of the previously unexplored regions provides one example of how the ecological outer limits of the new material constitutional structure of Renaissance Europe were found through trial and error in the north. I will next further the empirical analysis of the elements of this material constitutional structures through another
similar case study of the horizons of expectation for the constitution and mobilization of sovereign resources for the exploration and settlement of a previously unknown region in the sixteenth century. As in the case of France, these horizons of expectation in this case were not turned into corresponding successful spaces of experience. The sovereign state in question is England under Elizabeth I, and the attempt of material expansion of the state through her support for a mining mission in a region named *Meta Incognita* in 1577 and 1578.

**ENGLAND**

The entrance of England into the Age of Discovery also began, similarly to France, with the goal of finding a northwestern sea passage to the Orient. The first explorer that convinced the English monarch to grant an official license for an expedition to search for such a passage was the Venetian Zuan Caboto, known in later English histories of exploration as John Cabot. As mentioned earlier in this chapter Henry VII issued a letter patent to Cabot in 1496 (Wilson 1996, 17–18). Cabot’s voyage, as well the voyages of others in the period shortly after him, was not successful in completing this mission. None of the voyages surrounding Cabot included a change in horizon of expectation, nor did they include any declaration of aim for settlement (Frost 1876, 41–44; Hayes 2003, 8–9; Holland 1994, 13; Laktionov 1960, 3–4; Mirsky 1947, 24; Pope 1997, 13–14, 16–42). The same applies also to the northeastern voyages of exploration that the English sovereigns supported, beginning in 1551 (Mayers 2005, 42–43; McGhee 2007, 134, 139; Morison 1971, 483). The difference in this search for a sea passage to the Orient was that these northeastern journeys led to what can be described as the English discovery of northern Russia in 1552. This discovery was not followed by attempts at settlement. Instead they were followed by the establishment of the first direct relationship between England and Russia in 1553, as well as a sovereign-licensed trading company between Russia and England - the Muscovy Company, founded in 1555 (Mayers 2005, 54, 69, 73–75, 112–115, McGhee 2007, 140; Riasanovsky 1993, 148). Despite the discouraging spaces of experience from these explorations in relation to the sought after northern sea passages, the idea of their existence did not disappear from the sovereign agenda of England.
The Northwest Passage and the epistemic authority structure

In 1575 the attention of the English crown and Privy Council turned again to the northwest, and the possibility of finding a passage to the Orient there. One explanation of the re-emergence of this mission, despite the accumulation of the disappointing spaces of experience in its exploration, is the persistence of the passage in the European cartography of the time. In 1575 the passage made up part of the cartographic paradigm of all major European nations, including the leaders of this trade in Europe, the Dutch cartographers (Morison 1971, 497). The sovereign license for looking for the passage was given, in 1575, to two men jointly: an English privateer, Martin Frobisher, and Mikael Lok, a London agent of the Muscovy Company (McDermott 1999a, 127; McGhee 2007, 156; Quinn 1999, 11–15). Gaining the license, however, did not guarantee the attainment of sufficient financial means for the execution of a voyage of exploration. By 1576 Lok and Frobisher had managed to attract sufficient external funding for a much smaller expedition than originally planned, consisting of two small barks and a pinnacle (Best 1938, ci–ciii; McDermott 2001, 2–3). Frobisher was the head of this mission executed in 1576. It was the first of three expeditions to this region that he would be a part of. These three trips included the change in official English sovereign-orders, for the first time, to include an attempt of securing sovereign title to new regions through settlement.

It is through the change of horizons and attempt of settlement in association with the Frobisher voyages that I will next further the analysis of the three elements of the material constitutional structure of the absolutist, Christian Renaissance society of states. Because, unlike Cartier, Frobisher did not consider the regions he explored during his first voyage as inhabitable, I will not begin this case study with an analysis of his account of the first voyage. Instead, I will start by explaining how the horizon of expectation for what was feasible, reasonable, and possible to achieve by further exploration and material appropriation of these regions changed after the first Frobisher voyage in relation to a set of techno-scientific activities that took place in England.

“Bisogna sapere adularte la natura”

Like the first Cartier voyage, the first voyage of Frobisher to find the Northwest Passage was, after its return, considered a success in spite of its failure to find the sought after passage (Best 1938, 48; Lok 1938, 160; Stefansson 1938, cv–cvi). Frobisher, for his part, thought he had
reached the mouth of the passage. As proof of this, he took an indigenous man he had encountered in the region with him as hostage, and presented him to Elizabeth I as a symbol of his success. The result was that Elizabeth I invested 500 pounds in a follow-up adventure in January of 1577. For the execution of this journey, Lok and Frobisher were separately in pursuit of a license for the establishment of an official new company of adventurers similar to the previously mentioned Muscovy Company. Neither was aware of the others ambitions. Such a license would secure the company with an exclusive right of exploration of the region for multiple journeys over an extended time period (Lok 1938, 159,162–165; Ruby 2001, 73–80). Neither Lok nor Frobisher gained this official charter from the sovereign. She did, however, assign a new official commission for an individual follow-up voyage in the spring of 1577. By that time, the organization and mission of the follow-up expedition had changed completely. Elizabeth's initial investment had been raised to 1000 pounds and under the new commission, the adventurers were to report directly to and receive orders from the Privy Council (McDermott 2001, 5; Stefansson 1938, 99, 103–107). This organizational change was largely due to the results of another secret mission that Lok had been busy with since the return of Frobisher's first voyage.

As a token of the first voyage Frobisher took a black rock back from the region, presenting it to Lok. The latter had then secretly obtained evaluations of the rock from four metallurgic essayers including Mr. Williams, the essay-master of the Tower of London (McDermott 2001, 4–5). Three of the essayers, including Williams, found nothing of value in the ore. The fourth, an Italian goldsmith, John Baptista Angello, did. When Lok asked him why he had succeeded in where the others essayers had failed Angello claimed simply that he was able to “flatter the nature”, whereas the others were not. In his own words: “Bisogna sapere adularre la natura” (Stefansson 1938, cxii). Angello's discovery of gold in the ore was followed by eight other analyses of the rock. Six were performed by an English metallurgist, one by a French, the final by a German. With the exception of the German metallurgist, Jonas Schutz, all reported that their specimen contained nothing of value. It is a sign of the respect and authority with which Saxon metallurgists were held in Europe in Elizabethan times that Shultz won the admiration and confidence of commissioners and adventurers including the queen (Hogarth et al. 1994, 31, 73; Stefansson 1938, cxii). In terms of this thesis, this is also an example, of the possibly constitutive power
embedded in the epistemic authority structure of the international society. This constitutive power is also identifiable in the reorganization of the administration of the next mission to the region first explored by Frobisher.

The Privy Council issued a new commission for the second Frobisher voyage on 17 March 1577 (Stefansson 1938, cxii, 79-91, 103-107). Through this commission all real authority over the voyage was transferred to the queen. What this means in practice is that the functions that would have otherwise been discharged by the court to the administration of the new company of adventurers were instead made exercised at the pleasure of the sovereign. The result of this transformation of authority was that the court, rather than the adventurers, was in charge of the organization of the expedition. In short, the crew and fleet received their orders from and reported directly to the Privy Council (McDermott 2001, 5; McDermott 1999b, 158–159). With this new commission the expedition was also issued with a new objective. This was to establish a mining facility in the region, and to note back the location of safe harbors and any further likely mine sites. These orders were, however, to be followed through only if Jonas Schutz, who was appointed as the chief metallurgist for the mission, definitely proved that the ore was worthy. In this case the two barks that comprised the second expedition would continue to further search the passage that Frobisher thought led to Cathay. One indication of the co-production of the two sides of what I argue made up the double-constitutional structure of the absolutist international society, is how with this change of focus from finding the route to Cathay to mining of the ore the measures for extending the ultimate territorial authority of the English sovereign into these regions also changed.

Co-production of science, technology, and operational sovereignty

The official instructions for the voyage of 1577 included the first English sovereign order for the establishment of what would later be conceptualized as penal colonies in two locations that Frobisher had visited during the first voyage. One of the two locations where it was intended the convicts would be left to bear the winter was Greenland, which Frobisher had taken to be Friesland – an imaginary island found floating between the coast of Norway and Greenland in the maps of the time. The second convict group was ordered to be left on the site where Frobisher was to establish the mine. Both groups of convicts were expected to overwinter in the locations,
and explore, discover, and fortify defensible sights in preparation for a further voyage (McDermott 1999b, 163–166). This commission, I argue, reflects the previously discussed change in the hegemonic mechanisms of operational sovereignty that stabilized during the Age of Discovery that were associated with the assertion of sovereign rights of states in new terrains through permanent occupation. Unlike the Cartier missions, these convicts were, however, not expected to transfer English forms of settlement in the region.

Frobisher did not fulfill his commission of including penal settlers as part of the execution of the mission (Best 1938, 53). In the aftermath of the second voyage during which more ore was mined and brought back England, he did, however, provide Elizabeth I with another similar possibility for asserting sovereign authority to the new lands, as had been done by Cartier during his first voyage. Frobisher presented Elizabeth I with the privilege of naming the land he had claimed in her name. Instead of giving it the name of New England like Cartier had done in what is now the province of Quebec she named the region *Meta Incognita*, the Unknown Shore (Barrow 1818, 91; Ruby 2001, 164; Stefansson 1938, cxvi). This privilege for claiming title by naming was the first for an English sovereign. It was, however, not only through naming that the territorial authority of the state was planned to be asserted in the region during the subsequent Frobisher expedition, his third.

In March 1978, when the Privy Council formally endorsed a third expedition to *Meta Incognita*, the establishment of a colony was also stated as a priority (Ruby 2001, 180-181; Stefansson 1935, 155-161). More specifically, the two main goals of the third Frobisher commission were to bring back 2000 tons of the as-yet-unproven ore, and to establish a semi-permanent colony of one hundred men in the same location. In Frobisher’s instructions these men were ordered, “to remayne in that countrie wth instructions howe he maye best observe the nature of the ayre, and may discover and knowe the state of the countrie from tyme to tyme as moche as may be, and what tyme of the yeare the Straight is most free frome eysse kepyng to ye end a journall wekly of all accountes” (Stefansson 1938, 157). Lieutenant on the second of Frobisher’s missions, and captain on one of the barks of the third, George Best, notes that these men were also vested with the responsibility of defending England’s sovereignty claims in the region: “It was thought needful, both for the better guard of those parts already found, & for further discovery of the Inland & secrets of those countries” (Best 1938, 81).
With the naming of the region frequented by Frobisher, as well as with the commissions for the establishment of the penal settlements, Elizabeth I can be seen to have been following the previously described new practices for the legitimate material expansion of sovereign authority and control into the New World. As in the French case, references to the new general mechanisms of operational sovereignty are, however, in themselves not sufficient to explain the change in the horizon of expectation in relation to the ore. I argue, much like in the previous French case study, that one explanation for this change in horizons of expectation in the constitution and mobilization of sovereign power for the exploration and settlement of the unknown can be found in reference to the two other elements of the material constitutional structure of the Renaissance and Christian international society. In other words, it can be explained with a reference to the promises of the epistemic communities involved with the planning and execution of the voyage.

**Developmental paradigm and the Renaissance, Christian epistemic authority structure**

As with Cartier’s accounts of the French journeys, the previously discussed developmental paradigm of the international society and its connection to the new epistemic authority structure are identifiable in the materials related to the Frobisher voyages in the published account of the voyage by George Best. In the beginning of his account Best describes the novel advances in sciences and technology that had been progressing and spreading within Europe in the following words: "now by cotinuall practise, and exercising of good wittes, the world is waxed finer, and grown to more perfection, not only in all the speculative Artes and Sciences, but also in the practicall application of the same...dothe so pleasure and profite the world, that this time only may rightely bée called the liberall and flourishing age" (Best 1938, 13–14). The main inventions and advances that Best (1938, 14–15) mentions are the printing press and the Art of Navigation. The prominence of these technologies to the Scientific Renaissance was noted in the first, macro-historical part of this chapter. In this context Best also mentions the Art of War. In reference to the Art of Navigation Best (1938, 16) describes it as having enabled the European man to begin to take advantage of the half of the earth that had before been lost to him previously. In this description there is a similar reference to the epistemic authority structure described in the first part of this chapter, and a similar assumption to that made by Cartier who, unlike the Ancients, had claimed all regions of the world might in fact be inhabitable.
To justify the claim of the inhabitability of the whole Earth, Best, like Cartier, refers to the Greek theory of the six parts of the world and how explorations had shown their evaluation to be inaccurate. He specifically clarifies that the new expeditions had revealed, through encounters with the indigenous inhabitants of the newly discovered regions, that even the cold regions of *Artike Terra Septentrionalis* were suitable for settlement (Best 1938, 18–51). Unlike Cartier, in justifying this claim, Best also invoked the Ancient myth of Hyperborea, a utopian region that the Ancients often situated in their maps beyond the Arctic Sea. According to Best (1938, 19, 41–43), in the summer half of the year the Arctic is a similar paradise of light as described in this myth. The ultimate justification for Best’s claim of global habitability, however, rested in the will of God. Best’s interpretation of the will of God offers another translation of biblical sources to those behind the commissions and orders of Cartier and Roberval. In Cartier and Roberval’s reference, God’s will was related to the spreading of the divine western light of reason through missionary work. In Best’s account the motive is, instead, the ‘Christianization of nature’. In relation to the material constitutional structure, this reference reflects what I have conceptualized as the new norm of the role of renaissance Christianity in nature associated with the new developmental paradigm and operational sovereignty.

**Norm of the role of Renaissance Christianity in nature**

The change in the norm of the role of renaissance Christianity in nature to the Medieval understanding of the natural universe discussed in the first part of this chapter is most clearly identified in Best’s account in the following passage. Here I will quote at length so as not to lose the descriptive detail provided by Best:

“And surely, I can not thinke that the divine prouidence, hath made any thing vncommunicable, but to haue giue such order to all things, that one way or other the same shoulde be imploied, and that euerie thing, and place, should be tollerable to the next...Therefore wée néede no longer to doubt of the temperate and commodious habitation vnnder the Poles, during the tyme of Sommer...And if it be so, that the winter and time of darknes there be very cold, yet hath not nature left the vnprouided therefore...yet notwithstanding all the obiections that may be, the Countrey is habitable, for there are Men, Women, Children, and sundrie kind of Beastes in great plentie...Then it appeareth, that not only the middle Zone, but also the Zones about the Poles are habitable” (Best 1938, 45–46).
Due to the absence of any mention of conversion of foreign populations in Best’s description of this new role of Christianity in nature, I argue that his account illustrates how the justification of settlement and Christianization of the previously unknown territories did not only apply to populations but also to terrains. The changed horizon of expectation for what can be achieved through cultivation associated with the new idea of the capabilities of Christians in relation to the governance of nature is also identifiable in Best’s (1938, 116) description. Here we may note his observation that when the expedition left back to England they “sowed pease, corne, and other graine, to proue the fruitfulnesse of the soyle against the next yeare”.

I argue that when contextualized with the macro-historical overview of the Scientific Renaissance in the first part of this chapter and the previous French case study, the changed horizon of expectation for what was imagined to be feasible, possible, and reasonable activity in relation to the materiality of the unknown described by Best also reflects the new developmental paradigm, and its norm of the role of Renaissance Christianity in nature. These are both also visible in the aim and order of establishing of English settlements in the new terrains. There is, however, one major difference between the descriptions of the third Frobisher voyage and the horizon of expectations of the previously analyzed French case. In the materials of this English case there are also clear references to what can be described as an emergent nationalist ideology. I will next describe some of such references and relate them to the argument that the analysis of these two cases represents a study of the development of the historical ontology of the sixteenth century associated with the stabilization of the double-constitutional structure of absolutist states. By this I mean they illustrate how specific concepts, practices, and corresponding institutions that came to characterize the seventeenth century Westphalian international order emerged, and more importantly how their stabilization disclosed other possibilities for choice of international action.

The emergence of the nation state

In Best’s description, the reference to the emerging international society based on nationalist ideas associated with Philpott’s first revolution in sovereignty is found in references to the existence of “rich and mighty” kingdoms in the cold northern regions of England, Scotland, Denmark and Moscovia, that Best (1938, 19) claimed were deemed uninhabitable in the works of
the Greeks. Best used these kingdoms both as another justification for his claim of the habitability of the region and as a marker to identify the English as a similar sovereign nation among others constituting what Reus-Smit argues was the international society of absolutist states. According to Best (1938, 18), “all the commendation, honor, renoume, glorie, and fame therof must be attributed to the Englishmen, Spaniardes, Portingales, Frenchmenne and Italians, whose valiaunt courage and high mindes, be suche, that either they alreadye haue, or shortly will dyscouer and searche out, evry narrowe corner of the world”. It is also not only Best who used such language. In a description of the voyage by another crew member the fulfillment of the commission is argued to bring honor and fame to the English nation, “what honour, what fame wyll to our Englyshe nation thereof ensue” (Stefansson 1938, 144). Similarly, a third crewman writes “that this our countrie, hath fostered vp men of no lesse value and excellencie, then those which are intituteled” (Stefansson 1938, 10).

When the abovementioned nationalist descriptions are contextualized with an intellectual history of the origins of the first British Empire, the first colonizing effort in the Arctic can be seen to reflect the beginning of the concentrated effort by English intellectuals associated with the epistemic community of explorers in the social construction of a specific national identity of England amongst other European nations. In relation to the previous description of the epistemic community of Renaissance explorers, the one involved with the English northern voyages did not only include merchants and explorers but also intellectuals that were arguing for the establishment of an English empire. One of the founding members of the northeastern exploring company was John Dee, who was also one of the first supporters of the English imperialism (Mayers 2005, 42–43; McGhee 2007, 134, 139; Morison 1971, 483). Another supporter of these voyages and the feasibility of their horizons of expectation was Francois Walsingham, who has also been considered as the founder of the English intelligence and espionage service (Ruby 2001, 180-181).

In short, many of the intellectuals and architects of the new early-modern sovereign statecraft that took part in the justification of the constitution and mobilization of sovereign power behind the Frobisher voyages, also did so in relation to the later colonization and overseas missions of England in more temperate regions. Because of these connections to the epistemic community associated with the Frobisher voyages and the aftermath of the third Frobisher voyage, I argue
that they worked as a kind of a “testing site” for the new institutional and ideological architects of England whose ideas also influenced the stabilization of the system of sovereign states in the following century. Because of the outcome of the second and the third Frobisher voyages, I also argue that the English case can be treated as another instance where the ecological outer limits of feasibility of the elements of the new Renaissance material constitutional structure that had emerged along with the stabilization of the new epistemic authority one were found through trial and error in the Arctic.

**Aftermath**

During the third Frobisher voyage a ship carrying provisions for the *Meta Incognita* colony met with sea ice and sank. The rest of the expedition managed to reach the site, and fulfilled the mining mission accordingly. Because of the sunken ship, the expedition decided that, despite the official commission for the voyage, there should be no attempt to settle the region. The explorers seem, however, to have expected to return the following year to complete the initial mission despite these misfortunes. Before leaving they built a house on the site, buried the remaining provisions for use in following expeditions, and planted some seeds (Best 1938, 85, 89, 105–106, 116). During the return journey the fleet again encountered trouble. Two of the ships returned to England, but the cargo of the third was ported in Ireland. Despite the troubles the mission had faced, at the onset of their return the voyage was believed to have been successful. According to Best (1938, 129): “there is no doubt, but being well looked vnto thorowly discouered, it wyll make our Countrie both rich and happye, and of these prosperous beginnings will growe hereafter (I Hope) moste happye endings (sic)”. From the essays of the ore that Frobisher had brought back with him after the third voyage, however, it soon became evident that the ore was in fact worthless (McGhee 2001, 132–141). Despite the outcome of the Frobisher voyages, and unlike Francois I, Elizabeth I did not withdraw support for further voyages of exploration.

In 1583 Elizabeth supported Humphrey Gilbert’s voyage of exploration that set out to take possession of the northeastern parts of America and Newfoundland. The attempt ended in the drowning of all 260 men who took part in it. Gilbert’s failed attempt led to the end of sovereign support for Arctic settlements but not to the end of sovereign support of further explorations of the New World altogether. In 1585, Elizabeth I gave support to Sir Walter Raleigh’s suggestion of
establishing a colony north of the Spanish settlements in Florida (Barrow 1818, 100–105; Waldman and Wexler 1992, 242). Unlike the French case, after the Frobisher voyages the English sovereign continued to support further explorative and colonizing missions through means that exceeded colonizing other undiscovered regions. Elizabethan privateers with Francois Drake had since 1577 been attacking both Spanish ships and colonies in the New World (Symons 1999, xxvi–xxviii; Waldman and Wexler 1992, 88, 211–213). These English privateering activities in the New World eventually led to the declaration of war between Elizabeth I and Philip II of Spain in the Old World (McDermott 2001, 55-118). Both Drake and Frobisher fought in the most important battle of this war, the attack of the Spanish Armada in England in 1588. After the victory of the English over the Spanish, the Treaty of Tordesillas and the legal and diplomatic framework set by the Respublica Christiana in the overseas adventures were no longer respected by the English in any form. In other words, they were no longer deemed legitimate by the sovereign members of the new absolutist society of states (Boetzkes 1964, 134–144; McGhee 2001, 145–155). Even though, as David Armitage has illustrated, England at the time of the death of Elizabeth in 1603 was not yet the great power that later myth held it to be, the ideas of national identity and interests that had begun to flourish in England continued to thrive, spread, and be enforced also in other protestant states (Armitage 2000, 100; Friel 2010, 51).

The material constitutional structure in the English case

In the case study above, I illustrated how the epistemic authority structure described in the first part of this chapter was also referred to in justifications given for the constitution and mobilization of sovereign power for the exploration of the region later named Meta Incognita. The content of the elements of the material constitutional structure described in the penultimate case study (that of France) seems also to correspond more or less with the ones that I extracted through the analysis of the discursive horizons of expectation in the Frobisher missions. The differences in them relate to how the elements of the developmental paradigm and norm of the role of Renaissance Christian humanity are discussed in the English case. This manner is more in line with the three elements of the social constitutional structure Reus-Smit describes in his work than their discussion in the French case was. In short, they allude to a social hierarchy between states as well as for Christians in nature, which can be further enhanced through rightful knowledge production and governance of the material world. This case study hence supports my
more general argument that the political crisis of legitimacy of Respublica Christiana, analyzed previously by Philpott, was accompanied by a crisis of legitimacy in the previous epistemic authority structure of the medieval international society, also dominated by the Latin Church. I will now move onto the last case study, through which I describe and analyze the elements of the material constitutional structure constitutive of the new Renaissance Christian epistemic authority one. Unlike the French and English cases, this third study investigating the Swedish attempt to gain ultimate territorial authority over new northern regions through settlement, did not take place in the New World, but within Europe. I argue that the geographical location of this last case study illustrates how the change in the operational meaning of sovereignty in the international institutional framework of European states’ politics outside of Europe was not a separate process to the stabilization of the basic rules of practice for expansion and establishment of titles to new territories inside of Europe. Both sets of new international practices were co-produced through the stabilization of the new institutional organization for legitimate knowledge production and the concomitant emergence of the new overarching organizing principle of sovereign authority associated with divine right absolutism in the early-modern international society of sovereign states.

SWEDEN

The Kingdom of Sweden emerged as an autonomous political actor in Christian international society in 1523. Prior to this, the region formed a part of the Union of Kalmar. This union had formed in 1389, when the three Scandinavian kingdoms of Norway, Denmark and Sweden joined under one crown, based in Denmark (Theutenberg 1984, 482). The union emerged as a solution to the challenge that the Hanseatic League had posed for the three kingdoms and their trade. It was not an internally peaceful union and was plagued from the beginning by internal rivalries, conflicts, and wars (Gustafsson 2006, 208–210). It was as a result of one such conflict that Sweden eventually detached itself from the alliance in 1523. After the rebellion that led to the separation of Sweden from the Kalmar Union, one of its leaders – Gustav Eriksson – was elected as the first sovereign king of Sweden. Eriksson took this position under the name of Gustav Vasa (Österberg and Larsson 2001, 30-33).
The areas of political and governmental priority of the reign of Gustav Vasa (1523-1560) were the internal re-organization of the governance of Sweden. This reorganization included a range of things: the reformation of Riksdag (the Swedish Parliament) in 1527; the adoption of a succession pact that established a hereditary monarchy in Sweden in 1544; the stripping of the previously dominant Catholic Church in Sweden of its material wealth for the benefit of the state; and the establishment of Sweden as a Lutheran state. Gustav Vasa also established a national standing army, the size of which at the time of his death was at over 15 000 men (Larsson 2005, 12-17; Österberg and Larsson 2001, 34-43, 48-50, 67-68; Metcalf 1987, xi). Philpott (2001, 134-136) has analyzed these reforms in relation to the emergence of the system of sovereign states in the seventeenth century. I argue that his analysis of these Swedish reforms as indicative and constitutive of the later international authority structure that stabilized in Westphalia, neglects one central aspect in the emergence of the state as an autonomous actor. That is, how in justifying his new sovereign agency Gustav Vasa also began to narrate an independent national identity for the new absolutist nation state through a backwards-looking account of an ancient history for the Swedish sovereigns.

Co-production of the material developmental paradigm and dynastic sovereignty

During the reign of Gustav Vasa, the independence and sovereign authority of the state were further justified with the narration of a new national history. In this new narration, the history of the origin of the Swedish nation and its sovereigns was claimed to extend back to the ancient, victorious Goths who had once destroyed the Kingdom of Rome. According to this narration, Sweden was, thus, not a new nation or a new polity but an ancient empire trying to regain its former glory. Mirkka Lappalainen (2006, 13-15, 108-109) has argued that in this narration the Swedish state-builders were reflecting on the general culture of Renaissance Europe, where the past was regarded as much more valuable than the future or the present. The purposeful sovereign-supported narration of an ancient national identity for Sweden on these same ideological lines continued under the rule of Gustav Vasa’s eldest son Eric XIV. The ordinal number of Eric was adopted from a legendary History of all Kings of Goths and Swedes written by the last catholic archbishop of Sweden, Johannes Magnus, and published posthumously in Rome in 1554 (Westrin 1910, 39-40). A further indication of the purposeful national identity building of sovereign Sweden, and its reference to ancient authorities, is the continuing reference to the
Goths as the ancestors of the Swedes. When the fifth sovereign of Sweden Gustav Adolf II took the throne, he was dressed up as the Gothic king Bering (Lappalainen 2006, 22–25).

In relation to the analytical framework of co-production, the references to ancient history by the first Swedish sovereigns provide another example of the co-production of the revolution in the epistemic authority structure of the international society and the crises of Respublica Christiana as the organizing principle of international relations in Europe. It is, however, not only in relation to this purposeful social construction of the Swedish national identity in reference to antiquity where the new double-constitutional structure of Renaissance Christianity in the absolutist international society is identifiable. Next to these symbolic acts of Gustav Vasa, Eric XIV, and Gustav II Adolf during the first decades of its independence, the new sovereigns also attempted to expand the territorial borders of the Swedish state through mechanisms that correspond with the previously described material constitutional structure. This attempt of material geographical expansion of the ultimate territorial authority of the state took place during reign of the youngest brother of Eric, Duke Carl. Eric became regent after the death of John. After overthrowing John’s heir from the throne, he was crowned King Carl IX of Sweden (Österberg and Larsson 2001, 58–60, 68-73: Larsson 2005, 58-117, 214-219, 279-287).

**Duke Carl and the attempt to conquer the Arctic by Military Means**

Before becoming the King of Sweden, Carl IX (hereafter, Carl) held the position of the duke of Södermanland. While holding this position he had already begun to advocate for the annexation of the northwestern parts of Russia to Sweden. In a report written in 1590 to King John, who had succeeded Eric to the throne in 1568, regarding the war that had begun between Sweden and Russia the same year, Carl named Petsamo and the Kola Peninsula as among the most important geographical goals of conquest for Sweden. John agreed, and sent a military mission to the region. It was, however, Carl who was responsible for the instructions of this mission, as well the ones that followed it between 1590 and 1592. Even though Carl vigorously followed up on the progress of these missions through correspondence, none of them fulfilled the goal of annexation (Handlingar rörande Skandinaviens historia. D. 39, 1858, 98–100; Ivalo 1894, 23–28). The failure to conquer the Kola Peninsula through military means did not lead Carl to abandon this goal of
The issue of where the borders of Sweden lay was not settled in the immediate aftermath of the separation of Sweden from the Union of Kalmar. In order to resolve this issue, a meeting was held between Sweden and Denmark, in 1593 in Flabäck. It was at this time that the two states agreed to begin collecting more information on their northern regions to settle the question of where their northern border lay. After this meeting, Carl ordered official surveys and investigations from northern bishops and clergy, with the intention of establishing where the historical borders between Norway (which at this point of time was still in union with Denmark) and Sweden had laid (Handlingar rörande Skandinaviens historia. D. 38, 1857, 23, 99, 104; Handlingar rörande Skandinaviens historia. D. 39, 1858, 117; Ivalo 1894, 34–37; Larsson 2005, 297). In the autumn of 1594, Carl also began the organization of a more focused research mission to the region called Lapland in order to have more evidence of the connections of the region to Sweden (Ivalo 1894, 40–41). The border negotiations with the Danish were, however, soon overrun by new peace negotiations with Russia. As the northern regions in question were between Russia, Sweden, and Denmark-Norway, Carl decided it would be better to negotiate the borders with the Danish only after they had been resolved with Russians (Ivalo 1894, 50).

One of the main goals of Swedish officials in peace negotiations with Russia in 1595 was to gain sovereignty over a piece of the coast of Murmansk (Ivalo 1894, 51-52). At one point in negotiations, the official instructions given to Swedish negotiators were to undermine Russia’s claim of intention for peace, should Sweden fail to acquire the regions of Kola and Varanger on this coast (Ivalo 1894, 52). The diplomats involved in the peace negotiations in Teusina were not successful in achieving the northern goals set by Carl. Peace was, nonetheless, achieved in Teusina on May 8th 1595. The failure to gain the northernmost lands from the Russians through diplomatic means did not stop Carl from executing his policies aimed at annexation of the region in the north. The new strategy for attaining sovereign authority over these regions was through the previously discussed hegemonic mechanisms of operational sovereignty associated with settlement (Johnsen 1923, 103–129).
In 1599, Carl issued an order that contained similar measures for the expansion of Swedish territorial authority in the northeastern parts under dispute to those stated in Elizabeth I’s third commission to Cartier. This order from Carl reflected the aim of establishing a Swedish church and churchyard in Varanger in contemporary Norway. The establishment of these institutions was argued to offer not only education and spiritual guidance for the inhabitants of the region, but also to help with the enforcement of their fishing rights, and the management of their taxation, which had previously taken place at various times through all three states that controlled the region – Sweden, Denmark and Russia (Handlingar rörande Skandinaviens historia. D. 39, 1858, 161–166). This order was followed by a set of similar ones in other northern regions under dispute between Russia, Denmark, and Sweden. In these orders, Carl not only promised and ordered the establishment of more churches and church yards but also the eventual establishment of new fishing, timber and commercial ports, fortresses, and towns, and the appointment of permanent officials who would defend the rights of immigrants and Lapps against the officials of the two other nations, as well as traders from Pirkkala. Carl also used the promise of initial tax freedom to entice more Swedish immigrants to settle in these northern areas, over which Sweden was attempting to expand its ultimate territorial authority (Handlingar rörande Skandinaviens historia. D. 39, 1858, 175, 181, 208, 220–226; Ingman 1895, 184, 193, 203, 207-208, 210, 225; Ivalo 1890, 231; Johnsen 1923, 122–125).

When commissions and orders set by Carl are analyzed in the context of justifications given for the expansion of the territorial authority of states in relation to the overseas explorations and the general progress of the Scientific Renaissance, it appears that the material horizon of expectation for the northern lands, and the mechanisms through which the Swedish authority was to be achieved there, follow what I have conceptualized in the previous two case studies as operational sovereignty. They also seem to follow the more general developmental paradigm associated with the expansion of Christian European settlement into new regions. Like the changed material horizons of expectations in the French and English cases, the utilization of settlers to perfect a sovereign title is, however, not sufficient to explain what Carl wished to achieve by gaining sovereignty over these regions. Unlike in the two preceding case studies, in this instance there was no singular account of activities with reference to specific authorities of knowledge, such as
the accounts of the overseas expeditions. The study of the co-production of the new international order of absolutist sovereign states and the new epistemic authority structure through the analysis of the interaction between the epistemic community of explorers and the sovereign is, hence, out of the scope of this case study. In order to provide an overview of what was known and how it was known in the regions in question, I will next outline a more detailed description of the work of the brother of Johannes Magus, Olaus Magnus, as well as of the horizon of expectation in the official state policies.

Epistemic authority structure and the norm of the role of Christianity in nature

The horizons of expectation in the orders of immigration and settlement for the regions in question seem to have included three expectations. The first was an expectation that the lands would bring about good harvest if they were farmed in the proper way. The second was that there would be an abundance of fish and pelts to be sold. And the third was that the annexation of these lands would increase the revenue of timber (Waaranen 1863, 64–66; 1864, 66, 111, 179–180). Carl also seems to have thought that there were untapped sources of precious jewels, pearls and diamonds to be found in these regions (Handlingar rörande Skandinaviens historia. D. 39, 1858, 173, 177). This horizon of expectation corresponds to descriptions of the Swedish northern regions made by Olaus Magnus, the cartographer credited with the first map of all the Nordic countries, the Carta Marina, published in Rome, in 1539. The History of the Northern Peoples, published in 1555, was the first larger printed work to describe the nature, people, and geography of the northern parts of Sweden in detail. It was first published in Latin and, after its publication in 1555, became one of the most popular printed volumes of its time in Europe. There are many indicators in the publication that support the claim that the Renaissance epistemic structure asserted a new idea of the norm of the role of Christianity in nature in relation to other people, as well as to materiality. That is because the volume contained not only praise of the pristine nature and peoples of the north, but also detailed descriptions of the possibilities for increased cultivation and settlement of the northern lands of the Swedish kingdom (Johannesson 1991; Lappalainen 2006, 14–15; Larsson 2005, 314; Magnus 1996; Sörlin 1988, 23–27). Sverker Sörlin (1988, 23) has summed the general message of Magnus’ description of the nature of northern Sweden as Det arktista Eden (The Arctic Eden). The conclusion Kurt Johannesson (1991, xx–xxi) has drawn from Magnus’ descriptions of the northern parts, in connection to the more
cultural historically-focused works of his brother Johannes, is that the brothers dreamed of the establishment of a new imperium of Sweden in northern Europe, of which citizens would use “the slumbering riches of northern nature by means of the new technology and science”.

What is of importance for this case study in terms of the study of co-production of international institutions of knowledge production and political organization in the sixteenth century is that Magnus’ description of the conditions and possibilities of the northern parts of Sweden for cultivation and settlement are very similar to the later orders of Carl. This similarity, and their proximity to the previously described norm of the role of Renaissance Christianity in nature, are especially clear in the following passage from Magnus (1996, 192): “and I should without a doubt be assured that with his help so multiplies the state’s inhabitants in these regions, that I previously have found to that suitable, that in the regions, where at the moment no one lives, would in ten years with cultivation bring about suitable and spacious living places for many thousand people, which in full form could give to God what to God belongs and to the King what to the King belongs”. This description of the horizon of expectation in the Arctic policies of Carl IX, and the corresponding account of the epistemic authority structure in Sweden, reflect the same norm of Renaissance Christianity in nature as the materials presented in the French and English cases. As such, I argue that the constitutive power associated with the stabilization of the new Renaissance Christian epistemic authority structure and the corresponding material constitutional structure is also identifiable in this Swedish attempt to materially expand its border through settlement in the north under the reign of Carl. This case also illustrates how the analysis of this power equals to the study of the constitutive social role of science and technology in the expansion of the international society. That is as, similar to the French and English cases, the above-described horizons of expectation were not transformed into corresponding spaces of experience.

Aftermath

As in the previous case studies, the attempts to settle the northern parts of Sweden for the purposes of asserting claims of sovereignty in new regions were not turned into successful spaces of experience. Despite the continuation of the Gothic northern symbolism in the coronation of Gustav II Adolf, the Arctic Ocean Policy of his father did not continue under Gustav
II Adolph’s reign. The politics in the northernmost counties of Sweden under the reign of Gustav II Adolf were more centralized, but included a much more modest horizon of expectation. During the first decade of his reign he negotiated a peace treaty as well as a northern border with Denmark in a manner that culminated to a result that had been opposed by Carl within his lifetime. Gustav II Adolf also eventually established a peace treaty with the Russians in 1617, in which Sweden annexed more regions around the Baltic Sea, rather than in the north of its kingdom. Any further gestures of colonization of the Murmansk region were abandoned, and a chain of closed northern trading cities, Umeå, Piitime, Luleå, Torneå, and Uleåborg, were established on the coast of the bay of Bothnia, and not on the coast of Arctic Ocean as Carl IX had planned (Ingman 1895, 271; Lappalainen 2006, 22–25; Österberg and Larsson 2001, 105).

As in the case of England, the focus of Swedish foreign policy-making turned to regions far removed from the Arctic. For Sweden, the promise of expansion in the following decades was one associated primarily with military means and focused on the shores of the Baltic.

The material constitutional structure in the Swedish case

In this third study that I have used to describe the makeup of the material constitutional structure of the absolutist Christian international society, I have illustrated how, in the immediate aftermath of having been established as a sovereign state, the Swedish governing elite began to purposefully construct a backwards-looking national identity for itself. I argued that in this narration, the co-production of the epistemic authority structure and the new absolutist order was especially identifiable. It was, however, not in relation to this national identity-building that the elements of the material constitutional structure of the international society were identified in this case. They were, instead, discussed in relation to the attempt to peacefully expand the ultimate territorial authority of the state further northwards through increase in settlement. The horizon of expectation for what could be achieved through this increased settlement in the north reflected a similar content of the three norms that I argue made up the material constitutional structure than the previous two cases. As the horizon of expectation of Carl who was the primary advocate of this norther expansive attempt was not turned into a successful space of experience as experiences from the region accumulated, the previous promise of the periphery was forgotten and the future of the nation was sought further south in the coasts of the Baltic Sea. In relation to the establishment of the ecological outer limits of the new
developmental paradigm it seems that they had also been found through trial and error in the Swedish north.

4.3. Summary

In the first part of this chapter I first described what Reus-Smit characterizes as the constitutive hierarchy of international institutions in absolutist Europe and Philpott the crisis of legitimacy of Respublica Christiana. I then illustrated how their emergence and stabilization can be argued to have been co-produced with the concomitant revolution in the epistemic authority structure of Respublica Christiana in relation to the accumulation of new, contrary to the previous codified standard of knowledge, data and ideas through three sources. The first is, the progress of the voyages of exploration. The second, increased access to ancient sources of knowledge. The third, the progress of Protestantism. I conceptualized the solution to this crisis of pluralism in natural and technical knowledge production as the adoption of a new epistemic authority structure of the Renaissance and Christian absolutist international society. In terms of the double-constitutional structure of the EIS, the argument that emerged from this macro-historical description was that both of its sides went through a largely co-produced revolution that was solved through new forms of international institutional cooperation in the fifteenth, sixteenth, and seventeenth centuries.

In the second part of the chapter I analyzed this co-production by empirically studying the three elements of the material constitutional structure in three in-depth, discursive case studies. The cases consisted of the discursive justifications for the constitution and mobilization of sovereign power for the exploration and settlement of the previously unknown in three states in the sixteenth century. Through this discursive analysis I illustrated how the epistemic authority structure of Renaissance Christianity described in the first part of the chapter was present in the justificatory narratives of each of the three states under analysis. In relation to the social side of the double-constitutional structure I also illustrated how the concept of sovereignty that was adopted as the hegemonic organizing principle of relations between states at this time, not only included a definition of who the legitimate holders of sovereign authority were, and what their basic prerogatives and responsibilities were. It also included an operational side that allocated the member-states of European international society with the right to peacefully expand their
ultimate territorial rights in accordance with the prevalent developmental paradigm and what I have conceptualized as the new norm of Christian Western humanity in nature.

In the Renaissance society of Christian states, the new developmental paradigm described materially measurable progress and development in relation to two processes. The first was the aim of restoring the ancient, material glory within Europe through the application of the new sciences and technologies into governance. The second was the process of expanding European-type settlement and religious infrastructure into the newly discovered regions. The new norm of Western humanity in nature, in turn, described a new, dominant role for individual Christians in an organic social order of nature, which was seen to be maintained, and in certain regards, restored through specific types of cultivation of lands, new Renaissance technologies and knowledges, as well as settlement. As all the discursive horizons expectation in the three cases that reflected these elements, I argued that the three cases together represent moments in which the ecological outer limits of feasibility of the new material constitutional structure were found through trial and error in the Arctic. I will next move onto the study of the content of the three norms of the material constitutional structure and how they are reflected in the content of the social one at the time of the second revolution of the epistemic authority structure of the EIS, which I associate with the Scientific Revolution of the late seventeenth and eighteenth centuries.
5. Scientific Revolution and the Configuration of Territoriality

In the previous chapter I argued that the processes that led to what Reus-Smit conceptualizes as the constitution of the fundamental and constitutional international institutions of the Westphalian society of absolutist states were co-produced with the emergence and stabilization of a new epistemic authority and material constitutional structures of the Christian Renaissance society of states. In the first part of the chapter I explained how the new, material international institutions re-defined what was known, how it was known, and what the knowledge was deemed to be good for in international society of absolutist states. Through three individual case studies of, in hindsight, failed attempts of material expansion of the EIS, I then described the constitutive power of this redefinition of what was considered as legitimate and rational natural and technical knowledge production in relation to the study of the content of the three elements of the material constitutional structure. Following the terminology of this thesis this description translated into an illustration of the first presented argument about a concomitant and co-produced revolution of both sides of the international institutions of the double-constitutional structure of the EIS in the fifteenth, sixteenth, and seventeenth centuries.

