Arctic break up: Climate change, geopolitics, and the fragmenting Arctic security region

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Climate change is ushering in a new era across the circumpolar region, affecting all aspects of Arctic life, including conditions of security across the circumpolar Arctic. This article argues that the intersection of human-caused climate change, particularly the warming of the Arctic Ocean, and renewed great power competition are causing the Arctic regional security complex (RSC) that emerged in the post-Cold War period to fragment into distinct sub-regions. Rather than a single region characterized by common environmental and human security challenges, security in the Arctic is increasingly shaped by geopolitical factors related to the North American, European, and Eurasian regions, respectively. The result is the end of the Arctic as a holistic security region and the emergence of distinct sub-regional security challenges across different parts of the circumpolar world. This variation in conditions of security will contribute to the erosion of the circumpolar Arctic as a single, coherent region over the course of this century, and will strain the region's governance architecture. The result is a circumpolar region that will be less distinctly 'Arctic' than in the past, as the cooperative nature of recent Arctic politics is replaced by adjacent security sub-regions characterized by great power competition and differing geopolitical and ecological considerations.

Introduction

This article examines the transformation of the Arctic as a *security* region or regional security complex (RSC), namely an area in which relations of security between state and non-state actors are determined. Despite the enthusiasm for new institutions and inter-state cooperation that has surrounded the Arctic since the end of the Cold War, I argue that the circumpolar Arctic is undergoing the second fundamental change in its security dynamics in 30 years. The first was the change away from Cold War hostility towards a peaceful region of dynamic inter-state cooperation. The second is the current change away from an integrated security region towards a fragmented Arctic comprising three distinct sub-regions in which conditions of security are principally shaped by geopolitical factors related to North America, Europe, and Eurasia, respectively. While the post-Cold War period was defined by Arctic actors coming together to improve their security, the question now is whether the Arctic security region is breaking up. I argue it is, and identify the catalysts for the fragmenting Arctic security region as climate change, specifically the warming of

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the Arctic Ocean, and resurgent geopolitical competition, including a reassertive Russia, newly assertive China, and, importantly, divided Western powers.

First, this article discusses the emergence of the Arctic as a security region in the late 1980s and early 1990s, and outlines the theory of regional security complexes. It presents the argument that the Arctic has become a 'zone of peace' in which states are committed to institution-building and peaceful settlement of disputes. Second, I explain how the Arctic RSC is fragmenting as a result of climate change and geopolitics, resulting in the emergence of North American, European, and Eurasian sub-regions characterized by different sets of actors and diverse security issues. In the third section, I offer reflections on what this fragmentation may mean for the future of the circumpolar Arctic, and the people, societies, and states that comprise it.

Security and the Arctic

It was only quite recently that the Arctic became an integrated geopolitical region. During the Cold War, the Arctic was at the geographic centre of strategic competition and nuclear deterrence between the United States and Soviet Union, which resulted in dichotomous processes of over-militarization and under-politicization. Superpower rivalry transformed the Arctic "first into a military flank, then a military front or even a 'military theatre'" (AHDR, 2004: 218), and restricted the emergence of political institutions that included all states with territory in the region, divided as these were between different Cold War blocs. As a result, the Arctic suffered from a lack of political institution-building from which it has still only partly emerged (Keskitalo, 2007: 194). Though scholars have detailed how shifts in global politics and increased cooperation among circumpolar states caused the emergence of a transnational Arctic identity from the 1970s onwards (Keskitalo, 2007; Young, 2005, 2009), only as relations between the superpowers became less hostile was it possible for a single Arctic region to emerge.

Indeed, the impending collapse of the Soviet Union opened space to normalize inter-state relations in the circumpolar region. In 1987, Soviet leader Mikhail Gorbachev's famous Murmansk speech called for the Arctic to become a "zone of peace" characterized by a nuclear weapons-free zone in northern Europe, restricting military activity and conventional armaments, and implementing confidence-building measures (Åtland, 2008: 294). Notably, northern environmental challenges were the focus of early efforts by Soviet officials to engage their Western counterparts on initiatives to improve scientific and environmental cooperation and establish new political institutions such as the Barents Euro-Arctic Region, the Arctic Environmental Protection Strategy, and, a few years later, the Arctic Council (Eriksson, 1995; Hønneland, 2010). The Murmansk speech set in motion a new normative structure for the post-Cold War Arctic in which states and Indigenous peoples committed to a cooperative and rules-based regional order organized through consensus-based institutions.

