Nuclear safety discourse in the European Arctic

Geir Hønneland
The Fridtjof Nansen Institute, PO Box 326, N-1326 Lysaker, Norway (geir.honneland@fni.no)

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ABSTRACT. The article outlines discourses surrounding the emergence and implementation of the Norwegian Plan of Action for nuclear safety in northwestern Russia. The launching of the Plan of Action was facilitated by the 'Barents euphoria discourse,' which held optimistic views of a general clean-up in northwestern Russia with the help of infrastructure financed by the Nordic side, and the 'nuclear disaster discourse,' hinging on the idea of a 'ticking time bomb' in Norway's immediate vicinity to the east. The latter discourse clashes with the prevalent Russian 'nuclear complex discourse,' the main assumption of which is that issues of nuclear safety should be left to the experts, not to the general public. Criticism of the Plan of Action mounted around the turn of the century, eventually causing the Norwegian Ministry of Foreign Affairs to designate it as largely unsuccessful. The 'environmental blackmail discourse' took over in Norway, with its story line that 'the Russians are taking advantage of us.' The 'cold peace discourse' in Russia has primarily served to obscure Norwegian motivations for the Russians.

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Introduction

Environmental protection has in recent years become one the most important institutional interfaces between East and West in the European Arctic. This is the result of increased awareness of environmental issues in general as well as the obstructive environmental legacy of the Soviet Union becoming ever more apparent. Russia has, on the one hand, displayed an increasing willingness to participate in international co-operative arrangements on management of natural resources and the environment. On the other hand, the Russians, due to financial constraints, have been forced to accept foreign assistance to clean up their environmental disasters to an extent that was unthinkable only a little more than a decade ago. One primary example in the European Arctic is the Norwegian Plan of Action for nuclear safety in northwestern Russia (Ministry of Foreign Affairs 1995) (in the following referred to as the Plan of Action). Since 1995, some US$90 million have been allotted to the Plan of Action, which includes such high-profiled projects as the upgrading of the nuclear power plant at Polyarnye Zori, expansion of the effluent treatment facility for liquid radioactive waste in Murmansk, building of a specialised railway rolling stock for transport of spent nuclear fuel, and removal of damaged fuel from the northwest Russian icebreaker fleet's old storage vessel for radioactive waste, *Lepse* (the vessel itself contaminated by radioactivity).

In this article, discourse analysis is used to trace how nuclear safety issues in the European Arctic were perceived in Russia and Norway during the 1990s, and how this affected the emergence and implementation of the Norwegian Plan of Action. Discourse analysis seeks to trace patterns of how a given object of study is talked and written about by different subjects. It is often a major goal of this approach to reveal the societal features, for instance values prevailing among a specific group of people at a given time, that produce particular verbal or written representations of reality. In the study of environmental politics, this often takes the form of tracing the context of this particular sector of policy; is the environmental discourse, for instance, embedded in other, and more general, discourses in society? Further, the question is asked whether tendencies to talk or write about the environment in a specific way contribute to shaping actual policy choices.

The article starts out with a theoretical survey of the concept of discourse analysis and how this approach has been employed in the study of environmental affairs. Next, the major discourses on nuclear safety in Norway and Russia are defined, discussing how these are embedded in more overarching discourses in society, and how they may have affected the development and implementation of the Norwegian Plan of Action. The main objective of the article is to extract explanation value from discourse analysis, not to evaluate this perspective against other theoretical approaches nor to provide an all-embracing list of explanatory factors that could be derived from alternative approaches. Methodologically, the article builds on numerous interviews with scientists and civil servants in Russia and Norway, reviews of Russian and Norwegian media, and general observation from field studies in the area. In particular, the author's participation in an evaluation of the Plan of Action (Hønneland and Moe 2000) is touched upon. More abundant empirical material can also be found in Hønneland (2003).

The concept of discourse analysis

In his textbook on discourse analysis, Neumann (2001: 17) listed a number of definitions of the term, describing discourse as 'a process reflecting a distribution of knowledge, authority, and social relationships, which propels those enrolled in it'; 'a system for the formation of statements'; and 'practices that systematically form the

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objects of which they speak.' Other definitions present discourse as 'the totality of things written and read, spoken and heard' (Myerson and Rydin 1996: 4); 'a shared way of apprehending the world' (Dryzek 1997: 8); and 'a specific ensemble of ideas, concepts, and categorizations that are produced, reproduced, and transformed in a particular set of practices and through which meaning is given to physical and social realities' (Hajer 1995: 44). Hence, discourse is perceived as, among other things, a system that produces something, a process of something being produced or reflected, practices that either produce or reflect something, that which is produced or reflected, or frames of viewing the world. More important than this divergence in categorising the discourse as a source or reflection of something is the conception of what this 'something' contains and what are its effects. Discourses are most often thought to produce or reflect specific ideas, concepts, or statements. These, in turn, are believed to affect those producing (or reflecting) them or their context; as mentioned above, they 'propel those enrolled in it,' 'form the objects of which they speak,' and 'give meaning to physical and social realities.' Hence, discourses are something that affects the way someone conceives of and talks about something. Discourses can, in line with Foucault's (1980) conception of the intertwining of discourse and power, be regarded as practices or networks (or whatever) that compel subjects to view and speak of the world in specific ways. Not all subscribe to the notion of discourse and power as inseparable from each other, but the main point here is that subjects — as a result of power use or not — are at any time entangled in discourses that define the limits of how it is acceptable or natural to perceive and refer to the physical and social environment.

As far as definitions are concerned, the author adheres to the one that Litfin (1994) employed in one of the major works on environmental discourse. In her view, discourses are 'sets of linguistic practices and rhetorical strategies embedded in a network of social relations' (Litfin 1994: 3). This definition emphasises the linguistic and rhetorical aspects of that 'something' going on. Also, it links this linguistic 'something' specifically to a social 'something.' A main premise of social-science discourse analysis is the assumption that linguistic practices have something to say about the social world (which they either reflect or contribute to shaping). In line with this assumption, a major objective of this type of discourse analysis is to reveal what linguistic practices and rhetorical strategies have to tell about the social world. In general, discourse analysis has an epistemological rather than ontological objective. Hence, it does not primarily aim at telling about the world as it is, but rather it aims at revealing how understanding of the world is created, maintained, and reproduced. The challenge lies in pointing to the social 'something' that brings forth, affirms, and preserves specific modes of understanding. Some would also be concerned about the consequences of particular modes prevailing at particular times.

