The Amazing Race. On resources, conflict, and cooperation in the Arctic.

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Abstract: The article uncovers factors that point towards continuing peaceful development in the Arctic. Contrast to the grim visions of an Arctic Race to the resources, there is a process where international law, UN conventions, environmental regimes and scientific guidelines are followed. Consequently, the main security challenges in the Arctic are not related to traditional interstate security questions. Instead of issues like maritime delimitation or cold water military capacities we should be more concerned about human and environmental security. To this end, the article analyses the *local* dilemma between traditional means of livelihood and modern hydrocarbon industry, *global* environmental impacts of glacier melting, and *moral* issues related to the utilization of the new Arctic oil and gas resources (the so-called Arctic paradox).

Introduction

"Loss of ice will mean extinction for many species, including one of the world's most iconic animals, the polar bear. But perhaps most importantly, the scramble for the Arctic's minerals may lead to conflicts that threaten not only iconic animals, but world peace itself."
– Richard Sale, the Scramble for the Arctic (2009, 9).

Ice melts, world peace is threatened, writes glaciologist Richard Sale. And he has certainly not been the only one to propagate such a view. Thanks to the ongoing melting of the Arctic Ocean sea ice the Arctic natural resources have become an increasingly topical issue in international politics. The media often describes the situation as a "Cold Rush" or "Arctic Race" in which the coastal states US, Russia, Canada, Denmark, Iceland and Norway are competing for the ownership of and control over the new oil and gas resources and the transport routes. Many "non-Arctic" actors, such as China and Japan, have also shown increasing interest in Arctic activities lately. Consequently, the conflict potential in the Arctic has been repeatedly in the headlines. The climate change is presented as a factor that results in growing political and military tensions between the Arctic states. The evidence for this view has, however, has usually been found in individual events, such as military exercises or flag planting underneath and above the Arctic Ocean's surface.

To contrast that view, it is argued in this article that while *ice melts, peace prevails*. There are numerous factors that point towards continuing peaceful development in the Arctic. So, no Arctic Race to the resources,

no "Wild North", let alone new Cold War – but rather a process where international law, UN conventions, environmental regimes and scientific guidelines are followed. Thus, what is amazing about the "Race" is that there actually are clear rules, which are followed, and that peaceful change and territorial claims in resource-rich areas coexist.

Furthermore, it is argued here that the traditional, state-centred hard security concerns draw attention away from the actual Arctic security problems, which relate to environmental and human security. Thus, the second key argument of the article is that the main security challenges in the Arctic are not related to traditional interstate security questions. Instead of issues like maritime delimitation or cold water military capacities we should be more concerned about a) the *local* level: for instance the dilemma between traditional means of livelihood and modern hydrocarbon industry b) *global* environmental impacts of glacier melting, and c) *moral* issues related to the utilization of the new Arctic oil and gas resources (the so-called Arctic paradox).

Concepts originating from Peace Research are applied here on the Arctic case to give a general framework for analysis.[1] A purpose of the article is to point out that deeper transformation from negative peace (absence of war/violence) into positive peace (integration, cooperation) in the Arctic still calls for solving dilemmas that concern environmental and human security. Although the Arctic is best described as a case of continuing peaceful change, there is no lack of environmental and human security problems.

A complex scientific debate is ongoing on the impacts of climate change on the Arctic ice melting. For the purposes of this article the following mainstream findings are found sufficient: the average temperature in the region has risen and rises faster than in any other area in the globe[2] and the ice cap is shrinking[3]. The environmental impacts of climate change are naturally more diverse and concern flora and fauna as well as traditional means of livelihood (see e.g. ACIA 2004, 2005), but the sea-ice retreat alone has effects on international politics – on which this article focuses.

The article is structured so that in order to provide background and context for the analysis, a brief comparison of the 1990s and the current situation in the Arctic is presented first. That is followed by an analysis of two main International Relations interpretations of the Arctic (state sovereignty and international governance perspectives). It is explained how both perspectives support the conclusion that peaceful change is likely to continue in the Arctic. Final part of the article discusses topical environmental and human security issues in the Arctic and explains how solving these problems could contribute to the strengthening of positive peace in the area.