In this chapter I claim that the processes that Reus-Smit calls the configuration of the fundamental and constitutional international institutions of the absolutist society of states in the early eighteenth century, were similarly co-produced with the emergence of the second revolution in the epistemic authority structure of the EIS. This revolution is associated with the progress of what has been later conceptualized as the Scientific Revolution. Like the Scientific Renaissance, it was triggered by the accumulation of new empirical information that contradicted first, the previous, common understanding about what was considered possible, reasonable and feasible in relation to the governance of the natural world in the Christian Renaissance society of states. Second, the legitimacy of the bases for the material measured social hierarchy of states. Unlike in the previously revolution in the material constitutive hierarchy of international institutions, this new one did not result in a revolution in the social one. This, I argue is associated with how, unlike some later descriptions have asserted, it was still grounded on the assumption of specific rights and privileges of Christians in the material and the social universe.
In the words of Shapin (1996, 138): “No new strand of culture that was widely seen as threatening religion could hope to become institutionalized”. These rights and privileges of Christians that underpinned the new epistemic authority structure correspond to those used in the configuration of the social international institutions of the absolutist international institutional hierarchy. It is because of this common ideological connection that the revolutionary change in the epistemic authority and material constitutional structures of the absolutist international society that were associated with the progress of the Scientific Revolution did not lead to a concomitant revolutionary crisis of legitimacy or pluralism on the social side of this institutional framework. In more specific terms, instead of challenging the fundamental background conditions of justice in the delineation of the geographical extension of sovereign rights in Europe, the emergence and stabilization of the new epistemic authority and material constitutional structures of the absolutist international society of the late seventeenth and eighteenth centuries enforced their further configuration (Reus-Smit 1999, 110–115). I conceptualize this type of co-production between the two constitutive hierarchies of international institutions of international society as the configurative and conservative co-production of the two sides of the double-constitutional structure. This argument about the configurative co-production of the material and social sides of the double-constitutional structure of international society in the eighteenth century unfolds in the following manner.

The chapter begins by first laying out the argument about the Scientific Revolution being associated with a second revolution in the epistemic authority and material constitutional structures of European-origin international society (EIS). It then moves onto a description of what the new epistemic authority structure consisted of. Through this discussion I illustrate how, contrary to the previous accounts of the role of the Scientific Revolution in the emergence and expansion of the European-society, the epistemic confidence of the epistemic communities associated with the new material international institutions was still firmly embedded in Christianity and a Christian understanding of the natural and social universe. After this explanation of the change in what was known, how it was known, and what the knowledge was deemed to be good for, I move onto a description of how the system-wide institutional reorganization of natural and technical knowledge production contributed to the process of configuration of the geographical extent of sovereign rule in the Westphalian system of absolutist
The argument that results from this discussion is that the revolution on the material side of the double-constitutional structure in the eighteenth century was absorbed into the further configuration and conservation of the existing constitutive hierarchy of social international institutions of the absolutist international society. In other words, in the eighteenth-century the co-production of the constitutional structures on the two sides of the double-constitutional structure was configurative, not revolutionary, as had been the case in the sixteenth and seventeenth centuries.

As in the previous chapter, in the second part of the chapter I study the three elements of the material constitutional structure of international society that the legitimacy of the first described new epistemic authority structure was based upon through individual in-depth case studies. The case selection criteria of the chapter follows the same methodology as the previous one. This means that I analyze the content of the three normative elements through discursive case studies of how sovereign power was constituted and mobilized for the exploration and eventual settlement of the previously unknown, or little-known, northern peripheries in specific states in the eighteenth and early nineteenth centuries. The first case study of the chapter analyzes the horizon of expectation behind the reorganization of the governmental structure and economic as well as foreign policy of Sweden under the rule of the Hat party between 1738 and 1766. The second case study presents an analysis of the justifications for the reorganization of the basic mechanisms through which the Russian Empire was expanding its ultimate territorial authority eastwards in the eighteenth and early nineteenth centuries.

5.1. Scientific Revolution and the Christian International Society

In the previous chapter I contextualized Reus-Smit’s argument about the social constitutional structure and fundamental institutions of European international society that he claims were constituted in Westphalia with the analysis of the concomitant emergence and progress of a new framework for legitimate knowledge production associated with the Scientific Renaissance. Through this contextualization effort I illustrated how the legitimacy of the solution to what Philpott calls the crisis of pluralism of international society in the sixteenth and early seventeenth centuries was co-produced through the emergence and stabilization of a new epistemic authority, and material constitutional, structures of the absolutist international society.
of sovereign states. In this chapter I contextualize what Reus-Smit calls the configurative phase of the social international institutions of the Westphalian, absolutist society of states with the study of its concomitant, second, international system-wide change in what was known, how it was known and what the knowledge was deemed to be good for. This change is associated with the emergence and progress of what has later been called the Scientific Revolution.

I begin this macro-historical description by translating Shapin’s (1996, 137-138) argument about how the late seventeenth and eighteenth centuries continued to constitute a part of a deeply religious age in Europe where Christian religious institutions, Catholic as well as reformed, exercised enormous secular power in all European countries, “both in their own right and as associates of the state” into the analytical terms of this thesis. In this translation I first explain what the main characteristics of the change in the common epistemology and understanding of the natural universe of European international society that took place in association with the progress of the Scientific Revolution were. I continue by illustrating how, contrary to some previous descriptions of the Scientific Revolution, the epistemic communities that contributed to it did not define what was considered as possible, feasible, and progressive governance of nature, or the material relationships between states in what can be considered as modern technoscientific or capitalist economic terms. Instead of relying on a modern and liberal developmental paradigm, these epistemic communities defined the problems of states in relation to the governance of the material world by following what can be characterized as a utilitarian, physicotheological, and mercantilist one. After the description of the main characteristics of the aforementioned material developmental paradigm of seventeenth and early eighteenth-century Europe I explain how its emergence and stabilization were reflected in system-wide changes in the processes through which the standing of states in the social and material hierarchy of states in international society were defined. I conclude this macro-historical overview by relating it back to Reus-Smit’s argument about the configuration of the social constitutional structure of Westphalia in Utrecht in 1713-15.

The norm of the role of Christianity in nature in the late seventeenth and early eighteenth century

Contextual, constructivist study of History and Philosophy of Science (HPS) has shown conclusively that, contrary to conventional wisdom, the new natural philosophy of the Scientific
Revolution did not include a rupture or full confrontation with religion (Blair 2006, 395–405; Brooke 2003, 744; Park and Daston 2006, 13–17; Shapin 1996, 11-12, 74, 117, 125, 137–140, 148, 153). Instead of denouncing religious questions altogether, Western Christianity was still the overarching reference point in the formulation of new knowledge claims made by the epistemic communities of new natural philosophers of the late seventeenth century. John Brooke (2003, 744) illustrates this point nicely in relation to one of the central figures of the Scientific Revolution– Isaac Newton. Brooke contends that Newton’s general interest in alchemy and Biblical texts suggests “that holding together his various intellectual projects was a preoccupation with the manner of divine activity in the world”. The continuing reliance of the new epistemic communities on the epistemic authority structure of Renaissance Christianity is also visible in how the mechanical natural philosophers of this time considered the “Book of Nature” as the source of their expert knowledge.

The “Book of Nature” was understood primarily as the laws of nature written by God and left to be discovered and configured by man. Its new experimental analysis was also considered similar to the interpretation of Scripture as source of divine knowledge. The primarily difference between engaging Scripture and the way the new epistemic communities approached the “Book of Nature” were in the methods and aims of interpretation. Instead of focusing on description and relying on Ancient sources of authority, the new epistemic communities associated with the Scientific Revolution highlighted the primacy of God-given human faculties of observation and reason, and the possibilities that experimental methods provided for modifying the material world. The proper reading of the “Book of Nature” was, however, still explained as being above all a religious duty (Craven 2012, 877–878; Dear 2001, 138–139, 169; Shapin 1996, 74, 125–139). This reference to the changing methodology for defining what was known and how it was known in EIS illustrates how there was not a clear dichotomy between men of reason and men of religion at the time of the Scientific Revolution. It also refers to how this argument does not translate to a claim that the new experimental method and the epistemic communities that adopted it in the late seventeenth and eighteenth centuries did not purport a significantly different epistemology or lead to a different understanding of the laws of the natural universe than the ones associated with the Scientific Renaissance.
The differences in elementary rules of practice for legitimate knowledge production in Scientific Revolution differed from those associated with Renaissance Christianity can be summarized in three main aspects. The first of the three major differences was that the new experimental methods of knowledge production of the late seventeenth century did not follow the previous ideal of Renaissance restoration. The second difference was that the new knowledge production focused on utilitarian objectives - the aim was to control, rather than simply describe, the consistency of the natural universe (Emerson 2002, 965; R. Porter 2003, 6). The third major difference was how the new epistemic communities themselves described their role in international society (Dear 2001, 61–64, 111–143; Shapin and Schaffer 1985, 22–225, 283–344). I will next further elaborate on what this description consisted of as well as flesh out these two other differences in relation to an introduction to the main characteristics of some of the major new international economic ideals that also emerged at this time.

The problem of wealth

Michel Foucault (2002, 180–234) has illustrated how alongside the spread of the new arts and sciences associated with the mechanical sciences, new international epistemic communities also began to develop around what he conceptualized not as the question but the problem of wealth. Contrary to conventional wisdom, the international political economy purported by these new communities of experts was not yet predominantly modern, liberal, or capitalist. The common goal of three of the main strands of the new international economic thought, the French physiocrats, the German cameralists, and the English mercantilists, for example, was not only the increase of trade. It was also the establishment of state autarky. The suggested mechanisms for this establishment of national economic independence in all of these strands of thought were also not only the diversification of trade or the increased expansion of the ultimate territorial authority of states into new regions. They also included suggestions for the improvement of the state economy through better scientific governance of the natural environment within the existing territories under their sovereign authority (Ericsson 1987, 18; Fox-Genovese 1976; Reinert 2013; Wakefield 2013; Wilson, 1965). The connection of these new strands of economic through to the state-elites of this time is visible for example in the concomitant to their further development and spread reorganization of the points of prominence in international trade of European states.
By the beginning of the eighteenth century, the governing elites of what became mercantilist, cameralist and physiocratic states were regularly investing in the promotion of ecological exchange of useful plants. Larry Steward (2003, 828, 833–836) notes the aim of this was for state-supported new epistemic communities led by figures such as Carl Linnaeus⁵ and Georges-Louis Leclerc, the Comte de Buffon, and their “armies of collectors” to impose order to the vast archive of nature for the utilitarian advantage of their fatherlands. Fredrik Jonsson (2013, 121) refers to this same feature of the historical age that Grewe (2000, 287–288, 317–319, 324–326), Johnston (2008, 433) and Schmitt (2003, 140) characterize as being dominated by imperial acquisition, mature absolutism, and trade wars, by illustrating how this time also represents “the heyday of imperial information economies and acclimatization projects”. I will next explain in more detail how these biological and economic ideologies can be argued to be reflective of the first mentioned larger system-wide change in what was known, how it was known, and what the knowledge was deemed to be good for in European international society associated with the Scientific Revolution. I will begin this explanation by using the concept of the norm of the role of Western humanity in nature of the material constitutional structure. In more specific terms, I will next describe how the progress of the Scientific Revolution led to the emergence of a new perception of the role and responsibility of Christianity in nature.

The eighteenth-century epistemic authority structure

The norm of the role of Christianity in nature that I described in the previous chapter underwent another significant change in the late seventeenth and eighteenth century. This is first visible in how the new epistemic communities of this time framed their role as part of the societies they inhabited. The new epistemic communities claimed that by interpreting the “Book of Nature” according to the experimental and utilitarian epistemology that they had developed, humanity could be restored to its rightful and dominant place in nature (Porter 2003, 6). Rodger Emerson (2002, 965) notes that where the epistemic communities of Scientific Revolution had sought the restoration of Europe to its former glory, the new epistemic communities, in turn, sought “the perfectibility of humankind in a new heaven on Earth”. In the beginning of the eighteenth century the new ideas regarding what was thought to be possible, feasible, and reasonable activity in

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⁵ Carl Linnaeus was ennobled in 1761 as Carl von Linné. For the purposes of clarity, I will use the form of Carl Linnaeus of his name throughout this chapter.
relation to this aim were as yet not dominated by the new mechanical sciences alone. Instead, at this time they were also associated with the rise of the biological and geographical sciences in the epistemic authority structure. The further development and spread of these sciences was intimately connected with the aforementioned new strands of international economic thought. Their new dominance in the epistemic authority structure is first identifiable in how the governance of the terrains of the absolutist sovereign states of the time became reorganized.

The great “centralizer” of absolutism, Jean-Baptiste Colbert, incorporated natural knowledge from the outset as a part of the mercantilist enterprise of Louis XIV’s political system. The Paris Academy of Sciences he helped to found was a key development in this regard. Colbert had extensive plans for the rationalization of forest administration, national cadastral surveys of France, and the establishment of a carefully planned grid of administrative centralization of highways and canals to maximize access and facilitate state control (Scott 1998, 48–49, 68, 75–76, 360). His plans were supported and taken further by the director of the Jardin Royal des Plantes in Paris from 1739-1788, Georges-Louis Leclerc, le Comte de Buffon who made experimental forestry a central concern for the garden with the goal of restocking the forests of the state as well as to build vessels for the French merchant fleets and naval engagements abroad (Schiebinger 2004, 11). The new epistemic communities in France in this type of connection with the state were also not the only one to promote the potential of the new biological and economic knowledge associated with the aim of improving the territories and revenues to the natural treasury of the state through the increase of centralized governance in the late seventeenth and eighteenth centuries Europe.

By the eighteenth century in the German-speaking states, counting, surveying, describing, and tabulating for purposes of improving the treasury had become basic administrative measures supported by the state. One of the prominent figures of late seventeenth century economic thought in these German speaking provinces, Wilhelm Freiherr von Schroder, called the collection of such information ‘staatsbrille’; the lens through which the state could know its terrain better, and thus maximize security, welfare, and happiness amongst its populations. The co-production of the institutions of political organization associated with absolutism, and those focused on new knowledge production associated with the Scientific Revolution, is most apparent in this German context in the term referred to and used by the cameralists next to
This term translates to English as ‘science of the polity’ (Raeff 1983, 5; Scott 1999, 369).

The new “state science” at the heart of cameralist economic thinking was based on the idea that better research, surveillance, and control of not only the population but the territory of the state, would evidently lead to increase in security and welfare of the state. This, in turn would improve the standing of a state in the socially as well as materially measured, relative hierarchy of sovereign states. This cameralist ideology of improvement was based on the belief associated with the possibility of improvement of the terrains through science, especially surveys and centralized planning. The basic measure of the wealth of the state through which its standing in the hierarchy of states was also determined was the state treasury, the camera (Drayton 2000, 69–71). Because of this focus on the status of the state treasury and its trade balance, cameralism has been conceptualized as the “German strand of mercantilism” (Wakefield 2013, 134–136). It bears emphasis that contrary to contemporary market capitalism these ideologies believed that the sum total of the global economy was static, and that exchange was therefore zero-sum. In short, an increase in the wealth of one state was thought to automatically lead to the decrease of wealth and standing of others (Drayton 2000, xv; Raeff 1983, 23–27).

The focus on the possibilities of new state-supported sciences in relation to bettering the material status of a state in the social hierarchy of states in the eighteenth century was not only related to new strands of economic thought. Similar to the cameralist central-planning reforms, reform programs that gave agriculture and sciences central place in to the renovation of those states plagued by famine and wrecked by wars had become standard mechanisms of governance by the 1740s in central and northern Europe, and the 1760s in Spain, Portugal and the Italian peninsula (Drayton 2000, 70). At the level of the international system, one indication of the co-production of the two sides of the double-constitutional structure through international organization of legitimate knowledge production is how these system-wide changes in what was known, how it was known, and what the knowledge was deemed to be good for in Europe that the emergence and spread of these new strands of state-supported sciences were associated with is how the new forms of knowledge production that emerged at this time became institutionalized in a similar manner in most of the member states of this international society.
Seeing like a state in the eighteenth-century society of states

In the second half of the seventeenth century, many European rulers and governments “with an eye to both practicality and prestige” continued to act as patrons and protectors of the new epistemic communities (R. Porter 2003, 8). One way this support took place was the creation of new official institutional bodies for the practice and further development of the new sciences, the academies. The Royal Society of London, which was created in 1660, and chartered by Charles II in 1662 as well as 1663, and its French equivalent the Académie Royal des Sciences, which gained royal patronage in 1666 were the leading examples of their kind in seventeenth and eighteenth century Europe. One indication of the emergence and stabilization of a new epistemic authority structure of European international society in the late seventeenth century, I argue, is how the model of the British and French academies was rapidly imitated throughout Europe. From the mid-seventeenth century, to roughly 1800, some seventy similar official scientific academies were formed in Europe and America. The academies were also not the only channel through which the new sciences became connected to the new sovereign governing elites of absolutist as well as republican sovereign states. By the end of seventeenth century, the government of most European states had also come to include numerous internal departments whose activities furthered the advance of what, because of their Christian connection can be described as, the new physico-theological mercantilist sciences, or alternatively, served as a reward for such work (Blair 2006, 403; Coley 1991, 173–177; Emerson 2002, 968, 972, 977–979; Fox 2003, 111; Roberts 1991, 227, 231). This institutional isomorphism of legitimate knowledge production of the materiality of the states also did not take place outside of the framework of what Reus-Smit calls the further configuration of the moral purpose of the state in the maintenance of a rigid, divinely-ordained social order in international society of the early eighteenth century.

Configuration of territoriality in Europe

As illustrated above, the authoritative foundations of the new epistemic authority structure of international society that emerged and stabilized at this time were still firmly embedded in Christianity. What Reus-Smit (1999, 119–120) calls the further configuration of the international institutions of the absolutist international society that took place at the same time, similarly reinforced Christianity as the bases of the sanctity of the diplomatic configuration of the
geographical limitation of sovereign authority. I argue that the common ideological origins of both the old social and the new material fundamental institutions of international society enabled the absorption of the aforementioned new common epistemology and understanding of the natural universe associated with physico-theologian Christianity as part of this further configuration of the Westphalian structure of social international institutions. In more specific terms, both the resolution of the geographical extension of the new sovereign rights in Utrecht in 1713-15 and the stabilization of the new epistemic authority structure reinforced Christianity as the common bases through which the coordination and collaboration problems of states were defined and solved in the eighteenth century (Reus-Smit 1999, 119–120).

In terms of the analytical framework of the double-constitutional structure, I argue that the Christian basis of both of these processes explains why the revolution in the material-side of the double-constitutional structure of the absolutist international society, did not co-produce a revolution on the social side of this framework as it had in the sixteenth century. Instead, the new focus on the improvement of the environment in the different intellectual strands of political economic and natural scientific thought in the eighteenth century Europe were absorbed as part of the further configuration of the previous moral purpose of the state. Here I refer to how, as will be illustrated in more detail in the following two case studies, the new sciences seconded the ideal associated with the maintenance of the divinely ordained social hierarchy of international society. I call this type of co-production between the two sides of the double-constitutional structure configurative and conservative co-production.

I will next further describe the configurative and conservative co-productive processes between the new basic rules of practice related to the reorganization of the legitimate forms of knowledge production and the concomitant configuration of the old basic rules of practice related to co-existence of states under anarchy in the late seventeenth and eighteenth centuries. I will do this by showing how basic rules of practice for the expansion of the ultimate authority of the members of international society over new peoples and terrains were re-organized according to the new common epistemology and understanding of the natural universe of the above described epistemic authority structure. I will begin this illustration by referring to the spread of the labor theory of land appropriation in the international legal thought of this time.
Operational Sovereignty in the late seventeenth and eighteenth century

The idea of improvement in the justification of colonial settlement of lands, even if they were under another power’s jurisdiction, already formed a part of the legal thought of Hugo Grotius (Grotius 2005, 599–600, 643, 664). His doctrine of such land appropriation relied on the concept of *occupatio* from the Roman *Jus Genitum*, which he used to argue that “deserted” or “unproductive” lands, as well as territories that were not used productively enough, could be appropriated by others (Craven 2012, 877–878; Lesaffer 2011, 440). This argument of improvement was repeated in the works of John Locke and Emer de Vattel whose treatment of the subject was the beginning of what would become the labor theory of land appropriation. The bases of this theory are on the similar conception to Grotius that the improvement of land is a necessary condition for the achievement of sovereign territorial ownership (Keene 2002, 56–57, 102–103). The emergence and stabilization of this idea of improvement, I argue, was interconnected to, or in more specific terms, co-produced with, the emergence of the aforementioned biological and economic sciences of the late seventeenth and eighteenth century.

One indication of the co-production of the new idea of the labor-theory and the new biological and economic sciences mentioned above is how these sciences were used to justify the overarching argument associated with this principle in the extra-European realm. That is, how Europeans, because of their superior skills in land cultivation, had not only a right but a moral entitlement to appropriate lands outside of Europe that were not being cultivated in the effective and rational manner that followed the common epistemology and understanding of the universe in Europe (Flanagan 1989, 596). In the words of Locke, “he who appropriates land to himself by his labor does not lessen but increase the common stock of mankind; for the provisions serving to the support of human life produced by one acre of enclosed and cultivated land are – to speak much with compass – ten times more than those which are yielded by an acre of land of an equal richness lying waste in common” (In Flanagan 1989, 593).

What I argue is neglected in the previous analysis of the international legal texts associated with the development of the labor theory of land appropriation as the justificatory bases for colonialism within the previous research of the expansion of international society is how the colonial subjugation of new lands and people at this time was not only justified, but increasingly...
executed according to the new knowledge and expertise of the aforementioned new epistemic communities. This has been observed by Jonsson (2014, 119–120) in relation to tobacco cultivation in England, Scotland and the British Atlantic. As in the previous chapter, I employ in-depth, comparative case studies to further describe these social roles of the new epistemic authority structure in the reorganization, rationalization and justification of this material expansion of international society at this time. The focus in this description will again be in the description of the three elements of the material constitutional structure associated with the above described new epistemic authority structure. Because the analysis of the social roles of the aforementioned new sciences and technologies in the expansion of European international society at this time differs somewhat from that of the previous chapter, I will begin by briefly going over how I have organized the study of the three elements of the new material constitutional structure that are constitutive of the new epistemic authority structure in the following two case studies.

5.2. The Developmental Paradigm of Eighteenth Century Europe

As in the previous chapter, the analysis in the two case studies here is organized according to the three elements of the material constitutional structure: the developmental paradigm, the norm of the role of Western humanity in nature, and the organizational principle of operational sovereignty. The analysis of the content of these elements in the cases takes place through a discursive analysis of the horizons of expectation behind the constitution and mobilization of sovereign power for the exploration of the previously unknown or little-known northern peripheries in two sovereign states in the eighteenth and early nineteenth centuries. Following the case study selection criteria clarified in Chapter Three, the two cases of this chapter were also, in hindsight, failed attempts to further expand the ecological outer limits of settlement in international society. Unlike in the previous chapter, the analysis of the changes in the hegemonic mechanisms for material and geographical expansion of international society according to the organizational principle of operational sovereignty is directly described only in the second case study.

The first case study of this chapter consists of the analysis of the reorganization of the governmental structure, and of the economic and foreign policy of Sweden under the rule of the
Hat party between 1738 and 1766. The new cameralist state governance that the party followed included an attempt to push the ecological outer limits of feasibility of settlement further northwards in the state. This was thought to be possible through the better governance of the northern territories of the state with the guidance of the new biological and economic epistemic communities. This attempt of expansion was associated with a desire to increase the internationally acknowledged and measurable power and prestige of the state through the new sciences. Unlike in the Swedish case of the previous chapter, this geographical or material expansion of settlement for the purposes of ameliorating the status of the state did not include attempts of expanding the ultimate territorial authority of the state into new regions.

Recall that the three elements of the material constitutional structure are mutually constitutive. For this reason, the lack of an attempt of expanding the ultimate territorial authority of the Swedish state further northwards through the attempt of pushing the ecological outer limits of settlement further in the Swedish case of this chapter, does not translate to an impossibility of analyzing the elements of this normative structure through this case study. It only means that the description of the changes in the organizing principle of operational sovereignty do not form a part of the Swedish case study. The neglect of this element in the first case study is also rectified in the second one. The second case of the chapter consists of the discursive analysis of the justifications given for the constitution and mobilization of sovereign power for the geographical eastwards expansion of the ultimate territorial authority of the Russian Empire. The first part of this expansion was guided further into Siberia, and the second into what became known as Russian America between 1799 and 1867.

**SWEDEN**

In the traditional canon of the history of the Swedish state, the time period after that described in the last chapter is referred to as the “Age of Greatness”. This period is considered to have begun with the coronation of Gustav II Adolph in 1611 and ends with the death of Carl XII at the siege of Fredriksten in 1718. In terms of the geographical scope of the state, during this time period the Swedish state expanded into a Baltic Empire. The end of the “Age of Greatness” not only ended this expansion, but also led to its geographical retreat (Widmalm 1992, 243). In the canonical
periodization of Swedish history, this period is followed by the “Age of Freedom”, which is considered to have lasted from 1719 to 1772. The reference to freedom in the title of this time period is one that defines freedom as emancipation from the previous absolutist rule (Villestrand 2005, 17, 67–84). The focus in this case study of the material constitutional structure of the eighteenth century society of states is on the development of the foreign and economic policies of the Swedish state during the dominance of the Hat party in the Swedish Parliament from 1738 until 1766 during this “Age of Freedom”.

I begin the case study with a description of how the constitutive power of the new epistemic authority structure of international society is identifiable in the way in which the foreign, economic, and science policies of the Swedish state in the eighteenth century were reorganized. After this overview I move onto the analysis of two of the three elements of material constitutional structure through a discursive analysis of the horizons of expectations behind the justifications for the constitution and mobilization of sovereign power into the further exploration and settlement of the northernmost parts of Sweden under the rule of the Hat Party. As explained above, because these policies were connected to a new concern about the standing of the state in the material hierarchy of states, but not to attempts of expanding the ultimate territorial authority of the state into new regions, in the analysis of these horizons of expectation I only refer to the developmental paradigm of international society as well as the norm of the role of Christianity in nature, and not the content of the organizing principles of operational sovereignty.

The moral purpose of the state

The time period distinguished as the “Age of Freedom” in the history of Sweden is characterized by the emergence and stabilization of a new hegemonic political ideology that blamed the retreat of the Swedish Empire during the latter half of the seventeenth and first decade of the eighteenth century on the miscalculations of the autocratic elite. In order to avoid a repetition of the mistakes associated with the autocratic rule in the future, the new Constitution of 1720 and the parliamentary rules of 1723 transferred the political center of gravity in the state away from the King to the Council and the Parliament. In this reorganization of the governance of the state the latter gained full control over the state’s finances, exclusive control of legislation, the possibility
to intervene in the administration of the judiciary, and an ability to exert its sway over foreign policy. With the 1738 fall of Arvid Horn, a royalist, who had held the positions of the president of the Council and Lord Marshal in the parliament since 1720, the Parliament also gained the right to both appoint the councilors and decide their policies. In short, with the fall of Horn the Swedish Parliament and its new dominant party called “the Hats”, who were in opposition to the royalist “Caps”, was stabilized as the official new power center of the country (Behre 2001, 254; Weibull 1998, 58–61).

Under the Parliamentary rule of the Hat party one other aspect of the new political orthodoxy was established in Sweden around the new Statue and laws. The Estates were given extensive leeway in interpreting the new laws. This increase in leeway, however, did not translate to an early form of popular democracy. That is because the process of drafting of laws by the parliament was considered to be, through the divinity of the social organization of the estates, in accordance with the law of nature and, thus, rightful and just. In 1747 the idea of the social good served by the maintenance of the social hierarchy of the estates was enforced with the introduction of legislation that made the questioning of these laws by the uneducated population illegal (Frängsmyr 2000, 197–200; Runefelt 2005, 16–17; Sennefelt 2004, 18–41). I will next describe how this non-absolutist enforcement of the idea of social good served by the old moral purpose of the state in maintaining an organic social order in the state through the new parliamentary order in Sweden was co-produced through the emergence and stabilization of a new epistemic authority structure in the state during the dominance of the Hat rule in the Swedish parliament.

**Epistemic authority structure**

According to Leif Runfelet (2005, 16–17) the rule of the Hats was characterized by the belief in the ability of the “enlightened burghers” and strong central government to translate the laws of nature into governance that would best further the status and interest of the Swedish state. This belief was connected to the emergence of a new preoccupation by the government with the economy, and the status of the national treasury (Mansén 2011, 114; Runefelt 2005, 16–17). This new preoccupation reflected the cameralist economic ideal I referred to in the first part of this chapter. I argue that this new preoccupation with economics in state governance offers one
illustration of the configurative co-production of the fundamental social and material institutions of international society in the eighteenth century. That is especially as one of the central institutions in the reorganization of the governance of the Swedish state according to the new, physico-theological cameralist economic model was the Academy of Sciences, established in 1739. The co-production of the new political organization and the new epistemic communities is reflected in the fact that the Academy was generally considered to be a Hat institution (Widmalm 1992, 247–248). The co-production of the new epistemic communities and governing elite in Sweden is identifiable already in the personal interlinkages between the members of the new parliament and the Academy.

Carl Gyllenborg, Lord President of the Council in Sweden between 1739 and 1746, a position that is comparable to that of the prime minister today, had been in the council of the University of Lund 1729-1739. He held a similar position in the council of the University of Uppsala until his death in 1746. Gyllenborg was also a member of the Royal Society of London from 1711. His follower, Carl Gustav Tessin, who held the position of Lord President of the Council in Sweden between 1747 and 1752, was, in turn, a member of the Swedish Royal Academy of Sciences. As such he supported and corresponded personally with a number of Swedish scientists, including Carl von Linné. The third Hat politician to hold the post of the Lord President of the Council, Johan von Höpken was also the first permanent secretary of the Swedish Royal Academy (Frängsmyr 2000, 222–224; Mansén 2011, 32–37, 88–90).

Another indication of the co-production of the new epistemic communities and governing elites in Sweden and the constitutive power of the international economic ideals of the time is how new national university chairs in economy in Sweden were established. The parliament was in charge of the establishments of a new chair in cameralist economics in Uppsala University in its meeting of 1738-1739. The establishment of this chair was followed by the establishment of similar chairs in the University of Åbo in 1747, Lund in 1750 and eventually a second on in Uppsala in 1759 (Wadensjö,1986, 577, 578). I will next describe the norm of the role of Christianity in nature and the corresponding developmental paradigm that the legitimacy of this new epistemic authority structure was based on through a description of what this study of the economy in Sweden was thought to entail, and how it corresponded with the new pacifist foreign policy goals of the Hat government.
According to Anders Berch, the first chair of economy at Uppsala University, the new science of economy consisted of the natural sciences, medicine, natural law and theology (Wadensjö, 1986:579). This type of all-encompassing science of economy was, according to Brech, essential to the new centralized government. That is because, through the understanding the laws in nature this study offered, the new government would be able to translate them into rational laws for the conduct of men. This governance of the state followed a general, common Christian epistemology and understanding of the natural universe. As such it would, according to Brech, ensure that nature’s possibilities were uncovered in the best possible way (Runefelt 2005, 155, 157). I will next use one speech by a leading Hat politician of the eighteenth century, Henrik Jakob Wrede, in the Royal Academy of Science in 1743 to illustrate the correspondence of the policies of the Hat dominated parliament, and what can be described as this new physico-theological economic epistemic community. The speech in question is titled “Tal om et borgerligt samhälles eller et land och rikes rätta styrka” (“Speech about the rightful leadership of a conservative society or a country, and the state”) (Wrede 1743).

In the 1743 speech, Wrede explains how the main goal of a good government is essentially to improve the wealth of the nation. The sustainable and rightful ways of achieving this goal are fourfold; first, through extensive research on the natural resources of the state, and through their industrious cultivation; second, through the utilization of the natural resources that God and nature have given to Sweden and its industrious and diligent inhabitants only by themselves and not by foreigners; third, through trade that is inspired by honesty and love for the fatherland, which translates to the increase of public good being prioritized to that of an individual; and fourth, through private parsimony and good economy that is in accordance with the Divine economy (Wrede 1743, 11–16). In short, the basis for good government is, according to Wrede, the improvement of the economy of the state through improving the bases of its natural resources through effective, research (Mansén 2011, 113–114). The connection of this new

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3 This is Sven Widmalm’s (1992, 253) characterization of the Swedish state economic, foreign and science policy during the rule of Hat party.
national policy to the system-wide changes in the organization of collaboration and coordination of the activities of states in international society is also covered in this speech.

In the speech, Wrede goes on to explain how the aforementioned economic policies of the government are related to the change in the foreign policy goals of the Swedish state. In short, he uses the framing of these goals to condemn the previous ways of improving the welfare of the state through offensive military means under the previous absolutist rule (Wrede 1743, 8). Intellectual historian Lisbeth Koerner has summarized the co-production of the new sciences, Swedish governing elites, as well as these new measures for the standing of the state in the social and material hierarchy society of states that Werde’s speech refers to, by explaining how: “Aided by naturalists, Sweden’s nobility... hoped to exchange the sword for science, a Baltic empire for a Swedish nation, and military victories for manufacturing ingenuity” (Koerner 1999, 102–103). In her study of the time period Elisabeth Mansén (2011, 88–89, 448–450, 490–491) has also highlighted how the new economic and natural sciences, which were instrumental for the implementation of the Hat policy, were regarded as one of the new means through which Sweden was seen to be able to not only connect to international society, but also positively contribute to it. Because of these connections to the change in the foreign policy goals of Sweden, I argue that Wrede’s description can also be used to analyze the prevalent developmental paradigm and norm of the role of Christianity in nature in international society associated with the emergence of the new epistemic authority structure of international society I described in the first part of this chapter.

The new norm of the role of Christianity in nature in Wrede’s speech highlights utility and the ability to restore the rightful position of mankind on top of nature through the application, expansion and support of the new sciences. The developmental paradigm of international society was, in turn, focused on the increase of the state’s finances through the better, more scientific, governance of its terrains. This focus on the state science illustrates how this new developmental paradigm did not only describe the material measure of the standing of a sovereign next to other through measures associated with the increase of foreign trade. In the early eighteenth century this standing was also thought to be able to be improved by improving the governance of the materiality of the territories of the state at home as well as abroad (Frängsmyr 2000, 198; Koerner 1996, 119; Russell and Goodman 1991, 314). This idea of material development
associated mainly with possibilities of biology, and its connection to the problem of the measuring of the standing of the state next to others, can be summarized in the following words of the head of Council, Gustav Tessin in 1751: “He who cultivates Svea ground, increases Svea territory” (In Bæckström, 1935).

I will next analyze the content of the developmental paradigm, and illustrate its possible generative, discursive power in more detail through an analysis of the justifications for the increased constitution and mobilization of sovereign power for the exploration and settlement of northern parts of Sweden during the Hat rule of the Parliament in the “Age of Freedom”. As in the previous chapter, the discursive analysis of this change in the horizon of expectation is divided between two types of primary resource materials: those provided by the new governing elite of the state, and those produced by the members of the aforementioned new physio-theological epistemic communities. Because the change in the horizon of expectation for what was thought to be possible to achieve in the Swedish north at this time was not connected to an attempt to geographically expand the territorial authority of the state into new regions, the analysis of these materials does not include the discursive analysis of the mechanisms associated with the hegemonic meaning of the organizing principle of operational sovereignty.

Because of the lack of references to the organizational element associated with the material and geographical expansion of international society through the expansion of sovereign authority of its members into new regions, I begin the analysis of the horizon of expectation for what was thought to be possible, feasible, and reasonable to achieve through increased exploration and settlement of the northern regions in Sweden in the eighteenth century by analyzing how the developmental paradigm and norm of the role of Christianity in nature are described in the materials produced by the new epistemic communities. The focus in this analysis will be on the writings of Linnaeus, who was one of the most prominent advocates for the further exploration and settlement of the region in the academy. I continue the case study by describing the elements in the horizons of expectation for what was thought of as possible, feasible, and reasonable in relation to the constitution and mobilization of sovereign resources for the further exploration of these regions in the discursive materials constructed by the regional and national governing elites of the Sweden.
Developmental paradigm and the epistemic community

One of the central figures of the new epistemic community in Sweden who advocated for the constitution and mobilization of sovereign power for the further exploration and settlement of the Swedish north in the eighteenth century according to the new ideals of the epistemic authority structure of international society was Carl Linnaeus. The position of Linnaeus in respect of how the new biological and economic sciences could be organized to further benefit the Swedish society is visible in one of his publications in the Royal Society’s Academic Handlingar, titled: “Doctor Linnaei’s thoughts on the ground for Oeconomie through natural knowledge and Physics” (Widmalm 1992, 249). In this text, Linnaeus first introduces the term Oeconomie, which he explains is derived from the term Cameral-Oeconomien. Linnaeus uses this term to explain how all knowledge production in a state should be constructed upon the two pillars of physics and natural knowledge. According to Linnaeus (1740, 406): “No science in the world is higher, more necessary and useful than oeconomy”. Linnaeus also uses this term to reflect on the organization of international society. Linnaeus goes at length to explain how “The Lord of nature” has given each and every country special advantages in the form of plants. The aim of the wise state governor should, according to Linnaeus, be to ensure that these riches of the nation do not exit through the borders of the state via the trade in plants. He should, instead, aim to further enhance the natural richness of the state through the purchase and subsequent planting of foreign plants from other states, such as coffee, potato and rhubarb. This way another nation is not able to benefit from the trade of the raw materials in another country (Linnaeus 1740, 412–415). In explaining how these natural resources within the state borders ought to be governed, Linnaeus further enforces the idea of the Hat party that the governance of the state should be based on a rigid technocratic, social order.

The references to God in Linnaeus’ discussion of the connection of oeconomy to the measurement of the standing of the state in the hierarchy of states, I argue, illustrates how the economic and scientific thoughts of international society in the eighteenth century both still relied on an idea of a divinely-ordained hierarchy. His reference to sovereign and divine organization also illustrates how Linnaeus, like most scientists of the eighteenth century, believed this organic order existed in nature as well as among nations. This reference to the hierarchy of nations in relation to the economy also corresponds to the occupancy of diplomats
with the divine order of Christian princes that Reus-Smit (1999, 102–106) illustrates dominated the organization of the constitutional structure on the other side of the double-constitutional structure that I discussed at length in the previous chapter. The writings of Linnaeus, however, also reflect the change in the international epistemic authority structure of the EIS at this time to the one described in the previous chapter. The clearest indicator of this difference is how Linnaeus believed that the hierarchy between nations could be determined and manipulated, not in reference to an imitation of the Ancients, but through the top-down application of the new utilitarian, biological and economic sciences to the governance of the terrains of the state. In this definition, I argue, we can also identify what I have described as the norm of the role of Christianity in nature associated with the new epistemic authority structure of international society.

The Norm of the role of Christianity in nature and the epistemic community

In *Flora oeconomia* published in 1749, Linnaeus characterized the new belief in the order of nature, and the role of Christian humanity in the following words: “The final goal of Creation is man; this the Bible teaches; this the natural sciences teach. Everything is this made for the use of man” (In Koerner 1996, 92). This view corresponds to the more general ideology of a scientific thought that has later been conceptualized as physico-theology. This ideology that I have also referred to above was associated with the emergence of a new idea within natural philosophy in Europe that God had not created anything in vain, but that all in nature was created for the utility of man. The role of the sciences in the rational organization of the governance of the state was, according to this ideology, to find out and describe the mechanical way to best utilize these resources (Sörlin 1988, 35–47). In relation to the increase in exploration of the Swedish Arctic under the Hat rule, this idea translated to a belief by Linnaeus that the collection and charting of foreign plants would be the first step towards being able to determine how they could be used for a new move to push the ecological outer limits of feasibility of settlement further northwards for the benefit of the state and its population (Koerner 1999, 43, 50).

In a letter he wrote to support a botany trip to North America, Linnaeus (1907, 130) describes the possibilities of introducing North American plants such mulberries, raspberries, and oaks in the northernmost parts of Sweden for “fatherland’s utility”. The themes of acclimatization of
foreign plants in northern Sweden are also present in the previously mentioned work on *Oeconomia*, where Linnaeus (1740, 414–415) combines them to the general ideal of useful botany, which includes the better usage of the local plants such as moss and bark by the population through further education. These thoughts on the possibility of improving the productivity of northern Sweden through improving knowledge of its botany, and by introducing foreign plants there, are also present in Linnaeus’ 1731 application for funding for a trip to Swedish Lapland from the Science Society of Uppsala (Linnaeus 1907, 307). The aim of the further exploratory voyages supported by the state is portrayed in all of Linnaeus’ writings on the topic as much scientific as polito-economic (Cooper 2007, 168). In his later works, Linnaeus (1903, 242–244) also went on to devise a more detailed economic geography of improvement for Swedish Lapland, which included the mapping of the resources of the region following his method of the binomial nomenclature. This, according to Linnaeus (1903, 243), would “be of gain to the public and Lapland, where there is now not much more than farmers, to understand, what nature’s Master had so sweetly put in front of their eyes.” The aim of cultivating the northern territories with foreign plants, was also featured in Linnaeus’ prize winning essay from 1754 published in the *Akademiska Handlingar* of the Swedish Academy of Sciences entitled: “Of useful plans plantation in the fjalls of Lapland” (Linnaeus 1754).

