Environment in the U.S. Security Debate: The Case of the Missing Arctic Waters

by Franklyn Griffiths

As the new century approaches, we find the United States seemingly embarked on a transition to a new security praxis or reciprocal interaction of thought and practice. By no means closed to ideas and information from abroad or to concepts derived by non-state actors within, the U.S. government shows signs of adapting to a post-Cold War environment in ways that accentuate pre-existing American inclinations to articulate and employ extended notions of security. Received thinking which emphasizes the national interest, self-help, the military instrument, and an opposed-forces view of the world now finds itself challenged. New thinking on security, as Emma Rothschild puts it, extends the frame of reference in fourfold fashion: (1) upwards from the state to the global and planetary level; (2) downwards to the individual, (3) sideways to non-military or civil concepts of environmental, economic, and social security; and (4) in all directions where responsibility for ensuring security is concerned.[1] A formidable array of private analysts, NGOs, foundations, think tanks, and officials as well as a few political leaders have started to generate and, to a far lesser extent, to institutionalize new ideas about extended security. The result, even at this early point, is a vigorous intellectual and political process whose complexity cannot but daunt those wanting to estimate where the United States might be headed on matters of security. And yet there is a need to know. Whether or not we happen to approve of state-centered conceptions of politics, the world's security praxis will be heavily influenced by the discourse and the policy priorities of the lead state in the international system.

As also occurs with global warming or Russia's transition to "democracy," the U.S. move towards an increasingly extended security praxis is accompanied by uncertainty as well as complexity. Indeed, the whole project has a futuristic air, insofar as it is a purposive venture. To help situate an inquiry that otherwise risks becoming vaporous, this essay asks whether and if so how the United States might employ new understandings of security in the management of Arctic waters issues, and in responding even more particularly to the prospect of intensified use of Russia's Northern Sea Route for the transport of hydrocarbons and other bulk cargo. Here, too, the subject is futuristic in that there is little or no American interest in the circumpolar North. By no means is this to suggest that the United States is not an Arctic country. Decidedly it is.[2] But Americans are quite unaware of their capacity to act in this part of the world. The Arctic Ocean, for its part, is missing in the American view of the globe, and hardly anyone has even heard of the Northern Sea Route. Appropriately enough for an inquiry into the evolution of an extended U.S. security praxis, in the Arctic we find ourselves at the beginning of a process in which ideas drawn from other places and issue-areas seem likely to predominate in improvised responses to unexpected problems.

Tendencies in U.S. Security Discourse Since 1945

There is little need to document the militarization of U.S. national security thinking and practice during the Cold War. The process may be said to have begun with the reassertion of the phrase "national security" by Secretary of the Navy James Forrestal at a Senate hearing in August 1945.[3] Bolstered by realist conceptions of international affairs, the Cold War orientation of U.S. security policy crystallized in the National Security Act of 1947, and then in the National Security Council paper NSC-68 of 1950 which saw the country effectively committed to two generations of global containment of communism primarily but not exclusively by military means.[4]

Franklyn Griffiths is Ignatieff Chair of Peace and Conflict Studies and Professor of Political Science at the University of Toronto. He has a background in Soviet arms control and Arctic international affairs. A longer version of this paper is to appear in Willy Østreng, ed., Biopolitics and Security in the Arctic: The Case of the Northern Sea Route (forthcoming), *which was written under the auspices of the International Northern Sea Route Programme (INSROP). INSROP is a multidisciplinary research program to investigate the possibilities of international commercial navigation through the Northeast Passage. Its secretariat is located at the Nansen Institute, Lysaker, Norway.*

In the Arctic—governed as it was by a succession of interactions among strategic bombers, air defenses, land- and then sea-based intercontinental ballistic missiles, strategic anti-submarine warfare including the forward maritime strategy, and air- and sea-launched strategic cruise missiles—the net effect of Cold War and containment was clear.[5] Both the Soviet Union on the one hand, and the NATO Arctic members on the other, adopted what has been termed a "fully integrated multidimensional security concept."[6] Though it is debatable whether the Arctic states had an explicit concept of regional security, or operated according to a set of extra-regional imperatives open to interpretation that they had one, the practical result was to subordinate any thought of non-military or civil cooperation to the task of gaining and maintaining global strength in relation to the principal adversary. But considerably more interesting than much of this was the latent awareness all along in the United States, and increasingly the practice by the U.S. government, of what amounted to extended security, including on matters of containment.