The study of environmental discourse

The existing literature on environmental discourse is highly diverse in empirical scope, theoretical ambition, and methodological refinement. Some works with titles indicating analysis of 'environmental discourse' do not live up to the expectations of those interested in this particular type of theoretical investigation. The term 'discourse' is here often used in a more everyday sense similar to 'discussion,' although such works occasionally refer to the theoretical debate on discourses. Others mention Foucault and the rest of the post-structuralist classics, but empirically consist of rather traditional analysis of political processes. A few works stand out in their theoretical clarity and empirical richness, among them Litfin's (1994) analysis of the formation of the global ozone regime and Hajer's (1995) on ecological modernisation in the Netherlands and the United Kingdom (with a main empirical focus on acid-rain regulation).

In her study on the formation of the global ozone regime, Litfin (1994) focused particularly on the relationship between science and politics. Placing herself in the context of a reflectivist approach to environmental politics, in which she included the epistemic communities literature, studies of social-learning processes, and negotiation-analytic modelling, she criticised the existing contributions to this literature for ignoring the relational aspects of science's influence on politics. For instance, she claimed that the epistemic communities literature (see Haas 1989, 1992a) views science as standing outside politics and views knowledge as divorced from power. According to Litfin, it suffers from a simplistic assumption of scientific consensus necessarily leading to political consensus. She viewed it as part of the 'rationality project' of 'rescu[ing] public policy from the irrationalities and indignities of politics' (Stone 1988: 4, cited in Litfin 1994: 4). She claimed that, contrary to the belief in a sharp dividing line between science and politics, political arguments are often formulated in scientific terms. Questions about values are phrased as questions about facts. Facts, in turn, have to be expressed in language and are subjected to interpretation. 'Facts' are then chosen selectively by actors depending on their particular interests and audience. Knowledge brokers — typically operating at low or middle levels of governments or international organisations — function as mediators between the original producers of the scientific knowledge and the political actors who use that knowledge but have neither time nor training to absorb it in its original form. They are allowed to frame and interpret scientific knowledge and hence represent a substantial source of political power, especially under conditions of scientific uncertainty so typical of environmental problems. Empirically, Litfin's study challenged the prevailing view (Benedick 1991; Haas 1992b) that science provided a body of objective and value-free facts from which the ozone regime emerged. Instead, this knowledge was brokered or framed by knowledge brokers. She criticised Haas (1992b) for overestimating the role of information

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producers and underestimating the role of information framers. Likewise, she emphasised the role of contextual factors more strongly than Haas, particularly the discovery of the Antarctic ozone hole. Discourses, understood by Litfin as sets of linguistic practices and rhetorical strategies embedded in a network of social relations (see above), 'define the range of policy options and operate as resources which empower certain actors and exclude others' (Litfin 1995: 253). Environmental problems are hence 'not simply physical events; they are *discursive phenomena* that can be studied as struggles among contested knowledge claims, which become incorporated into divergent narratives about risk and responsibility' (Liftin 1995: 254).

Hajer's (1995) point of departure was the claim that most analyses of environmental politics aim to explain how various political interests stand in the way of a real ecological turn. By contrast to this account of fixed actor interests and political outcomes, he drew particular attention to how environmental problems are defined through discourse and how the specific structuring of a problem in turn influences the formation of public politics. Although his empirical focus was somewhat broader than Litfin's — aiming in general at the shaping of public politics within a field rather than the formation of a specific regime — they shared a preoccupation with how environmental problems are defined or framed, and how this affects politics. Drawing on 'social-interactive discourse theory' (Billig 1987; Davies and Harré 1990; Harré 1993), Hajer argued that human interaction is related to 'subject positions' rather than roles. The concept of roles usually implies that a person can always be distinguished from the role he or she assumes, whereas a 'subject position' refers to a person's location in a specific discourse, a position he or she cannot go in and out of as desired. Actors can thus only make sense of the world by drawing on the terms of the discourses available to them. Hence, persons are constituted by discursive practices. Nevertheless, Hajer — like Litfin — had a conception of active agency; persons can actively select, adapt, and create thoughts, admittedly within the limits provided by discourses. Hajer contended that what causes change and permanence are social practices, ascribing both to 'active discursive reproduction or transformation' (Hajer 1995: 56). He took up Davies and Harré's (1990) concept of 'story lines' as a main mechanism in this respect, defining the concept as 'a generative sort of narrative that allows actors to draw upon various discursive categories to give meaning to specific physical or social phenomena' (Hajer 1995: 56). A story line catches certain aspects of a problem complex in a simple and understandable manner. The argument is that people draw on such simplified representations of reality rather than complex systems of knowledge in creating a cognitive comprehension of a subject matter. Story lines play a key role in positioning subjects in a discourse. They re-order people's understanding of problems and hence cause political change. Finding the appropriate story line therefore becomes an important mechanism of political agency. Once a story line has been established in a discourse, it settles as 'the way one talks around here.' The disciplinary force of discursive practices often lies in the implicit assumption that others will express themselves within the same discursive frame. Even when their objective is to challenge a dominant story line, people are expected to position themselves in terms of known categories. Society is hence reproduced in a process of interaction between active agents and constraining structures that constantly reinvents the social order. Language is seen not as a medium for subjects to express their preferences, but as a communicative practice that influences actors' perception of interests. Language in use, it is believed, can create new meanings, new subject positions, and new politics.

In addition to story lines, the notion of 'discourse coalition' was put forward as a middle-range concept to show how discursive orders are maintained and transformed. A discourse coalition is defined as 'the ensemble of (1) a set of story lines; (2) the actors who utter these story lines; and (3) the practices in which this discursive activity is based' (Hajer 1995: 65). Discourse coalitions differ from traditional political coalitions in several respects: first, their basis is formed by story lines, not interests; and second, they broaden the scope for political actors by emphasising the settings where story lines are produced (for example, the media and science).

Major nuclear safety discourses

This section outlines the context in which the Norwegian Plan of Action for nuclear safety in northwestern Russia emerged, how the Russian framing of nuclear safety problems affected its implementation, and how internal criticism on the Norwegian side has escalated since the turn of the century. Five main discourses are singled out: the 'nuclear disaster discourse' and the 'Barents euphoria discourse' on the Norwegian side, the 'nuclear complex discourse' and the 'cold peace discourse' on the Russian side, and the 'environmental blackmail discourse,' which has recently emerged in various forms on both sides.