The new idea of the role of Christianity in nature presented in Linnaeus’ work, as concluded by Kohler, “radically reconceptualized” the root of the problem of state finances in terms of the positive trade balance, which included the introduction of the belief that “science would overcome ecology” (Koerner 1999, 191). As the earlier general discussion about the institutionalization of knowledge production in Sweden indicated, Linnaeus was not the sole visionary of this perspective. The general consensus of the economic and utilitarian natural sciences practiced in the Swedish Royal Academy of Sciences, and in the national universities in the 1700s, was that any environment could be improved through appropriate labor (Christensson 1996, 48–61). In the previously mentioned words of Carl Gustav Tessin this belief was that, “He who cultivates Svea ground, increases Svea land” (In Bäckström, 1936). I will next move on to further analyze how the two elements of the material constitutional structure can be identified in the discursive justifications for the constitution and mobilization of sovereign power.
for the increased exploration and settlement of these same northern regions by the regional and national governing elites in Sweden in the eighteenth century.

**The developmental paradigm, the new norm of Christianity in nature, and the new governing elite**

The new developmental paradigm described by Linnaeus is identifiable in the new administrative measures adopted for the attempt to increase permanent settlement in the northern parts of Sweden in the eighteenth century. In 1747, on the recommendation of Linnaeus, the Lapland Ecclesiastical Bureau ordered prospective Lapland parsons to learn how to “improve and cultivate the lands... next to their main task of teaching the Lapps” (In Koerner 1999, 78). The same year Pehr Högström (1747), a priest in Lapland, published a new physico-theological, Description of Swedish Lapland, “Description over the Laplands belonging to the Swedish crown”. In this description the conditions for increased settlement in the Swedish Lapland are argued to be excellent. The main precondition for thriving as a settler in the region is, according to Högström (1747, 252–267), “bettering of the ground”, which Högström describes could be achieved through the new mechanisms of scientific agriculture. In 1755 Högström (1755) also held a speech for the Royal Science Society where he developed this theme of the possibility of bettering of Swedish Lapland further, titled, “Reasons for why grain is more hurt by cold in some places in Norrland than others”.

At the beginning of this speech, Högström (1755, 4) describes the potential of the northern parts of Sweden in terms that run very similar to those of Linnaeus, “When our north can praise itself to be, after the order of the Providence, a happy and highly pleased owner of soon all the fruit that freedom and peacefully hurried happy people”. Other local and national Hat administrators, also reflected this idea that the northern parts of Sweden could be turned into profitable farmlands, and in general profitable parts of the country, which I argue represents the new developmental paradigm of international society, in the justifications for the need to constitute and mobilize sovereign resources for the increased exploration of the north.

In 1734 the county governor of West Bothnia, Gabriel Gyllengrip, presented the Estates with a comprehensive report where he narrated the guidelines for establishing a more booming future of Swedish Lapland (Ericsson 1987). The focus on his description was on explaining the previously untapped possibilities for agriculture, forestry, mining, fishing and trade in the
northern provinces. In order to make the horizon of expectation a successful space of experience, Gyllengrip supported the plans of Jonas Meldercreuz, a fortification's official, who tried to turn a site where ore had been found in 1735 near the town of Gällivare in inland in northern Sweden into a profitable mining site. These plans did end up providing the expected profit (Sörlin 1988, 38–39). Gyllengrip’s descriptions of the possibilities of the Swedish North were also used in the justification for the constitution of public funds for the 1741 expedition of one member of the parliament, Carl Willhelm Cederheim and his colleague Arwid Ehrenmalm, to inspect the sites that could be suitable for agriculture in the Swedish North (Sörlin 1988, 38). This exploratory survey journey of Cederheim and Ehrenmalm was also supported by the Swedish Academy of Sciences.

The co-production of the new governing and scientific elites in Sweden at this time is visible in the Foreword to the Ehrenmalm’s later published account of the voyage where, Jacob Faggot, the then Secretary of the Academy, highlights, how this work has the potential to raise awareness of the importance of inquiring into the resources of the Fatherland (In Ehrenmalm 1743). Ehrenmalm’s account that follows Faggot’s introduction is generally positive about the possibilities of “bettering of the Fatherland” through the knowledge that can be gain of the unused resources of such expeditions. However, the agrarian possibilities Ehrenmalm (1743, 144) reports of in the North are much more modest than those first described by Gyllengrip. Ehrenmalm’s work further illustrates how the eighteenth century political order in Sweden was co-produced with the stabilization of the new epistemic authority structure in Sweden. This co-production is also identifiable in the issuing of the 1749 Royal Instructions that were also aimed at increasing the productivity of the northernmost parts of Sweden through settlement.

In the new Lapland bill of 1749 the prospective new settlers were given specific privileges focused increasingly on scientific agriculture rather than mining as before (Poignant 1872, 37–42). The new bill was, however, no more successful in luring settlers into the Swedish north than its predecessor, Lappmarksplakat (Lapland bill) issued in 1673 that had imagined the further settlement of the land through industrial metal extraction (Poignant 1872, 16–27). What occurred was, in sum, a failure to attract new settlers to the region and a lack of follow-up exploratory journeys after Linnaeus and Ehrenmalm. Accordingly, I argue that the changed
horizon of expectation for what was feasible, possible, and reasonable to establish in the Swedish north under the Hat rule described above, is indicative of how the ecological outer limits of the new developmental paradigm and norm of the role of Christianity of the EIS were found through trial and error in the Swedish North. The configurative co-production of science, technology and society is, in turn, identifiable in this Swedish case in the processes that followed the reorganization of state-governance and science after the fall of the Hats from the majority position in the parliament in the 1760s.

Aftermath

The tightening technocratic grip of the state under what Widmalm refers to as “the Leviathan of the Hats” – did not lead to the expected advances in national welfare through the improvement of the terrains with the help of the epistemic communities supporting the new, international epistemic authority structure in Sweden. The failure to turn the new horizon of expectations into comparable spaces of experience contributed to the continuing lack of support for the Hat politicians. In the Parliamentary session of 1765-66 the opposing party to the Hats, the Caps, gained dominance over the parliament. One of the results of this change in parliamentary power was that economic policy in Sweden was reorganized to follow the emerging strand of capitalist economic thought that, unlike the cameralist one, emphasized free trade (Behre 2001, 242). The co-production of the Hat party and the Scientific Academy is, in turn, visible in how the Academy of Sciences began to lose its previous, generous support from the state under the caps. The university chairs in economy were also merged into natural history in Åbo in 1779 and Lund 1786. One of the previous economic chairs in Uppsala became a chair in botany in 1830, and the other one slowly turned more towards law (Wadensjö 1986, 577). By the nineteenth century the new focus on scientific research supported by the state had become industrial and mechanical. This change, I argue, in the next chapter reflects the third revolution in the epistemic authority structure of international society and its corresponding constitutional structure.

The material constitutional structure in the Swedish case

In this case study I first described how the Swedish Hat parliament in the eighteenth century made economy and the development of the new natural sciences the corner stone of its new pacifist foreign and national policy. I then illustrated how these policies led to the increase of the
constitution and mobilization of sovereign resources for the state-supported exploration of the previously little-known northern periphery of the state. I went on to argue that this increase in the constitution and mobilization of sovereign power for the exploration and settlement of the little-known reflected the new norm of the role of Christianity in nature as well as the new developmental paradigm of international society associated with the Scientific Revolution that I referred to in the first part of this chapter. The latter of these elements described progress through the ideal of a positive trade balance, which was thought achievable through the proper, scientific cultivation of the territory of the state. It was connected to the assertion of the former that God had given Christians the special ability to make the environment reveal its secrets and then harvest its gifts through the proper reading of the “Book of Nature”.

Through the discussion of the two elements of the material constitutional structure in the writings of the epistemic as well as governing elite of Sweden I illustrated how the proper reading of the “Book of Nature” was thought to be achieved through the new, manual, scientific labor that the new epistemic communities narrated to be their God-given role in the polity. I concluded the chapter by following the conceptual framework set forth in the case studies of the previous chapter. That is, I argued that the failure of the new epistemic communities and the governing elite to turn the horizons of expectation associated with the new sciences into corresponding spaces of experience, was a failed attempt to push the material ecological outer limits of international society further northwards through settlement by following the new, pysico-theological, cameralist epistemic authority structure of the eighteenth-century international society. As in the previous chapter, I will next move on to a further study of the elements of the new material constitutional structure and the potentially generative power of the associated new epistemic authority structure of international society through a second case study of how the governmental structure of another Christian state in the eighteenth century went through a similar fundamental organizational change.

RUSSIA

The second case through which I study the content of the epistemic authority and material constitutional structures of international society of the eighteenth century consists of the emergence and eastwards expansion of the Russian Empire in the eighteenth and nineteenth
centuries. Because of the different position of the empire in regards to the emergence and expansion of the Christian international society analyzed in the previous chapter, the organization of this case study differs slightly from the Swedish one. I will begin the case study by explaining how the Muscovy state first came to engage with the Christian Renaissance international society of absolutist states. I continue by explaining how it eventually came willingly to aim to become its legitimate member after the “Western turn” of the governing elite of the Muscovy state. Next I outline some of the problems that were associated with this, what has also been described as, the “Western turn” of the governing elite of the Muscovy state. After this more general discussion, I then move onto a description of how one of the results of the turn towards the West was the change in the practices through which the Russian Empire justified and organized its eastwards expansion beginning in the eighteenth century. Only after this more general overview do I move onto the analysis of the content of the eighteenth century epistemic authority and material constitutional structures of international society through this case study. In this analysis I first focus on the institutionalization of knowledge production in the Russian Empire. I then move onto a more detailed discursive analysis of the horizons of expectation in the justifications for the constitution and mobilization of sovereign power for the exploration and the further organization of the governance of what became known as Russian America.

The westward turn of the Muscovy state

In the previous chapter I briefly referred to the discovery of northern Russia by the English merchants in the sixteenth century, which was followed by trade and diplomatic negotiations between Ivan IV and Elizabeth I. Despite this and other connections between the Muscovy state and Western powers in the 16th and 17th century, Russia made no real move to become a member of the Christian society of Renaissance states by adopting its constitutional structures or fundamental institutions (Riasanovsky 1993, 148). In other words, the diplomatic connections between Russia and European powers at this time were established, but the early-modern Western society of Renaissance states did not constitute the primary source for self-identification and socialization of the governing elite of the Muscovy state. This position changed only under the reign of Peter I (1682-1725) (Neumann 2008, 14–23). During the reign of Peter, the Russian governing elite began to actively seek inclusion within European international society. According to Iver B. Neumann, elite efforts to do so were difficult. A persistent problem arose in relation to
shifts in the prevailing norms and values of legitimate statehood and measures of social standing of states in European international society. By the time the Russian governing elites were able to enforce a given set of social practices and system of governance of the Western society of states, the normative foundations in which they had been based had already begun to change. Put simply, the Russians were constantly playing ‘catch up’, and as a result the Russian Empire always fell short of full and equal recognition as member of European international society (Haukkala 2008, 36; Neumann 2008, 24–30).

Neumann (2008, 30) describes the Russian governing elite as “a laggard learner” in relation to its pursuit of international recognition. Accordingly, the study of the constitutional structures of international society of the eighteenth century takes place, in this case, partially in the framework of justifications for territorial expansion of the Russian empire in the nineteenth century. In order to avoid an over simplified and teleological narration of the relationship of Russia and the Western society of states at this time, I have conceptualized the revolutions in the double constitutional structure of the West that are analyzed in the next chapter, as the, problematic to the Russian governing elite, paradigm shifts of the Western international society.

The analysis of the elements of the material constitutional and the epistemic authority structures in this case study proceeds as follows. I begin the analysis with an explanation of how the eastwards expansion of Tsardom of Russia (established in 1547) was organized before the beginning of the reign of Peter I. I continue with a general overview of the co-production of the new epistemic and political communities in the top-down Westernization measures under the reigns of Peter I and Catherine I. After this more general overview of what I argue represents the co-production of science, technology and the new governing elite in Russia, I move onto the analysis of the three elements of the material constitutional structure in the discursive justifications used for the aim of constitution and mobilization of sovereign power into the further exploration and expansion of the ultimate territorial authority of the state into what later became known as Russian America in the nineteenth century.

The eastward expansion of the Tsardom of Russia

Ivan IV renamed the Grand Duchy of Muscovy in 1547 and titled himself ‘Tsar of All the Russians’. The eastwards expansion of the newly named Tsardom of Russia can be considered to have
begun in 1582 when the Cossacks under the leadership of Yermak Timofeevich plied over the Urals into Siberia (McCannon 2012, 96; Mirsky 1947, 68; Dmytryshyn 1991, 22). This geographical and material expansion of the sovereign authority of the state into new regions continued during the following decades along Siberia’s great rivers. This expansion spread the ultimate territorial authority of the realm over the region like a slowly expanding fishnet. By 1628 most of Yenisei, the Lower and Stony Tunguska and Angara rivers were harnessed as transportation and trade networks of the Tsardom of Russia. By the 1640s the regions on the deltas of the Lena, the Amure, Indigirka, Kolyma and the Anadyr rivers had followed suite (Dmytryshyn 1991, 17, 23–25). The difference in the collective social identification of the Tsardom of Russia to that of the states analyzed in the previous chapter is visible for example in how this eastwards expansion of the ultimate territorial authority of the state was not based on a similar Christian justificatory framework as the ones conducted under the mandate of Western Christianity.

Yuri Slezkine (1994, 32) has summed up the differences in rationalization and justification of the eastward expansion of the Muscovy state in relation to the concomitant expansion of the Latin Christendom by highlighting how, “The Russians who followed the sables to the Pacific did not chance on a terra incognita, sought no forgotten Christian king, and did not "discover Siberia". Another indication of the differences in the justificatory foundations of the expansion to those analyzed in the previous chapter is how, as the Tsardom of Russia expanded eastwards through trade, the indigenous populations who agreed to pay tribute in return of protection did not become subjects to the Muscovy state. Their Christianization was also not narrated as part of the purposes of this expansive mission. In the words of Slezkine (1994, 43), the payment of tribute that these populations became subject to as part of the eastwards expansion of the Muscovy state was “an exclusively foreign obligation - the Russians paid taxes to or served their sovereign”. These practices of organization, and justification of the territorial expansion of the state, changed under the rule of Peter I (1682-1725) and the following Westward turn of the Muscovy state.

**The Western constitutional structures and the Russian Empire**

Leah Greenfeld (1993, 191–192) has described the Westwards turn of the Musovy state into the Tsardom of Russia under the reign of Peter I as consisting of a top-down encouragement by the
Tsar for the increase of ties at all levels of human relations between the Eastern Muscovite Empire and the West. Neumann (1995, 1, 10–11) describes these eighteenth century Russian state-building as being characterized of the copying of Western technologies, practices, beliefs and personnel into all levels of Russian administration and culture. Hugh Ragsdale (1995, 59), in turn, calls this change in the approach to governance under Peter I as the first Westernizing “revolution from above”. In the analytical terms of this thesis this Western turn of the Muscovy state can be characterized as the Russian governing elite adopting the values and norms of the constitutional structures of both sides of the double-constitutional structure of the EIS. The elements of both, the material and social constitutional structures of the EIS, are identifiable, for example, in how Peter the Great in the first half of the eighteenth century and Catherine II in the latter half not only adopted the fundamental institutions of absolutist political organization, but also the organizational elements of what I described in the first part of the chapter as its new epistemic authority structure.

The constitutive power of the epistemic authority structure and the need of the states of international society to be able to not only behave according to the basic rules of practice of the social international institutions, but also to “see alike” by following the material ones, is identifiable in Peter’s reforms related to the epistemic authority structure. First of all, during his reign he sent hundreds of young Russians to study abroad. He also arranged for the facilitation of the publication of Russian books. This took partially part through the reform of the alphabet and the publication of the first Russian newspaper. Peter also founded the Moscow School of Mathematical and Navigational Sciences, established the Imperial Academy of Science, a museum of natural science, and a large general library in St. Petersburg. Catherine II continued these institutional reforms. The focus of her reforms was focused on the establishment of the necessary background education for Russians to attend these establishments of higher education. This took place primarily through the initiation of a new system of popular education modeled on the one instituted in the Austrian Empire, in 1774 (Riasanovsky 1993, 287, 290–291). The ideological, constitutive power of the epistemic authority structure of international society and its corresponding material constitutional one is also visible in how the justifications and rationalizations for the sovereign-supported eastwards expansion of the Russian Empire changed during the Westwards turn.
The Eastward expansion of the Russian Empire

The change in the social grounds through which the Russian Empire began to define its social identity associated with the Westwards turn are identifiable in the re-organization of its eastwards expansion. The first indication of this change is visible in the change in the discursive justifications for the constitution and mobilization of sovereign power for the First Kamchatka expedition (1725-30). The main aim of this mission was to find out whether there existed a land bridge between Asia and North America. In justifying the allocation of sovereign resources for this mission Peter explained how: “Now that the country is in no danger from enemies, we should strive to win her glory along the lines of the Arts and Sciences” (In Mirsky 1947, 71). Another example where the constitutive power of the epistemic authority structure of Western international society is identifiable is in relation to the organization of the second Kamchatka expedition (1733-43), also known as the Great Northern or Siberian-Pacific Expedition or First Academic Expedition for the study of the natural resources of the state through large scale surveying work (Graham 1993, 18–20, 25–31).

In justifying the increase of sovereign power for the second major state-supported exploration of the unknown, one of the leading members of the new epistemic elite in Russia, Mihail Lomonosov described Vitus Bering, the Danish-origin head of the first Kamchatka expedition as: “A Russian Columbus speeding between the ice floes, Defying the mystery of the ages” (In McCannon 2012, 121). In relation to the horizon of expectation for the material revenue of this expedition, the little-known Siberia was also framed as the land where the future glory and revenue of the Russian state were to be made through better governance of its terrains through the new sciences and technologies. Next to these changes in the rationale and organization of the exploratory missions of the state in the eighteenth century, the Russian Empire also begun to include state-supported orthodox missionary activity as part of the assertion of its ultimate territorial authority in Siberia. This practice corresponded to the Christian civilizing mission of the member states of European international society and what I have conceptualized as the second dominant aspect of the norm of role of Christianity in nature (Slezkine 1994, 47–72).

Despite the change in the rhetoric and practice of justifying and rationalizing the expansion of the Russian empire through the increase in allocation of sovereign sources for exploration, the
governing elite did not follow these exploratory missions with an increase in the constitution and mobilization of sovereign resources to the further settlement (Wood 2011, 77–83). Instead, the news brought back by the second Kamchatka expedition of the existence of a “great land” across the Eastern (Pacific) Ocean inhabited by large numbers of valuable fur bearing animals such as sea otters (Gibson 1976, vii–viii) prompted a different kind of activity. The first Russians to set foot into this great land were, thus, not state-supported settlers, missionaries, or new surveyors, but fur traders who were not interested in settling the region or furthering sovereign claims for it. That was, until the establishment of a settlement in the region by an explorer and fur trader, Grigorii Ivanovich Shelikhov (1747-95), who has also been described in later Russian historiography as ‘the Russian Columbus’, in 1784 (Wood 2011, 72).

I will next use the establishment of the Russian-American company that followed Shelikhov’s settlement, and the allocation of specific sovereign rights and responsibilities to it during the following eight decades, in the further analysis of the three elements of the material constitutional structure of European international society in the eighteenth century. The study of the justificatory narratives used in the division of sovereignty of the state to the merchant company and the increase of sovereign influence in its governance takes place in a similar manner as the analysis of the English and French cases in the previous chapter. In practice this means two things. First, the analysis of the discursive horizon of expectation is organized according to all three elements of the constitutional structure; the operational sovereignty, the developmental paradigm, and the norm of the role of Christianity in nature. The second organizational aspect in the analysis of the horizon of expectation is that, similarly to the previous Swedish case, I analyze these elements through two sets of materials. The first consists of the accounts of what can be characterized as the new epistemic community of explorers. The second is, in turn, made up of the official documents through which the sovereign authority of state was transferred to the new merchant company. I will begin this analysis by referring to the first establishment of the Russian-American Company.

**Operational sovereignty in the establishment of the Russian-American Company**

Shelikhov was the first Russian explorer to approach the sovereign with a comprehensive developmental plan for the annexation and settlement of the region that now makes up the state
of Alaska into the Empire. After having gained the support of some high level officials in the government, he presented this plan to Catherine II in 1787. It included the creation of a solid administrative, commercial and military network in the region, as well as a trade monopoly given to a new trade company. Catherine II did not grant Shelikhov the license for the sought after trade monopoly, but she did support his plan to establish a permanent Russian settlement there as the basis for Russian claims for the ultimate territorial authority over the region. The establishment of these new territorial claims was complemented in 1799. It was at this time that the follower of Catherine, Emperor Paul (1796-1801) issued the son-in-law and heir of Shelikhov's company, Nikolay Petrovich Rezanov, with the royal assent that Shelikhov had sought after. After he had gained the license, Rezanov successfully founded the company for the trade monopoly, which became known as the Russian-American Company (Borneman 2004, 61-73; Dmytryshyn, Crownhart-Vaughan, and Vaughan 1989, xxx-xxii; Gibson 1976, 10-11).

The constitutive power of the epistemic authority and material constitutional structures of the Western international society are identifiable first in the organization of the new company. By this I first refer to how the Russian-American company was the first joint-stock charter company placed under the Russian Emperor’s protection. Secondly, by this social power I mean how its organization and license were modeled on the Western joint-stock companies like the British East India Company and Hudson’s Bay Company (Vinkovetsky 2004, 161.164, 166–167). Thirdly, the three elements of the material constitutional structure of international society discussed in the previous chapter are also present and identifiable already in the first of the official founding documents of this company.

The August 3, 1798 “Act of incorporation of the United American Company” that was issued by the company itself begins with a discussion of how “the intent and purpose of creating our company” is first, “to support the Christian Greek Catholic mission in America (Dmytryshyn, Crownhart-Vaughan, and Vaughan 1989, 4). The mission was also to “search for new lands and islands in the North Pacific and in southern seas and to attempt to convert newly discovered peoples to Orthodox Christianity and bring them under the suzerainty of His Imperial Majesty” (Dmytryshyn, Crownhart-Vaughan, and Vaughan 1989, 5). The new developmental paradigm of international society focused on biology and cultivation and the new norm of the role of Christianity in nature in the organization of the expansion of the ultimate territorial
authority of Russian empire envisioned by the merchants is visible in how the assertion of sovereignty was not only described to take place through missionary work of people. It also included the increased settlement and cultivation of the terrains. This aim is described in relation to the explanation of one of the other main aims of the company in the 1789 document, which was: "To develop America and on the islands agriculture and livestock breeding, and to keep constantly in mind friendly treatment of American natives and islanders" (Dmytryshyn, Crownhart-Vaughan, and Vaughan 1989, 5).

These activities were also associated with the attempted expansion of the ultimate territorial authority of the Russian state into new regions. This association of the mission with the material, geographical expansion of international society through the expansion of the sovereign authority of its members is identifiable in how the following, first charter of the company that followed this act it was also stated that: “The Company may undertake to make new discoveries, not only above 55 northern latitude, but to the south as well; they may occupy lands they discover and claim them as Russian possessions...provided that these newly discovered territories have not previously been occupied by other nations or have come under their protection” (Dmytryshyn, Crownhart-Vaughan, and Vaughan 1989, 18–19). The 1798 Act and the official charter that was issued after it included the mission of expansion through means of increased settlement and Christianization as well as enforcing titles of discovery. Despite this, the exploratory journeys and the following expansions of the ultimate territorial authority of the state initiated by the company during length of this first charter were associated primarily with the furthering of the main goal of expanding revenue from fur trade in the region (Dmytryshyn 1994, 54; Gibson 1972, 443).

**Agricultural expansion for the purposes of enforcing the fur-trading settlement**

With the granting of the monopoly to the Russian-American Company in 1799 the chief manager of the Russian-American Company hired by Shelikhov in 1790, Alexandr Baranov, became the de facto, if not, de jure governor of Russian America. He held this post until his retirement in 1819 (Wood 2011, 74). In practice this means that it was Baranov who exercised the sovereign authority in the organizing of the expansion of the territorial claims of the company and Russian Empire at this time. The first of such expansions took place after August 1805 when Nikolai Rezanov entered Sitka Sound on board one of the first Russian circumnavigation vessels. At the
time, Rezanov was also the sole official intermediary between Senate, court and the Russian American Company's directors. He agreed with Baranov over the importance of expansion of the territorial claims of the company southwards where there would be potential not only for more furs, but also for the establishment of a provisionary farming colony to support the permanent fur-trapping settlement in Sitka, which suffered from lack of sufficient provisions (Dmytryshyn, Crownhart-Vaughan, and Vaughan 1989, 165–174, 202–211; Gibson 1976, 10–15, 44–52). These plans for external provision of supply also included the beginning of negotiations with the new government of Mexico.

Rezanov sailed to San Francisco in 1806 to follow these plans of organizing a food-supply line to Sitka from Mexico, and to inquire about the possibilities of establishing a Russian agricultural colony for the same purposes in California. He had a successful start in negotiations with the Mexicans. These negotiations, however, came to a halt after Rezanov died in Irkutsk on his way back to St Petersburg to further the deal through an official imperial ratification of the treaty by the Russian government in 1807. Baranov did not go on to continue the negotiations with Mexico. Instead, he furthered the attempt of a southwards expansion of Russian colonization through the establishment of a farming colony for the northern settlement in California. The result was the establishment of the Fort Ross colony just north of San Francisco Bay in 1812 (Barratt 1981, 144–152; Dmytryshyn, Crownhart-Vaughan, and Vaughan 1989, 165–174, 202–211; Gibson 1976, 10–15, 44–52). The Fort Ross settlement was not the only new provision route that was opened during the Baranov rule of the Russian-American company. The mission Razanov had come to Sitka with in 1804 had constituted of the first circumnavigation voyage of Russia, and it had also carried with it supplies for the Russian-American colony (Borneman 2004, 69–70). Even though the focus on fur trading does not reflect the previously discussed attempts to scientifically Christianize nature to bear more fruit, in the horizon of expectation of the new Russian epistemic community of explorers associated with this circumnavigation voyage, the constitutive power of the new epistemic authority structure and the developmental paradigm of the international in the expansive practices of states are identifiable.
In the introduction to the official record of the voyage, the chief commander of the voyage, Adam Johann von Krusenstern, who in Russian history is known as Ivan Fedorovich Kruzenshtern, explains how the main motivation behind this voyage was the attempt to open up Russian trade with Asia. Such trade, Kruzenshtern argued, would enable the Russians to compete with the trade of the Portuguese, the Dutch and the English with China and the Indies. The reason that the voyage had stopped in Sitka was that the plan was that this trade route would use the easternmost parts of the Russian empire in Alaska as one of its main transit points (Kruzenshtern 1813, xxiv–xxv). Kruzenshtern went on to justify the need for the establishment of such a trade-route with a reference to the developmental paradigm of international society and the Westwards turn of the Russian Empire. According to Kruzenshtern (1813, xiii): “It is reserved for the present enlightened government to put the last hand to the improvement of the people which Peter the Great set on foot: and it is now time for us to throw off the yoke imposed on our commerce by foreigners, who, having acquired wealth at the expense of our country, quit the empire in order to spend it in their own; and in this manner withdraw from the state that capital which it would preserve, if the native possessed any means by which his energy and patriotism might be animated and employed to the advantage of his country”.

The reference to the improvement of the people in this account of Kruzenshtern is similar to the top-down technocratic ideal in the Swedish case. The developmental paradigm and the new role of Christianity in nature that is associated with are also present in Kruzenshtern's account of the kind of utility the opening of this trade route would bring to the state. In the proper words of Kruzenshtern (1813, xi), ”The possession of Kamchatka, and of the Aleutic islands, contributes, perhaps, to rouse Russia from that state of slumber in which the policy of the commercial nations of Europe has ever, and with too much success, endeavored to lull her; nor do they witness, without uneasiness, the first attempts of the Russians to shake off the yoke of their masters, and to open a field from which, although their own property, they have heirtho derived no great advantage”. It is in this reasoning that, the reference and constitutive power of the material developmental paradigm and norm of the role of Christianity in nature in the mercantilist and autarkic system of states is especially clear. That is because, according to Kruzenshtern, if the state supported the efforts of making Russian America into a new hub of European East Indian
and Chinese goods trade: “The Russian American Company could not fail of becoming in time of so much importance that the smaller East Indian Companies of Europe would not be able to stand in competition with it” (Kruzenshtern 1813, xxix). This horizon expectation was also approved as feasible and reasonable by the governing elite of the Russian Empire.

**Material constitutional structure and the increase in the influence of the state in the administration of the Russian-American company**

Where Elizabeth I in relation to the Frobisher expeditions had taken over the organization of the mission, Alexander I became one of the main shareholders of the Russian-American company (Kruzenshtern 1813, xxii). There is another indication of the interest of the governing elite to the organization of the settlement of the region associated with the idea of opening up the new trade route. In 1801, the company’s head office was moved from Irkutsk in Siberia to St Petersburg (Dmytryshyn, Crowdhart-Vaughan, and Vaughan 1989, 13–15; Wood 2011, 72–75). What is more, after Rezanov (who had been the Emperor’s "eyes and ears" in company affairs) left St. Petersburg with the first Russian global circumnavigation in 1804, Alexander I introduced a Provisional Committee of three high ranking government officials to replace him. In 1813 the Emperor named the Interior Ministry the principle agency to control and supervise the activities of the Russian American Company, a function that was moved to the Finance Ministry in 1819 (Dmytryshyn 1994, 15–18). Another indication of the increased interest of the governing elite to the colonizing mission in the early nineteenth century is how, from 1818 onwards, most important administrators of the Russian American company were arranged to be government employees, and all the top ranking officials in New Archangel high-ranking Imperial naval officers (Dmytryshyn, Crownhart-Vaughan, and Vaughan 1989, xxxiv–xxxv). As the involvement of the government in the affairs of the Russian-American Company grew, so did the responsibilities of the company in relation to the organization of the administration of the new settlements.

In the second charter to the Russian-American company, in addition to the aforementioned changes in policy-and-decision-making units in St. Petersburg, the administrative network and bureaucratic apparatus in the colonies themselves were enforced. Where all infrastructure, administrative or merchant, had before been more or less under the supervision and control of the Chief Administrator, the new charter transferred this power along with some new privileges as well as new obligations in relation to the colonization of the Russian America to the officers of
the imperial navy and to the Special Council (Dmytryshyn 1994, 19–28). The new charter also included a new definition of the duties the company was described to have in regards to the Russian subjects living in areas entrusted to administration of the company (Dmytryshyn, Crownhart-Vaughan, and Vaughan 1989, 359–363). The charter as well made the company responsible to, “see to it that the colonies under its jurisdiction have an adequate number of priests and clergy, that there are places of worship or appropriate places to conduct religious services...and that these structures are maintained in good condition” (Dmytryshyn, Crownhart-Vaughan, and Vaughan 1989, 359).

The aforementioned responsibilities of the company in the second charter are in line with the previously discussed developmental paradigm and the norm of the role of Christianity in nature as well as with the new content of the organizing principle of operational sovereignty that the two latter enforced. The increased connection of trade to the new descriptions of legitimate mechanisms of operational principle of sovereignty is also visible in how the responsibilities of the Chief Administrator included ensuring the feasibility of the trade embargos, which had been enforced already in 1821 with an Imperial degree prohibiting all unauthorized foreign merchant ships from entering the territorial waters of the Russian-American colonies. The constitutive power of the new epistemic authority structure in the organization and rationalization of the expansion of international society is also identifiable in how these responsibilities of the company and the Chief Administrator were more or less in accordance with other European colonial trade companies that were granted with the right to exert sovereignty of the European states into colonial possessions (Dmytryshyn 1994, 18, 28–36). All of the three elements of the material constitutional structure are also identifiable in the third and most comprehensive company charters, issued in 1841 (Dmytryshyn, Crownhart-Vaughan, and Vaughan 1989, 450–474).

In the third imperial charter the organization of its activities became even less of a commercial enterprise managed by merchants and even more a governmental institution than it had been before (Gibson 1976, 23–24). In relation to the extension of Russian sovereignty the third charter no longer included the privilege of claiming new terrains under the name of the Russian Emperor as the first charter had. The jurisdiction of sovereignty to the company was, instead, limited to previously discovered regions (Dmytryshyn, Crownhart-Vaughan, and Vaughan 1989, 450–474).
Within these areas in California and what is now the state of Alaska, the company was given the right to fulfil activities that represent the three aforementioned elements of the material constitutional structure of the internationals society associated with the material expansion of international society through settlement. In relation to the developmental paradigm, these included establishment of “new settlements and fortified posts where it [the Company] considers them necessary to provide secure living conditions” (Dmytryshyn, Crownhart-Vaughan, and Vaughan 1989, 450). In relation to the norm of the role of Christianity in nature, the company is described as being responsible for providing the offspring of Russian and non-Russian inhabitants of the colonies with “suitable living quarters for them, furnish implements necessary for hunting and farming, provide livestock, domestic fowl and grain for planting, give them sufficient provisions for one year, and insure that they will not suffer deprivation in the future” (Dmytryshyn, Crownhart-Vaughan, and Vaughan 1989, 467–468). In relation to expansion and settlement, the third charter also mentioned special privileges in relation to recognition of a superior social status of officers of the Imperial Navy who have served in the Russian American Company (Dmytryshyn, Crownhart-Vaughan, and Vaughan 1989, 453–453). The horizon of expectation described in this third charter was never turned into a successful space of experience.

**Aftermath**

In the same year that the third commission to the Russian-American Company was issued, the Russian government sold the colonial enterprise of Fort Ross to a private American settler. Then, as a result of discussions that had begun in the Russian government after the humiliation of the Crimean War (1853-1856), the governing elite decided to bring its overseas colonial enterprise to an end. Alaska itself was sold to the United States 1867 (Vinkovetsky 2011, 91–92, 180–183). In relation to the goal of Oriental trade, the abandonment of the mission can be explained by how Russian merchants gained access to Chinese ports in the wake of the Opium Wars (1839-42) when the British and French forces compelled China to open itself to West European economic influences. As a result of this, Sitka was also no longer seen as a necessary or lucrative stopping point for the growth of Russian Oriental trade (Dmytryshyn 1994, 38; Vinkovetsky 2004, 172). The land connection between Russia and the East was also further enforced when, in the 1850s, the government and American Company servitors surveyed and annexed the Chinese-claimed
territories of Sakhalin Island, the Amur Basin and the Maritime Province (Dmytryshyn, Crownhart-Vaughan, and Vaughan 1989, lii). In terms of military power, after the Crimean War the colonies in Alaska and Fort Ross were regarded by St. Petersburg as all but impossible to defend against possible aggression or claims of other states with interest and activities in the surrounding regions, namely United States and Great Britain. As a result, the horizon of expectation of Kruzenshtern for the opening of Sitka as a port and the Oriental trade, and the civilizing mission of lands and peoples according to the Christian developmental paradigm and the norm of the role of Christianity in nature the third charter were never turned into a successful space of experience.

The material constitutional structure in the Russian case

In this case study I first analyzed the Westwards turn of the Russian Empire according to the international institutional framework of the double-constitutional structure of the expansive international society. In doing so, I illustrated the constitutive power of the new epistemic authority structure of international society in the reorganization of the governance of the materiality of states associated with the Scientific Revolution. After the discussion of how the Russian Westwards turn could be used to identify the fundamental institutions on both sides of the double-constitutional structure, I moved onto an analysis of the three elements of the material constitutional structure of international society. The primary research material in this analysis consisted of the discursive justifications that the new epistemic community of explorers as well as the governing elite used to constitute and mobilize sovereign power for the further exploration and settlement of North America.

The three elements of the material constitutional structure of international society that I identified in the analysis of the horizon of expectation associated with this eastwards expansion correspond to the developmental paradigm and norm of the role of Christianity in nature discussed in the first part of this chapter as well as the previous Swedish case. When compared with the analysis of the next chapter this case study further highlights, how the material constitutional structure of international society associated with the change of common epistemology and understanding of the universe in the Scientific Revolution, based on a very different idea of wealth, trade, and material manifestations of progress than the one embedded in
the epistemic authority structure that emerged and stabilized along with the progress of what I call the Industrial Enlightenment.

5.3. Summary

In this chapter I first illustrated how the accumulation of new knowledge associated with the Scientific Revolution can be regarded to have led to the second system-wide revolutionary change in the epistemic authority structure of the European-origin international society. That is, the international institutional structure through which what was known, how it was known, and what the knowledge was deemed good, were defined. In the discussion of the make-up of the new epistemic authority structure I explained how, unlike previous references to the influence of the Scientific Revolution in the emergence and expansion of international society suggest, the new epistemic authority structure that stabilized at this time was not yet modern. The common epistemology and understanding of the universe in international society that it enforced were still deeply embedded in Christianity. After this discussion of the basic parameters of the change in international institutionalization of knowledge production associated with the Scientific Revolution, I contextualized this change in the material side of the double-constitutional structure with a discussion of its concomitant further configuration of the social one. That is what Reus-Smit has conceptualized as the configuration of the geographical limits of sovereignty in the Westphalian society of absolutist states.

I complemented the macro-historical overview of the configurative, rather than revolutionary, co-production of the double-constitutional structure of the first part of the chapter, with two in-depth case studies in the second one. The cases consisted of an analysis of how sovereign power had been discursively constituted and mobilized for the exploration and eventual settlement of previously unknown or little-known northern regions in two states in the eighteenth and nineteenth centuries. I used this analysis to describe the content of the three elements of the material constitutional structure of international society that constituted the legitimacy of the new epistemic authority structure. The first case outlined Swedish foreign, northern, and economic policies under the rule of the Hat Party between 1738 and 1766. The second, in turn, presented a discursive analysis of the justifications given for the constitution and mobilization of
sovereign power for the geographical eastwards expansion of the ultimate territorial authority of the Russian Empire.

Through the Swedish case study, I illustrated how the developmental paradigm of international society at this time consisted partially of an increased interest in the appropriate cultivation of lands that were organized according to a physico-theological, cameralist ideal of state finances as definitive in the standing of the state in the hierarchy of states. In the Russian case I described how it also included an ideal for increasing state finances through the increase of foreign trade, especially with the Orient. Both focuses followed the ideal of state autarky of the new economic sciences. In both cases the connection of this new developmental paradigm to a new norm of Christianity in nature was also identifiable. In the Swedish case the predominance of Christianity as the common culture of legitimacy in both sides of the double-constitutional structure was visible in the redefinition of what was considered as good governance of nature as well as peoples. In the Russian case, the prominence of Christianity as the overarching common framework in international society was, in turn, visible in how this norm influenced the Russian re-organization of expansion in terms of the responsibility of Christians to other peoples.

I described the changes to the content of the organizing principle of operational sovereignty only in relation to the Russian case, and the attempts of establishing permanent settlement in Alaska through new provisionary routes and increased settlement. I illustrated how the horizon of expectation for this material expansion of international society in this case reflected the changes in the two other elements of the material constitutional structure. In short, the eighteenth century epistemic authority structure described good governance in terms of agriculture and biology, and followed a Christian common epistemology and understanding of the universe. In the next chapter I will illustrate how these definitions changed in the following century. By the beginning of the twentieth century the definitions of the legitimate forms of operational sovereignty and descriptions of good and rational governance of the material universe would be increasingly based on modification through specific, new large-scale technological frameworks. These changes, I argue, reflect the third revolution in the epistemic authority structure of international society.
In Chapter Two and at the beginning of Chapter Four, I outlined how the Renaissance Italian city-states system is often considered as the origin of the European system of sovereign states in IR. In Chapter Two I referred to how, in this same analytical context, the transformation of the early-modern system of states into an international society of states is often traced back to the late eighteenth and nineteenth centuries. Bull (2002, 31-36) describes this transformation as one where the “Christian international society” turned into the “European international society”. Buzan and Lawson (2015, 127), in line with Reus-Smit’s (2009, 87-121) analytical framework, characterize this change as one where the polities in Europe were “transformed by a shift in their ‘moral purpose’ from absolutism to popular sovereignty”. This description is consistent with Bull’s more detailed explanation of the processes through which the international systemic-change from Christian to European international society took place. In his words: “After the American and French Revolutions the prevailing principle of international legitimacy ceased to be dynastic and became national or popular: that is to say, it came to be generally held that questions of this sort should be settled not by reference to the rights of rulers, but by reference to the rights of the nation or the people” (Bull 2002, 33). The mention of the American Revolution in Bull’s description highlights how, even though its origins were in Europe, the emergence and development of the nineteenth-century international society took place as much through the transformation of the global as it did for the regional organization of international governance.