From the start it was clear that national security took into account "our whole potential for war, our mines, industry, manpower, research, and all the activities that go into national civilian life."[7] Hence, in due course, the National Defense Highways Act, the National Defense Education Act, the growth of government support for research and development, the concern for balance of payments, strategic materials, foreign economic assistance, even for the Soviet grain harvest, and so on—all understood as matters of national security. The point here is fourfold. While requirements of protracted conflict clearly predominated in the orchestration of national security policy, security was never seen purely in military-strategic or even political-military terms. To the contrary, it was extended horizontally to include many and diverse civil matters. Secondly, in what may be termed an introversion of national security policy, all manner of actors right down to the level of the individual bought into civil dimensions of security ranging from scientific research to highway construction. Meanwhile, even within the military-strategic domain, extended notions of security had their say. In the growing practice of summitry, arms control, and détente as of the mid-1950s, Americans were introduced to the seemingly unnatural act of collaboration with the enemy for joint gains. Further, the limited nuclear test ban treaty of 1963 saw the United States engage in its first major act of what could later be termed environmental security by abating nuclear fallout and global public concern over the health effects of nuclear testing. Finally, if regional and global awareness is a hallmark of upwards-extended security, the Cold War national security policies of the United States displayed not a little of it in meeting the worldwide political as well as military requirements of containment. To be sure, the state and a realist policy perspective reigned supreme in all of this. Nevertheless, through the troubled renewal and revocation of détente in the 1970s, the United States exhibited a manifold but as yet inarticulate propensity to act on extended notions of security.

Lester Brown and other precursors aside, Richard Ullman's 1983 piece in *International Security* marks the start of the articulation of a case for an extended security concept.[8] By that time Rachel Carson had long since written and been followed by the Club of Rome, Barry Commoner, Garrett Hardin, and others including the Palme Commission and U.N. studies on security and the relationship between disarmament and development.[9] Also by that time the United States had witnessed Earth Day 1970, the 1972 Stockholm Conference on the environment, the oil price shocks of the mid-1970s, and the appearance of a Japanese challenge to American competitiveness. Though Ullman may have failed to impress the U.S. national security establishment, he was the first to have put the pieces together in arguing for a horizontally extended concept to the community of analysts concerned with international security affairs. By the time Jessica Mathews wrote in 1989, continued evolution of the intellectual and policy climate had made it somewhat easier to impress.[10] What with the advent of "new political thinking" in the Soviet Union after 1985, the assertion of sustainable development in the Brundtland report on environment and development, and then the end of the Cold War, the scene was set for an outpouring of U.S. comment on extended security which before long would have visible effects on the thinking of officials and political leaders.[11] Meanwhile, though new potentialities for an extended security praxis in the Arctic had unexpectedly been created by Gorbachev's Murmansk speech of 2 October 1987, the opportunity went virtually unnoticed in the United States.[12] Throughout the period to 1989, American analysts also preferred on balance to articulate the need for new and better adapted national security *policies*, as distinct from new conceptions of security per se.

As of 1996, thinking about security was very much in flux as Americans grappled with the need for a coherent response to a markedly changed international environment.[13] In fact, the United States no longer had an integrated national security concept. Population specialists and politicians could refer to population as a global security issue, but no one spoke forcefully for demographic security as such. Economists and others identified all manner of economic threats to U.S. national security, but they were not arguing for economic security as a framework for understanding and action in meeting the challenges of the "new battlefield" of economic competition among the industrialized countries. Energy security was also a continuing concern, but it did not claim attention equivalent even to the global warming effects of energy consumption. Ter-

rorism, drug trafficking, and illegal immigration were clearly regarded as security problems along with other non-military or civil threats such as industrial espionage, but they too were not reconceptualized. Meanwhile, in the area of political-military affairs, the Brookings Institution made a powerful case for cooperative security along lines similar to the Palme Commission.[14] Thinking was extended in this instance by virtue of the perceived need for the United States to act in concert with others to achieve national security objectives. And yet the Brookings report was resolute in resisting any significant horizontal extension of security discourse into the civil domain. What with the rapid proliferation of the security-related agenda, and the continuing attachment of many to threat-and-use-of-force notions, any effort to generate consensus on an integrated post-Cold War security concept could only have been judged premature as of mid-decade.

The transitional character of current U.S. security praxis is well captured in the 1995 *National Security Strategy* paper issued by the White House. It is worth excerpting at length:

> Protecting our nation's security—our people, our territory and our way of life—is my Administration's foremost mission and constitutional duty. The end of the Cold War fundamentally changed America's security imperatives. The central security challenge of the past half century—the threat of communist expansion—is gone. The dangers we face today are more diverse. Ethnic conflict is spreading and rogue states pose a serious danger to regional stability in many corners of the globe. The proliferation of weapons of mass destruction represents a major challenge to our security. Large scale environmental degradation, exacerbated by rapid population growth, threatens to undermine political stability in many countries and regions. . . .
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> Not all security risks are military in nature. Transnational phenomena such as terrorism, narcotics trafficking, environmental degradation, rapid population growth and refugee flows also have security implications for both present and long term American policy. In addition, an emerging class of transnational environmental issues are increasingly affecting international stability and consequently will present new challenges to U.S. strategy. . . .
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> Our engagement must be selective, focusing on the challenges that are most relevant to our own interests and focusing our resources where we can make the most difference. . . . In all cases, the nature of our response must depend on what best serves our own long-term interests. Those interests are ultimately defined by our security requirements. Such requirements start with our physical defense and economic well-being. They also include environmental security as well as the security of values achieved through the expansion of the community of democratic nations.[15]