The 'nuclear disaster discourse'

The most important contributors to the Norwegian discourse on nuclear safety issues in the European Arctic have been the country's media and environmental NGOs, in particular the Bellona Foundation. Since the early 1990s, both have portrayed Kol'skiy Poluostrov as a 'nuclear disaster area' (for a continuous update on Bellona's view on nuclear safety issues in northwestern Russia, see http://www.bellona.org). Their major achievement has been to establish an image of the nuclear installations and radioactive waste in the area as 'ticking time bombs' in the eyes of the Norwegian public and decision-makers.

The potential of the 'nuclear disaster discourse' is underscored by the general fear most people seem to harbour regarding even rumours of possible low-dose

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nuclear radiation. As commented by two Norwegian professors in a newspaper feature article:

> The majority of people think radiation is dangerous even in very small doses. We are regularly amazed at studies showing that most people are obviously unaware of the fact that we live in an ocean of radiation. Radiation from radioactive sources in nature hits us twenty-fours hours a day from cradle to grave. (*Aftenposten* 3 September 2000)

Scientific data show that radiation levels in the Barents Sea and northwestern Russia are low, and that the existing radiation stems from other sources than those at which the Norwegian projects are directed (for example, Sellafield and the nuclear tests at Novaya Zemlya several decades ago) (AMAP 1997, 1998; Bergman 1997; Bergman and Baklanov 1998). Apart from the nuclear power plant at Polyarnye Zori, the risk of nuclear contamination reaching Norwegian territory from sources in northwestern Russia is low (Bergman 1997; Bergman and Baklanov 1998). Nevertheless, labelling the nuclear complex on Kol'skiy Poluostrov as a 'ticking time bomb' leaves people with the impression that *Lepse*, the radioactive waste, and the nuclear submarines awaiting dismantlement are indeed a threat to health and environment in Norway. This helps explain why the Norwegian parliamentarians were so eager to be seen to be doing something about the nuclear complex on Kol'skiy Poluostrov in the early 1990s. The complex was talked about as a threat. The politicians had an opportunity to show that they could respond with determined action by assigning large sums of money to the elimination of that threat. This also explains the lack of criticism of the Plan of Action from the Norwegian public until the turn of the century. Considerable segments of the population are generally sceptical of foreign-assistance programmes that have little 'in them for Norway,' so the relative absence of criticism for several years is surprising. Clearly, the clamour created by the media and environmental NGOs surrounding the ticking time bomb had more effect on people's perceptions than scientific information, leading to mounting pressures that the politicians do something. To the extent that scientific information was brought to the attention of the public, people do not appear to have been convinced. 'Let's do something to clean up the radioactive waste just to be on the safe side,' seems to have been the general reaction.

The *Lepse* project is a good case in point. As commented by interviewees on both the Norwegian and Russian side in the evaluation study mentioned above, this project — referred to by the Norwegian researcher Edvard Stang as a 'constructed nuclear threat' (*Aftenposten* 24 January 1996) — was flagged as a major concern by the Norwegian government and became a symbol of the entire Plan of Action: '*Lepse* was the flagship venture [for the Norwegian side]' (interview with Russian civil servant, Moscow, April 2000). 'It wouldn't have been a problem for us [in Norway] if *Lepse* had sunk in Murmansk harbour. This is a local problem, but *Lepse* became a focal case for Norway' (interview with Norwegian civil servant, Oslo, March 2000). Although it is clear that the vessel constituted no threat to Norway, *Lepse* was effective as a horrific symbol of man-made environmental degradation, urging people to think that 'something needs to be done before a nuclear disaster hits us.' The *Lepse* project is further discussed in connection with the 'environmental blackmail discourse' below.

Besides being a radiological hazard to people and the environment, radioactive contamination also poses a potential threat to economic activity, such as agriculture and fishing. Even when contamination is low or non-existent, consumer fears over impurities in their food can cause immediate, severe, and long-lasting economic consequences. Preserving the reputation of Norway's fishing industry from both real and perceived contamination was indeed one of the chief motivations behind the Plan of Action. However, the fear of economic loss seems to be intertwined with worries about damage to human health and the environment in the Norwegian public.

The 'Barents euphoria discourse'

The Plan of Action and the assistance schemes preceding it from the early 1990s were conceived in an atmosphere of general concern in Norway about the problems experienced by the neighbouring population of northwestern Russia, and enthusiasm to help the Russians solve them. There was a pervading sense of optimism in this respect: the Cold War was over, the Iron Curtain gone, and the Russian northerners could — with a little help from their Nordic friends — again be included in the 'natural' brotherhood of the European Arctic peoples. The establishment of the Barents Euro-Arctic Region (BEAR) in the European Arctic is particularly telling: in an attempt at active region building, an image was created that the geographical area covered by the BEAR was indeed a 'natural' region. In particular, the region builders availed themselves of the metaphor of the Pomor trade that had taken place between the coastal populations of northern Norway and northwestern Russia (primarily today's Arkhangel'skaya Oblast') from around 1725 until the Russian Revolution in 1917. A leading story line was that all northerners are 'in principle' alike, living under the same climatic conditions and sharing the same sense of distance to national centres. Furthermore, the area was now returning from the historical parenthesis of Soviet isolation in the north to the normal state of flourishing cross-border co-operation. The remedy prescribed to foster this process was financial assistance programmes from the Nordic countries to help the Russians overcome the depressing environmental, financial, and social legacy of the Cold War, and the building of a new infrastructure to facilitate a broadening of contacts between East and West in the region. It was believed that the building of an infrastructure would dissolve the cultural differences that had developed during the 70 years of Soviet rule in Russia.

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The interesting thing for this discussion is not so much whether it is true that all European northerners are principally alike or that a new infrastructure will make cultural differences disappear. It might be argued that until the late 1990s it was politically incorrect in Norway to question these assumptions (Hønneland 1998). Political statements about Barents region development were filled with optimistic visions of reviving this geographical area as a true identity region and of the development of vigorous trade and industry links between its eastern and western parts. The media generally played from the authorities' side of the pitch, painting a picture of massive opportunities for Norwegian business and industry in northwestern Russia. Even social-science literature on the BEAR initiative was explicitly or implicitly region-building in nature (Hønneland 1996). The result was a 'Barents euphoria'; the leading discourse of the day established that the problems of the European Arctic would be solved if only the Nordic countries invested in assistance programmes to help the northwest Russian population get back on their feet.