Within the general framework of analysis of the origins of the modern international system, the extra-European aspects of the nineteenth-century transformation are often studied in relation to the development of the new positive international legal epistemic communities at this time. As discussed in Chapter Two, Keene characterizes the development of the international institutional framework in this context as the re-organization of Europe’s extra-European order. He argues that while in Europe the focus of the new international society and its positive legal epistemic communities continued to be the furthering of the promotion of toleration, in the extra-European international order it became the promotion of ‘civilization’ (Keene 2002, 97-119). Keene summarizes what the latter practice entailed in the following passage: "Simply put, Europeans
and Americans believed that they knew how other governments should be organized, and actively worked to restructure societies that they regarded as uncivilized so as to encourage economic progress and stamp out the barbarism, corruption, despotism and incompetence that they believed to be characteristic of most indigenous regimes" (Keene 2002, 98-99). Gerrit Gong (1984, 5) follows the same discursive frame of civilization in describing the global, international order that emerged and stabilized in the nineteenth century as “an international society of self-proclaimed 'civilized' states”.

In this chapter I argue that the emergence and stabilization of the European society of ‘civilized’ nation-states in the late eighteenth and nineteenth centuries was co-produced with the concomitant revolution of the old epistemic authority structure and a corresponding material constitutional one of the new European international society. In making this claim I elaborate on similar conclusions on the co-production of science, technology and nineteenth-century international politics made in a number of the abovementioned works. In his analysis of the constitutional structure of the European-origin international society (EIS) of the nineteenth century Reus-Smit (1999, 124–127) argues that it emerged from a crisis of legitimacy of the old institutional order associated with the progress and spread of the Scientific and Industrial Revolutions. Buzan and Lawson (2015, 97-126), in turn, connect the emergence and expansion of the European international society in the nineteenth century with new ideologies of progress and modernity. Buzan and Little’s (2000, 276-288) study of the expansion of international society also includes such a co-productive element, which they analyze in relation to the increase in what they call the “interaction capacity” of the EIS in the late eighteenth and nineteenth centuries. Despite similarities in the argument of co-production in this chapter with those made in these works, my analysis of the change in the epistemic authority structure does not fully resemble these previous co-productive arguments.

The main difference between the approach to co-production of science, technology and the European international society of this chapter, and those of the abovementioned works, is that they describe the progress of ”the global transformation” by focusing on the shifts in political, legal, and economic ideologies (Buzan and Lawson 2015, 1). In such analysis the late eighteenth and nineteenth-century international system-wide change in what was known, how it was
known, and what the knowledge was deemed to be good for is secondary. In my work it is, on the contrary, primary. In short, the focus of analysis in this chapter is on the impact of the Industrial Revolution on the international institutions of the material constitutional and epistemic authority structure. I follow Joel Mokyr (2002, 34-35) in conceptualizing this revolution in the epistemic authority structure of the EIS as the “Industrial Enlightenment”. I elaborate upon this argument, and explain how the analysis of the social roles of science and technology in the emergence and expansion of the EIS in the nineteenth and early twentieth century that follows from it differ from the first mentioned previous analyses in the following manner.

The chapter begins with an overview of Reus-Smit’s analysis of the change in the social and legal side of the double-constitutional structure of the expansive, international society between the late eighteenth and early twentieth centuries. I continue by contextualizing the change that Reus-Smit maps out with what I argue was a connected international system-wide change in what was known, how it was known, and what the knowledge was deemed to be good for in the EIS. This is what Mokyr describes as the “Industrial Enlightenment”. After this overview I engage in a more detailed discussion of the re-organization of what Keene calls Europe’s extra-European order that concurred with the emergence of the new European international society. In doing so, I illustrate how Reus-Smit’s rationale for social and political organization in the maintenance of a specific, organic, social hierarchy in the absolutist Europe that I discussed in the previous chapters did not disappear with the emergence of the new moral purpose of the state in the late eighteenth and nineteenth centuries. It was, rather, translated in terms of ‘civilization’ and transferred into the re-organization of the extra-European relations of European states. After this macro-historical overview of the transformation of both sides of the double-constitutional structure of the expansive European-origin international society, I move onto an empirical analysis of the three elements of what I claim made up the new material constitutional structure of the modern and civilized international society using individual case studies.

In the empirical analysis of the three elements of the material constitutional structure I follow the same method of analysis as in the previous chapters. This means I study them by analyzing the horizons of expectation behind specific decisions to constitute and mobilize sovereign power for the exploration of the previously unknown or little-known northern peripheries in two states in
the early twentieth century. Because the horizons of expectation of these states were not turned into comparable spaces of experience, I conceptualize the case studies as cases of, what in hindsight, can be regarded as failed attempts to geographically and materially expand the EIS further northwards through settlement in the early twentieth century. The first of the cases is the Soviet Union’s northern developmental plan between 1928 and 1952. The second is the Finnish Arctic Ocean policy, which first appeared as part of Finland’s international negotiations for independence between 1918 and 1920 and lasted until 1944.

### 6.1. Industrial civilization

In Chapter Three I presented an overview of the social constructivist study of the genesis of the European international society associated with the concept of an international constitution. In doing so I explained how Reus-Smit’s (1999, 122–134) analysis of the constitutional structures of European international society dates the second fundamental change in these basic institutional practices to the late eighteenth and nineteenth century. Much as Buzan and Lawson have (2015, 15-64) Reus-Smit (1999, 127) describes this change as the emergence of “a new rationale for the state” that replaced the previously dominant ones embedded in “the principles of monarchical patriarchy and divine right”. Like Bull (2002, 33), Reus-Smit explains this transformation through the emergence and stabilization of a new hegemonic conception of what constituted a legitimate, independent political community in the new European international society. In the new, modern, international society, he notes, “the state no longer ruled society according to God’s will, it served the “people” according to their “common will,” the “nation” according to “national interest”” (Reus-Smit 1999, 128).

Reus-Smit (1999, 127) argues that one of the decisive factors in the move from an absolutist to a modern international order, was “the resonance and articulation of these ideological developments with the concrete social and material transformations sweeping late-eighteenth-century Europe”. In more specific terms, he claims that the eighteenth and seventeenth century socio-political, techno-scientific, and economic changes “left the hollow structures of expansive territorial states without a viable justificatory framework capable of supporting them on the new social and economic terrain” (Reus-Smit 1999, 127). In his tracing of the origins of the modern,
international society back to the Scientific and Industrial Revolutions, Reus-Smit ends up supporting a similar argument about the revolutionary co-production of science, technology and the European international society in the nineteenth century than the one I advanced in relation to the co-produced revolution of both of the sides of the double-constitutional structure in the seventeenth century in Chapter Four. By this I mean that the transformations in the common epistemology and understanding of the universe in the late eighteenth century that Reus-Smit associates with the Scientific and Industrial Revolutions co-produced a social crisis of legitimacy of the political and legal basic institutional practices of the previously dominant absolutist international society.

I will next elaborate further on Reus-Smit’s more general co-productive argument about the interlinkages between changes in the hegemonic material and social international cultures in the Western international society in the eighteenth and nineteenth centuries. I do this by contextualizing the change he describes in the social constitutional structure and fundamental institutions of the EIS in the time period between the late eighteenth and early twentieth century with the concomitant revolution in what was known, how it was known, and what the knowledge was seemed to be good for in the international society. Through this contextualization I illustrate how the previous analyses of this co-production overlook one dimension in the influence of the system-wide transformation on the material conditions for the emergence and expansion of the modern European society of civilized states. That is how the emergence and spread of new international epistemic communities associated with the Industrial Enlightenment not only led to an increase in interaction or coercive power of specific European states but also led to a fundamental change in the common epistemology and understanding of the natural universe in the EIS.

The changes in the international institutions that were associated with the spread and organization of the new knowledge and technologies produced in the Industrial Revolution and Enlightenment, I argue, led to the emergence and stabilization of a new material measure of greatness of states as well as nations. The stabilization of this measure, I claim, made some actions in relation to the governance of peoples as well as nature within the international society of civilized nation-states seem inevitable and rational. Following Hacking’s historical ontology
this, in turn, made other actions seem backwards, and alternatives to this form of development, in general, hard to imagine. In terms of this thesis, I argue that the progress of the Industrial Enlightenment led to the emergence and stabilization of a new developmental paradigm and a corresponding norm of the role of Western humanity in nature in the EIS. The changes in these two elements, in turn, redefined what were considered as the legitimate, hegemonic mechanisms for operational sovereignty and material expansion of the international society.

**Enlightenment as rupture**

In explaining the system-wide change in what was known, how it was known, and what the knowledge was good for in the international society the seventeenth and early eighteenth century in the previous chapter, I illustrated how, contrary to conventional wisdom, the Scientific Revolution did not constitute a definitive rupture between religion and raison d’état. Instead of directly challenging the legitimacy of the common identity of the international society in Christianity, the fundamental changes in the epistemic authority structure of the EIS that took place at this time were still in line with the deeply religious culture of Europe. Shapin dates the more definitive rupture between the new empirical and experimental epistemic communities and the overarching Christian ideology of governance to the later eighteenth century. He associates this more definitive rupture between the definition of reason and religion with the emergence and spread of the writings of French Enlightenment philosophers. According to Shapin (1996, 3) these philosophers purposefully narrated this rupture as part of the portrayal of the genesis of their new epistemic community of natural and political philosophers “as radical subverters of ancient régime culture”.

Some of the early general elements of the eighteenth-century enlightenment thought were present already in the first case study of the previous chapter, namely the mid-eighteenth century change in Swedish foreign, science, and northern politics. The elements in question are what Teich (1981, 217) has summarized as the overarching general interest in “improving the conditions on the land...reforming religious affairs advancing education, developing sciences and the arts, and encouraging free thought”. The abovementioned ideological separation of religion from raison d’état was, however, not evident in the Swedish case. That is because it became a common and prominent part of the Enlightenment ideology only later with the accumulation of
what Reus-Smit (1999, 127) describes as the crisis of legitimacy in Christianity as the overarching organizing rationale of the international society. In Carolyn Merchant’s (1989, 2) terms, the previous Swedish case study falls under the time period of what she characterizes as the “colonial ecological revolution”.

According to Merchant the colonial ecological revolution took place during the first two centuries of European overseas colonization. Contrary to the later, “capitalist ecological revolution”, this time period was characterized by extractive practices focused on the extraction of native species from their ecological contexts and their shipping overseas as commodities (Merchant 1989, 2). The “capitalist ecological revolution” that followed this type of expansion took place roughly between “the American Revolution and about 1860” (Ibid.). The dominant dynamics of extraction and expansion that characterize the latter time period were associated with the new mechanistic sciences and the international system-wide economic transformation towards free-market capitalism. The corresponding changes in the dominant dynamics of settlement and expansion, Merchant illustrates, were accompanied with the transformation of human relations with nonhuman elements in the old and new peripheries of the Western international society. She summarizes this change in the following words: “Transportation and industrial technology, the mechanical arts, agricultural chemistry, accounting, and printing came together with capitalist development to form an instrumental mentality” (Merchant 1989, 231).

I argue that Merchant’s distinction and description of colonization according to the colonial and capitalist ecological periods together with Shapin’s dating of the definitive rupture between religion and raison d’état capture one specific element in the techno-scientific change of the nineteenth century that is overlooked in the descriptions of the co-production of science, technology, and the modern international society mentioned in the beginning of this chapter. That is, how the progress and spread of the Industrial Revolution, in combination with that of the Enlightenment, constituted a more general, international system-wide change in what was known, how it as known, and what the knowledge was considered to be good for in the European international society. When this change is contextualized with an analysis of the predominant common epistemology and understanding of the natural universe of the Christian international society I described in the two previous chapters, it can be said to have constituted the third
fundamental system-wide transformation of the epistemic authority and material constitutional structures of the EIS. I will continue the unfolding of this argument and why it matters for the study of the ideological origins of the expansion of the EIS in the late eighteenth and nineteenth centuries by contextualizing it further with Joel Mokyr’s (2002, 34–35) analytical framework of the “Industrial Enlightenment”.

**Industrial Enlightenment**

Mokyr develops the argument of what he calls the “Industrial Enlightenment” in relation to his analysis of the Western economic history of the eighteenth and nineteenth centuries. In a similar manner to Merchant, Mokyr argues that, at this time, a novel instrumental mentality emerged and stabilized in the Western international society. According to Mokyr the origins of this change were in the establishment and spread of new instrumentally oriented utilitarian networks of international epistemic communities. These new epistemic communities “sought to understand why techniques worked by generalizing them, trying to connect them to the formal propositional knowledge of the time, and thus providing the techniques with wider epistemic bases” (Mokyr 2002, 35). Theodore Porter and James C. Scott have illustrated how this desire to increase the epistemic bases eventually led to the accumulation of problems of distance and trust associated with the concomitant continuing expansion and increased centralization of governance of the member-states of the European-origin international society. Their analyses also explain how these problems were eventually solved with increased international standardization of measurements in the natural, technical, as well as social sciences (Mokyr 2002, 58–61; Porter 1996, 18–32, 37–41, 45–48; Scott 1998, 25–33).

I argue that the emergence and accumulation of problems of distance and distrust described in Scott’s and Porter’s works, and the international, institutional organization of their solutions, represent the third revolution in the epistemic authority structure of the EIS. In terms of the analytical framework of this thesis, this translates to an argument about the emergence of a new epistemic authority structure of the EIS in the late eighteenth and nineteenth centuries. In keeping with the constitutive hierarchy of material international institutions, this argument also translates to a claim about the emergence of a new material constitutional structure through which what was possible, feasible, and reasonable in material development of terrains was
defined in the Western international society. Similar to previous transformations in the epistemic authority structure of the EIS, one of the indicators of the international system-wide changes in the hegemonic ways of governing the natural and material universe and materially measuring the greatness of states beyond the military material is a similar system-wide institutionalization of the new forms of industrial knowledge production in the member-states of the modern international society. This change began to stabilize in the late nineteenth and early twentieth century.

**Nineteenth century epistemic authority structure**

As I mentioned above in relation to the ideological and epistemic connection between the Industrial and Scientific Revolutions, Mokyr (2002, 28–77) connects the change in observing, understating, and manipulating of natural forces in the Industrial Revolution to the emergence and spread of the experimental scientific method and associated mentality and culture in Europe beginning in the late seventeenth century. He notes that: “Scientific culture led to the gradual emergence of engineering science and the continuous accumulation of orderly quantitative knowledge of potentially useful natural phenomena in “all matters mineral, animal, and vegetable”” (Mokyr 2002, 41). Much like the accumulation of new empirical knowledge in the previously analyzed revolutions in the epistemic authority structure of the EIS, this change in the common epistemology of this international society was accompanied with a change in the common understanding of the natural universe that pierced through all aspects of political organization of human affairs in it. Kristine Bruland and David C. Mowery (2006, 351) discuss this co-production of the change in patterns of learning, knowledge accumulation, and political organization in the late eighteenth and early nineteenth century as having been “an economy-wide process that involved technological, organizational, and institutional change”.

Despite of the emergence, accumulation and co-production of the new mechanic and industrial knowledge that Reus-Smit argues co-produced a crisis of legitimacy of the previous social constitutional structure of the international society embedded in Christianity, it was only at the beginning of the twentieth century that the growth of industrial research was stabilized into a new institutionalization of knowledge production in the modern international society. It was at that time that new research and technical universities were established and spread from
Germany to the United States contributing to the growth of private as well as state-supported industrial research (Bruland and Mowery 2006, 360–364; Mokyr 2002, 95–104). In relation to this later international institutionalization of the more general change in what was known, how it was known and what the knowledge was deemed to be good for in the international society, Bruland and Mowery (2006, 355) explain how: “Patterns of learning and knowledge accumulation during the Industrial Revolution may have begun as tacit and practical, but during the eighteenth and early nineteenth centuries, more and more of this learning was codified, accelerating the diffusion of industrially relevant knowledge across sectors”.

The change in what was known, how it was known, and what the knowledge was deemed to be good for that began in the late eighteenth century, was stabilized in the nineteenth century, and finally institutionalized in the early twentieth century. This definition of the process of the third system-wide revolution in the international epistemic authority structure corresponds to the definitions of co-production of science, technology and the international society in the analyses of the expansion of international society at this time discussed in the beginning of this chapter. What I argue is overlooked in the previous analyses of this co-production, is how this change in the epistemic authority structure of the EIS was also accompanied by the emergence and stabilization of a new common understanding of the natural universe. That is to say, how the progress of Industrial Enlightenment enforced and introduced a completely new understanding of what was a possible, feasible, and reasonable activity in human relations with the material world in the international society. In the framework of this thesis, this argument translates to the emergence of not only a new epistemic authority structure but also of a new material constitutional structure in the EIS at this time. I will describe the three elements of this new material constitutional structure in detail in the second part of this chapter. Here I will, instead, explain its constitutive power in relation to how the emergence and stabilization of the new epistemic authority structure can be seen to have been co-produced with the emergence of the new moral purpose of the state in as well as outside of the European international society of civilized states.

**Seeing like a state in the international society of states in the nineteenth century**

The emergence, stabilization and spread of the new forms of knowledge and knowing associated
with the Industrial Enlightenment was accompanied with the spread of what Margaret Jacob (1988, 168) describes as a new liberalist presumption of “constant material improvement intended for the general good”. The emergence of this new presumption, I argue, was translated into a material measure of the greatness of a state through a process of co-production of the emergence of the new industrial epistemic authority structure and what Reus-Smit (1999, 111–114) describes as the modern constitutional structure of the EIS. This social normative framework consisted of a moral purpose of the state in individual flourishing and an organizing principle of liberal sovereignty. I claim that Reus-Smit’s analysis of this change does not sufficiently deal with how it was connected to the stabilization of a new common cultural definition of the international society in civilization, and how this change in the self-identification of the members of the international society with each other influenced the re-organization of Europe’s extra-European order. As explained in Chapter Two, Keene (2002, 97-119) describes the difference between these two international orders by referring to the order of Reus-Smit’s analysis as the European order of toleration, and to the other order not included in Reus-Smit’s analysis, as the extra-European order of civilization. I will next describe the co-production of the change in these two orders and the epistemic authority structure of the late eighteenth and nineteenth centuries by referring to some arguments that were used in the definition of the borders of the European and extra-European order in the nineteenth century.

The influence of the new common epistemology and understanding of the natural universe associated with the progress of the Industrial Enlightenment in defining the difference between the new European and extra-European orders is evident in the arguments of the British classical, liberal thinker, Richard Cobden, against the inclusion of the Ottoman Turkey’s into the EIS in 1868. According to Cobden (1868, 207): “Equally uninfluenced, after nearly four hundred years’ contact with Europeans, is the Osmanlo’s condition by the discoveries and improvements of modern times. A printing press may be said to be unknown in Turkey; or, if one be found at Constantinople, it is in the hands of foreigners. The steam engine, gas, the mariner’s compass, paper money, vaccination, canals, the spinning-jenny, and railroads, are mysteries not yet dreamed about by Ottoman philosophers”. Another example of the constitutive power of the new epistemic authority structure in the organization of the social expansion of the EIS is present in Walter Bagehot’s Physics and Politics from 1872. In this volume, Bagehot directly attaches global
civilization with industrialization and proclaims the two as the universal standard for
development: “And not only may the miscellaneous races of the world be justly described as
being upon various edges of industrial civilisation, approaching it by various sides, and falling
short of it in various particulars” (Bagehot 2013, 16). This reference of Bagehot is, similar to
Cobden, from the British context. I argue that they, however, reflect the new epistemic authority
structure of the EIS through which the states of the European international society had begun to
identify with each other as well as to justify and rationalize their expansion in the late eighteenth
and nineteenth centuries. The overarching common ideological bases of this identification of the
EIS were no longer in Christianity, but in ‘civilization’.

Buzan and Lawson discuss the nineteenth century system-wide changes in the common
identification between the member states of the EIS in terms of the emergence of a new common
collective identity for the Western international society that was based on a novel idea of
progress. In their proper words: “During the long nineteenth century, European thinkers began
to connect notions of progress to ideas of civilizational superiority, generating a linear trajectory
from Ancient Greece to modern Europe in which ‘progress’ was considered to be self-generating
through characteristics internal to the West” (Buzan and Lawson 2015, 98). This new trajectory
of progress in human affairs, I claim, was accompanied with a new idea of the role and
responsibility of Western humanity in nature, which encompassed not only the human but also
the material world. This ideal was associated with the re-codification of the justifications of
expansion of the ultimate territorial authority of states outside as well as inside of Europe, which
was, in turn, in accordance with the above described idea of industrialization as progress. This
change in the common collective ideology of the European international society is also referred
to in the existing analysis of its emergence and expansion.

Expansion of the European international society and civilization

The central concept around which the collective identity of the European society of states
stabilized in the latter part of the nineteenth century ceased to be in Christianity and started to
be associated with the notion of ‘civilization’ (Anghie 1999, 445–482; Grewe, 2000; Koskenniemi
2002). In relation to the legitimation of the material, geographical and the social expansions of
the EIS that steadily progressed throughout the eighteenth century this means that the new,
dominant point of identification and legitimacy for members or aspiring members of the EIS was also no longer Christianity but civilization (Grewe 2000, 445–482). In his overview of the predominant structural elements of the more or less shared western concept of civilization Grewe draws a similar link between civilization and the progress of industrialization as Buzan and Lawson above. He summarizes the general characteristics of the discussion on civilization in the nineteenth century in the following manner. They were first closely linked with the ideas of progress and development; second, they had a strong emphasis on the intellectual as well as the technical/industrial side of progress; and third, they held the conviction that European civilization was superior in comparison to all others (Grewe 2000, 448). In his study of scientific and technological standards for evaluation of cultures from the seventeenth century until twentieth, Michael Adas also highlights how the stabilization of the international legal standard of civilization as the bases of collective identification of the members of the previous Christian international society in the nineteenth century was not completely distinguishable from the emergence of a new hegemonic, material culture of Europe.

Adas summarizes the overall role of specific forms of Western science, and especially technology, in the international-system-wide discussion on civilization in the nineteenth century as follows: “Many nineteenth-century writers equated the advance of European colonization with the triumph of science and reason over the forces of superstition and ignorance which they perceived to be rampant in the nonindustrialized world. Spokesmen for imperialist expansion argued that without Western science and technology there was no hope for improving the impoverished masses of China and India or of civilizing the “savages” of Africa” (Adas 1989, 204). Much like the works of Keene, Anghie, and Grewe, the international society dimensions of Adas’ study focus on the standard of civilization as a measure for the entrance of new members to the European international society or as a justificatory framework for its expansion in the form of Western empires. In terms of the organizational principle of operational sovereignty it is related to expansion that continued to follow the Roman law term of occupation, which, in the nineteenth century also became combined with the idea of civilization. In the words of Andrew Fitzmaurice (2014, 267), in the nineteenth century: “Commonly, positivism, natural law, historicism and public opinion became part of one synthetic and eclectic way of understanding law in a space where there was an absence of property or sovereignty”.

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Unlike Fitzmaurice, Adas, and Keene, whose works explain the social role of science and technology in the re-organization of the basic rules of practice of European states in the extra-European order, I argue that the new material standard of civilization also constituted a new material constitutional structure that informed the basic rules of practice for peaceful territorial appropriation in both the intra-European and extra-European international orders. By this I mean that the new standards for the materially measurable civilization were translated into a new hegemonic framework through which states justified and solved their new territorial claims through peaceful means in the international society. In terms of this thesis, I argue that the above described new industrial epistemic authority structure that defined the legitimate measures for what is was like to “see like a state in the European society of ‘civilized’ states”, was accompanied with the stabilization of a corresponding new material, constitutional structure. This normative complex consisted of a new definition of the material moral purpose of a state, that is, a new developmental paradigm, the norm of the role of Western, civilized humanity in nature, and the organizational principle of operational sovereignty.

I will next unfold this argument about the third emergence and stabilization of a new epistemic authority and material constitutional structures of the EIS along with Reus-Smit’s new moral purpose of the state in the nineteenth century in a similar manner as in the previous chapters. That means I will analyze the three elements of the material constitutional structure, which I argue supported the legitimacy of the new, industrial and mechanical, epistemic authority structure, empirically. I do this similarly to the way I have analyzed the makeup of these elements in the previous chapters. That is by applying the method of controversy studies from the Sociology of Scientific Knowledge (SSK) to the analysis of the organization of the material expansion of the EIS through settlement in the early twentieth century. Before I move onto the case studies of what, in hindsight, can be regarded as failed attempts to expand the ecological outer limits of settlement in the international society further northwards, I will give a brief introduction to how their analysis unfolds.
6.2. The nineteenth century developmental paradigm

The first case through which I will analyze the epistemic authority and constitutional structures of the international society that I argue emerged in the late eighteenth and stabilized in the nineteenth century is the northern developmental plans of the Soviet Union between the years of 1928 and 1952. The analysis of the epistemic authority and material constitutional structures of the EIS in this case study differs from the case of the material expansion of the Russian empire I presented in the previous chapter in one significant aspect. In the previous case study of the justificatory frameworks for the expansion of the Russian Empire further northwards through settlement, the analysis of the epistemic authority structure and material constitutional one of the international society took place from the standpoint of an outsider polity attempting to enter the EIS by adopting its standards. In the Soviet case the analysis of the material constitutional structure of the EIS, in turn, takes place through the analysis of the science, technology and settlement policy of the new hegemon of what I argue was a developing, new, in many ways in competition to the Western international society, Eastern one. I argue that the material constitutional and epistemic authority structures of the EIS are identifiable in the policies of this new adversary to the EIS, because, while it abandoned the social moral purpose of the state of the EIS, the Soviet Union, continued to follow its material constitutional and epistemic authority structures. As will be illustrated below, it adopted these international institutions of the Western international society in order to illustrate the superiority of its alternative to the normative complex analyzed by Reus-Smit, namely the moral purpose of the state, through the peaceful means of industrial and material development focused on the conquest of nature.

One of the consequences of the focus on the peaceful nature of the attempts to expand the ecological outer limits of settlement further northwards in the Soviet Union as a sign of its progressivity and superiority over the Western society of civilized states is that, like in the previous case study of Sweden, I do not directly engage or describe the organizational principle of operational sovereignty in this first case study. Like in the previous chapter, this element of the material constitutional structure is, instead, part of the second case study through which I analyze the material constitutional structure behind the epistemic authority structure in this chapter. This second case consists of the analysis of Finland’s Arctic Ocean policy that appeared
as a part of its negotiations for the external recognition of its independence between 1918 and 1920, and then continued in various forms until the Second World War. I will begin this analysis of the new material constitutional structure of the civilized and modern Western international society that I argue stabilized as an international institution in the Industrial Enlightenment through these two case studies with an introduction to the transformation of the Russian Empire into the Soviet Union. As this introduction includes an explanation of how the Soviet Union came to present itself as offering an alternative international society to that of the European society of ‘civilized’ nation-states, I begin this overview with a more detailed description of the Westernization efforts discussed in the previous chapter, and the rise of the three dominant strands of Russian nationalism that were associated with this Westwards turn of the Muscovy state.

SOVIET UNION

In discussing the Westward turn of the Russian Empire in the seventeenth century in the previous chapter, I illustrated how Russia adopted both of the constitutional structures of the double-constitutional structure of the expansive international society of absolutist Christian states in the early eighteenth century. In this discussion I mentioned how this adoption was problematic. However, I did not elaborate on the specific problems associated with this top-down imitation of Western fundamental and constitutional institutions. One of these problems with this imitation by the Russia Empire is associated with how, as explained in the previous chapters, Reus-Smit argues that the moral purpose of the state in the absolutist society of states was based on an idea of a divine and organic societal structure. The execution of this structure often took place through the organization of different estates. In order to adopt this divine and organic structure of estates, Peter I introduced a new base for the determination of the social status of Russians in 1722 called the Table of Ranks. This administrative tool reinforced the earlier laws of obligatory universal and permanent service in the state. At the same time, however, it expanded the possibility to achieve, through service, the previously based on birth privileges of nobility by people of low birth as well as foreigners. The pre-Petrine nobility was able to keep some of their privileges, but the social status of this nobility as well as the lower ranks began, predominantly, to be defined by achievement rather than birth (Greenfeld 1993, 208, 215–223).
According to Leah Greenfeld, the introduction of the Table of Ranks led to the creation of two strands of nobility in Russia. The first strand was the pre-Petrine Ancient nobility and the second those who had gained their status through service according to the Table of Ranks. Greenfeld (1993, 208, 215–223) argues that it is the culmination of the following crisis of identity of the two nobilities that eventually led to the crisis of legitimacy of the imitative Westernization in Russia at the end of the eighteenth century. In more specific terms, Greenfeld claims that at this time the two strands of nobility found a more or less satisfactory common ground for their demands of more permanent social power in the idea of nationality. In the words of Greenfeld: “There was in nationalism the assurance of a modicum of unassailable dignity, dignity that was one’s to keep. And so, Russian aristocrats were gradually turned nationalist; they were beginning to experience the therapeutic effects of national pride, and their identity as noblemen was giving way to the national identity of Russians” (Greenfeld 1993, 220). This rise of new forms of nationalism, I argue, is related to the specific problems the Russian Empire faced as an outsider state that attempted to become a member of the EIS by adopting its constitutional structures. I will next explain how the rise of new nationalistic movements that Greenfeld refers to became associated with the continuous rift in attempts to define the role and identity of Russia in the global political universe within the state.

**Three strands of Russian nationalism**

Neumann asserts that Russian nationalism in the eighteenth century developed in three strands. These strands, Neumann (1995, 13) claims, persisted more or less throughout the first third of the nineteenth century. The first strand of nationalism is what Neumann calls constitutionalism. It followed the emergence of a new constitutional structure of the late eighteenth century Western international based on what Reus-Smit conceptualizes as the legislative norm of procedural justice and liberal sovereignty. The second strand of nationalism that emerged at this time was advocated mainly by the governing elite and the tsar, Alexander I. In this strand of political ideology, the new republican developments in Europe that followed 1789 were seen as following an erroneous path of development. Truly progressive Europe this strand argued, was that of the previous enlightened absolutist Christian rulers (Neumann 1995, 13, 17–18). The third strand of nationalism was what Neumann conceptualizes as the Romantic nationalism. This
movement was supported especially by members of the old nobility. It was built on an idea that Europe was inferior to Russia, which was God's chosen state and inhabited with God's chosen people (Neumann 1995, 26-27).

The constitutionalist position in Russian nationalism diminished at the state-level along with the dissolution of the Decembrist movement, which had been its main advocate in the 1840s. After the Crimean War it finally conglomerated around some new local organs of government. With this demise of the constitutionalist strand, the two other strands became the dominant representations of Russian nationalist thought. In relation to material culture, they supported two separate developmental paradigms. The slavophiles associated with Romantic nationalism argued against the Westernization of the organization in the governance of people as well as the natural and material environment. The Westernizers, who represented a specific strand of the second nationalist ideology, though hostile to the predominant model of governance of peoples in the Western international society of states, continued to treat the Western developmental paradigm and its epistemic authority structure as the universal standard that the state should follow (Neumann 1995, 27, 40-60). In other words, even though the new social moral purpose of the state of the EIS was not adopted by the Westernizers, the governing elite continued to debate the feasibility and legitimacy of its material developmental paradigm. This debate continued to be prominent during the rise of socialism in the state.

**Slavophiles and Westernizers in Russian socialist thought**

In relation to the development of socialist thought in Russia, the first Westernizing socialists believed that Russia should pick and choose from Europe's experiments with industrialization and socialism in order to arrive and develop a specific Russian strand of socialism. Towards the end of the nineteenth century this strand of nationalism, however, became mainly focused with the national romantic Russian exceptionalism. As such it was no longer associated with Westernization but more with Slavophilism (Neumann 1995, 40-60). The transformation of this strand of socialism did not lead to the disappearance of the Westernizing strand. Instead, according to Neumann a new strand of this thought soon emerged after the disintegration of the previous one. Its main argument was that "history was about to churn Russia through exactly the same developmental stages that Europe had already passed, and then hurl both Europe and
Russia into a socialist revolution” (Neumann 1995, 41). Before the 1917 October Revolution the Slavophile socialists argued for the necessity of a coup in order to keep industrialization out of Russia. Their counterpart, the Westernizing Bolsheviks, wished to overturn the tsarist government in order to surge Russian industrialization further (Neumann 1995, 61–102). After the October Revolution it was the position of the latter that became dominant in the reorganization of the governance of the new socialist state. It is because of this ideological connection that, I argue, we can identify the common epistemology and understanding of the universe of the Western international society in the beginning of the twentieth century in the plans for scientific and technical development in the Soviet Union at this time. In order to further illustrate this Westernizing position of the Bolsheviks in relation to the development of material culture I will next give a brief overview of the re-organization of the administration of Russia during the first years after the Revolution.

The Westward looking socialist state

At the onset of their coming to power, the Bolsheviks declared open admiration of the material culture in the capitalist West (Fitzpatrick 1984, 18-21, 102, 104; Kangaspuro 2006, 12, 43). In the words of Sheila Fitzpatrick (1984, 102), the social transformation the Bolsheviks imagined Russia was destined to undergo would be built on the material transformation “brought by capitalism in the more advanced countries of the West”. The admiration of Western industrial development, which I argue is one indication of the constitutive power of the new industrial developmental paradigm of the EIS, is connected to the writings of Karl Marx. Marx, whose ideas the Bolsheviks followed, considered the existence of a modern industrial economy employing a class-conscious industrial working class as the prerequisite for a socialist society. In this sense, Marxism was, as observed by Kangaspuro and Smith (2006, 12), “a stepbrother to the ideas of the European Enlightenment at the time of industrialisation, and Russian Marxists shared the vision of a ‘modern industrialised world’ and enlightened society with their western ‘modernist’ counterparts”. The main problem with the October revolution in this aspect of Marxism was that at the time of the revolution the Russian Empire had not yet established a modern industrial infrastructure.
Even though industrialization advanced somewhat between the abolition of serfdom in 1861 and the First World War, Russia remained a largely peasant country. In order to establish the material preconditions for the establishment of a communist state, the new Westernizing socialist elite adopted an administrative tool that was very similar to the cameralist model of governance analyzed in the Swedish case study of the previous chapter. That is, they created a new centralized governing and epistemic elite to control all aspects of economic, social and governmental planning. In doing so, much like the Hat party in eighteenth-century Sweden, they rejected the idea that a society was capable of self-rule or spontaneous transformation (Davies 1998, 18–19, 21, 30; Fitzpatrick 1984, 93–94; Kangaspuro and Smith 2006, 12–13; Munting 1996, 244, 329). Unlike the cameralists, this new Soviet governing elite followed the nineteenth-century industrial idea of what was possible, feasible, and possible in relation to the enlightenment and industrial science. In the words of Fitzpatrick: “The Bolsheviks thought they were immune from utopianism because their socialism was scientific” (Fitzpatrick 1984, 76). In 1921 this attempt at a socialist techno-scientific re-organization of the administration of the state took the form of the New Economic Policy (NEP). I will next introduce the NEP and some of the large-scale technological projects that were undertaken under it as reflections of the epistemic authority structure of the EIS that stabilized in the Industrial Enlightenment. I argue that these projects reflected this structure because they became a central element in the Bolsheviks’ aim to demonstrate to the Western international society the superiority of Communism as the socio-economic bases of political organization.

Epistemic authority structure

The NEP was built upon the general Westernizing developmental policy of the Bolshevik party. Unlike in the Western international society, this Soviet version of the administrative organization of industrial modernization was built on an idea that in order to be most efficient and beneficial, it should be scientific in character and imposed from above (Davies 1998, 30). The most valued fields in this modernization effort were heavy industry, railway transport, banking, and foreign trade. These were made completely state owned and regulated. Small-scale industry and agriculture in turn were opened to private enterprise. In other words, the NEP was based on a money-based mixed economic model (Heywood 1999, 2). In his justifications for these steps, which many within the socialist block saw as moving backwards towards what was considered as
“irrational” capitalism, Valdimir Lenin relied on the Western material developmental paradigm and the need to follow and surpass it (Fitzpatrick 1984, 87–88, 94, 103; Heywood 1999, 5). In a Political Report of the Central Committee that Lenin delivered to the Eleventh Party Congress (March-April 1922) he explained how the expertise of the old technical and scientific experts considered as part of the capitalist bourgeoisie was essential to the development of the state and specifically to the establishment of the socialist state in the following words: “Communists (could) learn from the bourgeoisie and guide them along the road we want them to travel” (In Banerji 1997, 45–46).

The above quotation from Lenin illustrates how, unlike in the previously analyzed case of the Russian Empire, the adoption of the material constitutional and the epistemic authority structures of the European international society of ‘civilized’ states was not done in order for the Soviet Union to count as a legitimate member of this international society. Instead, it was adopted in order to illustrate, in the field of governance of nature and the material world, how the Soviet form of governance was superior to the Western one. In terms of this thesis this means that while abandoning the moral purpose of the state of the twentieth-century international society, the Bolshevik governing elite adopted its epistemic authority structure and the supporting material constitutional one. The first mentioned technologies that were chosen for state support first can, as a result, be interpreted to reflect the material signs that were most important for illustrating development and greatness within the Western society of states. In the terminology of Paul Josephson (1995, 520), they were the ones the Soviets assumed to have the greatest cross-national social, cultural, and ideological significance; the largest display value. I will next analyze the three elements of the material constitutional structure that the stabilization of the new epistemic authority structure was based on, through an in depth analysis of the horizon of expectation associated with an attempt at pushing the ecological outer limits of settlement further northwards in the Soviet Union beginning in 1928. Before moving onto this analysis I will briefly explain how one of the elements in this analysis differs from the material constitutional structure of the Western international society.
Norm of the role of Eastern humanity in nature

The attempts to increase settlement in the Soviet north are associated with the replacement of the NEP with the five-year-plan economy under the leadership of Joseph Stalin beginning with 1928. As will be discussed below, in these plans the Soviet Union continued to compete with the West according to its epistemic authority structure and its hegemonic developmental paradigm. In the new form of Stalinist central planning, the element of the norm of Western humanity in nature was, however, replaced with what Scott calls its “high modernist” version. That is a supreme self-confidence in the continued linear progress brought about by the scientific, industrial and technical revolutions, which were thought to yield their greatest good if they were applied through a top-down political organization to every field of human activity (Scott 1998, 88–90). In order to distinguish between this high modernist version and the original Western one in the material constitutional structure, I conceptualize this element of the material constitutional structure in the Soviet plans as the norm of the role of Eastern humanity in nature.

The difference between this norm and its Western counterpart is evident already in the two dominant administrative features of the new Stalinist planned economy, which beginning with 1928 took the form of Five-Year Plans. These are examples of top-down Sovietization of the administration of knowledge production, and an heightened expectation for the speed in which the change in the material conditions in the Soviet Union was expected to take place (Fitzpatrick 1984, 97–109).

In order to justify their research and institutional agenda in the eyes of the party, after what Stalin conceptualized as the Great Break in 1928-29, Soviet scientists had to adopt the lexicon, polemical style, and models of group behavior of the Communist Party in their work (Krementšov 1997, 25–27, 32). What this means is that it was not only in the context of capitalism and the bourgeoisie classes that the imagery and vocabulary of war was adopted in the administrative and educational practices of the Stalinist revolution from above (Fitzpatrick 1984, 110–113). Within the epistemic communities a new war was also declared against geography, or more generally, against nature. The production of knowledge of the material and technical worlds became, as in the Western developmental paradigm, aimed at the control and modification of nature. In the Soviet Union, overcoming natural obstacles was, however, also framed in terms of
the battle against the previous inefficient old social order and treated as a manifestation of the superiority of the communist moral purpose of the state. The new norm of the role of Eastern humanity in nature associated with these changes is evident in the general goals and expectations set for the first two five-year plans.

The First Five Year Plan introduced in 1929 was seen by the planners as the first step in turning the developmental paradigm of the West into an industrially powered, monolithic, centralized, and all forms of life encompassing scientific socialism (Fitzpatrick 1984, 97–109; Pynnöniemi 2006, 244–245). The general goal of this First Five Year Plan was to facilitate the large-scale reconstruction and mechanization of industry and agriculture (Fitzpatrick 1984, 118–134; Molotov and Kuibyshev 1934, 13). In the Second Five Year Plan the focus was on illustrating the superiority of Soviet governance through the Sovietization of the previous peripheries of the state. In the words of Stalin during the XII Congress of Communist Party in 1923: “In addition to the schools and language, the Russian proletariat must do everything to ensure that centers of industry are set up in the outlying districts in the culturally backward republics – which are backward not because of any fault of their own, but because they were formerly looked upon as sources of raw material” (Mikhaïlov 1937, 51).

In briefings on the Second Five Year Plan from the XVII Congress of Communist Party in 1930, both Vyacheslav Molotov, the Chairman of the Council of People’s Commissars (1930-1941) and Valerian Kuibyshev, one of the principal economic advisors of Stalin and the director of the state planning committee (Gosplan), highlight how introducing industry to what they called “backwards regions” was central to this new plan. Industrializing the periphery would discharge the Soviet system of the irrationality of capitalism, because it would, following the rationality of Lenin, bring industry closer to raw materials and thus reduce the cost and time of transport and energy. The economic improvement was associated with the general civilizing mission of the Soviet state that was also adopted from the Western society of states as this administration was striving to bring with it cultural improvement to “the backwards peoples” in such regions (Kuibyshev 1934, 47; Molotov and Kuibyshev 1934, 60–68). The enforcement of the dichotomy between the moral purpose of the state in the Soviet Union and the European international society of civilized states is also evident in the briefings of Molotov and Kuibyshev. That is,
because the peripheral regions at the focus in the Second Five Year Plan are argued to have suffered under “backwardness of the colonization of the tsarist Russia” (Molotov and Kuibyshev 1934, 60–61).