The comeback of the Arctic: a comparison of 1990s and the current Arctic wave

The first Arctic wave: post-Cold War euphoria

During the Cold War the Arctic region was central from the military perspective, but otherwise marginal and peripheral (Palosaari & Möller 2004). The Arctic sea and land areas played an important role in the strategies of the superpowers US and Soviet Union (Jalonen 1992, Heininen 1992). The international cooperation in the Arctic gained momentum in the early 1990s – in fact, cooperation had started to evolve even before the end of the Cold War. Cooperation started with environmental issues, they were perceived as "low politics" that were easier to cope with in the antagonist atmosphere. The speech by Mikhail Gorbachev in Murmansk 1987 is often presented as a milestone in a process that increased the international interest towards the Arctic and eventually led to the establishment of various international cooperation bodies. The so-called Rovaniemi Process and Arctic Environmental Protection Strategy were among the first forms of international cooperation between the Cold War parties in the Arctic. The Ottawa Declaration of 1996 established the Arctic Council as a intergovernmental forum to provide a means for promoting cooperation, coordination and interaction in issues of sustainable development and environmental protection. The Arctic Indigenous peoples' organizations were also involved in the Council's work.

The way how the Arctic Council was launched describes tellingly the logic of international action in the Arctic during the 1990s. The states utilized environmental issues as "soft", non-ideological, almost non-political themes with which to start cooperation. The cooperation then materialised as various initiatives and organizations in the region: AEPS, Arctic Council, Barents Euroarctic Council, International Arctic Science Committee IASC, Arctic Military Environmental Cooperation AMEC, etc. The resulting international cooperation in environmental issues, culture, science, tourism and other soft themes played a noteworthy role in the process where solutions were sought for in order to mitigate the Cold War tensions (see Åtland 2008). At the same time the founding of various regional and subregional organizations, international treaties and other institutions meant that new non-state international actors were introduced to the Arctic arena. At first this took place in terms that were defined and controlled by the states, but the regionalisation process eventually resulted in broader political agenda and the forms of international cooperation in the North.

In the 1990s desecuritization and disarmament took place and the military importance of the Arctic declined to some degree (Palosaari & Möller 2004). The Arctic cooperation agenda was increasingly defined by environmental security instead of military security. In addition to the actual concerns on the vulnerable Arctic environment this was influenced by the fact that technological advances in ice breaking and underwater drilling enabled new multinational oil companies' activities in the region – which in turn called for international cooperation, economical and scientific (Archer 1992).

The political and economical change in the North Europe after the Cold War took place without any major conflicts. It has been argued that the region became a postmodern playground of regionalisation: a hub of transnational connections, cultural exchange and crossborder cooperation, where confrontation was replaced with cooperation and new regional idealism (see Joenniemi 1997; Browning 2005, 206). Although for instance disputes concerning national resources and their utilization were not totally lacking, they appeared mainly inside states, especially between governments and indigenous peoples (Heininen 1992, 40).

During the Cold War the local actors had basically no influence on how the role of the Arctic in international politics was defined. When military security dominated the Arctic agenda the local actors and their interests remained in the margin. In the 1990s, however, for instance the indigenous peoples got a chance to participate in the Arctic international cooperation. In the Arctic Council the indigenous peoples' organizations were given the status of 'Permanent Participants'. This recognized the concerns of the indigenous peoples and gave the local actors the possibility to participate in a new way. Thus the introduction of environmental security in the Arctic bolstered the position of the local actors and advanced their possibilities for participation in the political process (Palosaari & Möller 2004, 261).

Summing up, the situation in the Arctic in the 1990s can be depicted with the following concepts: the key actors were the international and regional organizations founded by states. Regionalisation – basically a post-sovereign process – served as the dominant logic in international politics. The security politics of that time are best described by the broad security concept. A sector of broad security, environmental security, provided topics with which it was possible to create cooperation on many levels. The relationship between local and global level enabled the political mobilisation of Arctic indigenous peoples, and local political actorness was enhanced.

Second wave: dawning of a "post post-Cold War Arctic"[4]

In many of the studies concerning the first Arctic wave the buzz word appears to have been "end of the Cold War" and the role played by the Arctic in the process leading to it. The change from confrontation to cooperation inspired both political actors and researchers: the Cold War military theatre of arms race, submarines, missiles, nuclear weapons turned into an area of new initiatives, new regionalisation, crossborder cooperation, post-sovereign politics, fuzzy borders, new identities. There appears to have been a general feeling prevailing according to which "everything is possible": an era of new politics had begun. The second Arctic wave, or the situation in the 2000s, is in many ways opposite to this. Melting glaciers, sea level rise, environmental problems and sinister visions of conflicts between states on Arctic regions and sources create a feeling that everything is *im*possible. The buzz word, obviously, is climate change.