This 'Barents euphoria' determined 'the way we speak around here' and 'the way we act around here' in Norway in the early and mid-1990s. People spoke about opportunities and played with big money. *Lepse* became a Norwegian flagship cause; defeating the contaminated vessel with damaged nuclear fuel on board would be the ultimate victory of the extended Barents regional project. In spring 2000, when 'Barents euphoria' had more or less vanished, the Norwegian civil servants responsible for implementing the Plan of Action tended to comment laconically on the pressures they were under to spend the money that an eager Storting had assigned: 'there was enormous pressure from the top [of the Ministry of Foreign Affairs] to get the money spent. We had to get something done while we were waiting for the Framework Agreement [a Framework Agreement on co-operation in the nuclear safety sector was signed by Norway and Russia in May 1998 (Ministry of Foreign Affairs 1998)]. It was quite horrible at times' (interview with Norwegian civil servant, April 2000). 'I was really surprised when I first came in ... at the lack of evaluation of the projects ... I don't think there's anywhere else in Norway where money has been given away that easily' (interview with Norwegian civil servant, March 2000).

The 'nuclear complex discourse'

In spring 1990, a Norwegian television team visited Polyarnye Zori on Kol'skiy Poluostrov to investigate what the local population thought about living so close to a nuclear power plant. In a clip of a classroom scene at a primary school, the teacher asked the class: is the power plant something sad?' 'No!' the children cried. 'Is the power plant something happy?' 'Yes!' the class retorted unanimously. Ten years later, the author was in Murmansk to conduct interviews for the evaluation of the Plan of Action. After being told about the mission of the present trip to Murmansk, a Russian research colleague became slightly annoyed: 'I don't understand all this Norwegian fuss about our nuclear complex. There's nothing to worry about. Our experts know what they are doing.' In one of the interviews concerning the joint Russian–Norwegian expeditions to the Barents and Kara seas to investigate radiation levels around the dumped nuclear waste sites, the Russian conversation partner commented:

> This project was necessary for the Norwegians. Our experts knew that the ocean was clean, that the sites had been carefully selected for dumping, and that the surrounding ocean area was continuously monitored. But that was not enough for the Norwegians. (Interview with Russian civil servant, Murmansk, February 2000)

This sentiment points at crucial aspects of the Russian nuclear safety discourse: its industrial (rather than environmental) orientation (Dryzek 1997), the perception of the nuclear complex as a natural entity, and the superiority of scientific knowledge to non-scientifically founded opinions. First, children in northwestern Russia were — at least until the early 1990s — taught that the nuclear power plant on Kol'skiy Poluostrov was 'something happy,' and not 'something sad.' It was something that contributed to development and wealth in the region rather than to the degradation of health and the environment. This is, of course, a copy of the general Soviet belief in economic and social development through the conquering of the natural environment, and the corresponding neglect of possible negative consequences of the industrial activities. The nuclear power plant was a symbol of (Soviet) man's conquest of the natural world; it brought electricity, employment, and economic gain to the local community, the region, and the Union.

The two latter aspects of the northwest Russian discourse on nuclear safety, the notion of the nuclear complex as an important and clearly defined entity on the one hand and the superiority of scientific knowledge on the other, are closely intertwined. The way in which nuclear industry is talked about as a whole reflects the vertical Soviet organisation of politics and industry. Matters of nuclear industry and safety were to be dealt with by a certain vertical structure composed of both political and industrial elements — the two were not clearly distinguishable in the Soviet Union — and these activities should not be interfered with by outside actors. The knowledge to be built on was scientific; public opinion was not a category to be taken into account, nor were the views of politicians outside the nuclear complex nor of NGOs (to the extent that they existed during the Communist era). The references above that 'our experts know what they are doing,' and 'our experts knew that the ocean was clean' are also telling. Managing a nuclear complex is a scientific task, not to be left to charlatans or the *narod* (the people). An officer at the Murmansk department of the Bellona Foundation told about his first meeting with the organisation: 'when they first came to Murmansk in 1991–92, with offensive slogans on large banners

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displayed on their ship, as a Russian citizen I experienced this extremely negatively. It was such sensationalism (*maksimalizm*)' (interview in Murmansk, February 2000). The characteristics 'offensive' and 'sensationalism' imply that someone has behaved improperly, interfered with something that was not his or her business.

The 'nuclear complex discourse' has had a certain influence on the implementation of the Plan of Action in that some of the Russian participants tend to view Norwegian project partners as primarily donors: '[The Russians] view themselves as responsible for the project and us as donors,' complained the Norwegian manager of the railroad wagons project (interview in Oslo, March 2000). The Russian project manager obviously perceived Norway as a donor straying outside its area of competence in trying to influence the implementation of the project: '[The Norwegian project manager] has only been a financial agent for the [Norwegian] Ministry of Foreign Affairs' (interview in Moscow, April 2000). The Russian project manager went on to say that it would have been 'more beneficial for [the project]' if Norway had understood that its role was that of a donor, not to implement the projects in Russia (interview in Moscow, April 2000). Another Russian civil servant expressed similar perceptions:

> We have so many problems with the donors. They don't see the full extent of things, but jump right to individual solutions. There has to be a vertical structure. The main problem is not on the Russian side. We have settled the problems we have had in our organisation. With the donors, it's much more difficult. (Interview with Russian civil servant, Murmansk, February 2000)

Labelling the Norwegian project participants as donors, it can be argued, helps the Russians to keep them at a distance. This might not have been done deliberately in order to reduce Norwegian influence on the implementation of the projects, but simply because that is 'the way things are done around here.' First, nuclear safety is the responsibility of the nuclear complex; that is how it has always been and probably will remain, according to traditional Russian thinking. Second, foreign financing has come to replace the continuously decreasing federal transfers of funds to many sectors of society in the Russian regions during the 1990s. It is beyond the scope of this discussion to evaluate whether it is a good or a bad thing that the Russians perceive it as their natural right to carry out the projects without undue interference from donors. Suffice it here to say that this opinion, rooted primarily in the Russian 'nuclear complex discourse,' led to several problems in the implementation of the Norwegian Plan of Action. Likewise, the 'nuclear complex discourse' fundamentally clashes with the 'nuclear disaster discourse' that prevailed on the Norwegian side; hence, many Russians found the Norwegian preoccupation with the functioning of their nuclear complex as hysterical, scientifically unfounded, and even offensive.