The two peripheries highlighted in the speeches of Kuibyshev and Molotov in relation to the Second Year Plan are the Far East and the North (Kuibyshev 1934, 47–48; Molotov and Kuibyshev 1934, 64, 132). According to Kuibyshev, during the Second Five Year Plan the forestry and timber industry in the northern regions would be industrialized and rationalized; the coal and diesel depositories along the river Petshora would be developed to support the Northern fleet and industry in the Murmansk region, and; the agricultural surface area in this district would need to be increased in total by 32.5% including a nine-fold increase in wheat crops (Kuibyshev 1934, 69). The latter is in line with the general attempt to rationalize the economy by limiting the transportation of goods from one region to another. These horizons of expectation of industrialization were also used as a justification for the increased constitution and mobilization of sovereign power for the scientific exploration of the previously little-known Eastern and Northern regions in the Second Five-Year Plan (Bolotova 2005, 107, 109–110; Mikhaïlov 1937, 18–39).

In terms of this thesis the abovementioned focus on the development of peripheries can be interpreted as an attempt to push the ecological outer limits of settlement further with the aid of the new epistemic authority structure, and according to the shared developmental paradigm with the West, as well as the new idea of the norm of Eastern humanity in nature. I will next analyze these two elements of what I argue made up two elements of the new civilized and industrial material constitutional structure of the international society in more detail through the Soviet northern developmental plans of the time. This study follows a discursive analysis of how the increased constitution and mobilization of sovereign resources for the exploration of the Soviet Arctic was justified to the national as well as international audiences. Because the focus of analysis is to use these justifications in the description of the material developmental paradigm of the Western international society, I will begin this analysis by centering in on how specific landmark achievements in Soviet Arctic science and technology were promoted abroad. I will continue by analyzing the horizons of expectation in relation to the developmental plans for the
expansion of settlement in Soviet north that were also associated with the first-mentioned achievements. I will then move onto an overview of the planning of the execution of specific technological ‘mega projects’ in the Soviet Arctic. I will conclude by illustrating how, despite of some successes in this attempt of pushing the ecological outer limits of settlement further northwards, the scale and dynamics of the original horizons of expectation did not end up to correspond with the spaces of experience that followed.

**Developmental paradigm and Soviet Arctic aviation**

The motto of “Stalin’s falcons”, as the Soviet pilots focused at setting new international aviation records were called, was "higher, faster, father!" (Palmer 2006, 229). This description illustrates especially well the aims and goals associated with the development of Arctic aviation in the Soviet Union in the 1930s (Ibid.). That is because one of the central aviation missions that was used as a showcase of the superiority of the Soviet governance in the field of science and technology was trans-polar aviation. In 1936, the Soviet pilot Valery Pavlovich Chkalov flew almost the entire width of the USSR through the Arctic in one flight. The connection to the developmental competition with the West associated with the program that this flight was narrated to be a part of is evident in the statement one of the crew members gave to the Press club in the United States after the flight: "Don’t believe all the fairy tales you hear about our country, but believe such feats as these" (In Bailes 1978, 389). The importance attached to aviation as a material sign of progress in the EIS is evident also in the continuation of the Soviet aviation program and its focus in setting international records. Already the following year Chkalov set another international aviation record in the Arctic – the first trans-polar flight from Moscow to Washington State. Chkalov’s record was broken by another Soviet pilot, Mikhail Gromov who also traversed the Arctic flying from Moscow to San Jacinto, California in 1937 (Josephson 2014, 178–180; McCannon 1998, 70–78).

Unlike in the European international society where exploration of the Arctic and the setting of records of furthest North had, since the early nineteenth century focused more on quick dashes to the Arctic and back, in the Soviet Union the setting of these national aviation records was not only focused on using the Arctic as a transfer route. They were also associated with more comprehensive plans of the governing elite for the territorial development of the Soviet north.
That is what I have in this thesis conceptualized as the plans to push the ecological outer limits of feasibility of specific, in line with the dominant developmental paradigm, settlement further northwards. A central element of this plan in the Soviet Union was related to the development of the Northern Sea Route (NSR). The horizon of expectation of the development of the NSR as a material example of the superiority of what can be regarded as the communist moral purpose of the state is evident in the decision of the Council of People’s commissariat to participate in the program of the forthcoming International Polar Year (IPY) in January 1932.

Developmental paradigm and the Northern Sea Route

On February 15th 1932, the Council of People’s commissariat of the Soviet Union resolved to organize an expedition that would traverse the entire Northern Sea Route from Arkhangelsk to Vladivostok in one season as one of the primary activities of Soviet Union in the IPY (Barr 1978, 253). What made this attempt remarkable in terms of previous Arctic exploration was that all previous passages through the Northern Sea Route had wintered on their way (Vise 1934, 277). The expedition ended up being a success. On October 1st 1932, 66 days after leaving Arkhangelsk, the icebreaker Sibiryakov sailed into the open waters of the Bering Strait thus becoming the first ship to traverse the entire NSR in one season. In Petropavlovsk the explorers received a telegraph from Stalin that reflected the significance the central government placed on the success of this voyage and the social role of science and technology in their competition with the West (Barr 1978, 253–254, 263–264): "The success of your expedition, which has overcome incredible difficulties, proves once again that there are no strongholds which cannot be taken by Bolshevik courage and organization" (In Barr 1978, 264). The significance attached to this mission by the governing elite is also evident in how the following year the Soviet government decided to repeat the sailing mission of Sibiryakov with another ship, Cheluyskin, beginning from Murmansk (Mills 2003, 7). This mission was, however, not successful.

After a successful start in August 1933 and sailing across almost all of the Norther Sea Route, in February 1934, the Cheluyskin got stuck in pack ice in the Chucki Sea. The ice ended up tearing a hole in its hull. As a result, the crew abandoned the ship and set camp on the frozen Arctic Ocean. After the central authorities received notice of this accident, they set a special rescue plan for the crew that was stranded on the Arctic Ocean in what in the Soviet press had become known as
“Camp Schmidt” according to the leader of the mission, Otto Schmidt. When the Soviet pilot Alexander Liapidvesky, after almost a month of attempts, finally touched down on the airfield the castaways had constructed on the snow, he not only became a national hero because of the rescue, but he also set another international mark with Soviet aviation. That is because he was the first one to prove that landing on Arctic Ocean pack ice with an airplane was possible (Horensma 1991, 57–60; McCannon 1998, 65–68). The rescue mission, which was followed closely in the foreign as well as national press, turned attention away from the original goal of the voyage of the Chelyuskin. Like the voyage of Sibiryakov in 1932, it was also translated to illustrate the superiority of Soviet organization following the developmental paradigm of the EIS (McCannon 1998, 67–68). As mentioned above the setting of these techno-scientific records in the Northern Sea Route was also associated with the aim of pushing the ecological outer limits of feasibility of material expansion of the state through settlement further northwards.

**Developmental paradigm and the Sovietization of northern settlement**

The Soviet central government took the single successful voyage of Sibiryakov in 1932 as a sign that all the previous difficulties attached to the exploitation of the Northern Sea Route had been overcome (Mason 1940, 30). One of the indications of this change in the horizon of expectation is how the voyage was followed by a rapid centralization and institutionalization of efforts related to the opening up of the Northern Sea Route for regular transport. The first decree for the establishment of a Central Administration of the Northern Sea Route (GUSMP) was issued in December 1932 by the Council of Peoples’ Commissars. The new horizon of expectation for what was expected to be feasible in relation to the opening up and development of this transit route is evident already in the setting of the main goal of this new organization, which was “charged with final development of the Northern Sea Route from the White Sea to the Bering Strait, full equipment of this route, maintenance of it in proper condition, and procurement of means for the safety of navigation over the same” (Taracouzio 1938, 383). After this initial organization the activities as well as funding of the GUSMP grew rapidly indicating an increased belief in the feasibility of its mission.

In the decree of March 11th 1933, the duties of the previous organization responsible for shipping in the Soviet Arctic, Komseveroput, were transferred to the GUSMP. With this annexation the
mandate of the GUSMP grew to include "aiming at the development of natural productive resources of the North, at their rational exploitation and most effective utilization, at the strengthening of management, and at better utilization of cadres" (Taracouzio 1938, 285–387). The issuing of yet a third decree for the GUSMP the following year tells something about the anticipated speed and scale of change the opening of the NSR was thought to bring about in the Russian Arctic. In the third decree, dated July 20 1934, the GUSMP’s tasks were noted to have “considerably widened, as this administration has been charged also with exploration and exploitation of all natural productive forces in the Soviet Arctic” (Taracouzio 1938, 389). In this decree the activities of the GUSMP were also combined with the Second Five Year Plan, under which it was expected to establish, e.g. “river transport on the Lena, Kolyma, Taz, Piasina, Khatanga, Anbar, lana, Indigirka, and Anadyr as well as coastwise navigation” (Taracouzio 1938, 390).

The expectation for the organization of the NSR is high also in Molotov’s introduction of the Third Five-Year Plan of 1939: “During the period of the Third Five-Year Plan the Northern Sea Route is to become a normally functioning water route providing us regular communication with the Far East” (Molotov 1939, 36). The development of this transportation route was planned to be complemented with the increase in Arctic aerial infrastructure in the Soviet Union. The central governing elite followed the setting of the previously mentioned international records in aviation with plans for establishment of regular flight infrastructure in the Soviet Arctic (Porch 1964, 193–194). This is evident not only in the increase of planning but also how in the Soviet Union, as well as abroad, the transpolar flights were publicized as demonstrations of the progress of the modernization as well as the beginning of turning the Arctic into a Carrefour of aviation (Bailes 1976, 66–67; George 1938, 210). These plans related to increase of transportation in the Soviet Arctic were accompanied with plans to push the ecological outer limits of settlement further northwards in the Soviet Union, which was rationalized with the new norm of the Eastern man in nature discussed also above in relation to the first and second five-year-plans.
The aim of pushing the ecological outer limits of feasibility of settlement further northwards in the Society Union is first evident in the organizational documents for one of the means the Soviet Union used for attracting inhabitants to the northern periphery. This is the same as in all the previously analyzed five historical case studies associated with the material expansion of the EIS, namely through incentives such as special advantages in taxation, pension and pay. Already in 1928 the Central Executive Committee and Council of Peoples’ commissars of the USSR issued a degree for special taxation privileges for the peoples in the Soviet north (Taracouzio 1938, 457–458). In 1932 further privileges were issued for Soviet citizens sent or already working in administration, enterprises and organizations in the extreme north (Taracouzio 1938, 491). The workers and their families were to receive subsidy for their move to this region. In addition to this they received a 10 or 20% additional pay for every year or every half a year of work depending on the location and line of work. The length of regular vacation was increased from 12 working days to 2.5 months depending on previously mentioned issues. There were also privileges in pension, education, housing, taxation, and other supplies (Taracouzio 1938, 492–493). This northern subsidy was successful in attracting some new inhabitants to the Soviet Arctic, but not to the extent that the state thought necessary (Armstrong 1965, 125–153; Taracouzio 1938, 255–262; Webster 1951, 38). The lack of sufficient numbers of volunteers in the northern as well as eastern peripheral projects of expansion of settlement was replaced by penal labor.

According to Alla Bolotova (2005, 110), following the establishment of the prison labor system in the Far North, by 1930 penal and “special migrant” workers constituted the main labor force “in the mining industry and geological surveying of such areas as Kolyma, Chukotka, Yakutia, the Murmansk region, the northern parts of Krasnoiarskiikrai (norlisk), and the Komi republic (The Pechorskii basin, the Timano-Pechorskaia provence)”. Penal labor was not only used in the exploration of the Far North and extractive industries, it was also used in the execution of what became the new technological mega projects. The first of such mega projects conducted with penal labor in the Soviet Arctic was the Belomor Canal. The rationale behind the building of this canal was to make the USSR envy of the world by illustrating how it was able to tame nature
previously untamable by the old governing elite through new Soviet technology that followed the
developmental paradigm of the EIS. In practice, the 227-kilometer long waterway from Lake
Onega to the White Sea was supposed to facilitate access to Baltic ports from the White Sea and
give the USSR another warm water port in addition to those on the Black Sea (Josephson 2014,
120, 124). It was part of the general attempt “to modernize and expand its system of waterways
to enhance and exploit the economic possibilities of the country” (Ruder 1998, 36). The
responsibility for the construction of the Belomor Canal that was also mentioned already in the
First Five Year Plan was handed over to the prison camp labor system in 1931. It was successfully
completed in the next two years with the labor force of more than 126,000. Even though a
significant number of these laborers died in the process of building the canal, the successful
completion of the project led to a new horizon of expectation associated with this type of labor,
namely that it was that was a powerful and positive resource, a kind of “magic wand” that would
make major projects conclude in short order (Conquest 2003, x, viii; Joyce 2003, 39). These
expectations along with the interpretation of the success of the Belomor Canal were, however,
short lived.

Aftermath

Even though the Belomor Canal was celebrated as Stalin’s canal after its completion, upon seeing
and sailing through it, even Stalin himself was disappointed with the small and shallow size of it
(Ruder 1998, 20–25, 33). Already in 1933 the Council of Ministers began to discuss a plan to
modify the canal because it did not meet the technical requirements to be able to be used for its
original purpose. These plans were never carried through (Josephson 2014, 128). As late as 1939
the first secretary of the Karelian oblast’ committee suggested, based on specialist evaluations,
that it would be cheaper to build a whole new canal than modify the first one. When it came to
the execution of this mega project, as was mentioned at the beginning of this case study, the focus
in taking over the West by following its developmental paradigm was, as mentioned by Lenin and
in the first two of the five-year-plans, on industrialization and modernization of the Soviet Union
through mechanization. In the case of the labor camps, the labor, however, was done by hand. As
highlighted by Cynthia Ruder in relation to an English translation of the originally Russian-
language propaganda book on Belomor Canal by Maxim Gorky that was heavily edited for re-
publication: “The English translation did advertise a remarkable construction feat; the twist was
that the Belomor Canal was a stunning feat of manual labor, not of technological progress” (Ruder 1998, 202). This Soviet reliance on the epistemic authority structure of the EIS in the attempt to expand the ecological outer limits of feasibility of settlement proved not to be sustainable in relation to the opening of the Northern Sea Route, Polar aviation, and the new expectations for the profitability of prison labor.

In relation to mega projects like the Belomor Canal many of the infrastructures they were associated with were never of much use. A large-scale Arctic railway, the Baikal-Amur line was abandoned after Stalin’s death, and eventually “the general inefficiency of the forced labor system became clear even to its senior operators” (Conquest 2003, x). In relation to the Northern Sea Route, as mentioned above, in 1933 the transit voyage of Chelyuskin ended up being crushed and sunk by ice (Armstrong 1952, 41–42). The later navigation attempts in 1936, on the other hand, demonstrated the need for more and heavier icebreakers than the ones in operation. These were needed to open and maintain straits as well as free ships that become frozen fast before further development of the NSR could take place (Armstrong 1952, 43; Mason 1940, 34). As mentioned above, it was not only in relation to transit that the new horizons of expectation for the development of the Soviet Arctic attached to GUSMP were embedded. By 1937 GUSMP was spending over 7 million rubles annually on agriculture to fulfill the expectation of the rationalization of economy in greater self-sufficiency on food supplies in the Arctic. The results of these investments, however, were negligible in what John McCannon (1998, 55) characterizes as “the ice-blasted, frost-laden soil”. Successes in conquering the North through settlement and new technologies were made, but in small steps, which is still impressive considering the environment, and scale of the Soviet Arctic.

In 1936 GUSMP shipped 271, 100 tons of freight. The urbanization of the city of Igarka established in 1929 on the Yenisei River also developed further. Additionally the Norilsk-Dudinka railway that connected the mines of the former with the port in the latter was completed by 1938 (Armstrong 1965, 21, 83–84; Josephson 2014, 71–75). Small scale and slow, however, were not acceptable to the central government’s horizons of expectation for the metamorphosis expected of the Soviet Arctic under the scientific central planning organized through the GUSMP. Terrance Armstrong concludes the discrepancy of plans and the following spaces of experience in an
analysis of the development of the Northern Sea Route in 1965 with the following words: “There can be no doubt at all that the economic results of the working of the Northern Sea Route during the first eight years (1933-40) were so small as to be out of all proportion to the effort and money expended” (Armstrong 1952, 112). Similarly to the voyage of the Sibiryakov, the celebration of what the new international records in Soviet aviation meant for the possibilities in the development and settlement of the Soviet Arctic, also, turned out to have been premature.

The main problem with the attempt of turning the Arctic air routes into plan-abiding subjects of the planners was not the state of the Soviet claims over sovereignty in the Arctic Ocean in international law, something that has been focused on in previous studies on the development of Soviet Arctic aviation, but rather the shape of the supply of Soviet planes and aviation experts (Bailes 1976, 69–80; Horensma 1991, 21–51). The year 1937 was the last that Soviet pilots set records in the Arctic. The same year the Soviet Pilot Sigizmund Levanevsky disappeared on route over the Arctic Ocean and was never found (McCannon 1998, 72–73). The lack of sufficient technological expertise was not only manifested in the decline of successes and attempts in Arctic aviation at the end of the 1930s, but also in the failures of Soviet military aviation at the closing of the 1930s. Late in 1937 the military capabilities of the Red Air Force came under question when the losses of the Soviet air force, which had taken part in the Spanish Civil War in 1936, continued to mount (Palmer 2006, 246–347). The poor shape of Soviet aviation was further revealed in the Finnish Winter War of 1939-40. According to Scott Palmer (2006, 249), “lack of advance preparation, poor planning, inadequate intelligence and amateurish generalship led to a series of early and decisive feats”. Similarly to the Northern Sea Route and the Belomor Canal, in Arctic aviation the Soviets were successful in individual “attacks” against the arctic nature and in initiating change in patterns of settlement and appropriation of the natural resources of these regions. These successes, however, did not turn these feats into the reality they were supposed to exemplify; the rationally administered, exploited and inhabited Soviet Arctic as part of the scientifically administered state.

In relation to the expectations related to slave labor, in two other major Gulag projects in the Soviet Arctic, the Norilsk nickel mine and the Dalstroi gold mine, the flawed expectations of the sustainability of the labor camp system based on the manipulation of human motivation in the
harsh conditions of the Arctic were revealed (Ertz, 2003; Nordlander, 2003). In short, in the words of Andrei Sokolov (2003, 39), it was discovered, that even the Gulag required “equipment, skilled, labor, experienced specialist, and better worker qualifications, all of which raised the cost of maintaining the Gulag”. The general trend the original economic calculations for the profitability of forced labor in the Soviet prison camps was that they were significantly overrun (Khlevnyuk 2003). What is more, even the few the Gulag enterprises like the Kolyma gold mines, which turned out to be profitable in economic terms, were not so in terms of the cost of human lives or living and working conditions of the prisoners (Applebaum 2003, xxxviii–xl).

In sum, even though the crude indication of the population dynamics in the Soviet north indicate an increase in settlement in the Soviet Arctic from 1926 to the 1950s, this cannot be simply treated as a successful space of experience for the horizon of expectation originally attached to the Sovietization of the Russian north (Armstrong 1965, 125–153; Taracouzio 1938, 255–262; Webster 1951, 38). Instead, as the horizons of expectation related to pushing the ecological outer limits of settlement are analyzed in relation to the constitutional structure they were rationalized against, they appear as a failed attempt to expand the ecological outer limits of feasibility of settlement according to the epistemic authority structure and developmental paradigm. As such, the plans for the Sovietization of the Arctic can be treated as moments when the ecological outer limits of feasibility of the nineteenth and early twentieth century epistemic authority structure and developmental paradigm were found through trial and error in the Soviet north.

**The material constitutional structure in the Soviet case**

In this case study I first illustrated how, at the onset of the emergence of the Soviet Union, the new governing elite of the state adopted the industrial and civilized epistemic authority structure of the Western international society as the bases of the organization of the future material development of the socialist state. I used this illustration to argue for the feasibility of analyzing two of the three elements of the material constitutional structure that supported the legitimacy of the epistemic authority structure of the EIS that has emerged in relation to the Industrial Enlightenment. I continued by analyzing the developmental paradigm and the norm of the role of what I argued consisted of the high modernist version of the new norm of Western humanity in
nature in the justifications of the Soviet elite for the constitution and mobilization of sovereign power for the exploration of the previously little-known Soviet Arctic. Through this analysis I described how the developmental paradigm of the EIS in the early twentieth-century was based on the idea of industrialization and mechanization and the establishment of large-scale technological systems as material measures of progress of states. I also illustrated how the definition of these infrastructures as progress, in turn, relied on a mechanistic norm of the role of Western humanity in nature.

In relation to the last mentioned normative element of the material constitutional structure I explained how, in the Soviet Union this norm was translated into what I described as a norm of the role of Eastern humanity in nature. The first difference between the two was that for the latter the conquest of nature through technology was based on what Scott has called a high modernist agenda that attached an increased emphasis on the speed and scale of the conquest of nature by man through industrial technology. The second difference was that, instead of the process of civilization the Soviet plans referred to the process of Sovietization. I will reflect on the development of Soviet science and technology policy as a means to peacefully illustrate its superiority after the Second World War in the next chapter. Here I will continue the analysis of the material constitutional structure of the industrial and civilized Western international society associated with Industrial enlightenment through a second case study in the early twentieth century. That is the attempted, peaceful, expansion of the geographical limits of the ultimate territorial authority of Finland further northwards, first in multilateral peace negotiations, and then in bilateral negotiations with the Soviet Union in the first decades of the twentieth century.

FINLAND

With the bilateral Hamina Peace Treaty between Sweden and Russia in 1809, the province of Finland that had previously formed part of the Swedish Empire was annexed by the Russian Empire. In the Diet of Porvoo that followed the signing of this peace treaty this province gained the status of autonomous Grand Duchy of the Russian empire. Many Finnish nationalist groups that formed in the decades following the Diet of Porvoo came to mark this as the birth of the Finnish nation because the Alexander I granted the Finnish Diet a “guarantee of the sovereign”,
which ensured the autonomy of the governance of Finland as an autonomous part of the Russian Empire. In practice this meant that language, religion and all the laws of the Swedish state stayed intact in Finland. The second reason the nationalists treated this Diet as the birth of the Finnish nation is because Alexander I closed it by stating that by annexing the region to the Russian Empire he had “elevated” the Finnish nation “for the future numbers of nations” (Alexander I 1809; Jussila 2009, 18–23, 30). Even though the nationalist movements that emerged and flourished in Finland under autonomy followed the general trends of those in Europe, they were not originally separatist (Jussila 2009, 47–66; Kohi et al. 2006, 18, 21, 28). It was only after the Crimean War when the abovementioned privileges granted to the Grand Duchy began attenuate and the local government and population were put under concentrated Russification efforts that separatist nationalist movements gained momentum in Finland.

*Separation of Finland from the Russian Empire*

The nationalist separatist movements in Finland became especially prominent with the issuing of the February Manifesto of Tsar Nikolai II in 1899. In this manifesto the imperial Russian government set out a new aim, which was to reform the constitution in Finland in order to enable the enforced inclusion of the Finns into the general military draft for the Russian army from which they had been exempt before. This attempt at reforming the constitution led to the creation of a mass-movement in the Grand Duchy in defense of the old constitution. This movement eventually turned the General Strike of Russia in 1905 into a nationalist strike in Finland that was aimed at preventing the progress of the attempted legal reform. The movement was successful, and the old constitution was left intact. Despite this success, the relations between the Grand Duchy and the imperial government continued to worsen in the following years. After the March Revolution in Russia in 1917 the Finnish Senate finally drafted a proposal for a new constitution in which the highest executive power would be moved from St. Petersburg to Helsinki, and the legislative power from the Senate to the Parliament. This proposal did not manage to get processed by the imperial government before the October Revolution. Because of the change in Russian government the Finnish senate decided to continue the preparations that provided essentially a roadmap towards a unilateral declaration of independence, rather than a bilateral one with the new Soviet government (Jussila 2009, 62–107; Kohi et al. 2006, 43). The decision to do so was, however, not based on a unanimous party-political front.
After it had become clear that the Bolsheviks had succeeded in their coup d’état in November 1917, the bourgeoisie-led Finnish Senate cut all communication with the new Russian government. It was also the decision of these bourgeoisie representatives to seek recognition for the declaration of independence of December 6th 1917. These early negotiations were proposed to begin with a specific group of Western states, namely the Nordic states, Germany, France, Great Britain, and the United States. The minority-party of the senate, the social democrats, did not support these plans. Their suggestion was to seek recognition for independence first from the new Russian governing elite, and then from an alternative list of other Western states. As it became clear that none of the Western states in the original list of the Senate was prepared to confirm the independence before Finland had gained recognition from Russia, the social democrats, independent of the senate, moved on with their plans of approaching the Russian government. As a result, the Senate eventually got this recognition from Lenin, who believed that the recognition of independence would be followed by a proletarian revolution in Finland (Jussila 2009, 99–107; Meinander 1999, 7–9). Instead of a revolution, in the months following the declaration of independence the ideological division of Finland escalated into a civil war.

As was the case in the Russian civil war of 1917-1922, in 1918 the Finns divided into two groups –socialist Reds and bourgeois Whites. The Reds were meagerly supported by the Bolsheviks, and the Whites eventually by Germany. Unlike Lenin had anticipated, the conflict resulted in the victory of the Whites. For the foreign affairs of the new nation-state this meant that instead of looking eastwards for a model in their construction of a sovereign national identity for Finland, the new dominant bourgeoisie governing elite of the state turned westwards to the society of civilized nations in the legitimation attempts of the new sovereign identity of the state. Because of the affiliation of the Finnish whites with Germany, even after it had gained recognition from Russia the state did not manage to gain external recognition of its independence until at the end and after World War I (Hentilä 2009, 105–121). In the negotiations for the recognition of its independence during WWI the governing elite of the state also tried to expand its territorial authority further into the Russian territory. It is in the justifications for this expansion that, I argue, we can first identify the normative complex of the EIS associated with the hegemonic
epistemic authority structure as well as the possibly generative power embedded in the new social constitutional one.

**Attempts at expansion during WWI**

In the early negotiations of its territorial borders with the Bolsheviks as well as the Germans and British before the end of WWI (and later with the international society at large in Berlin), Finland justified its border claims with reference to the new dominant nationalist ideology of the EIS. In this national romantic idealism, the main grounds for justification of expansion of the territorial borders of the Grand Duchy were linguistic. The bases for the new borders were justified with the aim of collecting all Finnish-speaking peoples under the authority of the new Finnish state. None of the foreign parties that the governing elite approached, however, supported these initial border claims and justifications (Tanner 1949, 12–17; Tepora 2014, 81–89; Silvennoinen 2014, 18–32). After WWI, the Finnish governing elite adopted a new horizon of expectation and justificatory basis for the establishment and expansion of its northeastern border in the Paris Peace Conference held at Versailles after the war (Kohi et al. 2006, 72). The demands the Finnish government put forward for the eastern borders of the state at this time followed more or less the eastern border of the former Grand Duchy (Wallenius and Kännö 1994, 53). The border-claims in the northeast, however, were larger than the dominion of the Grand Duchy. It is in the justifications that the state set at Versailles that a new horizon of expectation for the developmental potential of the northern part of Finland was first stated.

**Material constitutional structure of the Finnish delegation’s Paris peace negotiations**

The northeastern territorial demands of the Finnish delegation to the Paris Peace Conference were the annexation of “the Petschenga district and Western Murmansk…and acting according to the present ethnographic and economic conditions, the eastern frontier of the territory be drawn through the peninsula situated between the fjord Kuola and Uura to the eastern creek of the Lake Nuottijärvi and from there along Nuortijoki River to the present Finnish frontier” (*The Petchenga Question, 1919*). The main justification for these demands were expressed in three narrations. The first of these was historical, and was built on official diplomatic documents beginning with the Peace of Täyssinä 1595 and ending with the promise of Alexander II for the annexation of a region to Finland as a compensation for a region lost to the Norwegians in 1864 (*The Petchenga...*)
question and supplements I, II, III, 1919). The second justificatory narrative used for the northern territorial demands was the unification of the Finnish speaking peoples in the region under the Finnish state (The Petchenga Question, 1919). It is in the third major justificatory narrative that I argue the material constitutional structure of the international society based on a shared developmental paradigm, norm of the role of Western humanity in nature, and the organizing principle of operational sovereignty is evident.

The third justificatory narrative for the annexation of the northern regions was based on a claim for “the necessity to Finland as an independent republic and to its economic development to own territory on the Arctic Sea” (The Petchenga Question, 1919). All of the three elements of the constitutional structure of the industrial society of civilized states are evident in the horizon of expectation for this development. First of all, the focus in this development was on the general good associated with liberal sovereignty and the developmental paradigm of the EIS at this time. In the words of the memorandum provided for the Paris Peace Conference: “Without this region Finland cannot develop in an equal manner to its neighboring states; without this region a significant proportion of Finnish natural riches cannot reach world trade” (The Petchenga Question, 1919). The developmental paradigm and its connection to operational sovereignty and the norm of Western humanity in nature are also evident in the explanation of what these natural riches in question included and explanations for why they had not been utilized before. According to the documents provided for the Paris peace negotiations the current poor state of the northern region was explained by referring to previous border-drawing in the region at the time of the Grand Duchy: “Things would be completely different was Finland given the opportunity to have its own industrial area on the shore of the Arctic Ocean, and was granted the possibility to draw a railway through Lapland to the Arctic Ocean…Through this railway the whole economic life of Lapland would finally be given the first opportunity to develop from its current state” (The Petchenga Question, 1919).

The relation and comparison to other states in this justificatory narrative are also present in how the importance of gaining access to the Arctic Ocean over the territory in question is connected to sea-trade and fishing on the Arctic Ocean as well as the ability of Finland “to improve her commercial connection with the Western countries” (The Petchenga Question, 1919). The way to
America is claimed to “be shortened by twenty-four hours by using the Rovaniemi railway which, of course, will be completed” (*The Petchenga Question, 1919*). The constitutive power associated with the social roles of science and technology in the international society associated with these justifications is evident when one looks at the information that was used in the drafting of the Petchenga memorandum. That is because there is no technical, economic, or natural scientific support for the existence of these abovementioned possibilities. In effect, nothing related to the materiality or the cost of developing the region in question was deemed certain by the scientific and technical experts assigned to give evaluations for the economic potential of the region for the Paris Peace Conference.

**Epistemic authority structure**

In the files related to the Petsamo question of the Finnish Foreign ministry there are statements from a committee of transportation and a committee on forestry on the profitability of the profitability of a railway to Petsamo dated in February 1919 (*B. Vuolteen, A.V. Graffin, A.K. Cajanderin ja A. Ramsayn lausunnot Rovaniemen-Petsamon rautatiestä 1918-1920*). Both of these committees highlighted the lack of basic knowledge of the environmental conditions in the region where the state wanted to expand its ultimate territorial authority. The introduction of the statement from the committee of transportation begins with the following disclaimer: “Calculations for how profitable the planned railway in a state as undeveloped as Finland can become are always insecure, and one should not have a great confidence in any numbers that come from such calculations” (*Lausunto Suomen rautatieverkkoa ja Suomen Jäämeren alueita yhdistävän rautatien kannattavuudesta, 20/02/1919*). The conclusion of the document is, however, that despite this uncertainty the potential impacts associated with the development of the railway are positive: “if the hopes that we have for the natural riches of the region are grounded, the railway might become a fully adequate one in relation to its profitability”. The statement from the Forestry Ministry on the same issue from February 19th 1919 supports the hopefulness related to the promise of the future development of the periphery and the associated attempt of pushing the ecological outer limits of feasibility of settlement that the periphery in question is associated with, despite the lack of economic, technical, and geographical knowledge.
The statement from the Forestry Ministry first underlines how extending the railway network to Lapland is “the vital condition for the economic prospering of this corner of Finland” (Promemoria Rovaniemeltä Jäämelle suunnitellun rautatien metsätaloudellisesta merkityksestä, 19/02/1919). This only included the development of forestry in the region, but also its more efficient settlement. In effect, the benefit for forestry that the railway is indicated to result in are in this memorandum related more to the expected lowering of costs of hiring a workforce for forestry and the creation of demand for further development of the region through settlement than the assessment of the quality and quantity of the raw materials of the region. Like the report from the Commission on Transportation, the one from the Forestry Ministry underlines, how, on the monetary increase in the value of forest land in regions around the proposed railway is “without closer investigations hard to give even approximate numbers and any calculation is even in the best case more or less vague” (Ibid.). In the evaluation of the cost-effectiveness without primary information from the region itself (the estimates of the quality of the forestry resources of the region given in this memorandum are based on statistics from other regions) the statement of the Forestry Ministry also highlights the general benefits of the railway would have on settlement, and the provision of foodstuffs. In the end of the statement the recent ore discoveries in Lapland are also mentioned, and “the hopes they attach to mining, which perhaps, when the iron and ore deposits come better in the daylight, in the near future could reach an important state amongst livelihoods in Lapland” (Ibid.).

The aforementioned examples of the documents used in preparation for the negotiation of the Petsamo question underline the poor shape of the basic natural knowledge of the materiality of the region. However, as explained above, next to the historical border settlement documents, and the claim for unifying the Finnish speaking population under one state, the material development and settlement of the region constituted of the third leg of the justificatory narratives through which Finland aimed to extend its sovereign authority over this region. Because this third leg is based on desires rather than actual techno-scientific knowledge, I argue that the mechanisms of the economic and industrial development of the region mentioned in the documents provided for the Paris Peace Conference reflect the developmental paradigm and the norm of the role of Western humanity in nature in the further re-definition of the organization principle of operational sovereignty in the society of industrial and civilized states. In other words, the
material justifications used for the annexation of the northern region by Finland were based on desires over a specific horizon of expectation that was constituted with the material development norms of the audience towards whom the expansive territorial claims were directed. These justifications reflected on, but did not take into consideration, the local context. As such I argue that the spaces of experience that followed from the success of these northern border negotiations later the same year in the bi-lateral negotiations with the Russians in Tarto, offer one example of how the ecological outer limits of feasibility of the industrial and civilizing developmental paradigm of the European international society were found in the north through trial and error (Wallenius and Kännö 1994, 53).

Ecological outer limits of the industrial developmental paradigm

The Paris Peace Conference eventually dropped the issue of Finnish border negotiations from its agenda. After this development the bourgeoisie Finnish government that took power in 1920 decided to begin bi-lateral peace and border negotiations with Soviet Russia. The historical and economic-material claims for the attachment of the northeastern region to the sovereign territory of Finland remained the same as they had been in the Paris Peace Conference (Hentilä 2009, 138–139; Tanner 1949, 58, 228). As the negotiations with the Soviet-Russians progressed, the territorial demands of Finland in the east and in the north, however, diminished in size. When the Peace Treaty of Tartto was finally signed on October 14th 1920, Finland gained access to the Arctic Ocean with the annexation of the area of Petsamo, but in comparison to the original claims, in a very truncated form (Tanner 1949, 62). From the time of this annexation, the viability of the railway that was supposed to enable the turning of Finnish Lapland into “the geographical heart of the Arctic Ocean Lapland...and its future center for economy and civilization” was regularly discussed, but never executed (Voionmaa 1918, 33). I will next give an overview of the official documents related to development of the northern provinces of Finland in the time period between the annexations of the region until it was lost to Soviet Union in WWII. This overview reveals how throughout this time the region remained in a state dominated by desires and a repeatedly voiced lack of sufficient techno-scientific knowledge for the affirmation or realization of the desires.
Jalmar Castrén conducted an economic estimate of the abovementioned railway for the Finnish Council of the State in 1923. In this estimate he refers to the horizon of expectation that had risen in public discussion at the time in relation to the development of the region. The main components of the new horizon of expectation were: opening an all-year around open port for cross-Atlantic and new Russian trade that might open from the development of Siberia; increasing fishing, and; beginning mining activities. Cartrén’s (1923, 31, 59–62) conclusion in relation to these aspirations was that for any of them to be executed in practice there was still a need for “more detailed and thorough research and sorting out than under current conditions is possible and time and conditions have been enough for, if these desires are to be made into usable variables in an economic calculation”. According to Castrén, with the information he had at hand, the question of constructing a railway into the northernmost territory of Finland would not be answered favorably. That is because the knowledge of the natural resources around the planned Petsamo track was not sufficient to support the feasibility of the track (Castrén 1923, 62).

In Östen Elfving’s statement to the Ministry of Agriculture in 1924 titled “Of the economic life of Petsamo”, the general tone for the developmental potential of the periphery in question is much more positive than in Castrén’s assessment. Elfving (1924, 92) argued that the agricultural potential of the region can be increased with the strengthening of “proper Finnish settlement” which could “bring along with it new initiatives and life experience and who could with its entrepreneurship and behavior in general influence the environment in an awakening manner”. In relation to the railway, Elfving (1924, 119) claims that delaying its construction would mean “keeping the economic life of the population of the region paralyzed and through that its alienation from the rest of the country”. He concludes that the development of the region is in dire need of initiatives from the state to facilitate settlement, including the building of a proper harbor, and the connection of the region into the national telephone grid (Elfving 1924, 86, 102, 106, 123, 134, 137). Elfving (1924, 95) justifies the constitution and mobilization of sovereign resources for the economic development of the region also by arguing how they would also “evidently lead to the development of a harbor settlement or a harbor and industrial town”. Despite of this generally positive tone, Elfving also acknowledges the poor state in knowledge of
the region and the unbeneficial impact of the heightened popular expectations for the initiation of the development of the region.

In the middle of the report Elfving admits that: "In the development of agriculture in Petsamo, as well as Lapland in general, before we can with sufficient confidence determine procedures and policies that are appropriate in these conditions we still need quite a lot of preparatory research work" (Elfving 1924, 98). Moreover, Elfving, like Castrén, refers to the heightened expectations attached to the potential of the region in the public discussion, and their harmful effect on the development of the region: “The economic preconditions of our new Arctic Ocean country have too often been exaggerated or wrong presented. There has been talk of unlimited opportunities for fishing and great mineral discoveries, which should be easily exploitable. This [discussion] has ignited the imagination of many over the opportunities in Petsamo, as well as led to speculations, which have had a damaging effect on the Petsamo issue” (Elfving 1924, 98). The next publication of the Ministry of Agriculture on the Petsamo issue from 1927 also highlights the need for further research.

In the publication titled “Can the Petsamo region be used for the benefit of the country?” Väinö Tanner (1927, 5) underlines how answering this question is difficult because, “still today, exactly six years ago from when Finland took over the region, we are still missing the basic information, which would make it possible to evaluate the value of the productive natural resources [of the region]”. He explains how without this basic information the question of the potential for the industrialization of the region, even its forestry, cannot be decided upon favorably (Tanner 1927, 21-24). The only sustainable revenues that Tanner (1927, 26, 109) sees that the region might offer are fishing, agriculture in the valleys for cattle herding, and the lichen that can be used as the bases of reindeer herding. In a document evaluating the developmental potential of the whole of Lapland from eleven years after the publication of Tanner’s evaluation, the promise of this northern periphery was viewed in a more diverse and positive light even though the need for more research in order to make any defining plans or suggestions was again repeated.

In 1938 the Committee of Lapland published a report titled “The economic conditions in Lapland and their development”. Here, the central areas that are underlined to show potential, but which
are in need of further research to show feasibility were: the exploration of the (ore) mining potential of the region; the possible drying of swamp areas for agricultural use; experimentation with different harvesting technics, and; the electrification of Lapland. Possibilities for expansion of agriculture including horse breeding and cattle herding were in general viewed as substantive though restricted to specific species (Lapin Taloudelliset Olot Ja Niiden Kehittäminen 1938, 16, 154, 156). The expansion of reindeer herding was also mentioned, as well as the possibility for industrial breeding of fur animals, expansion of large scale fishing, tourism, and general automobile traffic that was thought might make up for the lack of the railway (Lapin taloudelliset olot ja niiden kehittäminen 1938, 43-51). The conclusion of the committee was that by acknowledging the specific environmental conditions in the region and with the support of the Finnish state in the form of specific settlement benefits, the region could be turned into a prosperous self-sustained part of the state (Lapin taloudelliset olot ja niiden kehittäminen 1938, 52, 56, 61, 139-140, 149). In other words, the ecological outer limits of feasibility of settlement might potentially be pushed further northwards with help of new technology and science supported by the further constitution and mobilization of sovereign resources into the region. This horizon of expectation was never turned into a comparable space of experience.

Aftermath

The next substantial overview of the status and meaning of the Petsamo region for the Finnish state was Rafael Seppälä’s report for the Finnish Foreign Ministry in reference to the peace negotiations between Finland and the Soviet Union in Moscow in 1944. In this report it becomes apparent that the progress of development in the region before the outbreak of WWII had been slow. Roads and airports had been built during peace time, but their progress had been enforced only during the war years with the help of the Allied powers (Seppälä 1944, 2-4). The harbor had not been used for the development of industry to any significant extent before the war. It had, however, proven important for the state at the time of war when other ports had been closed off (Seppälä 1944, 6). Fishing still suffered from a lack of sufficient equipment specific to the conditions of the Arctic Ocean (Seppälä 1944, 8). The potential of turning the swamp areas into agricultural ones remained under-investigated, as did the geology of the terrestrial and maritime regions in the area (Seppälä 1944, 9, 16, 18-19). The only economic activities that did not rely mainly on unexplored potential, but that had been established were nickel production and
tourism (Seppälä 1944, 14-16). In sum, twenty-four years after the region had been annexed by Finland the promise of the periphery remained under-explored and thus under-developed. Whether or not the political will to invest resources into the needed exploration would have been found later is not possible to answer, as the region was eventually lost to the Soviet Union as a result of these peace negotiations, along with Karelia region.