The rapid transformation of the Arctic from a space of conflictual to cooperative political behaviour led to excited assessments of the circumpolar region as geopolitically unique. Building on its long history as an area distinct from the southern metropoles from which it was governed, the concept of 'Arctic exceptionalism' emerged to characterize "a unique region detached, and encapsulated, from global political dynamics, and thus characterized primarily as an apolitical space of regional governance, functional cooperation, and peaceful co-existence" (Käpylä & Mikkola, 2015: 4). While still peripheral, the Arctic is seen by many as a region that can offer lessons in

inter-state cooperation, non-violent dispute resolution, and consensus-based decision-making to other parts of the world (Exner-Pirot & Murray, 2017; Storey, 2013). This assessment rested upon the view that the Arctic had become an integrated and coherent region of global politics, and was reinforced by a flurry of Arctic foreign and security policies and practices recently released by states and other actors that articulated their common 'Arctic-ness' in terms of the geopolitically coherent and distinct nature of the region (Heininen, 2012). Though the Arctic has never ceased to be characterized by sovereign states and the pursuit of their interests, the dominant political discourse in the Arctic since the end of the Cold War has emphasized cooperation, common interests, and the fundamental connectedness of the circumpolar region, exemplified by, inter alia, the 2008 *Ilulissat Declaration* by the five Arctic coastal states or the vision of the region as 'One Arctic' that animated the recent American chairmanship of the Arctic Council (Lackenbauer et al, 2017).

The Arctic Regional Security Complex (RSC)

Building on discussions of the Arctic as a distinct geopolitical region, some scholars have examined the Arctic as a distinct *security* region (Chater & Greaves, 2014; Chater, Greaves & Sarson, 2020; Exner-Pirot, 2013). According to Buzan and Wæver (2003), regions are the most generally relevant level of security analysis because interstate interactions – ranging from alliance, cooperation, rivalry, hostility and war – have typically been determined by geographic proximity. That is to say, for most people and states around the world, conditions of security and insecurity have been determined far more by one's neighbours than by global factors. The unit within which most states' security is determined is the regional security complex (RSC), defined as "a group of states or other entities [that] must possess a degree of security interdependence sufficient both to establish them as a linked set and to differentiate them from surrounding security regions" (Buzan & Wæver, 2003: 47-48). The Arctic has historically *not* formed its own RSC but was either an "unstructured security region" or an "insulator" between separate North American, European, and Soviet and post-Soviet RSCs (Buzan & Wæver, 2003: 41, 62). The Cold War prevented an Arctic RSC from emerging because regional security relations were secondary to the global strategic considerations of the USA and the Soviet Union; so long as its security relations primarily reflected broader Cold War dynamics, the Arctic could not comprise a regional security complex of its own.

The Arctic RSC emerged as a result of the desecuritization of superpower relations in the late 1980s, and from the unique opportunities and challenges afforded circumpolar states as a result of the Arctic environment. As Heather Exner-Pirot notes, the Arctic RSC was centered around its historically frozen ocean; political and institutional underdevelopment related to territorial boundaries, sovereignty claims, and economic activity; and incorporation of Indigenous peoples into regional governance. However, "the Arctic is exceptional in that the environmental sector dominates circumpolar relations," making it, in effect, a regional *environmental* security complex (Exner-Pirot, 2013: 121-122). This means that security for Arctic states and peoples have been linked, both positively and negatively, through factors related to the natural environment.

Environmental issues such as transnational pollution, marine risks and ocean management, and climate change have been widely recognized as relevant to Arctic politics and security. Less discussed is how environmental factors have mediated the emergence and severity of other security issues, including in the military and political sectors. For instance, Arctic environments provided unique natural systems that supported human subsistence and flourishing across the region, producing conditions of human security that have been disrupted by climate change (Greaves,

2016a, 2016b; Hossain et al., 2018; Hossain & Petrétei, 2016). The Arctic's inaccessible terrain, vast distances, cold weather, and sea ice also helped deter military aggression and prevent some inter-state conflicts, such as allaying concerns of a Soviet ground invasion of northern Canada during the Cold War (Coates et al, 2008: 55). The deterrent effect of the harsh northern climate remains relevant to national security, with the chief of Canada's defence staff citing it as recently as 2010 as part of his lack of concern over the need for conventional defence in the Arctic.