The 'environmental blackmail discourse'

Towards the end of the 1990s, Norwegian 'Barents euphoria' died out. Very little came out of attempts to create large Russian–Norwegian joint ventures and extend East–West trade and industry co-operation in the European Arctic. One apparent success story after the other eventually ended in failure. In several famous cases, the Russians simply pushed their western counterparts out when a company started to run a profit. For example, the Russian–Norwegian wood-processing company Rossnor in Arkhangel'skaya Oblast' was long held up as success story number one by Norwegian authorities, but in the mid-1990s the Norwegian partner was pushed out of the enterprise and told in no uncertain terms to stay away from Russia. As mentioned above, it was 'politically incorrect' in Norway to even question the declared potential of the BEAR project in the early 1990s. Around 1997–98, the tide turned and the leading story line in Norwegian media became that the entire initiative was a great failure. 'Fiasco' became a frequently cited adjective to characterize it. The following feature article appeared in one of Norway's leading newspapers in May 1997 (under the heading 'The Barents Project at a Standstill'):

> Expectations were sky-high when the Barents regional co-operation scheme was initiated in the North Calotte after the break-up of the Soviet Union. A region full of optimistic inhabitants and rich in natural resources was to enter a new era. To get the wheels going, they would be lubricated by Norwegian oil money . . . It sounds reasonable that Norway is spending nearly [US$75 million] annually to prevent environmental disasters and foster stability in our immediate vicinity. Nevertheless, there is reason to ask some critical questions regarding Norwegian assistance . . . It's no use concealing that, roughly speaking, experience with the projects that involve a one-sided flow of money from Norway to Northern Russia and the Baltic is deemed to be good . . . Those projects that require active participation by the Russians, be it in the form of capital, labour or simply the necessary legislation, are not moving fast, to put it mildly . . . In 1993–94, one could go to Arkhangel'sk to observe a Norwegian-run wood-processing factory that produced first-class doors and windows. This was the flagship venture of the joint Norwegian–Russian industrial effort and proof that it was possible to achieve something with a combination of Norwegian industrial competence and Russian natural resources and labour. After a few years business, the factory was simply confiscated by the Russian partner. The entire Norwegian capital of [US$3 million] is lost. Today the factory stands as a powerful warning to anyone considering investing in Russian businesses. (*Aftenposten* 21 May 1997)

Although it is probably the most famous case, Rossnor was not the only powerful warning to anyone considering investing in Russian businesses. The Norwegian-run bakery in Nickel took over as the Ministry of Foreign Affairs' top success story demonstrating the success of the

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BEAR initiative, a demonstration that towards the end of the 1990s seemed to be characterised by ever-diminishing enthusiasm. The bakery, too, had to be shut down around the turn of the millennium. What was once expressed in an interview with an inhabitant of Murmansk seems to have become a relevant story line in this context: 'never believe a Russian has anything else in mind than a fast buck when he's dealing with a Norwegian!' (interview in Murmansk, April 2001).

Co-operation in the Barents region continues. The emphasis is now on student exchange and work in the health sector — both clearly more successful than the industrial co-operation. But no attempt has been made by Norwegian authorities to revive the 'Barents euphoria' of former days.

As mentioned in the discussion of the 'nuclear disaster discourse,' the Norwegian researcher Edvard Stang was one of the earliest public critics of Norwegian assistance to the northwest Russian nuclear sector. His starting point hinged on the assumption that Russians would be tempted to take advantage of the vast Norwegian assistance schemes:

> The *Lepse* is probably known to most people as 'that heap of rust in Murmansk.' Large quantities of high-reactive nuclear waste is stored on board, and the vessel should never have been anchored in the harbour of a large city like Murmansk. As is known, more suitable military quay structures do exist in the Kol'skiy Poluostrov. But the shipowner Atomflot has discovered there is much foreign currency to be had in inviting foreign experts, television teams, well-meaning environmental activists and parliamentarians to 'inspect' this constructed nuclear threat. The director of Atomflot gladly poses for Norwegian television cameras on *Lepse*'s deck, dressed in a camel hair coat and Italian silk ties: 'Very, very bad. If you don't help us, we will have a disaster here. Unfortunately, we have no money.' There is no reason that *Lepse* should cost Norwegian tax payers a single penny as long as Atomflot is using the population of Murmansk as 'disaster hostages' in order to profit financially. Norway has nothing to win from giving in to Russian threats of a [pending] nuclear disaster. Norwegian authorities should long ago have informed the Russians that moving *Lepse* from the Murmansk harbour is a prerequisite for further Norwegian assistance. (*Aftenposten* 24 January 1996)

Robert Darst (2001) used the term 'environmental blackmail' to describe how former Soviet republics have exploited the fact that they have on their territories installations that pose existing or potential threats to areas beyond their own borders, in order to extract as much money as possible from foreign donors. On several occasions, these states have continued polluting (or potentially polluting) activities not only because ceasing them would in itself be costly, but because it would simultaneously imply the termination of (actual or potential) financial assistance from abroad. The case of *Lepse* might be characterised as an example of 'environmental blackmail,' although, ironically, in that case there was no real danger of a pollution disaster happening that could affect Norwegian territory; that was just something the Norwegian public in general had come to assume! In work on the evaluation of the Norwegian Plan of Action, we often came across suspicions of environmental blackmail expressed by both Norwegian and Russian interviewees. A certain Russian agency in charge of the most costly construction projects under the Plan of Action was referred to by a Norwegian civil servant as 'probably as good a "milking cow" as any other over there' (interview in Oslo, March 2000). Russian interviewees were more explicit (when referring to other projects in the Plan of Action than their own). In particular, the treatment facility for liquid radioactive waste in Murmansk was generally referred to as 'too golden' for the Russian project participants to finalise it. After several years' delay, the facility was finally opened in May 2001. According to the interviewees, the Russian project participants had no incentive to finalise the project as long as Norwegian money continued to flow across the border to meet allegedly unforeseen problems. 'Surely, the project would have been finished in time had it not been for this fortunate — *blagopoluchnoye* — financing' (interview with Russian environmental activist, Murmansk, February 2000).

If the general discourse on the BEAR shifted direction — from presentations of success stories to fiascos — in 1997–98, a similar change took place in the case of the nuclear safety Plan of Action around the turn of the century. Until then, the leading story line had been something to the effect that 'we help the Russians to secure their nuclear installations — look, here's a successful project!' This discourse was routinely reproduced until an 'inter-discursive transfer point' (Hajer 1995) — moments where actors change positional statements and new discursive relationships and positionings are created — occurred in connection with our evaluation of the Plan of Action and a parallel one carried out by the Norwegian Auditor General. In interviews related to these two evaluations, several Norwegian government officials expressed irritation at the ways in which much of the money had been spent. Shortly thereafter, the political leadership at the Ministry of Foreign Affairs joined the chorus of voices depicting the Plan of Action as a fiasco. State Secretary Espen Barth Eide provided the background information for an article in the Oslo newspaper *Aftenposten*, headed 'Nuclear Plan Unsuccessful':