The material constitutional structure in the Finnish case

The changed horizon of expectation for what was feasible, possible, and reasonable development in the northernmost part of Finland is different from the previously explored Soviet one. Here, I am speaking specifically of the justifications for the constitution and mobilization of sovereign power for its development that were first related to a peaceful attempt of annexing the Arctic Ocean shore region to the territory of the newly independent state. However, the decision to use the economic development of the region as one of the three central lines of justification, even though there were no technological, scientific or economic bases for the claims for the development of the region, indicates the similar power the developmental paradigm and the material moral purpose had in the definition of the basic parameters for material expansion of the EIS. As the horizons of expectation stated in the documents associated with the Paris Peace negotiations and the following plans for the development of the region were not successfully turned into a space of experience of increased settlement in the region, they can be regarded as similar incidents of finding the ecological outer limits of feasibility of the new material constitutional structure of the EIS in the north by trial and error.

6.3. Summary

In the first part of this chapter I argued that the second crisis of legitimacy of the social constitutional structure of the EIS, which Reus-Smit dates to the early eighteenth century, was co-produced through a crisis of legitimacy in the organization of what was known, how it was known, and what the knowledge was deemed to be good for in it. I translated this argument in the terms of this thesis and argued that the emergence and stabilization of the new social constitutional structure and fundamental institutions analyzed by Reus-Smit was accompanied by and co-produced through the emergence and stabilization of a new material constitutional
and epistemic authority structures through which what was deemed as rational governance of the material environment was defined in the industrial and civilized international society of nation-states. After mapping out the content of the new industrial and civilized epistemic authority structure of the EIS I moved on to an empirical analysis of the three elements of the material constitutional structure that its stabilization was based upon using two case studies. Like in the previous chapters, these cases consisted of attempts at material expansion of the international society by pushing the ecological outer limits of settlement further into the northern periphery of the globe.

The new norm of Western humanity in nature that I identified in these case studies reflected the mechanical and utilitarian aspects of the application of reason and experimental sciences and technologies to the governance and subordination of nature. In the developmental paradigm these were turned to the idea of a need for civilization not only of peoples but also nature through the establishment of large-scale technological systems as well as the mechanization of agriculture. In the first Soviet case I deduced these meanings by explaining how the developmental paradigm of the EIS defined progress in terms of industrialization and the adoption of specific large-scale technological systems. I also described the new norm of Western civilization in nature in this case by relating it to how it was translated into a high-modernist version focused on the conquest of nature in the Soviet competition in material development with the Western international society. In the Finnish case I deduced the meanings of these elements as well as that of operational sovereignty by analyzing the justifications for the annexation of the region of Petsamo to the newly independent state. As neither of the horizons of expectation in these two cases turned into equivalent spaces of experience, I argue that they represent instances of how the ecological outer limits of feasibility of the new material constitutional structure were again found through trial and error in the north. In the next chapter I claim that the material constitutional and the epistemic authority structures of the European international society presented in this chapter were again revolutionized with the accumulation of empirical evidence of the unexpected side effects of the Industrial Enlightenment discussed in this chapter in the mid-twentieth century.
7. The Post-Modern Greening of Sovereignty

According to Buzan, the expansion story of the European-origin international society (EIS) is, in a strictly geographical sense, now finished. In the words of Buzan (2014, 61): “Barring remaining uncertainties over the deep seabed, expansion is closed until humankind colonizes space”. By this closing of the expansive story of the European-origin international society he refers to how this society is now global in scale. For Buzan (2014, 61) this means that the “only story to follow is about how this global society is and should be evolving”. In this chapter I argue that Buzan’s description of the closing of the expansive period of international society does not give an adequate description of how the material, geographical expansion of international society, and the further development of the mechanisms of operational sovereignty, have been further developed in the second half of the twentieth century. In building up this argument I first refer to what has been conceptualized as the Environmental Revolution of international society in the mid-twentieth century. I then combine this discussion with the contemporary attempts to appropriate the Arctic Ocean mentioned in the introduction of this thesis.

The argument that I develop through the analysis of the contemporary politicization of sovereignty issues in the Arctic and the discussion of the Environmental Revolution in the context of system-wide changes in what is known, how it is known, and what the knowledge is deemed to be good for, is that this revolution constitutes the fourth system-wide revolution in the epistemic authority and material constitutional structures of the European-origin, Western international society. Unlike in the previously analyzed changes in these international institutions, this revolution has not, yet, led to the replacement of the old ones. What this means for the definition and solution of co-ordination and collaboration problems of states at the contemporary is that both the old and the new material constitutional structures are deemed as legitimate in outlining what is regarded as rational, feasible, and reasonable governance of the material universe in international society. That is, even though they are in many ways incompatible and in contradiction with each other. I unfold this argument about the emergence and stabilization of a new, post-modern material constitutional structure of Western
international society at the same time as the legitimacy of the old, industrial one continues to be further enforced in the following manner.

The chapter begins with a macro-historical overview of how new forms of scientific knowledge that I argue led to the beginning of the fourth revolution in the epistemic authority structure of the EIS. It continues with a description of what I claim are the main characteristics of the resulting new, post-modern epistemic authority structure of international society. This explanation of the emergence of a new dominant framework for the definition of what is considered to be rational governance of the material world in international society is then complimented with a second macro-historical description. It consists of an overview of the processes that what I refer to as the re-adjustment of the old material constitutional structure as a response to the novel ideological threat of the Soviet Union to Western international society that developed after WWII. After this second macro-historical overview, the chapter continues in a similar manner as the previous three. That is, with a study of the elements of what I argue make up not only the new, but also the re-adjusted old, material constitutional structure of international society. This study takes the form of in-depth, discursive case study analysis.

The case studies of this chapter consist of discursive analyses of the horizons of expectation in the justifications for the constitution and mobilization of sovereign power for the exploration and settlement of the previously unknown, little-known, and sparsely populated northern regions of the globe. In more contemporary analytical terms, the cases comprise of the analysis of the recent politicization of the future role of the Arctic in the global political universe in Norway, Canada, and Russia. Because they deal with contemporary events, there are some minor differences in the organization of these case study analyses. The main one is that I will not give a summary of the elements of the two material constitutional structures after each of the case studies as in the previous chapters. Instead, I review them in the conclusion of the chapter where I also give an explanation of their possibly generative and restrictive social power in the organization of the governance of the social and material world in international society of the 21st century.
7.1. The Challenge of the Environmental Revolution to the Industrial Worldview

After mid-twentieth century, new empirics about the largely unexpected side-effects of industrial techno-scientific human behavior on the natural universe began to accumulate and spread within Western international society. Individual incidents through which this new information emerged and eventually started to unfold into a new ecological, environmental awareness include: the discovery of the nuclear fallout of the 1954 US thermonuclear bomb codenamed Castle Bravo; the publication of Rachel Carson’s Silent Spring about the effects of dichlorodiphenyltrichloroethanes (DDTs) on human and animal biology in 1962; the shattering of radioactive material around Palomares, Spain as a result of nuclear bomb testing in 1966; the Torrey Canyon oil tanker accident off the southwest coast of England in 1967; and the 1971 discovery of the Minamata river pollution by organo-mercury (Bodansky 2010, 26–27; Desai 2004, 71–73; Grewe 2000, 271; Sand 2012, 34; Tucker 2013, 566–568). The accumulation of this new knowledge was, in turn, accompanied by an increase in public distrust in new large scale technologies. In Science and Technology Studies (STS) this has been sometimes referred to as the rise of “technological pessimism” (Marx 1994.) This increase was complemented with a more general breakdown of confidence in the public institutions that administered the construction of the large-scale technological structures associated with the new environmental problems (Strydom 2002, 18–19, 21, 24).

In this chapter I argue that the emergence and spread of this new empirical environmental knowledge and the accompanying increase in distrust in high-technology make up the beginning of a fourth system-wide revolution in the common epistemology and understanding of the universe of the European-origin, Western international society. In making this claim I contextualize Robyn Eckersley’s analysis of what she, following Philpott, calls contemporary green evolutions (rather than revolutions) in sovereignty with the emergence of what Harry Collins and Robert Evans conceptualize as the second wave of social studies of science. Through this contextualization effort I illustrate how the Environmental Revolution was not only associated with issues of environmental protection or new green social movements. Instead, it formed a central component of the beginning of a more general international system-wide
change in what was known, how it was known, and what the knowledge was deemed to be good for in Western international society.

In order to illustrate how the change in the epistemic authority structure of the EIS in the second half of the 20th century corresponds with the three previously analyzed ones, I complement the contextualization of the analytical frameworks of Eckersley and Collins and Evans with Philpott’s description of what he conceptualizes as the second revolution in sovereignty in international society in the 1960s. As I explained in Chapter Three, Philpott’s analysis of the second system-wide revolution in sovereignty he associates with the spread of nationalism and the accumulation of colonial independence movements in the 1960s can be treated as a description of a major wave of expansion of international society through the increase in the numbers of its members.

In explaining how the Environmental Revolution corresponds with the previous system-wide revolutions in the epistemic authority structure of the EIS I, hence, do not use Philpott’s research to discuss how this expansion of the European-origin international society corresponds to the fourth system-side revolution in what was known, how it was known, and what the knowledge was deemed to be good for in Western international society. Instead, I use his more general analytical framework to illustrate how the collective identity politics of Western international society were also revolutionized internally as part of the Cold War.

Philpott’s (2001, 153-167) analysis of the revolution in the second face of authority in the 1960s illustrates how the increase of colonial independence movements and the spread of nationalism posed a threat of what he calls a crisis of political organizational pluralism in international society of states. I argue that the emergence of the Soviet Union as a great techno-scientific power from WWII posed a similar, but materially measured, possibility of a crisis of legitimacy of the double-constitutional structure of the modern industrial international society. With this I do not primarily refer to the previously analyzed new existential threat the development of military material of the Soviet Union posed for Western international society. Instead, I argue that the Soviet Union posed a threat to the legitimacy of the peaceful social roles attached to industrial and civilizing sciences and technologies in the modern and civilized Western international society. In the analytical terms of this thesis, I utilize Philpott’s analysis of the expansion of international society through a revolution in the second face of authority in the 1960s to illustrate one previously neglected aspect of Cold War East-West identity politics in International
Relations (IR). That is, how the industrial and civilized constitutional structure of Western international society that I discussed in the previous chapter was re-adjusted to respond to a new ideological and threat posed by the emergence of the Soviet Union as a techno-scientific great power from WWII in the late 1940s, 1950s and 1960s.

**Emergence of the new post-modern epistemic authority structure**

In reviewing the development of the field of social studies of science, Collins and Evans divide the history of the development of the discipline into two major waves. In terms of this thesis what Collins and Evans conceptualize as the first wave of science studies in the 1950s and early 1960s was associated with the progress of the hegemonic industrialized and civilizing epistemic authority structure described in the previous chapter. What this means is that these studies were aimed at translating the success of the experimental method of natural and technical sciences to the organization of the social and political realm. The emergence of the second wave of science studies was, in turn, related to the difficulties this translation began to face, and the accumulation of the information about the unexpected side effects of the application of the material constitutional structure to the governance of the natural and material realm. The accumulation of this information is associated with the emergence and progress of the aforementioned Environmental Revolution (Collins and Evans 2002, 239-240). Instead of aiming at mimicking experimental laboratory-methods, the studies of this second wave were focused at analyzing the social and cultural dimensions of different scientific disciplinary paradigms. In doing so they underlined and illustrated how the legitimacy of the previous epistemic authority and material constitutional structures of international society had been socially as well as materially constructed (Collins and Evans 2002, 233–240).

The emergence and stabilization of the social constructivist studies of science and technology in the late 1960s and 1970s, I argue, offers one indication of the fourth, larger system-wide change in the hegemonic ways of defining what was known, how it was known, and what the knowledge was deemed to be good for in Western international society (Barnes 1988; Bijker, Hughes, and Pinch 2012; Zammito 2004, 123–231). Another indication of what I claim is equivalent to the beginning of the fourth international system-wide change in the epistemic authority structure of international society is how, in terms of Ulrike Felt (2003, 16), in the 1970s, alternative
knowledge forms became increasingly able to “claim their place in societal decision making” as equally, and at times better informants in the solution and definition of co-ordination and collaboration problems of states related to the governance of the material universe. Another indication of this change is what Peter Haas (1992, 7–12) has summarized as the transfer of wider and wider areas of public policy from the sphere of public politics and policy into new institutional areas of technological and scientific expertise. This is especially because, by expertise, Haas does not refer to the transfer of these issues to epistemic communities that had contributed to the dominance and legitimacy of the industrial, civilizing developmental paradigm. Instead, he refers to the establishment of new, similarly functioning and organized national environmental agencies and national environmental assessment laws within the member states of Western international society (Bodansky 2010, 29–30; Eckersley 2004, 206, 214–217; Haas 1992, 7–12).

The stabilization of new environmental agencies as part of the administrative structure of modern states that Haas’ analysis refers to is one example of how the Environmental Revolution held a dominant role in this last revolutionary change in the common epistemology and understanding of the natural universe of international society in the 1960s and 1970s (Dryzek 1997). The stabilization of the discussion of global warming as a human-induced problem in international society offers another indication of the central role of the new ecological environmental sciences and technologies associated with the Environmental Revolution in the emergence of the new epistemic authority and corresponding material constitutional structure in Western international society during the second half of the twentieth century (Weart 2008). They also illustrate how these new epistemic communities that I argue constitute the new post-modern epistemic authority structure of international society, evince a new understanding of the subordinate rather than dominant role of Western humanity in nature (IPCC, 2013: Summary for Policymakers).

Another example of the emergence of a different understanding of the role of Western humanity in nature associated with the new epistemic authority structure is the adoption of the ‘precautionary principle’ as part of the generally accepted canon of international law in the 1980s (O’Riordan and Cameron 1994). This approach urges action against environmental threats, even if those threats are yet to be fully defined by the scientific field, if the scientifically perceived
possible environmental threat is grave enough (Bodansky 2010, 32; Koivurova 2012, 198–199, 209, 216–222). I will next contextualize these changes in the common epistemology and understanding of the natural universe in Western international society associated with the Environmental Revolution by considering these changes within the analytical framework of the double-constitutional structure of the EIS. In doing so, I illustrate how the aforementioned changes are not only indications of the emergence and stabilization of a new epistemic authority structure and a corresponding material constitutional one in what I conceptualize as the post-modern international society. They are also indications of how this latest revolution in the material–side of the double constitutional structure has not led to a revolution of the social one. Like the Scientific Revolution described in Chapter Five, it has, instead, been absorbed into its further configuration. I follow Eckersley (2004, 203-240) in defining this configurative co-productive process between the two international institutional structures as consisting of evolutions rather than revolutions in sovereignty.

**Seeing like a state in the post-modern society of states**

To reiterate what I mentioned in the introduction of this chapter, Eckersley (2004, 207) conceptualizes the changes in the constitutive norms of international society associated with the Environmental Revolution as green evolutions, rather than revolutions, in sovereignty. One of the concrete examples of such evolutions Eckersley gives in her work is the stabilization of environmental issues as part of the United Nations’ framework. The first major step in this process was the holding of the 1972 United Nations Conference on the Human Environment (UNCHE). The second major step following the Stockholm Declaration on the Human Environment was the establishment of the United Nations Environment Program (UNEP). These processes have been followed up with the Rio Declaration on Environment and Development, the Kyoto Protocol, and finally with the 2015 Paris Agreement (Eckersley 2004, 212–213, 228–240). Another more concrete example of these evolutions is a new definition of what is considered as good governance of the material universe in international society. One formulation of this definition is summarized in the principle 21 of the 1972 Stockholm Declaration.

According to Principle 21: “States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to
their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction” (Declaration of the United Nations Conference on the Human Environment 1972). As this principle offers a novel definition of what is regarded as good governance of the material universe, it is not equal, but related to, the previously discussed hegemonic mechanisms associated with the organizing principle of operational sovereignty. The adoption of this principle is also an example of how the emergence of the new post-modern, ecological epistemic authority structure has been absorbed into the renovation of the old modern social, political, and legal international institutions. I next will give one more example of such non-revolutionary co-production between the two sides of the double-constitutional framework during the second half of the twentieth century that Eckersley does not elaborate on in her analysis. That is, how the adoption of the above-described new environmental regimes has also led to a certain reorganization of international institutional environmental knowledge production and propagation for the purposes of governance. The re-organization of knowledge-production I refer to here is the emergence and spread of new national and international multidisciplinary environmental reports.

Some of the new environmental reports associated with the absorption of the new epistemic authority structure into the old modern constitutive hierarchy of international institutions are: the assessments of the 1988 formed Intergovernmental Panel on Climate Change; the Global Environmental Outlooks of the United Nations Environmental Programme that began in 1997, and; the Living Planet reports by the World Wildlife Foundation first published in 2008.\(^4\) As mentioned in the introduction of this chapter, despite this configurative co-production between the two sides of the double-constitutional structure, the new international epistemic authority structure and the corresponding material, constitutional one have not, at least yet, managed to replace the hegemony of the previous ones. I will next give one possible explanation of the continuous legitimacy of both the old and the new material constitutional structures at the contemporary. I will begin this explanation with an overview of the previously dominant large-scale systemic change in the global political universe that began after WWII. This change is related to the stabilization of the Soviet Union as the ideological adversary to the Western

\(^4\) For the latest issues of these reports see: IPCC 2013; World Wildlife Foundation 2014; UNEP 2012.
international society of states, as well as a new internationally acknowledged techno-scientific great power.

The materialization of the new ideological threat of the Soviet Union

In the previous chapter I illustrated how the Soviet Union, at its onset, adopted the material constitutional and epistemic authority structures of the industrial and civilized society of Western states. I also explained how part of the reason for this was that this was expected to enable the Soviet Union to materially illustrate the superiority of the communist ideology and its alternative moral purpose of the state. In the analysis of the previous chapter I did not explain how the mega-projects in the Soviet Arctic in the first half of the twentieth century failed to spur similarly concentrated, elaborate counter-reactions from the members of the Western society of states. This situation changed in the aftermath of WWII from which the Soviet Union emerged as an internationally acknowledged great techno-scientific power. This emergence posed a specific new type of threat to the legitimacy of the collective identity of Western international society, because the Soviet Union was, in relation to the social side of the double-constitutional structure, openly opposed to Western international society (Grewe 2000, 648). I claim that the previous constructivist analyses of the constitutive role of ideas, norms, and values in the Cold War in IR that have focused on the stabilization and spread of the capitalist economic structure and the new military materials have neglected the emergence of this aspect of the new techno-scientific ideological threat posed by the Soviet Union (Cox 1981; Oreskes and Krige 2014; Antoniades 2003). In terms of this thesis this is a threat that the emergence of the Soviet Union as an equal techno-scientific power posed to the legitimacy of the double-constitutional structure of Western international society.

In the analytical terms of this thesis, I argue that the emergence of the Soviet Union as a techno-scientific equal to the Western states following WWII posed a threat to the legitimacy of the collective identity of the members of Western international society as superior. This notion of superiority was associated with the idea of industrial civilization discussed in the previous chapter. The severity of this threat, I claim, is evident in how after WWII the orchestration of similarly elaborate and directed counter-reactions to the internationally advertised Soviet developments in science and technology in both military and non-military spheres became one of
the guiding principles of the organization of the post-WWII Western international order. The characteristics of this potential crisis of legitimacy are similar to Philpott’s analysis of the crisis of pluralism associated with the revolution in the second face of authority of the international authority structure in the 1960s. I will hence next further develop this argument with a reference Philpott’s analysis of the second revolution in sovereignty in international society.

**Expansion of Western international society during the Cold War**

Philpott argues that in the 1960s the norms associated with the second face of the international authority structure were revolutionized because of the spread of new ideas related to nationalism and racial equality in international society. This revolution, he claims, was solved with the adoption of new basic rules of practice for who had the right of becoming legitimate holders of territorial sovereignty (Philpott 2001, 35–36). The accumulation of the crisis of pluralism associated with the spread of the two aforementioned ideologies in the 1960s, Philpott explains, was first related to the increase of colonial independence movements. In Philpott’s (1999, 584) words, the following crisis of pluralism was solved with a system-wide “widening and weakening of the previous criteria for being recognized as a state”. In more specific terms, Philpott (1999, 582–584) argues that the organizational norm of self-determination was established in the 1960s as the new dominant organizing principle in determining who was entitled to statehood over the previously dominant norms associated with civilization and Christianity. He summarizes the potentially generative power of this norm of national self-determination in the context of colonial independence movements as follows: “the new norm of colonial independence held that colonies were entitled to statehood however weak their government, however scant their control over their territory, however, inchoate their people” (Philpott 1999, 584).

When contextualized in the analytical framework of this thesis, what Philpott defines as the second crisis of pluralism in the 1960s is a description of a revolution in the second meaning of the norm of the role of Western humanity in nature. That is because in redefining the second face of authority this revolution in sovereignty also redefined the rights and responsibilities of the individuals who identified with international society towards other peoples. The aforementioned threat of the emergence of the Soviet Union as a techno-scientific great power from WWII is, in
turn, related to threat of a crisis of legitimacy of the second meaning of this norm. That is, the
definition of what is regarded as rational, feasible, and reasonable governance of the material
universe in international society, and its usage as the basis of collective identification and ranking
of the members of international society through reference to its mutually interconnected and
dependent developmental paradigm.

As mentioned above, the Soviet Union had at the onset of its formation adopted the epistemic
authority and material constitutional structures of Western international society to materially
illustrate the superiority of its moral purpose of the state. After WWII the Soviet Union, for the
first time, ranked higher in the social hierarchy of states in terms of the material measure of
greatness of states than the majority of war-torn European states. This success in techno-
scientific development in the Soviet Union, in military as well as non-military spheres of material
culture, I argue, posed a threat to the legitimacy of the idea of superiority of the Western
international society of industrial civilized nation-states. In other words, what I claim is neglected
in Philpott’s analysis is how, even after the revolution of the second face of authority, the idea of
the superiority of the Western constitutional structures was still held legitimate. It also continued
to be built on the double-constitutional structure of the modern Western international society
described in the previous chapter. The potent legitimacy crisis that emerged from Soviet Union’s
successful adoption of the developmental paradigm of Western international society of states, I
argue, was solved in the sphere of the material constitutional structure in international society
through the re-adjustment of the old developmental paradigm to correspond to the new threat of
the communist Eastern international society to this collective identity of superiority of the
capitalist Western international society of states.

Re-adjustment of the old developmental paradigm

One of the readjustments of the old industrial and civilized developmental paradigm of the
Western society of states that followed from the emergence of the new ideological Soviet threat
in the sphere of non-military science and technology was the increased focus in the ranking of the
level of development of states based on the levels and means of mass consumption (McInerney
2005, 341). One concrete example of this process of re-adjustment is how part of the American
Marshall Plan in Europe was the deployment of “productivity” experts, which guided Europeans
in producing goods more cheaply so that average Europeans could consume more (Endy 2013, 333). Another example of how the developmental paradigm was re-adjusted with a new symbolic value attached to mass consumerism is the United States’ Foreign Leader program. Under this program the US State Department brought Europeans on tours of the United States that focused on highlighting the state’s capacity for mass production and mass consumerism. In the words of Christopher Endy (2013, 331): “When the programs worked, Europeans returned home impressed by American workers’ consumer abundance”. Both of these examples of readjustment of the developmental paradigm in Western international society refer to the United States. I do not, however, argue that this readjustment of the developmental paradigm was only due to its domestic politics or preferences (Apunen 2004, 225, 287–289; Hannikainen 2014, 32–33).

The new material measure of progress in international society based on mass consumerism was in line with what Reus-Smit argues was the dominant constitutive norm of the moral purpose of the state of Western international society from the late eighteenth century onwards. That is to say, the augmentation of individuals’ purposes and potentialities (Reus-Smit 1999, 122–154). Despite the differences in the social sides of the double-constitutional structure of the Western and the Eastern international societies, the new material manifestations of greatness and progress associated with material consumerism were also comparable with techno-scientific progress within the Soviet Union. This is because the type of science and technology associated with mass consumerism also followed the old developmental paradigm, the norm of the role of Western humanity in nature, and the corresponding industrial and enlightened epistemic authority structure. In other words, the two blocks continued to share an epistemic authority structure and the corresponding modern definition of what was considered as material development and progress. The accumulation of the new empirical knowledge that was in many ways contradictory with the shared common epistemology and understanding of the natural universe in Western international society that I referred to in the beginning of this chapter, however, did not emerge and spread in Eastern international society. This, I claim, is not because of any form of superiority in Western science and technology, but because of the differences in the social, legal, and political institutional structures in the two blocks and their co-production.
Differences in co-production in the East and the West

The interlinkage and co-productive nature of the two sides of the analytical framework of the double-constitutional structure of international society are evident in how the Environmental Revolution was successful in changing the material constitutional and epistemic authority structure of Western international society but not the Eastern one. As illustrated in the beginning of this chapter, in Western international society the spread and accumulation of new empirical knowledge, in contrast with the previous common epistemology and understanding of the natural universe of international society, was eventually absorbed into the renovation of the institutional structures that supported the moral purpose of the state in the augmentation of individuals’ purposes and potentialities (Reus-Smit 1999, 122–154). In the previous chapter I explained how the political and legal constitutional structure related to good governance of peoples in the Eastern society of states that was dominated by the Soviet Union did not share this ideal of the moral purpose of the state. One of the consequences of this difference in the social legal and political organization of the two international societies, I argue, is that the accumulation of the new empirical information of the unexpected side effects on nature of the developmental paradigm was not able to emerge and spread in the Soviet Union as it had in Western international society. Only with the advent of the perestroika in the 1980s were the Soviet press and scientists able to report on and criticize the modernization plans of the governing elite by reporting on the unexpected effects of such plans on environment and human health (Graham 1993, 55–58, 168-172, 186–190; Ward 2009, 152–153, 156).

In the third of the following three case studies, I argue that because of the later emergence and spread of the new environmental knowledge in the Soviet Union, the hegemonic material, constitutional structure that defines what is possible, feasible, and reasonable in relation to the governance of the material world in contemporary Russia still includes dominant aspects of the Soviet norm of the role of Eastern humanity in nature. The material constitutional structure of Western international society, in turn, consists of a hybrid of the readjusted modern, and the new post-modern, norms of the role of Western humanity in nature. I will next move onto the empirical analysis of the elements of the new, and readjusted old, material, constitutional structures through individual case studies. As in the previous chapters, the cases of this one consist of discursive analysis of the justifications for the successful constitution and mobilization
of sovereign power for the exploration of the previously unknown or little-known at the
contemporary. In more contemporary analytical terms, the three following cases consist of the
analysis of the politicization of the role of the Arctic in the future global political universe in three
states. The states in question are Norway, Canada, and Russia. Because of the actuality of this
politicization, the analysis of the elements of the two material constitutional structures in this
chapter differs slightly from that of the previous ones. This is also why, before moving onto
individual case studies, I will next briefly explain how the analysis of these contemporary cases is
organized.

7.2. The uncomfortable co-existence of the old industrial and the new ecological
devitational paradigm in the 21st century

As in the previous case studies of this thesis, the following three cases consist of an analysis of the
discursive justifications given for the constitution and mobilization of sovereign power for the
exploration of the previously unknown, or little-known, northern periphery. At present these
justifications take the form of new official Arctic policies of three states that have made the
development of their Arctic terrains a national as well as foreign policy priority. The states under
analysis are Canada, Russia, and Norway. Because of the currency of the politicization of the
Arctic, the analysis of the elements of the new, and the re-adjusted old, material constitutional
structures of international society differ from the previous ones in three respects. The first

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5 All of the eight states that in the 1996 Ottawa Declaration that established the Arctic Council were defined as
“Arctic states” have since 2005 published at least one new foreign policy oriented Arctic policy document. In these
documents the states address the opportunities and challenges they are facing them as Arctic states because of the
progress of anthropomorphic global climate change (Denmark, Greenland and the Faroe Islands 2011; Government
Offices of Sweden 2011; Finnish Prime Minister’s Office Publications 8/2010; Utanríksráðuneytið 2009). In 2008
the five littoral Arctic states also published a joint declaration where they highlighted their sovereignty, sovereign
rights and jurisdiction in large areas of the Arctic Ocean as constituting a sufficient and “solid foundation for
responsible management” of the region especially as they were all committed to the existing “extensive
international legal framework” that “applies to the Arctic Ocean” (The Ilulissat Declaration 2011). In the analysis of
the horizon of expectation for the human activities in the Arctic as reflective of the possibly generative power of the
new constitutional and epistemic authority structures as well as the old re-adjusted material constitutional one I,
however, only use the policy documents of Canada, Norway, and Russia. That is because only these three states have
made the appropriation of their terrestrial as well as maritime Arctic regions as a foreign policy priority. I
acknowledge that the development of the Arctic has also been made a priority area in the Icelandic foreign policy
agenda (Skýrsla Össurar Skarphédinssonar utanríkisráðherra um utanríkis og alþjóðamál, 2013, 7). However, I do not
use the change in Icelandic Arctic policy as a case study here. That is first, because the state does not have any claims
for extended continental shelf in the Arctic Ocean, and second, because the Icelandic Arctic policy is focused on the
development of maritime activities in the Arctic, not terrestrial ones (Skýrsla Össurar Skarphédinssonar
utanríkisráðherra um utanríkis og alþjóðamál 2013, 13-20; Athingi 2011; Utanríksráðuneytið 2009).
difference in the case study analysis of the chapter is that, due to their contemporary nature, I cannot compare the horizons of expectation in these new internationally oriented Arctic policies of these three states with the benefit of hindsight. The case selection of the chapter is, hence, not determined by a criterion of these policies representing, in hindsight, failed attempts to push the ecological outer limits of settlement further northwards. The second difference in the following case study analysis is that because I claim that the old and the new material constitutional structures co-exist at present, I use both of the epistemic authority structures identified in the macro-historical analysis as frames of reference in the analysis. The third difference is related to the overarching claim that the changed horizons of expectation over the future conditions of the Arctic in these three states can be used to study the elements of the material constitutional structures of the post-modern international society in a similar manner as the previous case studies.

To further justify the argument of the feasibility of the previously developed and applied methodological framework to the contemporary case studies, I have added one source of primary research material to the official state-policies in the analysis of these cases. That is the latest of the Arctic Council’s working groups’ multidisciplinary techno-scientific assessments over various aspect of the materiality of the Arctic. In the analysis of the three cases I will compare the elements of the political horizons of expectation of the official Arctic policies of the three states with those present in these assessments. This comparison illustrates two more general features related to the application of the analytical framework of the double-constitutional structure and the translation of the discursive method of controversy studies of the Sociology of Scientific Knowledge (SSK) onto the analysis of the contemporary politicization of the future role of the Arctic in the global political universe. The first of these features is how the materiality of the Arctic is, in comparison to other more easily accessible regions, still partially unknown and largely little-known. The second aspect is how in terms of the climatic changes of the region the uncertainty and lack of accumulated primary data not only applies to the future climatic conditions the Arctic, but also to the globe as a whole. In relation to the methodological framework applied to the case study analysis in this thesis, this means that the analysis of the

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6 In this analysis I use the following Arctic Council ordered multidisciplinary assessments; the 2005 Arctic Climate Impact Assessment” (ACIA); the 2009 Arctic Marine Shipping Assessment (AMSA); and the 2012 Snow, Water, Ice and Permafrost in the Arctic (SWIPA).
contemporary constitution and mobilization of sovereign power for the exploration of the Arctic fulfills the more general case selection criterion of consisting of justifications for the constitution and mobilization of sovereign power for the exploration of previously unknown or little-known regions in the periphery.

As in Chapter Four, the case studies of this chapter unfold in a chronological order, based on the publication date of the first new official foreign policy associated Arctic policy document in the three states. This means that I will begin with the analysis of Norwegian Arctic policy, continue with the Canadian one, and end with the analysis of Russian Arctic policy. Before I move onto the cases I will, however, need to explain what might, at first glance, appear to be an oversight of one of the three elements of the material constitutional structure in the case study analyses. That is, the organization principle of operational sovereignty.

Constitution of mechanisms of operational sovereignty at the contemporary

The organizing principle of operational sovereignty is not present as a similar primary analytical element in the following contemporary case studies as it has been in the previous, historical, ones. The reason I do not deduce its meaning through the case studies is related to the stabilization of what Reus-Smit argues make up the modern fundamental institutions of the legal and political side of the double-constitutional structure in mid-twentieth century. The institutions in question are multilateralism and contractual international law (Reus-Smit 1999, 122–154). Following the co-production idiom, I argue that the stabilization of these new fundamental institutions means that the co-production of the hegemonic mechanisms for the expansion of the ultimate territorial authority of states in association with the epistemic authority structure is no longer best evident in the individual policies of states. This is because the negotiation of the new basic rules of practice associated with the organization principle of operational sovereignty at the contemporary takes place through the negotiation of individual regimes in these fundamental institutions. In the case of contemporary claims for expansion of the territorial authority of states into the Arctic, the most notable of such regimes is the United Convention of the Law of the Sea (UNCLOS), especially Articles 76 and 243.

All of the three states whose Arctic policies are analysed below are signatories to this convention. They all also refer to UNCLOS in their Arctic policies. Because of this co-production between the
two sides of the double constitutional structure, I will not deduce the new mechanisms related to
the organizing principle of operational sovereignty from the case studies. I will, instead, analyse
the emergence and stabilization of new mechanisms associated with legitimate forms of
geographical expansion of international society through references to the re-adjusted old and the
new epistemic authority structures in an overview of the establishment of the abovementioned
UNCLOS articles 76 and 243.

Operational sovereignty and UNCLOS

The negotiation of new mechanisms for the continuing material and geographical expansion of
the ultimate territorial authority of states formed one of the central parts of the negotiations of
UNCLOS III that took place multilaterally in international society between 1973 and 1982. By this
expansive element in the context of the Law of the Sea (LOS) what I mean are the negotiations
related to the mechanisms through which the limits of the continental shelves of states are
determined according to this convention. The solution that was eventually adopted for the
definition of these limits included a highly technical definition of the possibility for the extension
of the ultimate territorial sovereignty of coastal states to the seabed and subsoil of the submarine
areas, which are the specific ultimate territorial rights of states in this specific maritime zone. The
mechanisms for this expansion are defined in Article 76 of the LOS convention (Suarez 2008). For
the purposes of an argument about co-production between the two sides of the double-
constitutional structure, it is not necessary to go into the geophysical details of these definitions.
Instead, it is sufficient to refer to the international legal body that has the authority to give
suggestions for the establishment of the mutually recognized limits of the continental shelf under
UNCLOS. That is, the Commission of the Limits of the Continental Shelf (CLCS).

According to Article 76 (8) of UNCLOS: “Information on the limits of the continental shelf beyond
200 nautical miles from the baselines from which the breadth of the territorial sea is measured
shall be submitted by the coastal State to the Commission on the Limits of the Continental Shelf
set up under Annex II on the basis of equitable geographical representation. The Commission
shall make recommendations to coastal States on matters related to the establishment of the
outer limits of their continental shelf. The limits of the shelf established by a coastal State on the
basis of these recommendations shall be final and binding.” What makes the CLCS of special
interest to the argument of co-production of the two sides of the double-constitutional structure is that According to Annex II, Article 2 (1): “The Commission shall consist of 21 members who shall be experts in the field of geology, geophysics or hydrography, elected by States Parties to this Convention from among their nationals, having due regard to the need to ensure equitable geographical representation, who shall serve in their personal capacities.” That is to say it comprises of natural and technical scientists, not international legal experts.

Douglas Johnston has described the establishment of CLCS as having combined the "influences of geography, geology, geomorphology, and jurisprudence" (1988, 91). I claim that even though Article 76 of LOS does not refer to settlement, the influence of the industrial developmental paradigm to the definition of the revision of the mechanisms of operational sovereignty in the twentieth century is evident in its techno-scientific nature. That is especially as the information collected and the timeline states that are signatory to the convention have for collecting it are the same to all states, despite of their geographical location.7 The absorption of the new post-modern environmental epistemic authority structure into the further configuration of the modern, legal, and political side of the constitutional structure, I argue, is, in turn, evident in another article of UNCLOS referring to specific rights of states in their Exclusive Economic Zones in ice-crowded waters. That is Article 234.

Because of the discussion of green evolutions in sovereignty above, I will not go further into the argument of the configurative co-production of the two sides of the double-constitutional structure in association with the emergence of the new ecological epistemic authority structure here. I will instead refer to the text of this article in itself. That is because the possibly generative...

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7 This standardization of the processes for the establishment of the extensions to the limits of the continental shelves has already been proven problematic in the application of the framework into the definition of the outer limits of the continental shelves of the signatory states in the Arctic Ocean. In the case of the Canadian submission to the CLCS, when the 10-year-limit for submission of the information from the signing of the convention came to a close in 2013, the state made its claim only partially. The official explanation for the incompleteness of claims was that despite of the novel exploratory efforts taken during the past decade, the state still did not have enough data from Arctic coastal areas upon which a full submission could be made. The state, however, assured that the timely partial submission would be completed as soon as the missing data had been retrieved. At the time of writing, sufficient information still has not been collected. In the case of the Russian submission, the state first submitted a claim for its extended continental shelf claims in the Arctic in 2001. The following year CLCS suggested that the state collect more data to support the claims it had made. The final submission of information in relation to claims of extension of the continental shelf of the state in the Arctic Ocean was made in August 2015 (United Nations Division for Ocean Affairs and the Law of the Sea, 2015).
role of the aforementioned new ecological epistemic authority structure in redefining the mechanisms for establishing operational sovereignty is evident already in its basic form. According to this article: “Coastal States have the right to adopt and enforce non-discriminatory laws and regulations for the prevention, reduction and control of marine pollution from vessels in ice-covered areas within the limits of the exclusive economic zone, where particularly severe climatic conditions and the presence of ice covering such areas for most of the year create obstructions or exceptional hazards to navigation, and pollution of the marine environment could cause major harm to or irreversible disturbance of the ecological balance. Such laws and regulations shall have due regard to navigation and the protection and preservation of the marine environment based on the best available scientific evidence” (UNLOCS, Part XII, Article 234).

The above discussion of the stabilization of new mechanisms associated with legitimate forms of geographical expansion under the framework of UNCLOS illustrates how the new mechanisms for material or geographical expansion of the ultimate territorial authority of states under the organizing principle of operational sovereignty are, at present, co-produced with the new and the re-adjusted old epistemic authority structures and the institutional framework of multilateralism and contractual international law. Because of the dominance of these social fundamental institutions in the organization of the co-ordination and collaboration between states in contemporary international society, I will not use this element as one of the analytical elements in the following case studies. This means that in the cases below I will focus on the content of the two other norms of the material constitutional structure linked to the reforms of the organizational principle of operational sovereignty. The analysis of these two elements takes place in the following manner.

I begin the each of the three cases by giving an overview of the previous northern policies of the state. After this I move onto the study of the two elements of the new and the old constitutional structure in the horizons of expectation of their new Arctic policies. Because of the difference of the contemporary research material, I have gone about the analysis of these horizons of expectation in a slightly different manner than in the previous cases. In the narrative analysis of the Canadian and Norwegian materials I followed the method of discursive context analysis
(Krippendorff 2009, 341–342). This means that I began the discursive analysis of the horizons of expectation by first coding the discourses of the policies according to the two overarching themes of the policies of both states. These are “opportunities and challenges”. After this first round of inductive coding, I organized the discourses that corresponded to these two themes according to higher-order order codes retrieved through an analysis of what these opportunities and challenges were described to deal with.

In the organization of the analysis of the two first cases I then used this process of inductive coding to identify the four main justificatory narratives that these two states use in the justification of the increased constitution and mobilization of sovereign resources for the exploration of their Arctic regions. Because of the difference of the discursive content of the Russian Arctic policy I did not follow such a process of codification of the major justificatory narratives in the third case study of this chapter. Instead, I analyzed the elements of the material constitutional structures according to the main themes that the Russian Arctic policy was organized around. These were “basic objectives” and “basic problems”. Because of the dominance of the old as well as new material constitutional structures, I have also complemented the primary research material consisting of the official policies of the three states with the corresponding analysis of the horizon of expectation for what is feasible, reasonable, and possible in the future Arctic in the latest multidisciplinary techno-scientific assessments of the working groups of the Arctic Council.

**NORWAY**

Since the end of the nineteenth century when Norway still formed a personal union with Sweden, the exploration of the Arctic has been one of the predominant themes in Norwegian national identity-building (Drivenes 2004, 13). The predominance of Arctic sciences in Norway’s purposeful independent national-identity formation at this time is evident, for example in a biography of Fridtjof Nansen, one of the first Norwegian Arctic explorers, published in 1896. The author of the volume explains that: “It is not in the path of war that small nations can find their place and defend their independence. It is instead on the fields of culture, civilization and science” (In Arlov et al. 2005, 147). It is also evident in how Norwegian geologist, Karl Pettersen
between 1871 and 1872 argued that the exploration and research of the Arctic was, on historical
and geographical grounds, the most natural way for Norwegians to contribute to the great
cultural life of Europe (Arlov et al. 2005, 104). This prominence of Arctic exploration in
Norwegian national identity-building continued after the state peacefully dissolved the union it
held with Sweden in 1905. It has, however, been only recently that the constitution and
mobilization of sovereign resources for the exploration of the Arctic has come to form one of the
foreign-policy priorities of the governing elite of the state. That is even though the state expanded
its ultimate territorial authority into various Arctic regions in the first half of the twentieth
century.