While many observers have noted how issues such as environmental monitoring, wildlife protection, ecosystem conservation, and the decommissioning of Soviet/Russian nuclear reactors have influenced regional cooperation and produced new regional security issues, most view the need for environmental cooperation as driving closer political integration within the region (Åtland, 2008; Exner-Pirot, 2013; Keskitalo, 2007; Young, 2009). Whereas some argue that climate change will lead to a 'polar Mediterranean', will facilitate Arctic integration through economic activity and political normalization, or even lead to a political renaissance akin to the political revolutions in post-communist Eastern Europe (Zellen 2013, 343), by contrast, I suggest the transformation of the Arctic environment due to climate change is *undermining* the material basis for assessing security in the Arctic at the pan-regional level. If the natural environment provided a shared foundation for Arctic security in the post-Cold War period, it follows that as the environment changes so, too, will the conditions and dynamics of regional security.

Climate change and the fragmenting Arctic RSC

The Arctic RSC is fragmenting into three distinct security sub-regions. The primary catalyst for this change in Arctic security politics is human-caused climate change, most specifically the warming of the Arctic Ocean that has increased maritime navigability and opened new opportunities to profit from non-renewable resource extraction. Numerous studies document the environmental changes occurring in the Arctic (ACIA, 2004; Larsen et al., 2014). Sea ice declined by 9-13% per decade between 1979-2012, reaching an historic low nearly 50% below the average 1979-2000 extent in the summer of 2012. As of June 2019, sea ice extent for the year was already below the 2012 record (NSIDC, 2019). Climate records continue to be broken, and dramatic changes include more extreme seasonal variation, reduced sea ice, receding glaciers, diminished snow cover, thawing permafrost, changing terrestrial water systems, invasive species, temperatures increasing at twice the global average, and other stressors on plant and animal populations. Numerous Arctic locales have recorded record high temperatures in the last two years, reflecting the accelerated pace of global warming and likely climate feedback loops in the region related to loss of sea ice albedo, warming ocean temperatures, and permafrost thawing (Samenow, 2019). The Arctic, a region characterized by its frigid climate and the frozen ocean that forms its core, is predicted to be free of summer sea ice by the middle of this century (Wang & Overland, 2009), marking a radical alteration to the defining physical feature of the northern polar region.

The most geopolitically significant of these climate impacts is the increasing navigability and accessibility of historically ice-covered Arctic waters. When the Arctic Ocean was frozen for most of the year, states had little incentive to quarrel over disagreements such as maritime boundary disputes. Arctic boundaries had little effect on their core national interests, and states were unwilling to risk the global strategic balance or their diplomatic relations over trivial Arctic issues. Moreover, the inaccessibility of the Arctic made its natural resources largely moot. But as sea ice has receded, states have paid greater attention to their Arctic boundaries and expressed greater

interest in settling outstanding disputes. In addition to the symbolic value and popular attachment to particularly Arctic geographies, notably the North Pole, states' interest in asserting their Arctic sovereignty is informed by their desire for the greatest economic benefits from Arctic resources (Mazo, 2014). At stake are shipping lanes, fisheries, minerals, and an estimated 13-30% of global undiscovered hydrocarbons (Gautier et al, 2009). This has coincided with the need to submit claims to their extended continental shelves within ten years of ratifying the UN Convention on the Law of the Sea (UNCLOS). There is also greater interest by non-Arctic states, notably China, in circumpolar governance, as discussed below. Overall, global warming has changed the conditions of possibility for human activity in the region in ways that invite involvement by a wider range of actors with distinct, sometimes conflicting, interests. The critical point is that climate change has facilitated a resurgence of geopolitical competition as Arctic and non-Arctic states have sought to maximize their own interests in the region through the deployment of both military and civilian assets and resources (Huebert et al., 2012).

Climate researchers describe the physical effects of climate change on the Arctic Ocean as 'Atlantification' and 'Pacification', referring to the northward intrusion of warm water, nutrients, and fauna from the Arctic's neighbouring oceans (Katz, 2018). Numerous fish and animal species have been sighted at higher latitudes than ever before, taking advantage of milder conditions caused by the large volumes of warm water flowing into the Arctic from further south. While researchers are struggling to keep up with the pace of climate change in the region, it is clear that "the Atlantification and Pacification of the Arctic Ocean will only intensify in the coming decades as the world continues to warm and the Arctic becomes increasingly ice-free" (Katz, 2018). The circumpolar Arctic, long perceived as distinct from the rest of the world due to its unique environment, appears certain to increasingly resemble other ecosystems.