Though "environmental security" is cited here, "sustainable development" has pride of place in a document which clearly authorizes action on new dimensions of security while continuing to regard military threats as fundamental. The linear thinking of an earlier era is giving way to the variable geometry of a horizontally and vertically extended security praxis that increasingly admits the necessity for cooperation.

If asked to state which of the varied dimensions of security now being discussed is most likely to perform a pathfinding function in generating concepts that show the way forward for an extended U.S. security praxis, it is the environment and security discourse that gets my bet

The United States has thus been working with extended conceptions of security throughout the period since 1945. The story is not one of military thought and action giving way to extended security. Throughout the period to the 1970s, U.S. national security policy was dominated by militarized and realist conceptions to which diverse civil security matters were effectively subordinated but also acted upon. Thereafter, the correlation began to alter. Horizontal extension brought civil concepts and, as will be seen, practices increasingly into their own. It also began to displace military-strategic and realist considerations. Further, an enlarged interest in vertical extensions of security to the global and individual levels served to dilute the strength of state-centric security thinking and policy. Civil security considerations began to break free of their long subordination to political-military requirements. But while the extended security praxis of the United States showed clear signs of being demilitarized where ideas were concerned, the innate complexity of new thinking about security was such that new practices could be institutionalized only with difficulty and in *ad hoc* fashion. Nor did the vertical extension and the diffusion of awareness of responsibility for security cooperation seem likely soon to supplant the primacy of the national interest, the state, and self-help in the security-related behavior of Americans. Though the old no longer held, a new extended security praxis seemed destined for a difficult birth.

Change in the correlation of civil and military in

U.S. security policy obviously owed much to the waning and then the end of the Cold War. It also owed a lot to what the Soviets used to call objective realities—new civil security threats that demanded attention and new opportunities to address these threats. Nor should we omit domestic politics, notably the election of a Democratic Administration in 1992 and the Republican sweep of Congress in 1994, which served to end the boomlet of expansive thinking that was ushered in by the end of the Cold War. At a deeper level, the altered threat assessment of Americans may be said to reflect change in American preferences of how they are to live as a society. The thought here is that the choice of threats to regard as uppermost is inseparable from the choice of how to live.[16] Whereas the communist menace once provided a good deal of the answer, the growing force of civil considerations in U.S. security discourse suggests that Americans may be embarked upon an endeavor to redefine civility and the civil society. If asked to state which of the varied dimensions of security now being discussed is most likely to perform a pathfinding function in generating concepts that show the way forward for an extended U.S. security praxis, it is the environment and security discourse that gets my bet.

Environment and Security Debate in 1996

To the extent that U.S. government action on Arctic waters issues is shaped by considerations of security, it will be influenced more by the course of tendency conflict between the old and the new on extended security within the United States, than by developments as they occur in the Arctic. This is because Arctic events will be perceived, assimilated, and acted upon not *ab initio*, but in accordance with an evolving security praxis. As of 1996, extended security remains far more a matter of conflicting ideas, than of interaction between resolved thinking and coherent practice. At this point it is by no means a foregone conclusion that Americans will ultimately choose to define their international environmental agenda in security terms. Nor is it at all clear that environment should be treated as a matter of security. The environment and security debate may nevertheless hold the key to the evolution of U.S. security-related activity in Arctic regions which are of particular interest to us here. Before considering main trends in the debate, we should try to be as clear as we can about the magnitude and the meaning of what is being discussed.