Compared to the 1990s climate change has by now made its way from the scientific

agenda to the political agenda. The impacts of the climate change are now more visible and better documented. The *securitisation* process related to climate change seems like a textbook example of a securitisation move in the environmental security sector: the public awareness of issues in the scientific agenda increases and issues on the scientific agenda become recognized by policymakers. This is followed by the acceptance of political responsibility and arising political management questions concerning "international cooperation and institutionalization, the effectiveness of unilateral national initiatives, distribution of costs and benefits, free-rider dilemmas, problems of enforcement, and so forth". Clearly, the presumed urgency of climate change has become a political issue (cf. Buzan *et al.* 1999, 72).

Another significant change has been that the Arctic has become exposed to globalisation. New ways have emerged in which the Arctic is becoming more integrated part of the global economy. Arctic has, actually, for long been global in the sense that there has been Northern fishing grounds, whaling, fur trade, mining which connected the Arctic to markets around the world (Heininen & Southcott 2010, 1). But the new forces of globalization are boosted by the climate change. Obviously there is growing interest towards the Arctic sea routes and natural resources that become available as the sea-ice melts. The numbers are telling: the transport route Tokyo-Amsterdam via Panama is 23 000 km and via Suez 21 000 km, but via Northwest Passage 15 500 km and via North-East 13 500 km. This means significant savings in time (10-15 days), fuel and transit fees. Concerning natural resources it can be noted firstly that fishing fleets are moving North as seas become warmer and more navigable. Secondly, new oil and gas resources available: Arctic contains a substantial portion of the world's oil and gas reserves – the Shtokman gas field in the Barents Sea alone holds 113 trillion cubic feet of natural gas reserves (which equals about twice the known gas reserves of Canada) (Offerdal 2007, 139). What is typical to the second Arctic wave is that there is a growing interest towards the region from *outside* of it. Non-arctic actors such as China, India, Japan and Philippines find the region interesting particularly from the viewpoint of fisheries and transport.

Two basic interpretations of the current situation on the Arctic

The Arctic political puzzle contains a variety of political actors: in addition to the Arctic states there are a number of active intergovernmental, regional, indigenous, environmental, scientific and non-governmental organizations. In the academic debate there appears to be two major, and somewhat competing, interpretations as regards to the near future Arctic international politics. The first of them underlines the role of states and sovereignty and the relationship between the eight Arctic states; whereas the second highlights international governance and cooperation, UN Convention on the Law of the Sea (UNCLOS) and environmental regimes. The former can be called state sovereignty perspective and the latter

international governance perspective. What seems to connect the views is that, in contrast to the mainstream media picture, *both contain a number of issues that point to the continuity of peaceful development of the Arctic.* In the following a brief overview of both views is presented. After that the elements that facilitate peaceful change in the Arctic are discussed.

1. National interest and national security in the Arctic

Geopolitical transformation in the Arctic is a key point of departure in the state-centred view that focuses on national interest and national security. The map of the Arctic is redrawn as the ice melts. New transport routes are opening and new energy and mineral resources become exploitable. From the viewpoint of national sovereignty these changes inevitably impact on the way the Arctic states view their national defence, territorial integrity, and control over internal waters. Furthermore, the access to and ownership of new energy resources is typically regarded a national security issue.

To support the state sovereignty perspective, it can be noted that despite the regionalisation process during the first Arctic wave, the role of states remained central. Many of the 'post-sovereign' processes were actually initiated and controlled by the states. In a traditional state-centred security perspective the Arctic is typically connected to general perceived security threats stemming from the climate change. These less geographically specific threats are seen to carry potential for global environmental crisis and even related military escalations. According to this view the rising temperatures, glacier melting and sea level rise might result in storms, drought, mass migration and pandemics, which in turn might weaken governments in various countries and thus create instability in the international system. Military security policy solutions are then seen as a key means to response to such threats. The defence administration in many countries envision that climate change will cause security issues and challenges in the future, and climate change will therefore find its way into the national security strategies. For instance in the US defence policy discussions environmental are no longer simply 'soft issues', but the so-called green hawks have brought them to the national strategic thinking (Chalecki 2007, Durant 2007).