I argue that this ecological phenomenon is also occurring geopolitically as Arctic security dynamics transform due to climate change. Atlantification and Pacification thus serve as appropriate descriptions for the fragmentation of the Arctic from a single regional security complex into distinct security sub-regions, or regional security subcomplexes. As Buzan and Wæver (2003: 51) describe: "Subcomplexes [are] a 'half-level' within the regional one […] Subcomplexes have essentially the same definition as RSCs, the difference being that a subcomplex is firmly embedded within a larger RSC. Subcomplexes represent distinctive patterns of security interdependence that are nonetheless caught up in a wider pattern that defines the RSC as a whole." As such, while I argue that the pan-Arctic RSC is fragmenting into distinct North American, European, and Eurasian sub-regions, this does not mean that these sub-regions or the actors within them have nothing to do with each other, or that conditions of security in each region are entirely distinct. Rather, it means that the practices and relations of amity and enmity that produce RSCs as either cooperative or conflictual spaces are principally occurring at the sub-regional level involving sub-regional actors. In time, though sooner than many might expect, security within these three sub-regions is likely to be determined by their incorporation into the security dynamics of the broader North American, European, and Eurasian RSCs or super-RSCs (see Buzan & Wæver, 2003: xxvi), meaning the end of the Arctic as its own security region. Given that the Arctic RSC was premised on the ecological holism that unified all regional actors around a particular set of security concerns, the physical Atlantification and Pacification of the Arctic Ocean are similarly resulting in Atlantification and Pacification of Arctic geopolitics and the fragmentation of the pan-Arctic RSC.

Atlantification

Geopolitically, the Atlantification of the Arctic RSC is somewhat misleading as it actually refers to its fragmentation into two sub-regions that reflect distinct North American and northern European security subcomplexes. These sub-regions possess distinct ecological and socio-economic conditions, but also different relationships to the neighbouring Eurasian sub-region. Two political dynamics account for the emergence of separate European and North American Arctic sub-regions: first, is renewed tensions since 2007 between Russia and the other Arctic states; second, is their different relationships towards both Russia and climate change. Both dynamics demonstrate the extent to which Arctic politics and security are affected by non-Arctic events and the decisions of Arctic actors based on their non-Arctic interests.

The deterioration of Western-Russian relations began in 2007, when a Russian parliamentarian planted a Russian flag on the Arctic Ocean floor at the geographic North Pole. While not legally meaningful, the flag planting launched a period of "finger pointing" in which many actors portrayed Russia's efforts to determine the limit of its extended continental shelf under the UN Convention on the Law of the Sea (UNCLOS) as part of a strategy of post-Cold War revanchism (Dodds, 2010). Subsequently, circumpolar states have vied over conflicting claims to their extended continental shelves, and engaged in a substantial remilitarization of their Arctic policies and practices. Circumpolar states have: reinvested in Arctic military capabilities and infrastructure to support military operations; renewed Cold War era military activities, such as long range bomber patrols and 'buzzing' of neighbours' airspace; and sought to deter the influence of non-Arctic states in the region (Åtland, 2014; Chater & Greaves, 2014). While actual spending has often fallen short of commitments, military investments have contributed to a dominant narrative of a militarized race for Arctic territory and resources (Landriault, 2016).

The diplomatic relationship between Russia and its Arctic neighbours has been even more strained since 2014, when Russia illegally annexed the Ukrainian region of Crimea after the overthrow of a pro-Russian Ukrainian president in a U.S.-backed popular revolution (Burke & Rahbek-Clemmensen, 2017). Russia then launched an unconventional armed conflict in eastern Ukraine that has claimed more than 13,000 lives, including 298 people killed when Malaysian Airlines Flight 17 was shot done by Russian forces in July 2014. Ever since, relations between Russia and the Arctic members of NATO (Canada, Denmark, Iceland, Norway, and the U.S.) have been their worst since the Cold War, with Western states imposing sanctions on Russian individuals, companies, and officials, and Russia retaliating. Russia, NATO, and the European Union all subsequently increased their military activities in northern Europe, and the five Nordic countries began unprecedented military cooperation with each other and the nearby Baltic states. Norway's military reinvigorated its moribund northern defence apparatus, while Sweden, which was neutral during the Cold War, has considered seeking NATO membership, and in 2018 the government issued a manual to every household in the country with guidelines for how citizens should respond in a national crisis, including war (Chater, Greaves & Sarson, 2020). In October 2018, NATO held Exercise Trident Juncture, its largest military exercise in decades. The two week exercise to defend against a 'fictitious aggressor' in the region between the Baltic Sea and Iceland comprised more than 50,000 troops from 31 NATO members and partner countries, and included land, air, sea, and cyber military assets.