In the U.S. debate we observe a rapidly expanding bibliography that now includes hundreds of articles, chapters, and books which are explicitly and, more often, implicitly associated with a security perspective on the environment.[17] Large-scale collaborative research and networking ventures have also been launched. Chief among these are the Project on Environment, Population and Security which is funded by the Global Stewardship Initiative of the Pew Charitable Trusts and operated by the Program on Science and International Security of the American Association for the Advancement of Science in conjunction with the Peace and Conflict Studies Program at the University of Toronto; the Environmental Change and Acute Conflict Project sponsored by the American Academy of Arts and Sciences and University of Toronto's Peace and Conflict Studies Program; and the Environmental Change and Security Project of the Woodrow Wilson Center in Washington, D.C.[18] As well, under a variety of initiatives sponsored by the President and by the Congress, a broadening array of environmental tasks have been taken on by government institutions having national security responsibilities. Specifically we are talking about the U.S. Navy, which has released icepack thickness data and made submarines available for scientific research on climate change; the CIA and other intelligence agencies, which have also cooperated with scientists studying environmental degradation; the National Security Council, at which a global environmental affairs directorate has been created; the Department of Defense, which has established the position of Deputy Under Secretary of Defense for Environmental Security and entered a trilateral venture with Russia and Norway on Russian nuclear waste management in Arctic waters; the Department of Energy, which now has farflung environmental responsibilities including nuclear safety in Russia and other countries of the former Soviet Union; and the State Department, which has gathered international environmental and associated matters under the office of an Under Secretary of State for Global Affairs.[19] Note also the July 1996 Memorandum of Understanding on cooperative action for environmental security agreed to by the Department of Defense, the Department of Energy, and the U.S. Environmental Protection Agency, which received the endorsement but not the participation of the State Department.[20] Put all of this together, and it might seem that the United States is starting to move towards intellectual and policy convergence on "environment and security," if not "environmental security," as a frame of reference and action for the environmental components of an extended security praxis. This, however, would be to overstate the coherence of current U.S. discourse, let alone U.S. practice.

A quick scan of the spring 1995 report of the Wilson Center's Environmental Change and Security *Report* finds private analysts attempting to make sense of a set of variables whose only order at this point can be alphabetical:

> acid rain, biodiversity, civil strife, cleanup and remediation, counter-terrorism, deforestation, ecological security, economic competitiveness, environmental scarcity and stress, environmental se-

> curity, ethnicity, failed states, fossil fuels, free trade, genetic engineering, global security, greenhouse warming, humanitarian relief, infectious diseases, international civil society, intra-state violence, limits to growth, migration, national security, natural disasters, nuclear waste, oil crises, overpopulation, poverty, resource scarcity, sea-level rise, soil degradation, sovereignty, stratospheric ozone depletion, sustainable development, transboundary pollution.[21]

Similarly, the Wilson Center *Report* notes that U.S. government agencies have indicated operational interest in, *inter alia*:

> agricultural yields, biodiversity protection, biological and chemical warfare, the clean car initiative, climate change, democratic institutions, dependence on imported oil, desertification, disaster relief, drought, drug interdiction, empowerment of women, environmental health, environmental security, environmentally-responsible military activity, ethnic conflict, family planning, flooding, hazardous waste, infant and child mortality, long-range transboundary air pollution, natural and technological disasters, nuclear dumping, ozone depletion, pesticides, pollution prevention centers, population growth, public health, refugee flows, renewable energy resources, resource scarcity, state failure, sustainable resource use, technology transfer, terrorism, urbanization, vector-borne diseases.[22]

These two arrays, impressionistic as they are, strongly suggest that the United States is opening up for itself a vast and at present unmanageable agenda that will soon need preliminary sorting if the discussion of environment and security is not to be sidetracked as a focus for policy development.

At its most elementary, a policy may be taken to consist of (1) a set of goals; (2) an understanding of the situation in which goals are to be pursued; and (3) a set of routines for goal-attainment in the situation as understood. Though some form of policy on many of the specifics cited is certainly within reach if not already to some degree in hand, an integrated set of routines based on a systematic causal understanding of the totality of variables in play is far off. In fact, such an approach is not the way things are normally done in a pragmatic political culture accustomed to acting before all the physical and social science results are in. It would seem, therefore, that today's environment and security debate is primarily about goal-changing as Americans grope towards an understanding of what is of uppermost importance to them in an altered world. Goal-changing occurs as the rhetoric of security is used to attract attention to new concerns, as government and non-governmental institutions respond to situational change in *ad hoc* but incremental fashion, and as new values are internalized in security policy-making.[23] In due course, Americans may be expected to cut through the vast knot of environment and security variables with rough and ready understandings of what is going on and how best to act. Rather than negotiate a conception of what needs to be done or left undone each time a call for environmental action is made upon their government, they may evolve a concept that systematizes action and favors pro-action. How and indeed whether this is done will depend substantially on interaction between different schools of thought on environment and security as they succeed or fail in generating guidance for policy inside and outside of government.

Following Geoffrey Dabelko in a rough and ready classification, we may identify three broad viewpoints—ecological, health, and military—in the current U.S. discussion of environment and security.[24] We may also note that aside from debates over environment and security, there are significant differences among Americans over the redefinition of security as such. Broadly, the course of environment and security debate would now seem to be favoring what Dabelko terms "military" thinking and practice at the expense of the ecological and health perspectives.[25] As to a redefinition of security, it is unlikely to be with us any time soon. Throughout, there is no agreed U.S. understanding of what "environmental security" might signify, considerable reluctance to employ the term,[26] and, again, little likelihood of early consensus.