When the state sovereignty perspective is more specifically focused on the Arctic, the impact of ice retreat on issues that concern the national interest gets highlighted. For instance changes in the accessibility to energy resources may have impact on the power relations between states. Consequently, in addition to territorial defence, it becomes a question of oil, gas and minerals and safeguarding their availability and ownership. The emphasis remains on states as sovereign actors that compete with each other for resources and power. Furthermore, it is typically noted from this perspective that unlike is the case with the Antarctic, there is no Arctic Treaty that would limit territorial and sovereignty claims in the spirit of peace and scientific cooperation.[5]

In addition to the retreat of ice there are other recent developments that have made the extraction of new Arctic resources more likely. According to Offerdal these

include the "depletion of oil and gas in more southerly fields of Arctic oil- and gas-producing countries, continuing unstable political developments in producing regions elsewhere, the need for greater security in energy supplies, high oil and gas prices, better technology and renewed interest in the Arctic as an energy region on the part of political as well as industrial actors" (Offerdal 2007, 139). Lee finds that the Arctic together with the Antarctic forms a "Polar Tension Belt", that is to say an area with the most climate change which thus "will have the potential for the most dramatic swings in conflict likelihood" (Lee 2009, 11).

From the viewpoint of traditional security politics the key actors in the region are the Arctic states: Canada, US, Denmark, Iceland, Norway, Sweden, Finland and Russia. Additionally, NATO and EU have to some extent enhanced their Arctic profiles (de Hoop Scheffer 2009, CNN.com 29.1.2009, European Commission 2008). In addition to China and Japan there are other Asian states that have shown interest towards the Arctic. South-Korea, for instance, participates in the activities of the Arctic Council as an *ad hoc*-observer. The current Russian security strategy emphasizes the significance of the Arctic. Some Russian activities have lately aimed at showing *global military stretch* in the Arctic: strategic bombers fly over the Arctic, Northern Fleet naval ships and submarines conduct patrols in the Arctic, and military capabilities in the Arctic are increased (BaretsObserver 13.2.2009, 4.10.2010). US, Canada, Denmark and Norway have responded for instance by participating in military exercises in the Arctic Ocean. US National Security Presidential Directive on Arctic Region Policy also contradicted Russia's claim to bigger portion of the Arctic (9.1.2009, Reuters 12.1.2009). Denmark called upon a meeting of the five Arctic coastal states to discuss i.a. ways in which territorial claims on the sea bed can be agreed on in line with the current law of the sea. This resulted in the Ilulissat Declaration.

Canada has announced funding for new Arctic patrol vessels, deep-water port and cold weather training center (Arctic Council News Service, 16 July 2008, 5 March 2008). Canada finds that the Northwest Passage is part of its internal waters, rather than an international strait open to vessels from every country without constraint (as for instance US considers it). So far Canada has not turned away vessels from the Passage, even if they had not sought for Canada's consent for the voyage. Up until now the Northwest Passage has not been navigable twelve months a year, but that is likely to change in the coming years. The Canadian domestic debate has touched upon Canada's ability to prevent unauthorized crossings by foreign vessels, maritime surveillance, and the related alleged "silent" threat to Canadian sovereignty (Byers 2009). Also the dispute between Canada and Denmark on the ownership of the tiny Hans Island has played a role on the Canadian politics. The Northwest Passage is seen to have noteworthy strategic significance to Canada and there has been concern on US, Russian, British and French submarines operating in the area.[6]

It has been argued that in the 21st century regionalism has been replaced by more "statist" and "modern" international

politics in the North. Borders are no longer fuzzy but more securitized and divisive again. Military capacity, internal and homeland security and territoriality have found their way into the discourse (Browning 2005). A silent remilitarization has perhaps started in the Arctic (Palosaari & Möller 2004). Indeed, already in the early 1990s Jalonen pointed out that "it would be premature to conclude that the assumptions of traditional naval thought will be discarded now that the Cold War is over. Naval thought is not a product of the East-West conflict but a far more fundamental expression of the economic, military, and geographical foundations of the foreign policies of the western maritime powers. Therefore, he argued, it is reasonable to expect that especially in the case of the United States the navy's capability for overseas deployments will be maintained (Jalonen 1992, 12). In this light the current showcasing of military stretch and flag waving in the Arctic is not a new issue caused by the climate change, but rather a phenomenon that has longer historical roots.