The rise of military tensions and activity in northern Europe suggests the distinctive features of the European Arctic security subcomplex. First, the European Arctic holds the largest number of state actors and the densest web of regional governance (Chater & Greaves, 2014: 126-131). It encompasses the Barents region, an area of longstanding security interaction between Russia and Europe (Eriksson, 1995; Greaves, 2018; Hossain et al., 2017), with distinct regional institutions such as the Barents Euro-Arctic Council. In addition to six circumpolar states (Denmark, Finland, Iceland, Norway, Sweden and Russia), the subcomplex includes non-Arctic states with polar proximity, interests, or identities, such as the United Kingdom and Scotland (Depledge & Dodds, 2017), neighbours such as the Baltic states of Latvia, Lithuania, and Estonia (also NATO members), and self-governing, non-sovereign polities such as Greenland, the Faroe Islands, the Sámi parliaments, and the European Union (Adler-Nissen & Gad, 2014). NATO itself is a key actor in the European Arctic in a way that the military alliance is not in the North American context, and which also implicates the United States in the sub-region's security (Østhagen, Sharp & Hilde, 2018).

Second, the European Arctic is, in effect, simply the northern zone of the broader European RSC. Unlike most of the circumpolar Arctic, Northern Europe has a relatively large, urbanized population, and is tightly integrated with proximate southern regions. In this respect, the European Arctic most closely resembles non-Arctic regions in terms of its levels of economic development and social well-being (Larsen & Fondahl, 2014), and, notwithstanding the rise in political tensions and military activity, is a region that prioritizes 'business as usual'. As such, states in the sub-region have worked to: resolve outstanding issues, such as the negotiated bilateral agreement between Norway and Russia in 2010 to resolve their disputed maritime boundary in the Barents Sea; promote investment and further economic development, including the continued extraction of oil and gas in the North Sea and Barents Sea; and facilitate technical, scientific, and other forms of cooperation across various policy domains, including the adjudication of their extended continental shelf claims under UNCLOS. Overall, regional actors strive to balance continued engagement between the West and Russia – considered essential for regional peace and stability – with firm, but measured, collective responses to state-sanctioned wrongdoing. Relations between Russia and the other circumpolar states remain strained, but Russia has exercised some restraint with respect to responding to Western sanctions and the fallout from the Ukrainian crisis, seeking to insulate Arctic cooperation from other political disputes (see Burke & Rahbek-Clemmensen, 2017; Konyshev, Sergunin & Subbotin, 2017).

By contrast, the North American Arctic security subcomplex differs significantly from its European counterpart. Whereas northern Europe is perceived as part of the larger European community, the North American Arctic remain fundamentally peripheral to mainstream politics and society, and reflects unique challenges. The North American sub-region is characterized by three factors: the central role of sub-state actors, including self-governing Indigenous peoples; severe socioeconomic and ecological challenges that create chronic and acute human insecurity; and a politics of exceptionalism that politicizes and complicates public policymaking.

First, the North American Arctic – roughly defined as the area north of 60°N, though with some variation and significant exceptions (see Bennett et al., 2016) – principally consists of territory governed by sub-national governments: the state of Alaska; the Canadian territories of Yukon, Northwest Territories, and Nunavut; the four self-governing Inuit regions of Canada (Inuvialuit,

Nunavut, Nunavik, and Nunatsiavut); and Greenland. While dependent in various ways on the national governments of Canada, Denmark, and the United States, particularly in the area of foreign and defence policy, these sub-state actors exercise considerable devolved and symbolic authority as legitimate governmental representatives of 'the Arctic' within their national polities. They are critical actors for Arctic policymaking, and play an important, though complex role, in shaping the conditions of amity and enmity that make up a security region (see Chater & Greaves, 2014; Dubreuil, 2010; Loukacheva, 2007).

Second, geographic, ecological, and socioeconomic factors have produced communities that are typically small, isolated, and heavily dependent on fiscal support from southern governments. Notable exceptions to this are the cities of Anchorage and Fairbanks, Alaska, which comprise 55% of the state's population. Even then, however, Alaska is only connected by road to the continental United States via Canada, and the rest of its population, much like that of northern Canada and Greenland, is spread across many small communities, most of which are only accessible by water or air. Life for residents of these communities can be challenging, with high levels of poverty, ill health, chronic social issues, culture and language loss, political and social alienation, exposure to pollution, and the rapidly advancing effects of climate change causing both short term acute harms and producing conditions of chronic poor well-being (see Larsen & Fondahl, 2014). Together, this has led some analysts to discuss the North American Arctic as a region experiencing pronounced human insecurity (Chater & Greaves, 2014; Exner-Pirot, 2012; Greaves, 2016a; Hoogensen Gjørv et al., 2014; Nickels, 2013). This contrasts with the European Arctic, whose population does not experience worse wellbeing or human security than the rest of their societies (Greaves, 2016a; Rautio, Poppel & Young, 2014).