The ecological perspective is key to understanding and addressing global environmental problems at the level of causes rather than symptoms.[27] Concentrating on planetary issues such as climate change, deforestation, ozone depletion, overpopulation, and other consequences and causes of environmental degradation which exceed the bounds of national sovereignty, the varied exponents of this standpoint are inclined to mute the prevailing emphasis on the national interest and to emphasize the individual, non-governmental, transnational, inter-governmental, regional, and the global as points of reference. By the same token, they may be strongly averse to opposed-forces, military, and statist notions of security. Preferring to treat the environment and security agendas holistically, some see the underlying problem not so much in terms of sustainable development as of a fundamental transformation in the relationship of humankind to Nature.

Health conceptions of security and environment may share some of the ecological inclination to redefine security, but the aim is more to react to the human consequences of environmental degradation than to anticipate and address its causes at the source. The main focus is on the health effects in the United States of past military and defense-industrial activity, as in

(1) the Strategic Environmental Research and Development Program which entails defense-related environmental compliance, remediation, and information-gathering and analysis; (2) the Defense Department's Defense Environmental Restoration Account of some $5 billion which is applied to toxic cleanup at military sites; and (3) the Department of Energy's commitment of roughly one-third of its annual appropriation to cleanup of the environmental aftereffects of nuclear-weapons production.[28] Being problem-driven as they are, these programs represent a significant dimension of current U.S. practice on environment and security, but are not accompanied by much in the way of conceptual argument.[29]

Third, in military conceptions of environment and security we encounter a viewpoint that is most in keeping with received state-centric and conflictual views of national security. It is not surprising that this standpoint should be found congenial by policy-makers. The analytical emphasis here is on the environment as a source of violent conflict in Third World societies. In practice, however, the analysis tends to be used to draw attention to the symptoms of environmental degradation which are seen to constitute a new category of threat to U.S. national security. Though many have contributed to this discourse, the work of Thomas Homer-Dixon of the University of Toronto stands out in Dabelko's and most anyone's assessment.[30] Prior to Robert Kaplan's publication of an article on "The Coming Anarchy" in *The Atlantic Monthly* in February 1994 which drew attention to the studies of Homer-Dixon, the latter was invited to brief the associate directors of the National Security Council. In due course, Homer-Dixon established a relationship with Vice President Gore, was cited favorably by President Bill Clinton, and found his ideas being taken up by U.S. national security agencies.[31] Within the U.S. government, however, the political effect has been to add environmentally-related Third World conflict to the list of concerns of interest to U.S. military planners and intelligence analysts. In Dabelko's view there is an irony here in that Homer-Dixon's policy agenda centers on international assistance to Third World peoples subject to environmental deprivation, not on national security and military planning. Still, if any one individual stands out in the U.S. discussion of environment and security, it is Homer-Dixon, a Canadian. As might be expected, he has another take on what's been happening.

Homer-Dixon broadly agrees that his work is being used by the U.S. national security establishment for purposes other than he intends.[32] He is also surprised at the interest shown by U.S. policy-makers in his ideas, by their readiness to listen and adapt their thinking. But he adds that from the start he intended to make a somewhat subversive contribution and told the Vice President so when they met. In linking "environmental scarcity" and violent conflict he sought to force a broadening of American horizons and eventually a pro-active U.S. commitment to humane development. This he sees as inescapable: given that the United States cannot wall itself off from the rest of the world, the logic of the situation is such that U.S. policy-makers will sooner or later be driven to recognize that action is excessively costly and problematic if left to the point where violent conflict has already broken out and military intervention is required to serve the American interest.

Homer-Dixon's aim has thus been to deploy a discourse of environmental scarcity and security against the conventional U.S. security praxis, and on behalf of greater U.S. pro-action—a consideration that will figure prominently when we turn to the Arctic. Such success as he has had to date also indicates that contributions from outside the United States can make a difference to the course of policy debate in a country that is omnivorous where new and workable ideas are concerned.

In addition to interaction among ecological, health, and military perspectives, there is considerable disagreement on whether or not to link environment and security in the first place. Some argue that collective action on environmental issues will only suffer if it is militarized.[33] Others insist that the national security establishment and the military in particular have little or no business in dealing with international environmental affairs and should stick to what is most important.[34] Either way, there is a reluctance to link environment and security into "environmental security." Homer-Dixon, for example, refuses to speak of environmental security on grounds that it invites sophistic discussion of terms and meanings. Still others see little utility in the term when it embraces everything from sustainable development to the environmentally detrimental effects of military operations.[35]

If budgetary allocations are the measure of success in discourse on environment and security, health concepts are clearly the winner in the United States and should not be downplayed in their future implications. Ecological thinking, though not without support, seems most at variance with received precepts, most open-ended in its budgetary implications, and therefore most likely to encounter difficulty. Military concepts keyed to violent conflict and environmentally responsible defense activity, on the other hand, are most in keeping with received thinking and entail the least outlay of funds barring a readiness to address the issues at source. Remember, too, that there is still a heavily institutionalized Cold War and realist tendency to subordinate the civil dimensions of extended security to conventional geopolitical requirements, and to regard the extension of security as so much "globaloney."