2. Arctic governance and cooperation

In addition to the national interest and state-oriented perspective, the current Arctic development is often be perceived from a viewpoint that highlights the global, transborder nature of threats that relate to ice melt and the role of international law in solving disputes. In this perception it is a question of a broader security threat that goes beyond the threats on territorial integrity or sovereignty of the states. The environmental security threats are global and cannot be tackled with military policy or traditional security politics of single states. Consequently it is seen that international institutions and regimes play an important role in the Arctic. The sovereignty of states turns out to be relative: the actions of states are delimited by the norms of international law. In this interpretation the regionalisation that started in the 1990s has been complemented with mechanisms of *Arctic governance*. The existing international law contains extensive rules on the utilization of the sea areas which concern both military and commercial vessels navigation rights as well as the rights of coastal states. There are also established rules in place for solving cases of overlapping maritime claims. These mechanisms also tend to reinforce themselves in the course of time: as the increasing number of territorial claims are handled via the UNCLOS, the prestige of international law in maritime issues increases.

Furthermore, the environmental protection of the seas defines national and international rules actions against pollution. For instance the International Maritime Organization (IMO) has developed security instructions for ships operating in the Arctic ice-covered waters. There are also treaties that limit pollution from ships and ocean dumping. The Arctic Council has produced Arctic offshore oil and gas guidelines (Arctic Council 2009). Despite the sea ice retreat UNCLOS continues to apply in the Arctic and regulates and manages coastal states claims in the Arctic Sea. In the light of this the planting of the Russian flag under the North Pole, for instance, carries no legal significance. (Corell 2008, Gahr Støre 2008, Arctic Council News

Archive 27.3.2008). US did not ratify the UNCLOS but has lately showed signals that it might joint the treaty (National Security Presidential Directive on Arctic Region Policy, 9.1.2009).

Environmental security holds a central place on the agenda of Arctic international cooperation. The risks related to climate change are now more consistently analysed and reported and communicated to the public and policy-makers. Particularly the working groups of the Arctic Council as well as WWF Arctic Programme and UNEP have been active in this work. In 1990 it was still possible to consider "ignorance, or insufficient scientific knowledge regarding the physical and biological processes in the northern environment" as an outstanding threat to the Arctic environment (Stokke 1990, 23). Currently, however, the environmental threats have been identified and demonstrated so that they have aroused international political attention. It is no longer question of lack of knowledge but of finding sufficient political will to act.

From the perspective of international governance the Arctic Council has played a significant role, despite its non-binding, soft law status. The working groups of AC have made substantive contributions in the 'fact-finding domain' through environmental research and monitoring. Arctic Council has also enhanced political mobilisation of the indigenous peoples by offering chances for representation. (Stokke 2007.) Their expertise and knowledge on climate issues, snowhow, has been used in the scientific research on climate change (ACIA 2005).

Conclusion: peaceful change in the Arctic

At the outset of the article I pointed out views according to which the melting of Arctic ice may lead to military conflicts and even threatened the world peace. However, in the light of the above-presented two main interpretations less conflict-oriented conclusions appear more convincing.

Firstly, from the state-centred perspective, a conclusion can be drawn that the development in the Arctic is likely to remain peaceful. In a historical perspective it is clear that the previous era of antagonism between states in the Arctic has been replaced by more cooperative relations. During the Cold War the Arctic became a central stage of the arms race between the super powers, but after that states have managed to create stability in the region, and it is in their interests to keep it that way. For instance, when it comes to maritime claims in the Arctic, the rules of international law as well as the procedures of the UN Conclusion of the Law of the Sea have been followed by all. As political instability and conflicts continue in many of the traditional oil production areas around the globe, the Arctic is seen as a welcome exception in this respect. Additionally, the challenging environmental conditions in the Arctic mean that international cooperation is often needed in making possible the exploitation of the undersea natural resources.