Third, the North American Arctic is characterized by a politics of exceptionalism that politicizes and complicates public policymaking, in contrast to the European Arctic where politics are mostly treated as a northern extension of normal domestic policymaking. In this respect, the North American Arctic is prone to having decisions over contentious issues such as land use and non-renewable resource extraction being determined by southern political institutions, with sometimes limited local input, on the basis of southern political or ideological considerations. Sometimes characterized as an ongoing form of colonialism (Canadian Press, 2017; Gritsenko, 2018) this is demonstrated most clearly by the politics of climate change and fossil fuel extraction in the region, which can have particularly strong impacts on human security (Bazely et al., 2014; Slowey, 2014). Numerous projects – including the Mackenzie Valley pipeline project, the Arctic National Wildlife Refuge, and drilling off the Alaska, Canadian, and Greenlandic coasts – have become intensely politicized and securitized as either essential for the *economic* security and wellbeing of northern residents and national economies, or as devastating to the *environmental* or *social* security of affected communities and ecosystems (for examples see Greaves, 2016a; Nickels, 2013; Schlosser, 2006; Wilson, 2017). These competing securitizations also mean that public policy decisions in the North are prone to reversal when elected governments change, such as the Canada-U.S. joint moratorium on Arctic oil and gas drilling, signed by President Obama and Prime Minister Trudeau, which was reversed by President Trump and remains mired in litigation (Associated Press, 2019; Greaves, 2017: 113-116).

The fact that climate and energy security in the North American Arctic are more contentious than in northern Europe is driven, in part, by the fact that climate change is having greater impacts in

the former, raising the stakes of fossil fuel extraction that will worsen global warming. For instance, mean annual temperatures in northern Scandinavia have risen by about 1 degree Celsius since the 1950s, and average winter temperatures by about 2 degrees. By contrast, mean annual temperatures in the North American Arctic have increased by nearly 2 degrees Celsius over the same period, with winter temperatures increasing by as much as 3-5 degrees (Larsen et al,, 2014: 1579). With northern North America experiencing more than twice the warming of Northern Europe, the effects on seasonal sea ice coverage, flora and fauna, permafrost thawing, and weather unpredictability are more acute. The ecological differences between the two Atlantic Arctic sub-regions demonstrate the relationship between environmental change and changing conditions of security (Greaves, 2016a: 474-475), with the warming Arctic Ocean resulting in the fragmentation of the Arctic into distinct sub-regions, in part, on the basis of their ecological differences and the corresponding impacts of the physical environment on state interests and human wellbeing.

What I describe as the penchant for exceptionalism in the North American Arctic applies not only to the securitization of unconventional security issues, such as energy and the environment, but also the relationship with Russia. In contrast with the European Arctic, where Russia poses a very proximate source of insecurity, and is thus treated seriously as a potential military threat, North America has little to fear from Russia. It thus has greater leeway to portray it as threatening (see Greaves, 2016a: 476-477; Østhagen, Sharp & Hilde, 2018). Multiple studies have demonstrated the construction of Russia as a threatening Arctic Other within public discourse, government policy, and the media in Canada and the United States (Lackenbauer, 2010; Landriault, 2016; Padrtova, 2019). Because there is little practical reason to fear Russia, the costs to politicians of invoking Russia as a security threat are low, particularly in the context of poor relations since 2014. The spectre of Russian aggression has proven effective at crafting a popular image of the Arctic as threatened or at risk, even if the most serious disputes in the North American Arctic are actually between its own states: Canada and the United States disagree over their maritime boundary in the Beaufort Sea and over the legal status of the Northwest Passage, while Canada and Denmark disagree over the sovereignty of Hans Island (Byers, 2009).

The security issues in the North American Arctic differ significantly from those in the European Arctic, as do the actors involved. The sub-regions remain linked in important ways, not least of which is the overlap between some state actors, the role of the United States as lead actor in NATO, and the fact that perceptions of Russian behaviour are relevant to both security subcomplexes. But the social and political contexts for each region are distinct, and their different experiences of climate change means that security in the North American and European Arctics will continue to diverge, as the highly developed and geographically proximate European Arctic is incorporated more thoroughly into European political institutions, while the geographically vast but socially isolated North American Arctic becomes even more peripheral to mainstream North American politics.