How then might all of this be brought to bear in considering U.S. government behavior in matters of

environment and security where Arctic waters are concerned? Several implications come to mind. In the absence of new Arctic marine disasters or a surge of interest in the shipping of Alaskan hydrocarbons, U.S. Arctic policies are likely to be conservative. The current correlation of tendencies favors a traditionally restrictive view of the civil dimensions of security, a new awareness of the need for environmentally responsible national military activity, and an interest in the violent conflict potential of environmental degradation. Uncertainty over Russian political and military development may be expected to brake the decline of traditional security praxis in this region of the world as compared to others. The lack of significant potential for environmentally-conditioned intra-state violence in the Arctic outside of Russia will also serve to limit the extension of U.S. national security interests to include the region. At the same time, in pursuit of environmental responsibility, military engagement in monitoring and cleanup of nuclear pollution in the Russian Arctic will continue to be of interest.[36] Overall, U.S. efforts on behalf of environment and security in the Arctic will be heavily conditioned by the evolution of the bilateral relationship with Russia.

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Second, the force of health conceptions of security in the United States is suggestive insofar as more active U.S. intervention in Arctic affairs is to be encouraged. Though health has long been the subject of non-governmental collaboration in the circumpolar North, the potentialities of this theme in animating the U.S. government are far from being fully explored, much less tested in practice. The difficult requirement, as for example with the dumping of radionuclides in Russian waters, would be to substantiate the links between the health and humanitarian interests of Americans on the one hand, and the presence of environmentally-based Arctic health threats on the other.

Third, of the three orientations to environment and security that have emerged to date, the needs of the Arctic are best met by an emphasis on ecological concepts of security which currently stand at the bottom of the U.S. preference order. The Arctic is, after all, a region whose physical and social processes, especially for native peoples, are heavily influenced by transboundary fluxes and require cooperation on civil agendas among non-governmental and territorial actors as well as states at all levels from the local to the global.[37] Paradoxically, the relative lack of U.S. national security interests in the Arctic could prove to be an advantage in widening the U.S. commitment to an ecological practice in this part of the world: Arctic actors and active minorities in Washington and the metropoles of other regional countries may be in a position quietly to extend the range of regional civil collaboration as long as core strategic military interests are not brought into play. Indeed, rather than risk engaging the U.S. national security establishment needlessly by seeking greater Arctic policy intervention in the name of environmental "security," it could be tactically advisable to decouple environment from security and drop all reference to security if a reactive and symptoms-driven "military" understanding of the environment were clearly to become paramount in Washington.[38]

Finally, if debate over environment and security is indeed to perform a pathfinding function in the further extension of U.S. security praxis, a more enabling internal political setting will be indispensable. Notwithstanding Republican strength in Congress, the renewed Clinton Administration could move beyond a "military" stance on the environment and open the way for an ecological conception of security. If so, it would make sense for Americans and others to persist in treating the environment as a security issue. Late 1996, however, is surely not the moment to decide whether to treat ecological and environmentally related health concerns on their own merits, or to persist in including them within an extended security framework.

Arctic Waters in U.S. Security Policy

To test the potential of an environment and security discourse in truly difficult circumstances, I now ask whether and if so how an improved performance might be evoked from the United States on a particular set of issues with the use of an environmental conception of security. International cooperation in the management of Arctic waters is the set of issues in question. The question in turn implies a deficiency in U.S. performance to date. The deficiency is twofold. On the one hand, from an external perspective and from that of some of the few Americans who are paying attention, the United States is not playing the leadership role it could and should in the affairs of the circumpolar North. Secondly, from a purely internal U.S. perspective, the fact is that the United States is at present not interested in playing any such role. So the question is whether an environmental and particularly an ecological conception of security, articulated in preliminary fashion within the United States and by other regional states and non-governmental actors might do two things: (1) assist the United States in redefining its Arctic interests; and (2) add to the force of civil considerations in the extension of U.S. security policy writ large. If the answer is on balance positive, we should think about what to do. If clearly negative, there would be reason for Americans and others to consider aban-

doning a security perspective on the environment.