> The Ministry of Foreign Affairs is strongly critical of how Norwegian nuclear safety projects — at a price of [US$75 million] so far — have been carried out in Russia. Few of the projects have been successful. Most of the 111 projects in the Plan of Action for nuclear safety [in northwestern Russia] have, according to the Ministry of Foreign Affairs, progressed in an unsatisfactory manner or had unsatisfactory results. (*Aftenposten* 24 January 2001)

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Several of the projects financed by Norway were now defined as 'fiascos.' While the flagship venture *Lepse* attracted surprisingly little attention as a failed project — obviously, this image of an infected vessel was still too scary to suggest that Norway should have avoided it — earlier success stories such as the treatment facility of liquid radioactive waste in Murmansk and the specialised railway rolling stock for transport of spent nuclear fuel came under strong criticism in the Norwegian media. The waste-treatment facility was referred to as a 'Norwegian nuclear crisis in Murmansk' in *Aftenposten* on 11 January 2001. The rolling stock was characterised by the same newspaper as part of a 'disputed nuclear transport scheme' (*Aftenposten* 24 January 2001); the argument was that some US$4 million had been spent in vain since the Mayak facility would not have the capacity to handle spent nuclear fuel from Murmansk. Both projects were also criticised by the Storting's Standing Committee on Control and Constitutional Matters in its comments on the Auditor General's Plan of Action evaluation (Stortinget 2002); the railway project was characterised as an outright failure.

The most famous case of alleged environmental blackmail in Russian–Norwegian nuclear safety collaboration, however, relates to whether the nuclear power plant on Kol'skiy Poluostrov should shut down according to plans or continue running as a result of Norwegian efforts to secure it. The precondition on the Norwegian side had always been (since the early 1990s) that assistance rendered should not prolong the life of the plant. The Russians affirmed and reaffirmed that they accepted this condition. However, the Russian Ministry of Atomic Energy (Minatom) decided in 2000 to prolong the life of the plant, saying in justification that the Norwegian assistance to secure the facility had made such an extension possible. The decision led to a reduction in Norwegian assistance to the power plant. The Standing Committee said further in its response to the Auditor General's evaluation (Stortinget 2002) that prolonging the life of the plant had led to an irreconcilable conflict of objectives. It was also critical of further Norwegian financing of measures at the plant before an agreement had been reached on its closure.

The 'cold peace discourse'

At a seminar on western nuclear safety assistance to the Russian Federation, the author found himself sitting next to a top civil servant from the Russian nuclear complex and made a remark about the 'interesting talks' at the seminar. The Russian indicated that he and I as Russian-speakers might talk less formally than the other foreigners present. He said, 'You and I don't have to pretend. We both know why [Norway and the US] are doing this. You want to destroy Russia.' I asked him to explain what he meant. He refused, obviously convinced that any explanation was superfluous.

The term 'cold peace' refers to the mounting sense of disappointment in the West felt by many Russians from the early and mid-1990s, as it became increasingly clear that the political and economic reforms were not bringing the results many had hoped for. Combined with a sense of resentment against NATO expansion eastwards, and the 1999 NATO intervention in Kosovo, many Russians became convinced that the co-operative attitude of the West at the end of the 1980s and the beginning of the 1990s was false, a way to press reforms on Russia that it was known would not work in the Russian setting. The motive of western powers was allegedly to weaken Russia even further while, at the same time, taking the advantage to boost their own military and economic power. The process was conducted under positive slogans such as 'democratisation' and 'introduction of market reforms,' but many Russians came to see it as little more than a continuation of the Cold War struggle. A western critique of the reforms inspired by the West is found in Cohen (2000), who referred to the events as a 'failed crusade' and also coined the term 'cold peace.' By the end of the decade, many Russians had become disillusioned with the West and instead sought answers in traditional patriotic values. As expressed by the leader of the Murmansk regional duma commission for patriotic upbringing in 1999:

> After some years of liberal reform . . . the concept [of patriotism] is again attracting lively interest. To an increasing extent, the columns of patriots are joined by those who only recently were ignoring the national interests of the state, and instead tried to convince us of the priority of certain abstract universal human values. (*Polyarnaya pravda* 10 March 1999)

States are the basic units in the 'cold peace discourse' and interests the basic variables. Both the Russian and the Norwegian interests are seen as stable and unitary, rather than fluctuating and multifaceted. The opponent, that is, Norway, is seen as a strictly rational actor, capable of calculating the value of its own interests precisely and minutely (because it knows exactly what its best interests are). Further, the interests of the two states are considered to be mutually opposed and the relationship between them a zero-sum game: one party can only gain what the other loses. Consequently, states are believed to be incessantly seeking to destroy other states in never-ending attempts to maximise their own interests.

In post-Cold War co-operation between Norway and Russia, the 'cold peace discourse' is particularly prevalent in the management of marine living resources in the Barents Sea (Hønneland, in press). The sentiment referred to above nevertheless shows that this type of reasoning is also to be found in matters of international nuclear assistance to Russia. Although the author's conversation partner declined to spell out his concerns, it is safe to guess that it was the linkage between disarmament and nuclear safety that provoked his comment about the West wanting to destroy Russia. US nuclear safety assistance to Russia is primarily linked to disarmament, not environmental concerns. It is the author's assumption that many Russians consider it a very natural thing that

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states try to ruin each other. As expressed by a Russian researcher: 'Of course, it's in Norway's interest to ruin Russia. This is simple economic theory' (interview in Murmansk, February 2000). That one state seeks to take advantage of the 'temporary weakness' of an opponent (as expressed by Murmansk Governor Yevdokimov when commenting on the arrest of a Russian trawler in the Svalbard Zone in April 2000; see *Nordlys* 12 June 2001) is how things are and should be. For Russians positioned in the 'cold peace discourse,' the rationale of many of the projects under the Norwegian Plan of Action is not always comprehensible. Why should Norway want to take care of *Lepse* when the vessel does not actually represent a threat to Norwegian territory? Why has Norway provided such lush financing for the Murmansk treatment facility when the liquid low-level radioactive waste is also of no harm to Norway? When the rationale of the opponent — and states are, in the 'cold peace discourse,' invariably at loggerheads — is not immediately clear, there is an arena for speculation, for example, that the entire Norwegian nuclear safety mission is really part of a cunning and calculated plan that in the end will lead to the destruction of Russia. It could, for instance, be assumed that the closure of the nuclear power plant on Kol'skiy Poluostrov, a prerequisite for Norwegian assistance right from the start, would constitute a setback for the population of the area since alternative energy sources are not present as yet. The logic of a Russian positioned in the 'cold peace discourse' would consequently be that 'the Norwegians are trying to fool us into going along with the closure, but we understood their not poorly concealed motives, and got the better of them in the end' . . . What could the Norwegians have done when Minatom decided to keep the power plant running? The major part of the assistance scheme had already been implemented and paid for and could no longer be withdrawn.