Pacification

The Pacification of the Arctic RSC refers to the emergence of a distinct sub-region centred on Eurasia, incorporating the long Russian coastline along the Northern Sea Route, the bulk of Russia's Far North and Far Eastern territory, and the emergence of Asian actors pursuing circumpolar interests. Russia is pivotal to the Eurasian Arctic sub-region; indeed, some analysts have described it as the most significant actor in the region (Charron et al., 2012; Konyshev et al.,

2017), and as the sole circumpolar state with territory in Asia it is uniquely central to that security subcomplex relative to other Arctic actors. As the previous section describes, Russia is relevant to security throughout the Arctic, making it critical for the relations of amity and enmity that determine conditions of security within the region. Despite the domestic and economic focus of its Arctic strategy and the belligerent rhetoric by some other Arctic states (Lackenbauer, 2010; Sergunin & Konyshev, 2018), Russia has often been characterized as aggressive by its Arctic neighbours, though its behaviour has sometimes fuelled these suspicions. For instance, weeks prior to NATO's Exercise Trident Juncture in fall 2018, Russia held its own military exercise called Vostok 2018, which involved more than 300,000 personnel deployed across the Far North and Far East, reportedly the largest Russian military exercise since 1981 (BBC News, 2018).

It is difficult to overstate the importance of the Arctic Zone of the Russian Federation (AZRF) to the Russian economy or its national security interests. The AZRF contains 95% of Russian oil and 70% of Russian natural gas reserves, and 50-90% of Russian mineral deposits. 11-20% of Russia's GDP and 22% of its exports are produced north of the Arctic Circle, and in 2015 the Northern Sea Route experienced the same volume of marine cargo – approximately 7 million tons of cargo per year – as it had in 1987 before the collapse of the Soviet Union reduced it to approximately 1.5 million tons in the 1990s (Sergunin & Konyshev, 2018: 135-137). The vital contributions of the Arctic to its economy has led Russia to insist on its peaceful intentions and desired cooperation with its polar neighbours, since large-scale conflict that would disrupt Russia's capacity to extract and export its Arctic resources would be devastating for its national economy, causing far more harm than the relatively small portion of economic activity the other Arctic states experience in their northern regions.

The Eurasian Arctic sub-region is also structured around the growing role of Asian states, most importantly China. Whereas Russia has been an Arctic power for centuries, China only recently signalled its commitment to developing Arctic capabilities in order to pursue its Arctic interests. The Chinese government has made significant investments in Arctic science, research, cooperation, resource extraction, and tourism, and *China's Arctic Policy*, released in 2018, declares it a "near Arctic state". China has built a cutting edge ice breaker (*Xuelong 2*) to go with its original, repurposed heavy ice breaker; established a climate research station on Svalbard; provided financial support for various Arctic meetings and activities; and wooed support from smaller Arctic states, such as Iceland (Koivurova et al., 2019). China has become one of several Asian states to receive Observer status at the Arctic Council, giving it a direct window into multilateral Arctic negotiations as well as improved access to the Arctic Council's Members and Permanent Participants. Other Asian states such as Japan, India, South Korea, and Singapore have also become Observers of the Arctic Council and invested in natural resource extraction in the Russian Far North (Lunde et al., 2015), deepening the political and economic connections between the Russian Arctic and the Asia-Pacific region. Overall, however, it is China's Arctic aspirations that have attracted scholarly and policymaking attention as it has established itself as the foremost non-Arctic state active in the circumpolar region (see Brady, 2017; Byers & Lodge, 2019; Kopra, 2013; Lackenbauer et al., 2018), with potentially global significance for Chinese-American great power competition (Durfee & Johnstone, 2019, 97).

Whatever its own capabilities, China's current influence on Arctic security is closely related to its relationship with Russia (Bertelsen & Gallucci, 2016). As the two most powerful states in Eurasia,

global powers, and the foremost non-democratic countries in the world, China and Russia have forged a mutually beneficial partnership in the Arctic. The cornerstone is the $27 billion project to ship liquified natural gas from Russia's Yamal Peninsula to China via the Northern Sea Route. The foreign investment in Russia from this deal has been critical in mitigating the damage to Russia's economy caused by the Western sanctions imposed over Crimea, particularly with respect to oil and gas extraction that has been severely hampered due to an inability to partner with major, Western-based energy companies. The need for refueling, surveillance, and search and rescue infrastructure to support increased traffic along the Northern Sea Route has also provided the justification for Russian investments in military infrastructure along its northern coastline. This reinvestment has, in turn, been part of the evidence cited for the 'remilitarization' of the Arctic. Sino-Russian Arctic cooperation is not limited to the economic, energy, and environmental security dimensions of major fossil fuel projects, however. More than 3200 Chinese soldiers, as well as artillery and aircraft, participated in Russia's Vostok 2018 exercise, marking a significant deepening in their military cooperation and reflecting the pragmatic partnership between the two foremost non-Western global powers.