Norway’s 21st century Arctic Ocean expansion

The extension of the sovereign authority of Norway further northwards in the first decades of the
twentieth century was not the result of a coherent and sustained plan for the development of the
region as was the case of previously analyzed Finnish claims for the annexation of the region of
Petsamo. It was rather a reaction to the activities of other states. The first of these Norwegian
Arctic territorial annexations took place in the form of the negotiations of the 1920 Svalbard
Treaty, which established Norwegian sovereignty over the island group while reserving and
safeguarding specific rights for the practice of economic activities for the citizens of the signatory
states to the treaty (Treaty between Norway, The United States of America, Denmark, France,
Italy, Japan, the Netherlands, Great Britain and Ireland and the British overseas Dominions and
Sweden concerning Spitsbergen 1920). As mentioned above, the process that led to the signing to
this treaty is one where the Norwegian governing elite took the issue into its agenda only after it
had raised the interest of other states.

The proposal of claiming sovereignty over Svalbard was first presented to the Norwegian Foreign
Ministry by English miners and merchants in the early 1900s. At this time the state decided
against the proposal. Establishing ultimate territorial authority over the island group was
decided as a worthy goal only later during the First World War when the owner of the American
mine in Svalbard, Longyearbyen, decided to sell it and when other states also began showing
interest in claiming sovereign authority over the island group. Unlike in the Finnish case analyzed
in the previous chapter, plans for increased settlement never formed part of the diplomatic
negotiations that followed (Riste and Berg 1995, 121). This was also the case in relation to the
annexation of the island of Jan Mayen to Norway after another set of multilateral diplomatic
negotiations over its status in 1929 (Bjørgo, Berg, and Fure 1996, 132–135). It also applies to the
eventually failed, bilateral negotiations over the ultimate territorial authority of Eastern
Greenland (Lidegaard et al. 2003, 177–183, 267–270). That the Norwegian state never referred
to the developmental paradigm of international society in its bi- and multilateral negotiations for
expansion of ultimate territorial authority over the abovementioned northern regions in the first
half of the twentieth century does not mean that the governing elite had not adopted it as the
bases of organization of its internal regional administration and politics.

**Problem Northern Norway**

The first discussion that, in terms of this thesis, can be seen as attempting to fulfill the previously
mentioned old material moral purpose of the state by pushing the ecological outer limits of
feasibility of the developmental paradigm and along with it the welfare state further northwards
in Norway emerged in the late 1940s. The first economic and trade oriented policy document for
Northern Norway from 1948 conceptualized the lack of certain infrastructure in the region as
**Problem Northern Norway** (Strøksnes 2006, 130). This became the title of the following official
parliamentary developmental plan for Northern Norway published in 1951 (St. meld. nr. 85.
(1951)). Other problematic socio-material and techno-scientific features that were described as
characteristic of the region and that were grouped under this title in the 1951 document
included: structural unemployment; low levels of productivity, and; an overall poor economic
structure (St. meld. nr. 85. (1951), 2, 5, 39-46). The document does not define these problems as
unsolvable. According to the policy, the first step in their solution is the establishment of a new
administrative framework that will enable the attraction of private capital directed to the
development of specific industries related to the pushing to the ecological outer limits of the
industrial developmental paradigm into the region (St. meld. nr. 85. (1951), 1).

The possibly generative power associated with the previously discussed re-adjusted industrial
developmental paradigm of Western international society is evident in how the need to facilitate

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8 See also the materials relating to the case in the archives of the Norwegian Foreign Ministry, especially in box:
*Gjenpart originalen i sak P2 B 3/18 (Copies of the originals in issue P2 B 3/18).*
this kind of administrative development in Northern Norway is explained to not only originate from the needs of national politics. It is also explained to be in accordance with the administrative planning and advice of the Organization for European Economic Co-operation and Atlantic alliance (OEEC) (St. meld. nr. 85. (1951), 4). The closing of other options for action through the stabilization of the hegemony of this developmental paradigm is, in turn, evident in how the leadership role in the creation of this framework is allocated the central government. This is described as essential because “without the transfer of technical knowledge and capital from other regions than Northern Norway the developmental program could not be executed with sufficient speed” (St. meld. nr. 85. (1951), 4). Like many other plans for such top-down social and material planning of the time, the increase of such centralized social and economic planning was not able to fulfill the original expectations attached to it.

The problems mentioned in the 1951 document were reported to persist in the next 1972 published central governmental plan for the development of Northern Norway, “Om Landsdelsplan for Nord-Norge” (Of the regional plan for Northern Norway) (NOU 1972: 33). They were also reported to be intact in the following policy framework for the development of the northernmost part of Norway, the 1990 document that aimed to establish an “action zone” (tiltaksson) for two of the northernmost counties, Finnmark and Northern Troms (St. prp. nr. 64. (1989-90), 8). The adoption of this administrative tool was also reported to have led to discouraging results in St.meld. nr. 8 (2003-2004), “Rikt mangfold i nord. Om tiltakssonen i Finnmark og Nord-Troms” (Rich diversity in the north. Of the action zones in Finnmark and Nord-Troms). This document was the last developmental plan for Northern Norway structured according to the themes that had, since the 1950s, constituted the dominant perception of Northern Norway as constituting Problem Northern Norway. The next policy document that dealt with the attempt of pushing the ecological outer limits of feasibility of the previous developmental paradigm further northwards in Norway was also not published by the Ministry of Economy, Ministry of Trade, or by the Ministry of Communities and Regions. Instead, it was the Norwegian Foreign Ministry’s Report No. 30 (2004–2005) to the Storting titled “Opportunities and Challenges in the North”.
Opportunities and challenges in the North

The 2005 official Norwegian Arctic policy, and the policies published after it, differ from the ones described above in two main respects. The first difference is that these new policy documents are addressed to the foreign audience as much as they are to the national one. The second is that these documents do not focus on defining problems with Norwegian northern regions. Instead, they focus on identifying and highlighting the opportunities associated with the changing materiality of the region and the progress of the old developmental paradigm of international society associated with the increase in the numbers of its legitimate members. I will next use these new Norwegian Arctic policies as the primary research material for the analysis of the hegemonic material constitutional structures of international society. My analysis of the elements of the constitutional structure will take place according to four overarching justificatory narratives used in the rationalization of the constitution and mobilization of sovereign resources for the further exploration of the Norwegian Arctic. These narratives are: the increasing world energy demand; the fall of the Soviet Union and the opening up of Russia; global climate change, and; pushing the ecological outer limits of the welfare state further northwards.

The Increasing World Energy Demand: The old developmental paradigm

The main justificatory narrative given for increased constitution and mobilization of sovereign power for the exploration of the Norwegian Arctic is one related to Norway’s desire to utilize its oil and gas potential. The primacy of this narrative is evident in the introduction of Norwegian Foreign Ministry’s Report No. 30 (2004–2005). The introduction of opportunities in this foreign policy-focused developmental plan (the first of its kind) for the “High North” begins with the following description: “The new opportunities that have opened up are related to the large oil and gas resources that are thought to exist under the sea bed” (Norwegian Foreign Ministry’s, Report No. 30 (2004–2005), 6). The dominance of this justificatory narrative is continued in all of the later Arctic policy documents produced by Norway. In the 2006 strategy document, the assumed Norwegian and Russian petroleum resources in the Barents Sea are said as the basis for why the High North has “international significance” (Norwegian Ministry of Foreign Affairs 2006, 9).

9 The policy documents that have been analyzed following text driven, inductive content analysis, are; Report No. 30 (2004–2005) to the Storting; Norwegian Ministry of Foreign Affairs 2006; Norwegian Ministry of Foreign Affairs 2009; Meld. St. 7 (2011–2012); and Utenriksdepartement 2014.
5). In the 2011 published Arctic policy document it is, in turn, stated that, “All the evidence suggests that the energy dimension will be the most important driver of increased interest in this region in political and business circles in other parts of the world” (Meld. St. 7 (2011–2012), 15). As the reference to the international dimension in the latter two of these discourses indicates, the justification for the development of these oil and gas resources is not only associated with Norwegian national politics. It is additionally related to the role of the state and the role that these resources are expected to have in the future development of international society of states.

According to the 2005 policy document, the Norwegian and Russian Arctic resources “are located in politically stable areas, and many countries are concerned about securing their energy supplies” (Norwegian Foreign Ministry’s, Report No. 30 (2004–2005), 7). The document argues that despite the difficulties related to their geographical location, the development of these resources in the High North is of more interest to states of Western international society than those in, “many other areas that are rich in energy sources” (Ibid. 7). The narration of the development of these resources, as an essential part of the future development of international society, is also evident in the way Norway is not only responding to internal pressures of regional politics but to, “the world’s steadily increasing energy demand” (Utenriksdepartement 2014, 3).

In the terms of the analytical framework of this thesis, the reference to the growing world energy demand, and the leading role of the oil and gas potential in the Norwegian Arctic in the justification of constituting and mobilizing sovereign resources for the further investigation of the region, illustrates the continuous hegemonic role of the old developmental paradigm in the organization of the governance of the material universe in international society. The continuous, constitutive power of the re-adjusted old developmental paradigm is also evident in how this narrative is connected to the welfare of the citizens of the state as a whole. In the 2005 document the attempt to move Norwegian petroleum production further northwards is justified as being necessary to “safeguard our prosperity and welfare” (Norwegian Ministry of Foreign Affairs 2006, 6). This theme is also present in the 2011 document in which the development of the oil and gas resources is argued to be necessary if Norway is to “maintain our high standard of living,” as well as to “safeguard the welfare of future generations” (Meld. St. 7 (2011–2012), 20, 67). How this readjusted, older developmental paradigm is interlinked with the dominance of the old norm
of the role of Western humanity in nature is, in turn, evident in the second major justificatory narrative for the increased constitution and mobilization of sovereign resources to the further exploration of the Arctic in Norway.

The opening up of Russia: The old, re-adjusted norm of Western humanity in nature

The energy dimension forms the first of three new driving forces external to Norway that the policies use in the justifications for making the Arctic one of the foreign policy priorities of the state. The second external driving force through which the constitution and mobilization of sovereign power into the further exploration of these regions – and as I will illustrate later, increased settlement of the Norwegian north – is justified is the changed security, political, and economic situation in Russia (Report No. 30 (2004–2005) to the Storting, 6). Because of the change in Russian politics, new co-operation between the states is expected to increase in the north in multiple fields and forums that include: tourism (Ibid. 20); “increasing the number of Russian students in the quota programme that provides opportunities to study at Norwegian institutions” (Ibid. 32); “transporting energy resources” (Norwegian Ministry of Foreign Affairs 2006, 5); “practical cooperation with Russia and other countries in the field of oil spill preparedness and monitoring of Arctic areas” (Norwegian Ministry of Foreign Affairs 2009, 14), and; “the development of knowledge on business opportunities in the High North, in particular in the context of cooperation with Russian centres of expertise and business” (Ibid., 43). At the center of the increased co-operation with the Russians is the previously mentioned energy sector. In reference to the energy sector in this context the old re-adjusted norm of the role of Western humanity in nature is evident.

According to the 2006 policy document, in order for Norway to fulfill the goals of safeguarding Norwegian economic, environmental, and security political interests in the north it “will...be important to promote the use of Norwegian offshore technology and experience in the Russian part of the continental shelf” (Norwegian Ministry of Foreign Affairs 2006, 6). This reference to Norwegian technology along with abovementioned other fields of expected future co-operation are illustrations of how, even though the increased interest of other states in the energy resources in the High North is described as one of the main challenges there in the 2005 policy, it is not a challenge because it is expected to pose a threat to Norwegian sovereignty in the Arctic.
Instead, like most of the challenges mentioned in the Norwegian Arctic policy documents, it is predominantly a challenge in the process of materialization of new opportunities. This translation of what are characterized as challenges and opportunities in the Norwegian policy also applies to the third major justificatory narrative for the constitution and mobilizing of sovereign resources for the exploration of the Norwegian Arctic. That is, the progress of anthropomorphic global climate change.

**Global Climate Change: The old constitutional structure**

The third external driving force used to justify the constitution and mobilization of sovereign power for the exploration of the Norwegian Arctic at present is global climate change, and the opportunities for human activities it is expected to advance in the Arctic. The reliance of this justificatory narrative to the old developmental paradigm and the old norm of the role of Western humanity in nature are evident, for example, in the following passage from the 2011 report that describes the effects of anthropomorphic global warming on the Arctic: “As a result of warmer temperatures in the Arctic the extent of the sea ice will be reduced for parts of the year. This will open up new opportunities for commercial activities such as shipping and oil and gas production” (Meld. St. 7 (2011–2012), 83). This horizon of expectation and its connection to the old developmental paradigm and norm of the role of Western humanity in nature is repeated in the following passage in the 2014 document where the current Foreign Minister of Norway, Børge Brende, explains how: “The biggest challenges in the Arctic are connected to climate and environment, growing use of new sailing routes, growth in tourism and growth in oil and gas activities. These increased activities are a result that the demand of energy and natural resources has grown at the same time as the region is becoming more accessible as the sea ice melts” (Utenriksdepartement 2014, 12). The constitutive power of the old constitutional structure in these descriptions is especially evident in the later comparison of this horizon of expectation of the future material conditions in the Arctic to the one of the Arctic Council working groups’ assessments. Before moving onto this comparison I will first illustrate how, despite the predominance of the old developmental paradigm and the underlying idea of the norm of Western humanity in nature, in the justifications of the constitution and mobilization of sovereign power for the further exploration of the Arctic in Norway the new material
Global Climate Change: The new constitutional structure

In using global climate change as an overarching justificatory narrative for the constitution and mobilization of sovereign power for the exploration of the Arctic, the Norwegian policies do not just refer to the aforementioned opportunities. They also mention the emergence of challenges associated with the progress of global climate change. According to the 2009 policy: “New problems are bound to arise relating to the environment and climate change” (Norwegian Ministry of Foreign Affairs 2009, 7). In the explanation of these challenged and the need to address them the new epistemic authority structure and the two corresponding elements of the constitutional structure of international society are evident. A new environmental developmental paradigm is distinguishable in how Norway is said to possess specific geographical advantages for taking on a leading role in the multilateral negotiations aimed at the creation of new administrative mechanisms for mitigating responses to global warming. The policies especially highlight the role of Svalbard in this drive of Norway to “secure that the climate accord that will be signed in Paris in 2015 makes it possible to reach the goal of restricting the global warming under two degrees” (Utenriksdepartement 2014, 61). The reason for highlighting Svalbard in the context of global climate change negotiations is that according to the 2011 policy it “provides unique opportunities for observing the effects of climate change where they are most apparent, and where the natural environment is most vulnerable to rapid change” (Meld. St. 7 (2011–2012), 42). It is not only Svalbard that is associated with having such a geographical role but “the consequences of climate change” are described to be “especially evident in the North” in general (Utenriksdepartement 2014, 11).

The abovementioned discussions of the Norwegian wish for the state to play a leading role in global climate change negotiations because of its geographical position is one indication of how the new post-modern epistemic authority and constitutional structures also hold constitutive and narrative power in the renovation of the fundamental institutions of international society. In relation to the two elements of the constitutional structure, the discussion of the challenges associated with global warming the Norwegian policies reflect a new subordinate norm of the
role of humanity in nature as well as a new conservational environmental developmental paradigm. However, as was illustrated above, the dominant justificatory narratives for the constitution and mobilization of sovereign power for the exploration of the Arctic in Norway are still embedded in the old developmental paradigm and norm of the role of Western humanity in nature. The dominance of the old developmental paradigm in the definition of the “material moral purpose of the state” is also evident in the Norwegian policies in relation to how the new opportunities associated with the three new external driving forces are related to the solving of the old “Problem Northern Norway”.

**Pushing the ecological outer limits of the welfare state further northwards**

When placed in the context of previous Norwegian northern policies, the new opportunities that the contemporary Arctic policy documents focus on are presented in a manner that provides solutions to most of the elements that made up the dominant narrative of “Problem Northern Norway”. This includes attracting increased settlement to the region. In relation to the discussion of opportunities related to extractive energy activities, the 2006 document states that despite the focus on the development of the offshore industry, “it is on land that people live their lives” (Norwegian Ministry of Foreign Affairs 2006, 5). As such: “The Government’s policy is to take a broad approach to settlement, employment, value creation, education, culture and cross-border contact in the north” (Ibid. 5). The connection of pushing the ecological outer limit of the extractive activities further northwards, and what can be described as an attempt of pushing the ecological outer limits of the welfare state further northwards, is also evident in the description of the overall objective of the Government’s policy in this document.

The main goal of the government in the 2006 document is described to be the creation of “sustainable growth and development in the High North” (Norwegian Ministry of Foreign Affairs 2006, 7). This growth is described to require “a framework that will enable people in the region to build up viable local communities, where there are promising employment opportunities in the long term, good health care services and educational opportunities, and opportunities to enjoy varied natural surroundings and cultural events” (Ibid. 7). It is, however, not only improvement of the living conditions of the existing population that the government is concerned with. The state also wishes to increase settlement and through that settlement push the
ecological outer limits of feasibility of the welfare state further northwards into these regions. According to the 2006 document: “In order to ensure progress in the High North, new opportunities need to be created for women, and young people must be offered incentives to settle and start families in the region. The Government will also implement measures to encourage more people to move to North Norway” (Ibid. 41). The connection of this goal to the old constitutional structure is evident in the 2014 published report that the 2013-elected Conservative Prime Minister Elsa Solberg writes in her greeting of how: “Petroleum activities are a ground stone in the economic activities also in the north and it represents unique opportunities for value creation, economic activities, growth and ripple effects in Northern Norway” (Utenriksdepartement 2014, 14). In order to highlight how the abovementioned justificatory narratives for the constitution and mobilization of sovereign power are reflective of the elements of the old re-adjusted constitutional and epistemic authority structure, I will next compare their assumptions about the future materiality of the Arctic to the new ecological epistemic communities. In the analysis of the two elements of the constitutional structures in the following two other case studies I will refer to this overview directly.

The new Norwegian Arctic policy and the consensus over the new possibilities and opportunities in the Arctic in the new epistemic authority structure

The first underlying assumption about the future materiality of the Arctic in the Norwegian Arctic policy is that the effects of global climate change in the Arctic are comparable to the warming of the general climate in the region. In the 2009 published Arctic Marine Shipping Assessment (AMSA) the effects of global climate change on working conditions in the Arctic are, on the contrary, summed up in the following manner: “It is highly plausible there will be greater marine access and longer seasons of navigation, except perhaps during the winter, but not necessarily less difficult ice conditions for marine operations” (AMSA 2009, 4). One of the reasons the ice conditions might actually worsen is that it is also “highly plausible that Arctic sea ice will be more mobile in partially ice-covered coastal seas, particularly in spring, summer, and autumn. Coastal seas may experience an increase and greater frequency of ice ridging and shorter periods of coastal fast ice” (AMSA 2009, 35). In relation to the future material and climatic conditions in the Arctic the assessments also highlight aspects related to the changing materiality of the Arctic that are not mentioned in the Norwegian policies.
In the 2011 report “Snow, Water, Ice, Permafrost in the Arctic” (SWIPA) some of the possible
global effects on the global warming of the Arctic cryosphere that are mentioned include: the rise
in the global sea level; the increase in emissions of methane and carbon dioxide to the
atmosphere, and; the risk that the increased inflow of freshwater to the Arctic Ocean will alter
large-scale ocean currents that affect climate on a continental scale (SWIPA 2011, viii–ix).
According to SWIPA (2011, viii), access to many areas in the Arctic is also becoming more
difficult because the previous form of infrastructure—namely ice roads—have begun to melt
earlier and freeze later. Another key finding of this assessment is how “Arctic infrastructure faces
increased risk of damage due to changes in the cryosphere, particularly the loss of permafrost
and land-fast sea ice” (SWIPA 2009, viii). None of these affects are mentioned in the Norwegian
Arctic policies as challenges associated with global climate change in the Arctic. The most
important difference between these assessments of the future conditions in the Arctic to the
Norwegian policies is, however, how these epistemic assessments highlight uncertainty related
to prediction of the future climatic conditions of the Arctic.

In the 2005 report “Arctic Climate Impact Assessment” (ACIA) the introduction, summary, and
synthesis of the study that includes eighteen multidisciplinary chapters highlight how there
remains a large amount of uncertainty related to the effects of previously unforeseen changes in
the Arctic climate. One of the main reasons for the existence of these uncertainties is the lack of
accumulated cross-disciplinary multi-year data of the changes that have occurred in the climate
and environment of the Arctic during the previous decades (ACIA 2005, 2, 993, 1018–1020).
Another reason for the uncertainty is the complexity of the arctic climate system and the ways in
which various phenomena affect one another (ACIA 2005, 7–8). In AMSA the unique nature of
contemporary climatic change is also acknowledged in how the “marine access in the Arctic
Ocean has been changing in unprecedented ways driven by global climate change” (AMSA 2009,
8). AMSA also reflects a lack of primary field data in relation to hydrographic data, which the
report highlights presents significant gaps “for significant portions of primary shipping routes”
(AMSA 2009, 5). The lack of accumulated data as a hindrance for making any future prediction of
the changing conditions is also underlined in SWIPA. The report stressed how any future
predictions related to sea ice feedback on climate-cryosphere interactions is uncertain because
these have been observed in the Arctic only in the past five years (SWIPA 2011, p. v-vi). What is
more, in the Executive Summary and Key Messages of SWIPA it is first acknowledged that there is “considerable uncertainty to predictions of how much and how fast the cryosphere and the Arctic environment will change” (SWIPA 2011, vi).

The aforementioned comparison of the horizons of expectations in these assessments with those of the Norwegian Arctic policies illustrates two things. First, the emphasis of these multidisciplinary scientific assessments on the lack of accumulated primary data demonstrates how the ideological elements associated with the constitutional structures behind the contemporary epistemic authority structures can be identified in the case study by following the same method as before. Second, their focus on uncertainty associated with the future predictions exemplifies how the new epistemic authority structure advances a different norm of the role of humanity in nature than the one analysed in the previous chapter. These differences in the horizons of expectation by the governing elite and the new epistemic communities, in turn, illustrate the constitutive power associated with the old as well as the new material constitutional structures of international society in the definition of what is regarded as good governance of the material universe at the present time. I will next further the analysis of the two elements of the material constitutional structures in the Canadian Arctic policies. The four inductively-identified primary justificatory narratives associated with challenges and opportunities according to which the analysis of the elements in this case is organized are: the melting of permafrost and increased access; global climate change; securing sovereign titles, and; pushing the ecological outer limits of the welfare state further northwards. Before I move on to the analysis of the elements of the material constitutional structure in these narratives I will, however, first give an overview of the previous development of Canadian expansion into the Arctic and the related organization of the governance of these regions.

**CANADA**

Similar to Norway’s use of Arctic exploration in its early independence-oriented national identity building, Canada employed a similar narrative of northern identity from the outset of its formation as a confederation in 1867. While in Norway the early focus in this national identity-construction was on Arctic exploration, in Canada it was related to more symbolic meanings attached to the northern location of the state (Emmerson 2010, 76–91; Grant 2010, 135–137,
Carl Berger (1986, 5) has defined this early national identity-building through the Arctic as one where "Canada’s unique character" was “derived from her northern location, severe winters and heritage of 'norther races'”. One concrete example of such early symbolic national identity-building is Robert Grant Haliburton's 1869 description of the confederation as consisting of “a Northern country inhabited by the descendants of Northern races” (In Grace 2001, 58). Haliburton himself formed a part of the influential “Canada First Movement”. Much like Norway in its first decades as a nation-state, Canada extended its ultimate territorial authority further northwards. The primary motivation to do so came, again much like Norway, not from a changed horizon of expectation for extending the ecological outer limits of settlement further northwards, but from the emergence of new external geopolitical concerns.

In 1870 the Canadian confederation annexed Rupert’s Land and the Northwestern-Territory to its dominion by purchasing them from the Hudson's Bay Company (HBC) (Grant 2010, 135–154). Sheldagh Grant (2010, 137) has summarized the motivation behind these annexations thus: “'Fear' was a common factor in both purchases. Whereas the U.S. justified the purchase of Alaska to prevent it from falling into the hands of Britain, both Canada and Britain feared that, unless Rupert’s Land and the North-Western Territory were annexed to the new Dominion, the U.S would acquire a major portion of the lands through purchase of the company’s assets and/or local support for annexation”. This same fear was behind the first decision to start manifesting Canadian sovereignty in these areas through patrols under the government of Wilfrid Laurier (1896-1911) (Grant 2010, 193–239; Hillmer 2015, 130–131). It was only during and after WWII that the constitution and mobilization of sovereign power for the exploration of Canadian Arctic territories started to include other dimensions. These elements also made these regions, for the first time, into a new foreign-policy priority of the governing elite of the state. The dimensions I am referring to here were primarily associated with the politicization of the Arctic in North American defense strategy.

**The Canadian Arctic as a military strategic heartland**

During WWII the defense of the North American continent was turned into a shared co-ordination and cooperation problem between the United States and Canada. One of the results of the institutionalization of this military cooperation was the establishment of the Canadian and
American Permanent Joint Board of Defense in 1940. Through the establishment of this regime, the North American Arctic regions were turned into a new heartland of military strategy for the two states. The new military policies regarded the North American Arctic as valuable for resources, air transportation possibilities, and as sources of information on weather. In relation to the spaces of experience that followed from the constitution of sovereign power for the materialization of this new military strategic horizon of expectation, the weather stations and the new air routes were turned into successful spaces of experience. Natural resource extraction, on the other hand, failed to live up to the original horizon of expectation. The 1942 Alaska Highway Act that was promoted as means to move troops and supplies to Alaska, and the Norman Wells oil pipe line referred to as the Canol Project were both completed, but never used for their intended purposes (Grant 2010, 247–282; McCannon 2012, 224–235).

The completion of the abovementioned two projects and the establishment of new Arctic air routes and weather stations are one example of how during WWII the North American Arctic regions became, for the first time, considered valuable in accordance with the industrial developmental paradigm. In effect, at the end of WWII the North American Arctic became generally more physically accessible than ever before with more natural-scientific primary knowledge of the region available (McCannon 2012, 224–235). It was, however, only towards the end of 1950s that the horizon of expectation of the Canadian governing elite changed to include an attempt to push the ecological outer limits of non-military-related settlement further northwards. This change in horizon of expectation was associated with the change in parliamentary power from the Liberals to the Conservatives in the 1957 federal elections.

**Diefenbaker’s Roads to Resources**

The 1957 elected Conservative government of John Diefenbaker had, at the outset, an agenda of increasing resource development in the Canadian North. Diefenbaker saw that the future wealth and prosperity of Canadians came from moving settlement by applying the developmental paradigm further northwards through the new knowledge and technologies that had become available during and after WWII (Henriksson 2006, 239). Diefenbaker’s new Arctic vision is best summarized in his often quoted speech from 1958 where he declared that: “There is a new imagination now. The Arctic. We intend to carry out the legislative programme of Arctic research,
to develop Arctic routes, to develop those vast hidden resources the last few years have revealed” (Diefenbaker 1958). The cornerstone of this new attempt to push the ecological outer limits of feasibility of settlement and industry further northwards became the “Roads to Resources program”. The primary aim of this program was the extension of the southern Canadian transportation system into the north through use of public funds (Bone 2003, 216). The program, however, was short-lived and controversial throughout its implementation period between 1957 and 1963. Opposition leader Lester Pearson’s accusation that Diefenbaker was building highways “from igloo to igloo” is illustrative of the general opinion of the opposition to the plan (In Bothwell, Drummond, and English 1989). By the time the Conservatives themselves again returned to opposition in the 1963 elections, this northern vision had not made much progress and was abandoned (Henriksson 2006, 239–241). The interest in the possible exploitation of the resources of the Canadian Arctic, especially natural oil and gas, however remained intact. In 1968 the Canadian government encouraged the formation of an oil consortium, Panartic Oils, which ended up successfully operating over 100 wells in the Canadian North (McCannon 2012, 259). Despite its success, in the 1970s the further expansion of this resource extraction industry northwards began to face fierce opposition among the Canadian public. The rise of this opposition reflects the previously described emergence of the new epistemic authority and the material constitutional structures of Western international society of states.

The new epistemic authority and the Canadian Arctic governance between the 1970s and 1990s

In the 1970s the development of a new gas pipeline from the Mackenzie Basin in the Canadian Arctic through the Northwest Territories to Alberta became one of the central stages on which the tension between the old developmental paradigm and the new material constitutional and epistemic authority structures accumulated and played out in Canada. Soon after the plans to build the pipeline were made public the opposition towards it organized itself in the form of new environmental and indigenous peoples’ organizations. The connection of these social movements to the revolution in the old epistemic authority structure and the development of the new one is evident in the Mackenzie Valley Pipeline Impact Inquiry by Justice Thomas Berger published under title “Northern Frontier, Northern Homeland” (Grant 2010, 364–365). In the introduction of this document, which consists of three years’ worth of interviews with northerners, Berger
states that: “The choice we make will decide whether the North is to be primarily a frontier for industry or a homeland for its peoples” (Berger 1988, 2). The conclusion of the debate about the pipeline and the previously mentioned report was that the plans for the pipeline were eventually shelved in 1977 until they were finally resurrected again in 2004 (Henriksson 2006, 256–266; McCannon 2012, 258–261).

The constitutive power of the new epistemic authority and material constitutional structures in relation to the organization of Canadian Arctic governance is also evident in the two new international and Arctic-related regimes that Canada pushed through in international society between 1970s and the 1990s. The first one of these is related to the adoption of the Canadian Arctic Waters Pollution Prevention Act (AWWPA) in 1970 (Henriksson 2006, 256; McCannon 2012, 260). The goal of this act is “to prevent pollution in Canadian Arctic waters”. The AWWPA was also the basis of the aforementioned Article 234 (Wolfrum and Matz 2003, 39–40). The second international regime where the constitutive power of the new epistemic authority structure in the global political universe is evident is in the establishment of the high-level international forum that addresses issues faced by Arctic governments and the indigenous people of the Arctic in 1996. That is the Arctic Council (AC), which was largely a Canadian initiative (Huebert 1998). However, after having led the negotiations that led to the establishment of the AC, the main themes of the co-operation promoted through this international institution – namely, social and economic sustainable development of the North – lost their prominence as part of the Canadian foreign-policy agenda (Lackenbauer 2011, 78–80).

In the governmental Arctic policy document titled “Canada and the Circumpolar World”, published in 1997, the awareness about the Canadian North is described to be at “a dangerously low level” (House of Commons Standing Committee on Foreign Affairs and International Trade 1997). The document “Northern Dimension of Canada’s foreign policy”, published in 2000, reports that the situation has not changed. This document summarizes the history of Canadian Arctic exploration and the situation of the knowledge of the Canadian Arctic as follows: “A sense of northerness has long been central to the Canadian identity, but the North has historically played a relatively small and episodic part in Canadian policy” (Department of Foreign Affairs and International Trade 2000, 2). This description is, in fact, a good summary of the general position of Arctic issues in Canadian national and international politics beyond the
The abovementioned individual peaks of interest up to this time. However, with the publication of a new Canadian foreign policy document in 2005 and the following 2006 federal elections this changed significantly.

The new conservative-led turn of Canadian Arctic politics

The Arctic was first made into one of Canada’s geographical foreign policy priorities in “Canada’s international policy statement: A role of pride and influence in the world”, which was published in 2005 (Foreign Affairs Canada 2005, 30). The main concerns for the development of the foreign policy dimension in the Canadian Arctic mentioned in this document were not associated with the increase of exploration for the purposes of further settlement of resource utilization. Instead, they focused on a range of factors. In terms of land, the focus was on the protection of the indigenous peoples of the North and the fragile environment. In the Arctic maritime areas, the key issues were the promotion of public safety, emergency preparedness, and the need to “Increase the Canadian Forces’ capacity to monitor and respond to events in the North” (Foreign Affairs Canada 2005, 8). Already in this document there is, however, one utilitarian justification for this possible increase in the constitution and mobilization of sovereign power into the Canadian Arctic, namely the possibility that global warming will lead to the opening up of the Northwest Passage for commercial traffic as early as 2015 (Foreign Affairs Canada 2005, 7-8). There are no other detailed mentions that would refer to a changed horizon of expectation of the governing elite for what is possible, feasible, and reasonable in the future Arctic or justifications for a significant increase in the constitution and mobilization of sovereign power for the exploration of the Arctic in the policy. Such plans and justifications became a part of Canadian foreign and Arctic policy only after the fall of the Liberal government in 2006. The Liberals, who many had considered Canada's “natural party of government”, were replaced by a new minority government of the newly-formed Conservative (Coalition) Party, created from a merger of a number of centre-right parties in 2004, and led by Stephen Harper.

In running for the 2006 election Harper, who had been selected as head of the new Conservative Party in 2004, introduced new military policies aimed at promoting Arctic sovereignty as one of the main agenda issues of his party (Faron and Woolstencroft 2006, 79). In his response to the 2007 Speech from the Throne, Harper justified the announced measures as part of the overall
goal of “Strengthening Canada’s sovereignty and place in the world” (Harper 2007). The direct measures through which this strengthening would take place in the development of the Arctic is explained in more detail in the three new official policy documents on Canadian Arctic policy that were published following the Speech from the Throne. Because of the foreign policy focus of the new Canadian Arctic policy under Harper’s governments I will next use these three policies as the primary research material in the analysis of the material constitutional structures of international society.

Melting of permafrost and increased access: The old developmental paradigm

The first of four overarching justificatory narratives given for the constitution and mobilization of sovereign power for increased exploration of the Canadian Arctic is the same as in the previously analyzed Norwegian Arctic policies; namely, the previously unexploited resource potential in the Canadian Arctic. In the 2009 policy document the Canadian Arctic is described as an “immense store of mineral, petroleum, hydro and ocean resources,” the full extent of which is described to be still largely unknown (Government of Canada 2009, 16). In the 2010 policy the reference to the lack of knowledge of the materiality of the region next to global warming are explained to be the main reason for why the state is investing into the exploration of these resources at present. Using the terms of the policies, new opportunities “emerging across the Arctic and North,” are driven by “climate change and the search for new resources” (Government of Canada 2010, 2). As in the Norwegian policy, the normative basis of this justificatory narrative is in the old industrial developmental paradigm and norm of the role of Western humanity in nature of international society. This is despite the fact that the increasing world energy demand used as the justificatory bases in the Norwegian policies is not used as the main rationalization for the exploration of these resources in the Canadian policies.

The main external driving force used to rationalize the increased exploration of the resource potential of Canadian North is the expected positive influence of global climate change to the accessibility of the Arctic terrains. According to the 2010 document: “Until now, the Arctic Ocean’s inaccessibility has meant that the region was largely insulated from the sort of safety and

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10 The publications in question are; Government of Canada 2009; Government of Canada 2010; and Government of Canada 2011.
law enforcement challenges present in regions further south. However, decreasing ice cover will lead, over time, to increases in shipping, tourism and economic development in the Arctic Ocean region” (Government of Canada 2010, 8). As was explained in the case of Norwegian policies and new epistemic communities, this horizon of expectation is not based on the consensus of the new epistemic authority and material constitutional structure. Instead, its rationality relies on the previous developmental paradigm and assumed norm of the role of Western humanity in nature. The dominance of this old developmental paradigm and assumed role of Western humanity of nature in these rationalization is also evident in how sustainable development in the Canadian Arctic is said to be inherently bound to “energy and resource development”, especially oil and gas development (Government of Canada 2010, 11). This is even though, much as in the Norwegian case, the new epistemic authority structure and new norm of the role of humanity in nature are also present in the new Canadian Arctic policy.

Global Climate Change: The new norm of the role of humanity in nature

Where the first main justificatory narrative for the increase in constitution and mobilization of sovereign resources for the exploration of the Canadian Arctic is the expectation that global warming will facilitate access to the traditional resource potential of the region, the second justificatory narrative that is related to global climate change reflects the new constitutional structure of international society. Much as with the second Norwegian justificatory narrative related to global climate change, the Canadian government claims to be “committed to contributing to the global effort by taking action to reduce Canada’s greenhouse gas emissions through sustained action domestically to build a low-carbon economy, working with our North American partners and constructively engaging with our international partners to negotiate a fair, environmentally effective and comprehensive international climate change regime based on the Copenhagen Accord” (Government of Canada 2010, 19). It is not only in this reference to the commitment of Canada to global climate change negotiations that the new epistemic authority structure and the new norm of the role of humanity in nature that its legitimacy is based on are evident in the new Canadian Arctic policy.

In accordance to the new norm of humanity in nature promoted by the new ecological epistemic communities, the Canadian North is described as having “fragile and unique ecosystems which
are being negatively affected by the impacts of climate change”, which Canada “is committed to helping ensure...are safeguarded for future generations” (Government of Canada 2009, 24). These ecosystems are described to constitute an “environmental heritage” of the state that the government sees as its responsibility to “preserve and protect” in the “face of new challenges and opportunities” (Government of Canada 2009, 39). Unlike the Norwegian policies, in the Canadian policy the progress of global warming in the region is also described as possibly contributing “to an increase in environmental threats, search and rescue incidents, civil emergencies and potential illegal activities” (Government of Canada 2011, 4). This passage is, however, the only concrete reference to threats that global warming will cause in the Arctic. The other references to challenges in the Canadian policy are, like in the Norwegian case, references to challenges related to the previously mentioned opportunities associated with the new possibilities for resource extraction global warming is facilitating through the access to the regions. It is this assumption about the increased access and the natural resource potential of the first major justificatory narrative that is also behind the third comprehensive justificatory narrative for the constitution and mobilization of sovereign power into the Arctic in Canada. That is, the possible threat to Canadian sovereign titles in the North American Arctic archipelago that this increased access is taken to pose.

**Securing sovereign titles: The old developmental paradigm**

The new foreign policy agenda, published in 2005, contains the discourse of sovereignty in its justification for its plans to constitute and mobilize sovereign resources into the Canadian Arctic. In the new Canadian Arctic policies, this justificatory discourse is made part of a new justificatory narrative about a second major external factor relevant to the need to invest into the further exploration of the Canadian Arctic. That is, unlike in the Norwegian policy, the Canadian Arctic policies include an anticipated threat to Canadian Arctic sovereignty, purportedly posed by the increased interest of the outside world towards Arctic resources. Where Norway’s justificatory narrative of its Arctic energy resources is described in terms of the increase the role of its resources in the increasing energy demand, the Canadian Arctic policies frame the possibility of the opening up of its Arctic regions in more traditional realist terms. To quote from the 2011 Arctic policy document: “Increasingly, the world is turning its attention northward, with many players far removed from the region itself seeking a role and in some cases calling into question
the governance of the Arctic. While many of these players could have a contribution to make in the development of the North, Canada does not accept the premise that the Arctic requires a fundamentally new governance structure or legal framework. Nor does Canada accept that the Arctic nation states are unable to appropriately manage the North as it undergoes fundamental change” (Government of Canada 2011, 10).

Correspondingly, one of the priority areas in the constitution and mobilization of resources for the further exploration of the Arctic in the Canadian policy is to be the “securing international recognition for the full extent of our extended continental shelf wherein we can exercise our sovereign rights over the resources of the seabed and subsoil” (Government of Canada 2010, 6). In justifying its ultimate territorial authority over these resources the state also relies on the new ecological epistemic authority structure and its developmental paradigm.

**Securing sovereign titles: The new developmental paradigm**

The new developmental paradigm and its connection to the re-negotiation of mechanisms for operational sovereignty in ocean terrains is evident in relation to how the first responsibility of Canada is said to have as an Arctic coastal state in the Arctic is the “environmental protection and enforcement in our Arctic waters” (Government of Canada 2010, 16). This protection is explained to include “taking responsibility for enacting and enforcing anti-pollution and shipping safety laws applicable to a larger area of Arctic waters”, which will occur through the extension of AWPPA from 100 nautical miles to 200 (Government of Canada 2010, 15). The state is also said to exercise these responsibilities of environmental protection through the International Maritime Organization, where it is described as having a leadership role in the development of the Polar Code to provide “navigational warning and meteorological services to facilitate the safe management of marine traffic in two Arctic areas” (Government of Canada 2010, 13). In justifying its ultimate territorial authority in the maritime Arctic regions, the state also refers to a legacy of generations of explorers and researchers, as well as the longstanding presence of Inuit and other Aboriginal peoples in these regions since time immemorial (Government of Canada 2011, 3, 9). In the protection of the rights of indigenous peoples, the state is also reflecting the new material constitutional structure.
Pushing the ecological outer limits of the welfare state further northwards: Old and new constitutional structure

In relation to how the state exercises its epistemic responsibility associated with the new developmental paradigm and epistemic authority structure, the Government is described as playing “a leadership role in the Arctic Council and its six working groups” (Government of Canada 2011, 13). In order to illustrate this leadership role, the new Arctic policies mention specific Canadian initiatives that reflect the potentially generative power of the new epistemic authority structure as well as the new developmental paradigm. These initiatives include: the 2008 Arctic Indigenous Languages Symposium; “a range of new health-related projects, including the development of a circumpolar health observatory, a comparative review of circumpolar health systems, and a comparative review of circumpolar nutritional guidelines, and; “the Arctic Council’s Arctic Ocean Review which aims to strengthen and ensure the sustainable development of the Arctic Ocean” (Government of Canada 2010, 14, 17). Overall, the Canadian government is said to be committed to “lead efforts to develop a more strategic communications role for the Arctic Council” (Government of Canada 2010, 24). Despite of these references to the new developmental paradigm and the new norm of the role of Western humanity in nature as well as the aforementioned new mechanisms of operational sovereignty they are associated with, the dominance of the old material constitutional structure in the rationalization of the constitution and mobilization of sovereign power into the Arctic is also evident in this fourth major justificatory narrative. Unlike in Norwegian Arctic policy, in the Canadian one this does not mean an aim of increasing settlement in the north, but rather of enforcing existing settlement.