The 'cold peace discourse' is also discernible in the current Russian scepticism about foreign environmental and nuclear safety engagement on Russian territory. Again, it seems as if many Russians find it hard to believe that environmental activists can have other motives than the national interests of their own countries at heart, behind a cloak of benignity. The arrest and trial of Bellona member Aleksandr Nikitin is the best case in point. Other examples of problems in northwestern Russia are mentioned in Hønneland and Jørgensen (1999: 6–7). Compare also the following news bulletin from Radio Free Europe/Radio Liberty under the heading 'Murmansk a hotbed of foreign spies':

> Foreign intelligence services have targeted Murmansk Oblast' as a 'priority' area for their activities, Nikolai Zharkov, head of the Federal Security Service (FSB) directorate in Murmansk Oblast', told Interfax North-West on 28 December . . . Zharkov also revealed that foreign governments frequently 'pursue their own interests' under the cover of environmental organizations. (RFE/RL Newsline 30 December 2000)

There are signs indicating that the 'cold peace discourse' might soon be a thing of the past. Relations between Russia and the West have generally improved since the 11 September 2001 terrorist attacks. The western discourse on nuclear safety has, in turn, become more focused on nuclear non-proliferation since the attacks. The cold peace atmosphere that permeated US–Russian relations when the US withdrew from the Anti-Ballistic Missile Treaty has dissipated to a considerable extent. The two countries signed a new arms-reduction agreement and have intensified their co-operation to ensure Russian nuclear material does not fall into the hands of unsavoury regimes, groups, or individuals. Russia has sought additional financial assistance for these efforts. At the G-8 summit in June 2002, the G-7 committed to raising US$20 billion over the next 10 years for non-proliferation projects, chiefly in Russia. This appears to have helped nuclear safety initiatives in the European Arctic, too, as negotiations for a Multilateral Nuclear Environmental Programme in the Russian Federation (MNEPR) were revived and agreement reached on several key points.

Conclusion

The Norwegian initiatives to combat the potential danger of nuclear radiation in northwestern Russia were conceived at a time of optimism concerning the possibilities of solving the environmental problems of the area. The key word of the 'Barents euphoria discourse' was 'infrastructure.' It was believed to be the practical remedy necessary to clean up the European Arctic, a prime geopolitical objective of western governments. And putting infrastructure in place required investing in numerous assistance programmes. The general sense of optimism surrounding the BEAR initiative facilitated the launching of the Norwegian Plan of Action for nuclear safety in northwestern Russia, as did the 'nuclear disaster discourse,' hinging on the idea of a ticking time bomb in Norway's immediate vicinity to the east. The contaminated vessel *Lepse* became a symbol of man-made nuclear pollution and the flagship of the Norwegian Plan of Action, admittedly a constructed nuclear threat as far as the level of danger to Norway is concerned. The Norwegian 'nuclear disaster discourse' clashes fundamentally with the prevalent Russian 'nuclear complex discourse,' the main assumption of which is that issues of nuclear safety should be left to the experts, not charlatans, environmental fanatics, or the general public. Russians positioned in the 'nuclear complex discourse' tend to perceive many of the Norwegian assumptions and initiatives as hysterical and offensive. They also show little understanding of the wish of Norwegians without expertise to take part in the projects, viewing them instead primarily as donors. Criticism of the Russian–Norwegian projects mounted around the turn of the century, eventually causing the Norwegian Ministry of Foreign Affairs to designate the Plan of Action as largely unsuccessful. This inter-discursive transfer point took place a couple of years after a similar change had occurred in the ways the

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Table 1. The main assumptions/story lines/metaphors and discourse coalitions of the five discourses.

	Basic assumptions/ story line/metaphor	Main discourse coalition
The nuclear disaster discourse	Kol'skiy Poluostrov as a 'ticking time bomb'	The Bellona Foundation; the Norwegian press; Norwegian politicians and civil servants
The Barents euphoria discourse	'We're all in the same boat. Let's build infrastructure!'	The Norwegian press and public; Norwegian politicians and civil servants
The nuclear complex discourse	'Our experts know what they are doing.'	The Russian public; Russian politicians and civil servants
The environmental blackmail discourse	'Never believe a Russian has anything else in mind than a fast buck when he's dealing with a Norwegian!'	The Norwegian and Russian public; politicians and civil servants
The cold peace discourse	States are invariably in competition with each other; Relations between states are zero-sum games	The Russian press and public; Russian politicians and civil servants

BEAR initiative was spoken of by Norwegian politicians and society at large. A leading story line regarding both initiatives was that 'the Russians are taking advantage of us,' here situated within the 'environmental blackmail discourse.' There was widespread disappointment when the Russians did not keep their promise not to prolong the life of the nuclear power plant on Kol'skiy Poluostrov. Likewise, there was mounting concern when the treatment facility for liquid radioactive waste in Murmansk was not finalised in time and cost considerably more than planned. Accusations of environmental blackmail were already widespread on the Russian side. Participants in the bilateral projects with Norway warned that people on the Russian side were only interested in milking the Norwegian public purse for as much as possible. The 'cold peace discourse' serves to obscure Norwegian motivations for some Russians: why should Norway spend large sums of money to help solve local nuclear safety problems in northwestern Russia if the real objective was not somehow to destroy Russia? The closure of the nuclear power plant, required by the Norwegian side, can be viewed from this angle: such a closure would imply a serious blow to the local population and regional economy, a situation which would — allegedly — serve to secure Norwegian interests ('the loss of one state is always to the gain of other states'). The general improvement in East–West relations following the terrorist attacks of 11 September 2001 seems to have spilled over into the area of nuclear safety, but it is too early to specify the nature of the emerging post-millennium discourse in Norwegian–Russian relations.

Table 1 sums up the main assumptions/story lines and discourse coalitions of the five discourses defined in this article.

Are there any winners in the post-Cold War nuclear safety game in the European Arctic? If one follows the logic of the 'cold peace discourse' and views states as the only relevant players on the scene, the question is reduced to a battle between Russia and the individual western states involved. As far as Norway is concerned, it has contributed large sums of money (although it is far from the largest western contributor), the bulk of which was dispersed among various Russian actors. In return, Norway has gained a more secure nuclear power plant on Kol'skiy Poluostrov (albeit one that will probably be in operation longer than anticipated precisely as a result of the Norwegian assistance). In addition, the first pieces of an infrastructure puzzle are in place that might enable the northwest Russians to dispose of their radioactive waste and spent nuclear fuel, although these last two categories hardly pose any threat to Norwegian territories.