During the Cold War the United States did not hesitate to play a leadership role on Arctic issues in relations with fellow NATO members—Canada, Denmark, Iceland, and Norway—in opposing the Soviet Union and dealing with the two Arctic neutral states—Finland and Sweden. U.S. leadership was however mainly derivative of the global struggle with communism. It had little to do with the Arctic as such. Governed by the perceived need to subordinate civil collaboration to the wider requirements of political-military security, it allowed for little or no multilateral interaction on issues specific to the region. But with the waning and then the end of the Cold War, a leadership role could be maintained only by taking the initiative on Arctic-specific matters. This the United States declined to do. No longer seized by the Soviet threat, it was left with no substantial perceived interests specific to the region. Washington's problem in the Arctic became *cooperation*, specifically requests from other Arctic states for multilateral civil collaboration for which the United States had and continues to have little appetite.

Only with difficulty was the United States drawn into the multilateral process which created and now constitutes the Arctic Environmental Protection Strategy (AEPS)—an evolving multilateral regime that joins the eight Arctic states and other participants in a variety of efforts to monitor and protect the region's environment.[39] Similarly, the longstanding Canadian initiative to establish an Arctic Council or central intergovernmental forum for multi-purpose regional cooperation on civil issues ran into considerable U.S. resistance that ended only with the Council's establishment in 1996.[40] In September 1994 the United States announced a new post-Cold War Arctic policy which emphasizes environmental protection, environmentally sustainable development, and the role of indigenous peoples while also separately recognizing U.S. national security interests.[41] It is as well concerned with the need for scientific research and affirms the importance of international cooperation in achieving Arctic objectives. The new policy signified that between 1989 and 1994, multilateral cooperation had to some extent come to be accepted as routine. And yet Washington continued to be exceedingly restrictive in making new Arctic international commitments. The sources of U.S. reluctance to lead are evident in the way policy is made on Arctic affairs.

The key individual in the policy process for international relations in the circumpolar North is the Polar Affairs Chief in the State Department's Office of Oceans and International Environmental and Scientific Affairs. This is the person who does the hard work of coordinating departmental positions and also such non-governmental views as may be brought to the table in the Inter-Agency Arctic Policy Group. The Polar Affairs Chief also carries the U.S. position out into major international Arctic venues and brings issues back into the policy process. Circumstances are such that in my view he has something of a free hand and yet not much of a hand at all in the making of U.S. policy on Arctic multilateral civil matters. Interviews with the previous (1986-1994) and current (1994-) Polar Affairs Chiefs confirm the impression that U.S. policy on Arctic international issues is ordinarily made at lower levels of the bureaucratic hierarchy without benefit of active political guidance or substantial input from non-governmental actors.[42] President Clinton (and with him the Secretary of State) was drawn into the Arctic Council negotiation momentarily in February 1995 at a meeting with the Canadian Prime Minister in Ottawa. Vice-President Gore has been engaged in a variety of Arctic-related issues on an intermittent basis, though these again are extensions of broader U.S. interests such as global science or bilateral relations with Russia as in the Gore-Chernomyrdin talks.[43] As a rule, however, the White House and also the National Security Council are "not interested" in Arctic multilateral affairs.[44] Within the State Department, Arctic issues do not generally get up to the Assistant Secretary level. On the contrary, active engagement by senior management has been "real low."[45] The Polar Affairs Chief therefore runs with the issues himself in the midst of a fair amount of benign neglect at higher levels of government.

As to other agencies, the Department of Defense is "the biggest player" of all.[46] Indeed, it has been described as an 800 lb. gorilla which no one wants to see entering their office. Where Arctic waters are concerned, DoD means the U.S. Navy and its overriding strategic military interest both in global freedom of navigation and in regional submarine and anti-submarine warfare operations.[47] Not to be limited, DoD representatives at inter-agency Arctic sessions to 1993 made a point of emphasizing the paramount importance of military-strategic considerations as meetings drew to a close.[48] Legal officers of the Department may be particularly interested in Arctic marine matters.[49] Their job is presumably to guard against commitments that might serve to impede the free movement of submarines and surface vessels not only in the Arctic but, by precedent, in any of the world's oceans and straits. Whatever the reason, DoD "doesn't see" the significance of Arctic environmental issues.[50] As to the U.S. Coast Guard, while it can be "very active," as on emergency response in U.S. Arctic waters, Arctic issues are handled at a low level in the service.[51] Illegal immigration by boat, drug interdiction, marine safety and so forth in U.S. coastal waters are the priority concerns, with the result that the Coast Guard is "not focused" on the Arctic.[52] The situation could change if and when marine transportation of Alaskan oil and natural gas became a serious proposition. But until then it is the pressing issues of the day that get the attention of flag

officers who have no time for "etherials."[53]