The rise of Chinese influence in the Arctic has been met by concern by the other circumpolar states, reflecting a desire to limit China's power to the Eurasian sub-region. The Canadian government has intervened to prevent Chinese companies from acquiring private corporations on the basis of national security, even though Chinese investment could help fund sorely needed infrastructure and natural resource projects. In 2019, Denmark prevented Chinese companies from winning the contract to construct three new airports on Greenland, citing national security. But, in other contexts, Chinese interests are heavily involved in providing Arctic infrastructure projects that are in high demand from many northern governments. Chinese engagement in the Arctic highlights this tension between local and regional infrastructure demands and state-level security concerns (see Chater, Greaves & Sarson, 2020), a dynamic playing out across the region. Again, the significance of these developments lies in the fact that security in the Arctic is difficult to analyze at the pan-regional level, but varies across the different sub-regions where security and insecurity are produced according to the actions of primarily regional actors.

Conclusion

The central argument in this article is that climate change and ensuing geopolitical competition is undermining the holism of the Arctic and producing three distinct security sub-regions across the circumpolar world. This process is analogous to the Atlantification and Pacification of the Arctic Ocean due to global warming, in the sense that the distinctiveness that previously characterized the Arctic relative to adjacent parts of the world is being replaced by the incorporation of the Arctic into the political and security dynamics of neighbouring security regions. This sub-regionalization of Arctic politics marks the end of the post-Cold War period of Arctic exceptionalism in which the circumpolar world was seen as separate from the competition and great power manoeuvring that characterize global politics. As the Arctic Ocean warms and Arctic ecosystems lose their distinctiveness to resemble zones at lower latitudes, so Arctic politics and security are increasingly becoming a northward extension of the forces that dominate further south.

The fragmentation of the Arctic RSC does not mean that inter-state conflict is inevitable, or even more likely to occur. All eight Arctic states, as well as increasingly important non-Arctic states like China, have repeatedly affirmed their commitments to a peaceful and rule-governed Arctic order based on international law and the peaceful negotiation of disputes, and their Arctic policies state that there is no prospective military threat in or to the region (Heininen, 2012). While the Arctic's vast natural resource wealth has often been identified as a potential source of conflict, the majority are believed to lie in undisputed sovereign territory relatively close to shore, and doubts remain over the viability of developing these resources, making major conflicts over them an unlikely gamble (Keil, 2014). Moreover, given the priority that Arctic actors place on the economic benefits of natural resource development – particularly the importance of Arctic resources to the Russian economy – it is unlikely that they would pursue violent conflict that would disrupt their capacity to operate as usual and export commodities to the global market. While some observers have expressed worries over an emerging Arctic security dilemma (Åtland, 2014), it remains the case that conflict in the Arctic is more likely to be caused by outside effects spilling into the circumpolar region than overt competition within the Arctic itself.

But the fragmentation of the Arctic RSC will likely affect current patterns and structures of Arctic regional governance and cooperation. Pan-Arctic governance may weaken as issues are negotiated bilaterally, and as Arctic sub-regions become incorporated into adjacent blocs of regional politics with their own intergovernmental institutions. This will likely reinforce the growing "Westphalianization", i.e. state-centrism, within Arctic politics at the expense of sub-state governments, local decision-making, and self-governing Indigenous institutions (Shadian, 2010). Fragmentation will also occur in terms of what 'security' is understood to mean across the region, as the different subcomplexes experience distinct political, economic, social, and ecological conditions. This variation in security will further drive the erosion of the Arctic as a single, coherent region over the course of this century, and may strain the region's governance architecture as states with different interests and priorities pursue their distinct conceptions of Arctic security. The result will be a circumpolar region that is less distinctly 'Arctic' than in the past, as the exceptional and cooperative nature of recent Arctic politics is replaced by adjacent security sub-regions characterized by different combinations of great power influence, economic nationalism and investment, environmental change, and ongoing human insecurity. Security in the Arctic, always highly contested, will become a reflection of the specific factors within the adjacent political areas, less distinctly Arctic and more global, as climate change renders the Arctic a region of the world that is distant from the centres of political influence, but no longer one that is especially distinct.

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