Consequently, drawing similarities between the Cold War and the current second Arctic wave is, to put it bluntly, stupid. It makes no sense to talk about a

”new Cold War” in the Arctic. There is no ideological antagonism, and the Arctic is far from being a military theatre similar to the 1970s and 1980s – when it served as a main military theatre in the arms race between US and Soviet Union. The strategic situation that unfolded there after the late 1960s provided a ”good example of a classic security dilemma” (Jalonen 1992, 6). Military expansion started in the 1970s when the Soviet Union and US appeared in the Northern seas to maintain ”the global balance of power” (Käkönen 1992, 67). In the 1980s the strategic development (Soviet Northern Fleet, US Naval strategy, submarines, missiles) further increased the strategic importance of the Arctic (Archer 1992, 100).

In such historical perspective it becomes clear that the 1990s witnessed a change from confrontation to cooperation. Stability and peaceful institutionalized cooperation was achieved, and continues to be valued by all the key actors in the region. The value of international law is also widely acknowledged, as manifested, for instance, by the Ilulissat Declaration: “the law of the sea provides for important rights and obligations concerning the delineation of the outer limits of the continental shelf, the protection of the marine environment, including ice-covered areas, freedom of navigation, marine scientific research, and other uses of the sea. We remain committed to this legal framework and to the orderly settlement of any possible overlapping claims.” (Ilulissat Declaration 2008; US, Russia, Denmark, Norway, Canada.)

Since the 1990s various international and regional organizations have emerged in the Arctic region. Environmental regimes, wide security agenda, and crossborder cooperation have gained a recognized role in the Arctic politics. Consequently, the mechanisms of *Arctic governance* are already in place. From the viewpoint of international governance, polar ice melt and other environmental impacts of the climate change can be perceived as a common, global threat which calls for cooperation between all Arctic actors. Thus, rather than causing tensions between the states, climate change can give a boost to international cooperation and further strengthen the institutions of multilevel Arctic governance. This also challenges the narrow views on national sovereignty, interest and presents a broader view on security. The global attention on the melting of the North Pole and Greenland’s glaciers will also bring the Arctic issues into the international agenda defined as environmental and human security issues, rather than as traditional national security issues.

Summing up, it can be stated that although often reported otherwise, the scramble for the Arctic’s minerals is unlikely to lead to conflicts that would threaten the peaceful development in the region (Table 1). Moreover, it is difficult to see any concrete evidence of an ”emerging Polar Tension Belt”, as suggested by Lee (2009), where ”populations will move on large scale” and ”arms race in terms of Cold Water military capabilities” will take place (Lee 2009, 119-122).

Consequently, it can be asked where does the biased conflict-centred Arctic vision then stem from? The Arctic resources and seabed mapping have been in the headlines and repeatedly in a way that highlights the perceived conflict potential.[7] A reason for

Table 1. Two interpretations of the current situation in the Arctic and the elements supporting peaceful development.

	State sovereignty	**International governance**
Actors	Arctic states Japan, China?	IGOs (AC, BEAC) NGOs Multinational corporations?
Dominant logic	National interest Resource competition Territorial integrity	Global interest, the commons Law of the sea Arctic governance, regimes
Security	Military security. Climate change as a cause of disputes	Environmental security Climate change as a common, unifying threat
Role of the indigenous peoples	Remarginalization. Greenland: towards statehood?	A8+ *Snowhow*, grassroots climate expertise. Increasing political mobilization
Background in the first Arctic wave	Regionalisation controlled by states	Environmental security and international institutions challenged the statist paradigm
Elements that support the peaceful change	*Conflict-free oil and gas production area.* *Stability created in the early 1990s.* *Similar interests and clear rules with a tradition to follow the rules.*	*Strengthening mechanisms of international law and regimes.* *UNCLOS.* *Active NGOs.* *Global climate change attention towards the Arctic.*

this biased media hype can be located in the ongoing securitization process concerning the climate change. Climate change is becoming an increasingly weighty topic in international security politics. According to the logic of securitization this means that climate change is constructed as an issue that is beyond normal politics, a question that calls for exceptional measures. When the related securitisation move is successful, climate change is socially constructed as a global emergency that threatens the whole biosphere and humankind. As a by-product of this process, when Arctic issues are discussed in the context of global climate change it is the conflict scenarios, rather than the continuation of peaceful development, that get highlighted.