In summary, Russia seems to have gained more than the Norwegians, but not as a result of deliberate discursive strategies on the Russian side; on the contrary, the prevalent Russian discourse seems rather to have downplayed the problems of the northwest Russian nuclear complex and hence reduced the potential for further financial assistance. (Obviously, there are exceptions to this version, compare the story of how the owner of *Lepse* supposedly saw an economic advantage from keeping the population of Murmansk as disaster hostages). The winners are instead various groups on both the Russian and the Norwegian side: the Bellona Foundation succeeded in placing nuclear issues in northwestern Russia high on the Norwegian political agenda (and, simultaneously, financing for its own activities in the region). The Norwegian media produced symbolic and lucrative disaster stories such as the one about *Lepse* instead of dry scientific reports about radiation levels. Finally, there are certain Russian organisations that have strengthened their standing in Russian society as a result of the Norwegian assistance, notably the civilian radiation protection agency Gosatomnadzor. The credit for the primary instance of discursive power in the case of nuclear safety seems to go to the Bellona Foundation. Availing itself of a combination of mounting 'Barents euphoria' and the potential lying in the metaphor of the ticking time bomb — visualised by the horrific picture of *Lepse* anchored in the harbour at Murmansk — it was instrumental in convincing Norwegian politicians

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and the Norwegian public that a massive assistance scheme was necessary to avoid a nuclear disaster. Other discourses, such as the 'nuclear complex discourse,' the 'environmental blackmail discourse,' and the 'cold peace discourse,' have clearly influenced policy outcomes, but were not to the same extent employed consciously by actors for specific aims.

References

AMAP. 1997. *Arctic pollution issues: a state of the Arctic environment report.* Oslo: Arctic Monitoring and Assessment Programme.

AMAP. 1998. *AMAP assessment report: Arctic pollution issues.* Oslo: Arctic Monitoring and Assessment Programme.

Benedick, R. 1991. *Ozone diplomacy: new directions in safeguarding the planet.* Cambridge, MA: Harvard University Press.

Bergman, R. 1997. Hazards from nuclear materials in the Arctic region: do we know sufficient for assessing risks and deciding on priorities? In: Vidas, D. (editor). *Arctic development and environmental challenges: information needs for decision-making and international cooperation.* Copenhagen: Scandinavian Seminar College.

Bergman, R., and A. Baklanov. 1998. *Radioactive sources of main radiological concern.* Stockholm: Swedish Council for Planning and Coordination of Research/Swedish Defence Research Establishment.

Billig, M. 1987. *Arguing and thinking: a rhetorical approach to social psychology.* Cambridge: Cambridge University Press.

Cohen, S.F. 2000. *Failed crusade: America and the tragedy of post-communist Russia.* New York and London: W.W. Norton and Company.

Darst, R.G. 2001. *Smokestack diplomacy: cooperation and conflict in East–West environmental politics.* Cambridge and London: MIT Press.

Davies, B., and R. Harré. 1990. Positioning: the discursive production of selves. *Journal for the Theory of Social Behaviour* 20: 43–63.

Dryzek, J.S. 1997. *The politics of the Earth: environmental discourses.* Oxford: Oxford University Press.

Foucault, M. 1980. *Power/knowledge: selected interviews and other writings.* New York: Pantheon.

Haas, P. 1989. Do regimes matter? Epistemic communities and Mediterranean pollution control. *International Organization* 43: 377–404.

Haas, P. 1992a. Introduction: epistemic communities and international policy coordination. *International Organization* 46: 1–36.

Haas, P. 1992b. Banning chlorofluorocarbons: efforts to protect stratospheric ozone. *International Organization* 46: 187–224.

Hajer, M.A. 1995. *The politics of environmental discourse: ecological modernization and the policy process.* Oxford: Clarendon Press.

Harré, R. 1993. *Social being.* Oxford: Blackwell.

Hønneland, G. 1996. Identitet og funksjonalitet i Barentsregionen. *Internasjonal Politikk* 54: 3–32.

Hønneland, G. 1998. Identity formation in the Euro-Arctic Barents Region. *Cooperation and Conflict* 33: 277–297.

Hønneland, G. 2003. *Russia and the West: environmental co-operation and conflict.* London and New York: Routledge.

Hønneland, G. In press. Fish discourse: Norway, Russia and the northeast Arctic cod. *Human Organization.*

Hønneland, G., and A.K. Jørgensen. 1999. *Integration vs autonomy: civil–military relations on the Kola Peninsula.* Aldershot: Ashgate Publishing.

Hønneland, G., and A. Moe. 2000. *Evaluation of the Norwegian Plan of Action for nuclear safety: priorities, organisation, implementation.* Oslo: Ministry of Foreign Affairs (Evaluation Report 7/2000).

Litfin, K.T. 1994. *Ozone discourses: science and politics in global environmental cooperation.* New York: Columbia University Press.

Litfin, K.T. 1995. Framing science: precautionary discourse and the ozone treaties. *Millennium: Journal of International Studies* 24: 251–277.

Ministry of Foreign Affairs. 1995. *Plan of Action for the implementation of report no 34 (1993–94) to the Storting on nuclear activities and chemical weapons in areas adjacent to our northern borders.* Oslo: Ministry of Foreign Affairs.

Ministry of Foreign Affairs. 1998. *Agreement between the Government of the Kingdom of Norway and the Government of the Russian Federation on environmental co-operation in connection with the dismantling of Russian nuclear powered submarines withdrawn from the navy's service in the northern region, and the enhancement of nuclear and radiation safety, signed in Moscow on 26 May 1998*. Oslo: The Ministry of Foreign Affairs.

Myerson, G., and Y. Rydin. 1996. *The language of environment: a new rhetoric.* London: UCL Press.

Neumann, I.B. 2001. *Mening, materialitet, makt: en innføring i diskursanalyse.* Bergen: Fagbokforlaget.

Stone, D.A. 1988. *Policy paradox and political reason.* New York: Harper Collins.

Stortinget. 2002. *Innst. S. nr. 107. Innstilling fra kontroll-og konstitusjonskomiteen om Riksrevisjonens undersøkelse av regjeringens gjennomføring av Handlingsplanen for atomsaker.* Oslo: Stortinget.

https://doi.org/10.1017/S0032247403003243 Published online by Cambridge University Press