Unlike Norwegian plans for the development of the North, the goal of enforcement of settlement beyond indigenous-specific issues is framed in terms of a challenge rather than an opportunity for Canada. In the words of the 2009 policy the state faces the “enormous challenge of serving a small population in communities spread over vast distances” (Government of Canada 2009, 31). The goal of the northern policies is to make sure that the existing communities are better served and integrated as part of the services of the welfare state. This challenge is addressed in a similar manner as the previous Norwegian aims for addressing problems in Northern Norway. That is, by promoting and enforcing infrastructure, housing and education (Government of Canada 2009, 5). Much like the new Norwegian policy, this pushing of the ecological outer limits of the welfare
state further northwards is also described in terms of the first justificatory narrative for the increased investment in the settlements of the Arctic. That is “Northern resources development”, which is suggested will become “ever more critical to Northern economies, to the peoples of the North and to our country as a whole” (Government of Canada 2010, 2).

When compared to the Arctic Council’s working groups’ environmental assessments above, the legitimacy of the horizon of expectation of the justificatory narratives focused on increased access to resource extraction in the Canadian Arctic is based on the legitimacy of the old material constitutional structure. Before summarizing the content of the elements of the re-adjusted old and the new – and in many ways contrary – material constitutional structures in the two cases, I will next move on to the analysis of the last case study of this chapter. That is, the discursive justifications for the constitution and mobilization of sovereign power for the increased exploration of the Arctic by the Russian Federation. The analysis of the material constitutional structure of international society in this case differs from the Canadian and Norwegian ones in three respects.

First, because of the Soviet case study of the previous chapter I will not give a similar overview of the previous Arctic policies of the state as in the Norwegian and Canadian cases. Instead, I will begin the case with a reference to the later spread of knowledge in the Soviet Union. I continue this historical overview by explaining some of the main difficulties related to state-formation in Russia after the fall of the Soviet Union. I conclude it by describing the re-emergence of the idea of Russian exceptionalism as one of the guiding principles in the foreign policy of the state under the presidencies of Vladimir Putin in the 2000s and 2010s. The second difference in the organization of the analysis of this case is related to the materials that I use to analyze the content of the elements of the material constitutional structures in this case. Because of the emergence and enforcement of Russian exceptionalism, I use only the foreign and Arctic policies of the state adopted under the presidency of Dimitri Medvedev as the primary research material of this case. Third, because of the difference of the discursive content of the policies of the state, I will not analyze the elements of the constitutional structures according to a prior inductive codification of the major justificatory narratives, but according to the main themes of the Russian Arctic policy. These are “basic objectives” and “basic problems.”
After WWII, the Arctic was no longer a priority in state identity-building through science and technology beyond military material in the Soviet Union. That is to say, pushing the ecological outer limits of feasibility of settlement further northwards by adopting and ameliorating the industrial and civilizing developmental paradigm of Western international society was no longer considered a significant part of the international identity-building of the Soviet Union. This does not mean, however, that the goal was completely abandoned. The financial incentives for increasing settlement continued in the form of the *Northern benefits*. These benefits could be as much as 250% higher than the average soviet salary and included many of the same social benefits that were set out in the previously analyzed incentives from the 1930s (Laruelle 2013, 27–28). The difference to the northern policies analyzed in the previous chapter is that after WWII these settlement benefits were no longer related to techno-scientific competition with the West. In relation to this development, during the second half of the twentieth century the Soviet Arctic came, instead, to hold a similar central position as the North American Arctic during WWII. That is to say, it was turned into a new military-strategic heartland. This development ended up causing an astounding amount of damage to the ecosystems of the region.

One example of the new militarization-related damage are the 224 known atomic tests that Soviet physicists carried in Novaya Zemlya between 1954 and 1990 (McCannon 2012, 236–251). As mentioned earlier in this chapter, the accumulation of the information of unexpected consequences that the militarization of the Soviet Arctic posed to environmental and human health were not able to spread in the Soviet Union in a similar manner as they had in Western international society. Only with the advent of the perestroika in the 1980s under the presidency of Mikhail Gorbachev, were the Soviet press and epistemic communities able to openly report on, and criticize, these effects of the modernization plans of the governing elite to the environment and human health. This includes criticism of the last of the Soviet mega projects, the partially sub-Arctic railway line of the Baikal-Amur Mainline (BAM).

The BAM was a construction project that was announced under Brezhnev in 1974. Its main aim was to offer a northeastern alternative of the trans-Siberian railway. This “construction project of the century” was planned to be finalized by early 1980s. Because of the harsh environmental
conditions of the region the completion date kept on being pushed further into the future. The line was completed only after the fall of the Soviet Union and the establishment of the Russian Federation in 2003. In the meantime, it had become one of the major scenes in which environmental degradation related to the previously assumed superior role of Eastern humanity in nature as well as the feasibility of the Soviet developmental paradigm associated with it were openly manifested and criticized by the public in the late 1980s (Graham 1993, 55–58, 168.172, 186–190; Ward 2009, 152–153, 156). The spread of information contrary to the previous common epistemology and understanding of the natural universe about the unexpected side-effects of the Soviet mega-projects on human and environmental health further contributed to the legitimacy crisis of the Soviet Union. This crisis eventually led to the disintegration of the hegemony of the eastern international society in 1991.

The disintegration of the Soviet Union was followed by a period of inner turmoil and chaos in the new Russian Federation. At this time, environmental problems were not able to gain the kind of attention in national politics and organization of social movements as they had in the West after the emergence and accumulation of similar information of the unexpected impacts of the industrial developmental paradigm on human and environmental health. The 1990s were, instead, characterized by radical organizational reforms that led to the emergence of a new hybrid system of governance. The new system was characterized by a strong head of state, strong, independent power centers in the republics, and oblasts, which were combined with private ownership of natural resources (Gaddy and Ickes 2013, 331; McFaul 2012, 17, 21–25, 32). This internal diffusion of power from the Kremlin came to an end with the reforms of Vladimir Putin’s second presidential term (2004-2008). I will next briefly describe what this new centralization of governance as well as resource ownership under Putin’s second presidential term meant for the national identity building of the state in international society.

**Emergence of Russia as an “energy superpower”**

One result of the re-centralization of political power under Putin’s second term was that the economic revenues from Russian oil and gas resources, which since the 1990s had moved beyond the reach of the state into private accounts, now became available to and controlled by the governing elite (Newnham 2011, 137; Rowe and Moe 2009, 109–111; Sakwa 2002, 313–318).
The centralized control of these resources led to an increase in the standard of living for the average Russian for the first time in decades. It also led to the construction of a new foreign policy platform for Russia which included the goal for the state to become an “energy superpower”. The emergence of this new platform became associated with the re-emergence of the idea of Russian exceptionalism associated with Slavophilism referred to in the beginning of the Soviet case study in the previous chapter. According to this ideology, Russia cannot and should not be judged according to the constitutional structures of others. Instead, it must construct and follow its own path. The combination of this ideology with the aim of turning Russia into an energy superpower has led to fluctuations in both energy production and foreign policy of the state (Lo 2002, 14–26).

In 2008 the centralization of control of oil and gas companies in Russia was accompanied by new legislation that classified major oil and gas fields as strategic to the national security of the state. This means that the energy sector resources classified as “of federal significance” cannot have foreign holdings exceeding 50% (Laruelle 2013, 148–149). This occurred despite the fact that Russian companies having limited technological expertise and capabilities especially in relation to offshore oil extraction. Moreover, they occurred despite the open acknowledgement that the development of the resources is dependent on the world economy, and as such in need of economic investment and technical knowledge transfer from the West (Goldman 2008, 98; Rowe and Moe 2009, 104–111). The attraction of such investments has also been complicated by Russia leveraging European dependency on its gas infrastructure in advancing its foreign policy goals. By this I refer to its usage of disruptions in delivery and altered prices as policy tools in its relations with its nearest neighbors, which includes former Soviet states such as Ukraine (Orttung and Overland 2011, 74–76; Stegen 2011, 6506). It has also been further complicated by the annexation of the Crimea in 2014.

The rise of Russian exceptionalism and the increased usage of energy sources as tools of traditional geopolitics are associated especially with the presidencies of Putin. In studying the elements of the material constitutional structure through the justifications for the constitution and mobilization of sovereign resources for the exploration of the Arctic, next I will thus focus on the development of the Arctic and foreign policy under the presidency of Dimitri Medvedev (2008-2012). That is because under his presidency the modernization of the Russian oil and gas
sector through the transfer of foreign direct investment and Western technology was made one of Russia’s foreign policy goals. At this time the protection of the environment was also brought to the fore as part of national policy making (Mankoff 2012, 14–15, 24–25). In order to illustrate these goals and how they reflect both sides of the double-constitutional structure, I will begin this analysis by referencing the 2008 “Foreign Policy Concept of the Russian Federation” and the “2009 National Security Strategy” (President of the Russian Federation 2008a; President of the Russian Federation 2009).

Re-constructing the international identity of Russia

In the 2008 “Foreign Policy Concept of the Russian Federation,” Russia situates itself in “a truly unified Europe without divisive lines” (President of the Russian Federation 2008a, under “IV. Regional Priorities”). The role Russia narrates for itself in this European society of states is not as an equal to the other states. Instead, it highlights how it is “the biggest European State with a multinational and a multiconfessional society and centuries-old history” (Ibid.). According to the document the counterpart for the Russian Federation in Europe is the European Union (EU), not any single polity. In its relations with the EU, the Russian Federation is stated to be “interested in the strengthening of the European Union, development of its capacity to present agreed positions in trade, economic, humanitarian, foreign policy and security areas” (Ibid.) This strengthening is seen to enforce the position of “the Euro-Atlantic States” in global competition (Ibid.). This competition is not one of hostility. Instead, another foreign policy priority is the strengthening of the relationship with the United States due to “its key influence on the state of global strategic stability and international situation as a whole” (Ibid.). In addition to bilateral relationships with the EU and the US, the Foreign Policy Concept also singles out “the Asia-Pacific Region” as having an “ever-increasing significance, which is due to Russia’s belonging to this dynamically developing region of the world” (President of the Russian Federation 2008a, under II. The modern world and the foreign policy of the Russian Federation). The overall identity of the state in all of these regional affairs is characterized to derive from the “geopolitical position of Russia as the largest EuroAsian power, its status as one of the leading States of the world and a permanent member of the UN Security Council” (Ibid.).
The social side of the double-constitutional structure of Western international society is evident in the description of the new structure of the global political universe as one where the previous “Bloc approaches to international problems are being replaced by a network diplomacy based on flexible forms of participation in international structures for the search of joint solutions to common tasks” (President of the Russian Federation 2008a, under II. The modern world and the foreign policy of the Russian Federation). The plethora of “political and diplomatic, legal, military, economic, financial and other instruments,” that these new structures consist of are based on the “primacy of law in international relations” (President of the Russian Federation 2008a, under III. Priorities of the Russian Federation for addressing global problems). Next to being committed to the development of the United Nations, the Foreign Policy Concept highlights “International economic and environmental cooperation” and “International humanitarian cooperation and human rights” as two of the main priorities of the foreign policy of the state (Ibid.). In highlighting these areas of co-operation, the Russian Federation is reflecting the modern social constitutional structure and fundamental institutions of international society conceptualized in Reus-Smit’s work. This fulfilment of the moral purpose of the state is also said, much as the development of Arctic energy resources in Norwegian policy, to also be associated with the further development of the energy potential of the state for the benefit of international society as a whole.

In the 2008 Foreign policy document, Russian energy resources are said to form a central aspect all of the aforementioned regional negotiations for the “increased role of the country in international affairs, its greater responsibility for global developments and related possibilities to participate in the implementation of the international agenda, as well as in its development” (President of the Russian Federation 2008a, under I. General provisions). This is as the fuel and energy industry of the state and its modernization are said to “contributing to the maintenance of balanced world energy markets” (President of the Russian Federation 2008a, under III. Priorities of the Russian Federation for addressing global problems). The aim of using energy resources in negotiations for the international acknowledgement of the special status of the state in international society is evident, in turn, in the “2009 National Security Strategy” where it is stated that: “The transition in the international system from opposing blocs to principles of multivector diplomacy, together with Russia’s resource potential and pragmatic policy for its use, have
broadened the possibilities for the Russian Federation to reinforce its influence on the world stage” (President of the Russian Federation 2009, under II. Russia and the modern world: Current conditions and trends of development). In the same document, one of the long-term foreign policy tools is identified to be the focus on “ownership of energy resources, including in the Near East, the Barents Sea shelf and other parts of the Arctic, in the Caspian basin, and in Central Asia” (Ibid.). This reference to Arctic energy resources also corresponds to the main justificatory narratives used for the constitution and mobilization of sovereign power into the Russian Arctic in its 2008 published *The fundamentals of state policy of the Russian Federation in the Arctic in the period up to 2020 and beyond* (President of the the Russian Federation 2008b).

**Main objectives: Old and new constitutional structures**

In its 2008 Arctic policy Russia is described as having four major national interests in regards to the further development and exploration of the region. With the exception of not including a reference to global climate change as a major justificatory narrative, these interests correspond with the previously analyzed justificatory narratives of Canada and Norway. The first of these national interests is: “the usage of the Arctic Zone of the Russian Federation as a strategic resource base” (President of the the Russian Federation 2008b, under II. National Interests of the Russian Federation in the Arctic). The second of the four national interests is: “safeguarding the Arctic as a zone of peace and cooperation” (Ibid.). The third national interest is: “Conservation of the Arctic’s unique ecosystems” (Ibid.). The fourth prioritized national interest is: the “Usage of the Northern Sea Route as a national integrated transport-communication system for the Russian Federation in the Arctic” (Ibid.). By referencing the basic problems identified in relation to these objectives, I will next illustrate how in relation to the first and the fourth main interest the elements of the old developmental paradigm are used as the main bases in the justification of the constitution and mobilization of sovereign power to the Russian Arctic. In relation to the second and the third main objectives the justificatory discourses are, in turn, based on the new constitutional structure and epistemic authority structure of Western international society.
Basic problems: Old constitutional structure

Like the challenges in the Canadian and Norwegian Arctic policies, the 32 basic problems presented in the Russian Arctic policy are not defined so much as general problems as they are problems for the materialization of the new opportunities. The majority of these 32 problems define the measures that need to be taken in order to fulfill the first and the fourth main objective. The goal of turning the Russian Arctic into a strategic resource base is in line with the first justificatory narratives in the Norwegian and Canadian policies. This is because of the resource potential of the region, which is said to consist of “hydrocarbon resources, hydro-biological resources, and other types of strategic raw materials” (President of the the Russian Federation 2008b, under III. Basic Objectives and Strategic Priorities of the State Policy of the Russian Federation in the Arctic). Also in line with the fourth justificatory narrative of the Canadian and Norwegian policy – the pushing of the ecological outer limits of the welfare state further northwards – the extraction of these resources is explained to be necessary to solve “problems of socio-economic development” in the region as well as within the state as a whole (Ibid.). The solutions to socio-economic development are also similar to the Canadian and Norwegian policies. They include: the improvement of living conditions for permanent settlement in the Russian Arctic such as the modernization of social infrastructure; clarification of state social guarantees and compensations in for persons working and living in the Arctic Zone, and; the improvement of education programs for the indigenous population (President of the the Russian Federation 2008b, under IV. Primary Goals and Measures on Realization of the State Policy of the Russian Federation in the Arctic). This first goal is also associated with the fourth one, as the development of the Northern Sea Route (NSR) is associated with the development of the new resource potential.

As was explained in the previous chapter, the transformation of the NSR into a national transshipment route was a central part of the Soviet Arctic policy in the first half of the twentieth century. In the new Russian Arctic policy this goal is again made into a policy priority. The horizon of expectation for achieving the goal at the contemporary does not include similar references to global climate change in the Arctic regions as the Canadian and Norwegian policies. Instead, the plans for the establishment of this goal include: “the state support of construction of vessels of icebreaking, rescue and auxiliary fleets, and also the coastal infrastructure” and; the
formation of “a system of monitoring over the maintenance of navigation safety, management of transportation flows in the areas of intensive navigation, including through the realization of a set of measures aimed at hydro meteorological and navigating maintenance in the Arctic zone of the Russian Federation” (Ibid.).

The plans for the increased utilization of a NSR do not account for the uncertainty related to the ice conditions in the Arctic Ocean highlighted by the new Arctic epistemic communities. They also do not mention the problems related to existing as well as future Arctic infrastructure that may be caused by the increased fluctuation in temperature in previously frozen areas. As such the rationalization of this horizon of expectation relies on the old material constitutional structure. This is especially the case as the Russian policy does not utilize global climate change as one of the primary justificatory narratives for the constitution and mobilization of sovereign power into the Arctic. Also, what is not mentioned in detail in the policy is another indication of the legitimacy not of the re-adjusted norm of humanity in nature, but the old norm of the role eastern humanity in nature in Russia.

The reference to the old norm of the role of eastern humanity in the Russian Arctic policy is evident how ice breaking in the NSR is planned to be conducted by the old as well as new nuclear powered ice breakers of the state (Bukharin 2006). What is more, the extraction of offshore natural resources in the periphery is also planned to be conducted through new floating nuclear power plants (RT News 2015). In relation to the main argument of the social roles of science and technology in the European-origin international society, I argue that the lack of such plans in the Arctic policies of the other two states illustrates two things in relation to the double-constitutional structure of international society. First, it is a concrete indication of the possibly generative power of the new epistemic authority and constitutional structures of Western international society. Second, that these plans make part of the Russian policy, in turn, an illustration of how the legitimacy of the two sides is co-produced. Despite this specificity of the Russian Arctic policy, the new epistemic authority and constitutional structures are also identified in the Russian Arctic policy.
Part of the measures related to the third main objective of the Russian Federation – conservation of the Arctic’s unique ecosystems – is to address the legacy of the Soviet militarization and industrialization of the Russian Arctic. The measures for achieving this goal include the implementation of “the planned disposal of nuclear-powered vessels that have approached their end-of-use deadlines”; “restoration of natural landscapes, disposal of industrial toxic waste, the provision of chemical security, above all high population density areas”, and; the introduction of “new technologies, including for the decontamination of islands, coastal zones and aquatic environments affected by anthropogenic pollution” (President of the Russian Federation 2008b, under IV. Primary Goals and Measures on Realization of the State Policy of the Russian Federation in the Arctic). These plans, I argue, reflect the new developmental paradigm as well the norm of the role of humanity in nature in Western international society. The new norm of the role of humanity in nature is also evident in a statement on the specific features of the Arctic region, which are explained to be: “low stability of ecosystems guaranteeing biological and climate equilibrium, and their vulnerability to even minor anthropogenic interferences” (President of the Russian Federation 2008b, under I. General Provisions). The state is also claimed to address these challenges in a similar manner as Norway and Canada through increased participation in the work of international institutions such as the Arctic Council.

The increase in international co-operation is also said to form a central part of the second main objective of the state, which is safeguarding the Arctic as a zone of peace and cooperation. Despite these references to the new epistemic authority structure and reflection of the new constitutional one, the first mentioned goals make up the central justification for the development of the Arctic. In relation to the only reference in the Arctic policy document to global warming the state is said to have a special responsibility to preserve “the natural environment in the conditions of expansion of economic activities and global climate changes” (President of the Russian Federation 2008b, under IV. Primary Goals and Measures on Realization of the State Policy of the Russian Federation in the Arctic). In sum, in the Russian Arctic policy, like in the Norwegian and Canadian ones, both of the first mentioned epistemic authority structures and corresponding material constitutional ones are used in the justification of the constitution and mobilization of sovereign power for the increased exploration of the
Arctic. I will next conclude this analysis of the contemporary epistemic authority and constitutional structures by summarizing the different elements as they are presented in the Arctic policies of these three states.

7.3. Summary

In the beginning of this chapter I argued that the emergence and accumulation of new, contrasting with the industrial and civilized material constitutional structure, knowledge about specific environmental problems associated with the progress of the material expansion of the civilized and industrial international society makes up the beginning of the fourth system-wide change in the epistemic authority structure of the European-origin international society. I underscored the constitutive power of this new post-modern ecological epistemic authority structure and how it has been absorbed in the further configuration of the modern social, constitutional structure by referring to Eckersley’s definition of green evolutions in sovereignty. I also further described the co-productive relationship between the two sides of the double-constitutional structure by explaining how the accumulation of new knowledge and formation of the new epistemic communities associated with the Environmental Revolution did not emerge in the Soviet Union. I concluded this first part of the chapter by using a discussion on the change in Cold War collective identity politics between the Eastern and Western blocks as one explanation for, how, despite of the configurative co-production of the new post-modern epistemic authority structure and the old, modern social fundamental institutions, the old material constitutional structure is still also regarded as legitimate in the solution and definition of co-ordination and collaboration problems between states.

I began the second, empirical part of the chapter with an illustration of the co-production of the two sides of the double-constitutional structure by explaining how the changes in the operational modes of sovereignty associated with the geographical and material expansion of international society are contemporaneously described in multilateral contractual international law. I referred to the co-production of the epistemic authority structure and the social fundamental institutions of modern international society in this context by describing the definition of expansion within the context of continental shelf appropriation in UNCLOS. After this discussion I explored the two other elements of the new and the re-defined old material constitutional structures that the
legitimacy of the two epistemic authority structures are embedded in through three case studies. The two elements under analysis in the cases were the developmental paradigm and norm of the role of Western humanity in nature. In the discursive analysis of the cases I illustrated how in all three states under analysis – Norway, Canada, and Russia – the constitution and mobilization of sovereign power to the increased exploration of the Arctic was justified with similar references to the old and the new material constitutional structures.

In the new material constitutional structure, the element of the new norm or role of humanity in nature highlights the subordinate relationship between humanity and the surrounding environment. The new ecological developmental paradigm, in turn, describes the rights and responsibilities of states in terms of environmental protection and the precautionary principle that highlights the role of uncertainty associated with the application of Western science and technology in the governance of the environment. Despite the presence of the new material constitutional structure in all three Arctic policies, the re-adjusted old developmental paradigm formed the main justificatory narrative for the constitution and mobilization of sovereign resources in the exploration of the region. The dominance of this old developmental paradigm was especially evident in how the aim of pushing the ecological outer limits of feasibility of the welfare state was, in all three policies, explained to be dependent on the further development of the energy resources of the region.

In terms of this thesis, the dominant reliance on the old material developmental paradigm in the justifications of the constitution and mobilization of sovereign power for the exploration of the previously unknown or little known areas illustrates how the new epistemic authority structure has not (yet) been able to surpass the old one. However, the presence of both epistemic authority structures in the three Arctic policies also illustrates the potential constitutive power that is embedded in the acceptance of the new constitutional and epistemic structures as legitimate forms through which rational behavior in relation to the governance of the material universe is defined in international society. Another more concrete example of the possibly generative power of the new constitutional structure presented in the case studies was how the Russian Federation is the only one of the three states to include floating nuclear power as part of its Arctic policy.
When the presence of the new as well as old material constitutional structure in the new Norwegian, Canadian, and Russian Arctic policies is contextualized with the analysis of the previous system-wide revolutions in the common epistemology and understanding of the universe in the European-origin international society, they illustrate how the revolution in the epistemic authority structure and the following “green evolutions in sovereignty” have the potential of revolutionizing the constitutional, legal side of the double-constitutional structure. As I illustrated in Chapter Six in relation to the Industrial Enlightenment, such revolutions do not necessarily mean the end of the state-system. They might, however, eventually lead to the emergence and stabilization of a new a new moral purpose of the state, ideas of procedural justice as well as novel definitions of organizing aspects of sovereignty. That is to say, the emergence and stabilization of a new, social constitutional structure and fundamental institutions of the post-modern international society of states.
8. Conclusion

In 1909 the then President of the United States, William H. Taft, responded to polar explorer Robert Peary’s announcement that he had put the North Pole at the disposal of the United States by stating: “Thanks for your interesting and generous offer. I do not know exactly what I could do with it...” (In Emmerson 2010, 96). In 1907 a special committee of experts that was brought together by the Norwegian Foreign Ministry to discuss whether the state had any interest in or benefit from claiming sovereignty over Svalbard gave a similarly dissenting verdict on the issue (Riste and Berg 1995, 156–158). In Canada, the question of perfecting a sovereign title in the territories north of the Great Plains through further exploration was correspondingly one that the government responded positively to only decades after the confederation had acquired the Northwestern-Territory and the titles to specific Arctic islands from the United Kingdom (Grant 2010, 176–187). In the beginning of the twenty-first century the interests in these states toward the appropriation and governance of the Arctic are completely different. During the last decade all of the five littoral Arctic states – Denmark, Norway, the United States, and Canada – have developed and published new plans discussing how and why they will allocate more sovereign resources for the further exploration and surveillance of their Arctic regions.

In the last empirical chapter of this thesis, Chapter Seven, I described the main reasons three of the aforementioned five states – Norway, Russia, and Canada – give for their increased interest in Arctic exploration at present. These reasons were connected to three more general contemporary global dynamics. The first is the discovery and progress of human induced global warming. The second is the concern over the future energy security of the global international society. The third is these states’ commitment to following and promoting the contemporary rules and responsibilities associated with peaceful, territorial appropriation, resource extraction, and shipping. I argued that in using these three global dynamics in justifying the increased constitution and mobilization of sovereign resources into the Arctic exploration, these three states are reflecting upon what I have termed in this work as the material constitutional structure of the European-origin international society (EIS). This ideational framework that consists of three interlinked and mutually constitutive normative elements is the most basic level
of international institutions and defines what is considered as good and rational governance of
the material universe in the global international society. It also describes what the hegemonic,
material measures of progress in international society are. The bulk of this thesis has been
devoted to the study of the composition and change of these elements through the study of the
ebb and flow of sovereign interest into exploration and settlement of the Arctic circumference.

The starting point for the development of the framework and the study of the composition of the
material constitutional structure of the EIS is part of a more comprehensive theoretical argument
about one particular previously overlooked aspect in the historical sociological study of
International Relations (IR). I have called this overlook, following Science and Technology
Studies as the lack of previous constitutive theories about the social roles of science and
technology in the global expansion of the European-origin international society. In Chapter Two I
explained this overlook in terms of how the previous accounts allocate science and technology
with mainly a utilitarian role in the emergence and expansion of the EIS.

In Chapter Three I explained how this overlook is associated with how existing analyses of the
expansion of international society only accounting for the role of norms, values, and principles in
one of two hegemonic mechanisms of expansion of the EIS. I termed this mechanism as the social
expansion of the EIS. That is because it takes primarily place through the negotiation and revision
of the basic rules of practice associated of who are and can become a sovereign, and is associated
with the increases in the number of legitimate members of international society. I termed the
second, hegemonic mechanism in contrast, as material or geographical expansion of the EIS. This
type of expansion has taken place through the extension of the territorial rule of existing
members of international society into previously unknown or little-known terrains through
exploration and settlement. After formulating this argument about the two hegemonic
mechanisms of expansion of the EIS, I developed a new analytical framework through which to
analyze the role of ideas, values, and norms behind the organization of not only the social but also
the material one. On the one hand, I based this framework on Bruno Latour’s Constitution of the
Modern which I argued was reflective of the previous neglect of the systematic study of this form
of expansion through historical sociological methods in IR. On the other, I used Christian Reus-
Smit’s constitutive hierarchy of international institutions as its model. I conceptualized this framework, following both, as the double-constitutional structure of the EIS.

The new analytical framework I presented in the second part of Chapter Three consists of two sides descriptive of different forms of international institution in the EIS. The first and social side is a reproduction of Reus-Smit’s constitutive hierarchy of international institutions. The second, material side consists of what I conceptualized as a parallel material, constitutional hierarchy of international institutions. In this second constitutive hierarchy, the level of fundamental institutions such as contractual international law is represented by a historically variable, but periodically stable, epistemic authority structure of international society. Below this institutional level is the aforementioned material constitutional structure of the EIS. To enable historical empirical comparison of the composition and change of the epistemic authority and material constitutional structures I conceptualized the latter to consist of three hegemonic, normative elements. These are the organizing principle of operational sovereignty, the developmental paradigm of international society, and the norm of the role of Western humanity in nature. In Chapters Four through Seven I studied the composition of these two sides, and how changes in the material one were reflected in the social. I organized this analysis according to what I argued have been four system-wide revolutions in the epistemic authority structure of the EIS. These revolutions are associated with the Scientific Renaissance, the Scientific Revolution, the Industrial Enlightenment, and the Environmental Revolution.

I began the analysis of the contents of the double-constitutional structure of international society and how the changes in the two sides reflected upon each other in Chapter Four by giving a macro-historical overview of the co-production of the new material and social constitutional structures of the absolutist international society in the late fifteenth and sixteenth centuries. After this description of what I argued was an example of revolutionary co-production of both sides of the double-constitutional structure, I moved onto the empirical analysis of the three elements of the material constitutional structure through three in-depth case studies. The cases were Francois I’s decision to support the exploration and settlement of New France between 1532 and 1542, Elizabeth I’s 1577 and 1578 attempts to extend her sovereign authority into a region she named Meta Incognita, and Carl IX’s efforts to expand the territorial borders of the
newly independent Swedish state further into the northeastern parts of the Kola Peninsula at the turn of the seventeenth century. In Chapter Five I first described what I termed as an example of configurative and conservative co-production of the two sides of the double-constitutional structure. This type of co-production led to the further configuration of the social, and the second revolution of the material, constitutional structures in the eighteenth century. The latter process was associated with the progress of the Scientific Revolution and the former with the geographical definition of the extension of sovereign rule in Utrecht in 1713-1715. The cases studies through which I described the content of the three elements of the material constitutional structure that emerged and stabilized in this co-coproduction were the reorganization of the governmental structure and both economic and foreign policy of Sweden under the rule of the Hat party between 1738 and 1766, and the constitution and mobilization of sovereign power for the geographical eastwards expansion of the ultimate territorial authority of the Russian Empire, first into Siberia in the eighteenth century, and then into what became known as Russian America between 1799 and 1867.

The macro-historical overview of Chapter Six described a second example of revolutionary co-production between the social and material constitutional structures of international society in the late eighteenth and nineteenth centuries. The first of the discursive case studies through which I then analyzed the elements of the material constitutional structure below the new industrial and civilizing epistemic authority structure that I claim stabilized at this time, consisted of the change in the horizon of expectation for what was deemed as possible, feasible, and reasonable in relation to the development of the Arctic territories of the Soviet Union between 1928 and 1952. The second case study of this chapter was, in turn, made up of the analysis of the justifications for what can be described as the expansive Arctic Ocean policy of Finland that first appeared as part of its international negotiations for the recognition of its independence between 1918 and 1920, and lasted until the end of WWII.

In the last empirical chapter of the thesis, Chapter Seven, I conceptualized the accumulation of new knowledge about the largely unexpected side-effects of the application and spread of the industrial and civilized developmental paradigm that was associated with the Environmental Revolution, as the fourth revolution of the epistemic authority structure of the EIS. I argued for the feasibility of such contextualization by illustrating how, similarly to the previous revolutions
described in Chapters Four to Six, the new knowledge associated with the Environmental Revolution has been, in many ways contradictory to the previous, hegemonic industrial and civilized epistemic authority and constitutional structures. The case studies through which I analyzed the composition of the new material constitutional structure I associated with the emergence and stabilization of the new ecological epistemic authority structure, consisted of the contemporary Arctic policies of Norway, Canada, and Russia. In the macro-historical overview of this chapter I also explained how, unlike in relation to previous revolutions in the epistemic authority structures of international society, this contemporary greening of sovereignty has not, at least yet, led to the replacement of the old industrial and civilizing one. Because of this prominence of the old and new epistemic authority structures at this present time, in the case studies of this chapter, I complemented the analysis of the elements of the new material constitutional structure with the analysis of those of the revised old one.

This application of the analytical framework of the double-constitutional structure of the EIS to the study of the horizons of expectation in the aforementioned cases has provided one empirical illustration of how the privileged status of specific sciences and technologies in the present cannot be regarded as due to them possessing some inherent superior qualities for the provision of objective information about the interests, needs, or characteristics of humans and non-humans. It is, rather, a result of hundreds of years of successful co-production of specific values and principles attached to science as well as technology, and what is considered as ‘progress’ and ‘development’ in the social and political international society. At the level of the international system, this co-production has been inherently connected with the institutional innovations that have enabled states to see, present, and recognize what constitute as sovereigns as well as sovereign territories. In the development and operationalization of the analytical framework of the double-constitutional structure through which I studied and conceptualized this co-production in this thesis, I combined insights from Science and Technology Studies (STS) with institutional, normative IR research in a novel manner. This combination, I claim, presents a set of new ways through which the research of these two disciplines can further benefit from each other.
By treating the constitution of the common epistemology and understanding of the material as well as social universe as socially constructed, this thesis has ventured into a previously largely neglected area in the analysis of the constitutive, constructivist study of ideas as causes in the stabilization and change of specific hegemonic international practices; namely, the organization of the production of legitimate knowledge of the material rather than social universe. In developing the analytical framework through which I analysed the constitutive power of ideas in this framework I used insights from the study of co-production in STS to illustrate how the organization of legitimate knowledge production in international society can be regarded to have constituted a specific international institution of co-operation between states. Through the co-productive framing I then provided one new insight into how the previous discussion of ontology within the constructivist school of IR. In Alexander Wendt’s terms, I illustrated how the organization of the study of natural kinds has led to similar possibilities for social change in the international system as the study of the constitution and change of social kinds forwarded by Wendt (1999, 47, 336, 368, 370-371). With this framing of the organization of legitimate knowledge production as a similar fundamental institution of international society as international law, legal theories, and diplomacy I have has also ended up arguing for one specific type of expansion of the analytical framework and primary research materials of English School international theorizing.

In the operationalization of the analytical framework of the thesis I combined the analysis of history and philosophy of science with the analysis of constitutive power norms, ideas, and values in the organization of the basic rules of practice through which international society has expanded. Through the combination of such macro-historical analysis with in-depth case studies, I illustrated how the constitution and change of what I conceptualized as the hegemonic, operational meanings of sovereignty were not primarily negotiated in relation to changes in the social international institutions associated with the constitution of international society within the English School research agenda. By this I mean that the changes in the meaning of the practices associated with the material expansion of international society did not primarily take place through developments in major works in political and social theory or international law, or in the major international conferences. Instead, the changes in the operational meanings of
sovereignty were primarily associated with what I conceptualized as system-wide revolutions in the epistemic authority and material constitutional structures of international society. In relation to the English School analysis of the expansion of international society, by bringing in history and philosophy of science to the study of the social construction of the material and social ontology, my thesis has also illustrated how the development of technological and scientific paradigms have not been as rational as the contemporary study of the genesis of international society that generally begins their analysis from the nineteenth century makes them appear. The kind of co-productive analysis of material and social ontology that I have presented in this thesis does not only have implications for the historical study of the genesis of international society. As discussed in Chapter Two, through the development of the double-constitutional structure of international society, I have also ended up arguing for a specific type of enlargement of the analytical frameworks focused at the study of the possibly generative power of epistemic communities in international society at this point in history.

**Epistemic communities**

In terms of the analytical framework of the possibly generative power of epistemic communities in international society, the analysis of the social roles of science and technology in the emergence and expansion of international society that I have explored in the thesis, provides a first attempt of analysing and conceptualizing the social role of epistemic communities not only in the reformation but also the constitution and confirmation of the modern international order. In terms of the constitutive hierarchy of international institutions, the analysis of the social power of epistemic communities in the formation of international society in this thesis has not only focused on the social construction of individual regimes, which is where the focus of previous studies in the epistemic communities approach has been. Instead, through the conceptualization of the material, constitutional structure and the epistemic authority structure of international society I have analysed the possibly generative discursive power of epistemic communities in international society primarily at the levels of fundamental institutions and constitutional structures. As mentioned above, through this co-productive analysis of these levels of international institutionalization, I have provided one illustration of how the privileged status of specific modern forms of knowledge about the natural, social, and technical world and their associated artefacts is not only due to them possessing some inherent superior qualities in
providing objective information about the interests, needs, or characteristics of humans and non-humans. That status emerges, instead, as a result of hundreds of years of successful social co-production of specific values and principles attached to science as well as technology, and what is considered as progress in societies constituting what has been, since the outset, the geographically expansive European-origin Western international society. A more comprehensive, symmetrical analysis and conceptualization of the social role of scientific and technological epistemic communities would further build up on this focus on co-production at the levels of fundamental institutions and constitutional structures rather than on individual regime formation.

Co-production of science, technology and international society

All of the abovementioned examples of how I have bridged the analytical frameworks of IR and STS in novel ways in this thesis have been focused on the possible influence of STS on IR. In the development and operationalization of the analytical framework of the double-constitutional structure of international society I have, however, also provided a first attempt of the translation of the co-production idiom of Science and Technology Studies to the level of historical, constitutive, international system–theorizing. In this translation I have focused on the role of norms, ideas, and principles in the institutionalization of knowledge production at the level of the international system. This level is often neglected in the analysis of the social roles of science and technology in society within STS. The neglect can be explained with reference to Latour’s conceptualization of the Constitution of the Modern, which has not been primarily aimed at the furthering of the analysis of co-production at the level of institutional analysis. Instead, Latour (2005; 1987; 1998) has primarily used this conceptualization in furthering the development of the Actor-Network Theory (ANT). This analytical framework can be summarized as aiming at giving a similar voice and power to the interests of material things from staplers to scallops to microbes in the making of social and material kinds possible as humans and institutional actors that are the focus of analysis in International Relations (Latour 1993b; 2010; Callon 1986).

The type of power of non-human materiality over human social interests, which ANT is focused on, is evident (though not a central focus) in this thesis in how the horizons of expectation of the individual cases were not successfully turned into corresponding spaces of experience. In
relation to analyses following ANT that argue for the need to go further down to the level of the material in social and political analysis, the repeated constitution and mobilization of sovereign power for the exploration of the Arctic and the associated empirical analysis of the double-constitutional structure have, however, also illustrated how following the analytical framework of Actor-Network Theory will neglect the constitutive power of ideas, norms, and values at all of the institutional levels of the constitutive hierarchy of the international institutions. The prominence the desire to appropriate the Arctic, and the association of these desires with questions of sovereignty at the present time, also illustrate the prominence of the possibly generative role of such ideas, norms, and values in the constitution of what are regarded as the rational forms human interaction with materiality. In short, in relation to ANT my analysis of the double-constitutional structure of what was at its origins an expansive international society has illustrated how the ability to see like a state in a society of states is co-produced as much through social institutions as material forces. A comprehensive research of what is feasible, possible, and reasonable activity in relation to specific elements would ideally combine the analysis of the double-constitutional structure with the material aspects of Latour’s actor-network analysis of science in action. That is because in order to create sustainable forms of international governance of the social and material worlds one needs to understand what it is to see like a state in a society of states as well as one species in a global ecosystem.

A final word on the analysis of the Arctic that never was

In developing the theoretical framework of this thesis through a combination of macro-historical analysis and individual case studies this study has moved between the global core and the periphery. In doing this I have illustrated how the history of European exploration, which is generally narrated as a history of heroic adventures through which the globe as we know it today was slowly rightful ordered, did not take place in as elegantly rational manner as the existing studies of the expansion of international society present it. By focusing on the analysis of horizons of expectation rather than spaces of experience in relation to the analysis of the expansion of international society I have also illustrated how the more general division between the aims of northern and southern explorations does not stand the test of history. By this I mean how the main aim of adventures in the Arctic is said to have remained the search for the sea-passage for the orient until in the nineteenth century it became the conquest of the North Pole.
As Donna Haraway (1997, 4) would put it, by analyzing the horizons of expectation associated with the northern explorations that included the aim of material expansion of international society through settlement in this thesis, I have illustrated how, like many other heroic stories of the Greatest Story Ever Told about modernity and man, this division of aims between northern and southern explorations does not stand the test of history. That is to say, like sovereign state interest in exploration and specific sciences, the aims of northern exploration have fluctuated much like the southern ones, depending on what is regarded as the current state of progressivity in international society.

The histories of the Arctic that never was, which is one way to describe the primary research material of this thesis, tell a much different story of progress and definitions of development and rationality at different times in the history of the expansion of international society than illustrations of individual heroic explorers, or accounts of the successful conquests of new terrains in the South. The narrations through which sovereign power has been successfully constituted and mobilized for the exploration of the previously unknown Arctic regions also reveal a specific sense of community and common purpose between members of international society that has been crafted and re-crafted in the intersection of the international in institutions of politics and science since the end of the fifteenth century. It is in this intersection where the basic rules of peaceful coordination and collaboration between the members of international society have been changed through the redefinition of what counts as progressivity and rationality in relation to the governance of the social as well as material universe. This change has not taken place through coercive power of the wished hegemons of international society as the neo-realist approach assume, but through the combination of the social power of international re-organization of social and epistemic communities, and the accumulation of new unexpected empirical knowledge. In order to understand and grasp the potentiality of this form of systemic change we need to better understand and explain the co-productive genesis of the hegemonic common epistemology and understanding of the universe and the constitutional structures and fundamental, social institutions of international society.
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