Secondly, what also might explain the attraction of Arctic conflict scenarios are the romantic historical visions that concern the polar expeditions in North and South. The heroic and patriotic races to conquer the white spots on the map (such as the epic race Amundsen vs. Scott), naming new geographical areas in the honor of the motherland and struggles against the forces of nature still resonate with the public consciousness when it comes to the Arctic. Similarly, the history of the Cold War has left a persistent mark on how Arctic affairs are perceived in the media: far too often the situation is understood simply as a rivalry between US and Russia, West and East over the control of the Arctic. As a result the complexity of the Arctic case is oversimplified and seen merely as a question of military security.

Environmental and human security

In the above-presented analysis it was shown that from the viewpoint of negative peace the conclusion is that world peace is not threatened by Arctic issues, and that there is no real potential for military conflict in the area currently. The Arctic is characterized by absence of direct violence and there is very low likelihood that such would occur. However, from the perspective of positive peace the picture is more complex. The remaining of the article is motivated by the question: Is there "indirect" or "structural" violence in the Arctic?[8] It is argued that the key security challenges in the Arctic are related to environmental security, and that in addition to the vulnerability of the Arctic nature more wide-ranging issues are at stake.

The Arctic paradox

The faster we use fossil fuels, the sooner we get access to new oil and gas resources. This is the Arctic paradox: hydrocarbon use contributes to the climate warming, which makes the Arctic sea-ice melt and new oil and gas resources become available. Using those resources then further accelerates climate warming.

So far this paradox has not had significant impact on the national Arctic strategies of the Arctic states, despite the global climate debate surrounding the UN climate talks. The moral dilemma regarding the Arctic energy resources has not really yet been grasped by the state sovereignty perspective or international governance viewpoint. Nevertheless, the first calls

for moratorium on industrial activities in areas historically covered by sea-ice by NGOs have taken place. Greenpeace has argued that Arctic oil in such areas should remain untouched.[9] Similarly, the indigenous peoples organizations have tried to highlight the issue:

"[S]ea ice has helped sustain Inuit for thousands of years. And now it is thinning and melting. We need the ice to access our resources and to sustain us. Ironically, and perhaps tragically, others need the ice to melt so that they can access easier travel routes and resources found deep beneath our world, the Inuit homelands."
– Patricia Cochran, Inuit Circumpolar Council Chair 29.4.2009.

What also complicates the picture is the Greenland's goal to gain full independence. Becoming economically self-sufficient with the help of its possible petroleum resources is seen as a step towards sovereign Greenland state (Kuupik Kleist, Greenland's Prime Minister, 10.1.2011). Issues concerning melting ice and oil production have already resulted in internal tensions in the inuit community. Arctic mining and offshore oil and gas development have been divisive issues. A related dilemma concerns the tensions between modern oil and mining industries and the traditional means of livelihood (fishing, hunting).

From the perspective of human security the issue is complicated, as it ultimately concerns local people's right to social and economic wellbeing. Pleas for moratorium has been rejected by arguing that "what the rest of you have been benefiting from should not be denied to us in the Arctic" (Inuuteq Holm Olsen, Greenland deputy foreign minister.)[10] Green concerns by the EU, for instance, have been perceived as form of neo-colonialism – the developed world has for long exploited oil resources, but when oil is found in indigenous peoples' lands it is claimed that they may not benefit from it.

The environmental dimension of global Arctic

The typical perception of globalization of the Arctic can be symbolized by the Chinese icebreaker, Snow Dragon, operating in the Arctic waters. However, the global Arctic has other dimensions too: it is a broader issue than just the growing interest towards the Northern sea routes and fishing stocks by the non-Arctic states. The environmental impacts of climate change mean that what happens in Arctic has effects globally. Sea-level rise affects coastal regions throughout the world. In Bangladesh, for instance, the sea level rise is complemented with the melting of Himalayan glaciers which has caused erosion and flooding and saltwater intrusion into aquifers and freshwater habitats. This has led to consequent loss of agricultural land and mangrove forests. In search for new land for agriculture local population has been forced to move into the natural habitat of Bengal tigers. Therefore, as has been the case with the polar bears in the Arctic, the habitat of tigers has declined due to melting glaciers. (See WWF Climate Change Programme 2003.)

The most obvious environmental security issue in the Arctic stems from the vulnerability of the Arctic nature. That point has been well driven home by the work of the AEPS, Arctic

Council and other Arctic environmental actors. Issues like persistent organic contaminants, heavy metals, radiation, military waste, acidification, biodiversity conservation, sources and pathways of pollutants, their impact on flora and fauna, long range pollution, protection of marine environment, etc. have become integrated in the well-established Arctic international cooperation. Lately the risks related to growing oil and gas transportation and extraction have also steadily made their way to the international awareness and to the agenda of Arctic governance and cooperation. As the Emergency Prevention, Preparedness and Response working group of the Arctic Council (EPPR) states the "harsh conditions and the lack of infrastructure in much of the Arctic create a higher vulnerability to emergencies than in more temperate climates."[11] The recent oil accident in the Gulf of Mexico has caused discussion on the risks of "BPing" the Arctic. The cleanup work in the Arctic conditions would be extremely difficult: "Industry representatives acknowledge that they still have no effective way to clean up oil under ice. (…) Recent experiments conducted by a coalition of oil companies fall far short of the needed proof that oil spills can be contained in arctic ice." (Norlen & Gordon, The Circle No.1 2010) Moreover, the environmental impact of the Exxon Valdez oil spill in Alaska still continues.[12]

What this conventional view on Arctic environment has so far largely missed, however, are the global dimensions of Arctic environmental change. The link between Arctic glacier melting and global sea-level rise ought to be better incorporated in the Arctic environmental thinking and cooperation. Also the local level dilemma between traditional livelihood and modern hydrocarbon industry, and even the above-mentioned moral issues, should find their way to the established Arctic cooperation agenda, both in the form of interstate cooperation and international governance. This would further strengthen the peaceful development towards more positive peace in the Arctic.

End notes

[1] Peace Research is seen here as "an intellectual enterprise devoted to answering a simple – or is it a complex – question: what are the causes of war and conflict and what are the conditions of peace?" (Dunn 2005, 7).

[2] In 2000-2007 the spring temperature has been on the average 4 degrees higher than between 1970-1999 (US National Oceanic and Atmospheric Administration NOAA).

[3] In September 2007 the amount of ice was 50% smaller than in the 1950s and 1970s (National Snow and Ice data Center, University of Colorado 2008). According to NASA the permanent ice cap around the North Pole has thinned 40% between 2004 and 2008 (NASA 2009). The satellite pictures too indicate a significant change (see e.g. NASA Earth Observatory, http://earthobservatory.nasa.gov).

[4] Cf. Heininen 2010.

[5] For the debate on the Arctic Treaty see e.g. Koivurova 2008, Koivurova & Molenaar 2009.

[6] On the Canadian Arctic sovereignty debate see e.g The Ottawa Citizen (November 15 2009): Cold Call; The Globe and the Mail (Nov 12 2009): Arctic Sovereignty: Lets' join the Texan and St.Nick; Riddell-Dixon 2008. On Northwest Passage, US and Canada relations and law of the sea see e.g. Sale 2009, 142-154.

[7] E.g. "An Arctic War is Getting Closer" (Arctic Council News March 5, 2008), "Arctic Oil Rush Sparks Battles Over Seafloor" (National Geographic News August 23, 2007),

"Climate Change as Threat to U.S. Security" (New York Times 9.8. 2009), "Europe's Arctic Adventure – The new cold rush for resources" (euobserver 7.11.2008), "Are the Russians Coming? (see Byers 2009, 1), "Cold Call" (The Ottawa Citizen November 15 2009), "Arctic Sovereignty" (The Globe and Mail November 12 2009), "Arctic Meltdown. The Economic and Security Implications of Global Warming" (Borgersson 2008).

[8] On negative peace and structural violence see e.g. Galtung 1969.

[9] Greenpeace International in the Arctic Frontiers conference, Tromsø 26.1.2010.

[10] http://www.guardian.co.uk/environment/2010/oct/15/eu-greenland-stewardship-arctic

[11] EPPR, http://arctic-council.org/working_group/eppr

[12] 2100 km of shoreline fouled, 250000 seabirds killed, nearly 4000 sea otters killed, 300 harbor seals killed, 250 bald eagles killed, more than 20 orcas killed, billions of salmon and herring eggs destroyed. $20 billion in subsistence harvest losses, $19 million in lost visitor spending in the year following the spill, at least $286.8 million in losses to local fishermen (WWF International Arctic Programme 2010).

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