Where *"environmental* security" is concerned, I would add that there is no way the Department of Defense could assent to it as a prime governing concept for ocean operations without opening the door to significant departures from the Navy's traditional mission. By the same token, the Coast Guard is reluctant to endorse discussion of "environmental *security*," since it could authorize the intervention of the Navy into what the Coast Guard regards as its own preserve of marine environmental "safety."[54]

To continue this *tour d'horizon*, back in the early 1990s the Environmental Protection Agency had to be "dragged" into the preparation for the AEPS.[55] For its part, the Department of Energy is occupied with Arctic-related issues but in the Alaskan context and internationally as a function primarily of relations with Russia and offshore oil and gas development. Insofar as DoE is also occupied with international concepts, it would seem to favor stability, rather than security, for sustainable economic and technological development.[56] The Alaskan Senators, though very powerful, have broadly been content to receive consultation from State and do not as a rule pressure the Polar Affairs Chief, who may feel he's doing well if there are no complaints from this quarter.[57] The Alaskan delegation on the Hill has, however, been showing increased interest in the AEPS and in the Arctic Council as a means of securing greater recognition for Alaska's objectives within the Congress.[58] As to the Alaskan Governor's office, roughly a dozen Alaskan native organizations, the shipping sector, and some two dozen southern-based environmental groups, they have until recently not so much sought access but on the contrary have been invited into the policy process by State.[59] Their participation is beginning to take hold. As of 1996, Athabascan and Aleyut native organizations are actively engaged on the Arctic Council issue; the Governor is prepared to commit resources for the Council's secretariat when it comes time for the United States to host the operation; and environmental NGOs are showing more interest in Arctic affairs as the Antarctic agenda shrinks following the institution of the environmental protection regime there.[60] Meanwhile, the Northern Forum—a transnational association of territorial governments from around the region whose creation was spearheaded by the Alaskan Governor in 1990—was also invited by the Polar Affairs Chief to take part in the work of the Inter-Agency Group and is now increasingly interested in Arctic cooperation at the inter-governmental level.[61]

It is fair to say that while things are changing, nobody has really been beating on the Polar Affairs Chief's door. He does as he thinks best under broad guidelines from on high and with a determination to consult as widely as possible within and outside government. On the inside, he is faced with a powerful aversion to any U.S. international commitments that entail new spending. At the same time, he is likely to be told there is no time for "great ideas," and to come back to the IAPG or individual departments "when real money is being talked about."[62] If there is any explicit conceptual guidance, the relevant notion is sustainable development and not environmental security, much less ecological security. The U.S. position on the mandate of an Arctic Council, for instance, is solid in support of sustainable development—indeed, an Arctic Sustainable Development Initiative—and environmentally-conscious resource exploitation.[63] As to environmental security, the term is not frequently encountered and, when it is, causes "a bit of heartburn" owing to its lack of clear meaning.[64]

To associate considerations of environment and security with possible development of the Northern Sea Route at this time is to be way ahead of the game where the United States is concerned

U.S. Arctic policies are caught between a block of drifting ice and a hard place. On the one hand, we have the expressed intent of other Arctic countries to pursue a civil collaboration that cannot go far without the United States. On the other, we observe a state that is reluctant to support active engagement in multilateral civil cooperation, has little awareness of the Arctic as a region, and is without an overarching sense of purpose or unifying concept to mobilize and lend direction to collective action. One major result is significant rigidity in U.S. multilateral negotiating behavior which is formulated and altered at lower levels of the bureaucracy only with considerable difficulty. Another result is institutionalized aversion to international arrangements that would treat the Arctic as a region and thereby offer others added opportunities to seek collaborative action on issues in which the United States has little perceived interest beyond that which can be satisfied through select bilateral or trilateral interaction. The United States has indeed yielded to the entreaties of others, but grudgingly and in a manner that falls far short of its potential to offer leadership in circumpolar affairs. As compared to sustainable development, any concept of environmental security is sufficiently far away from acceptance as to be of little use in moving the United States to greater pro-action and leadership in Arctic cooperation. The problem seems to be one of interests and lack thereof, not one of concepts. To justify this point we could consider the workings of PAME (Protection of the Arctic Marine Environment), which

is a subgroup of the AEPS; or the talks stemming from a Canadian initiative to harmonize the rules for Arctic shipping under the auspices of the International Maritime Organization.[65] But let us cut to the Northern Sea Route (NSR) which itself can be dealt with summarily.

Increased shipping along Russia's Arctic coastline is sufficiently far from being a concern in Washington that it is difficult at present to see what or who could benefit from the use of an ecological or environmental security perspective if one were to be clarified. This too could change, for example with a major Russian effort to increase the volume of shipping, which could create a perceived need to act. Nevertheless, the NSR has been discussed in the Inter-Agency Arctic Policy Group and at Alaska Senators' meetings without anyone being persuaded that the prospects are real enough to be worth spending much time on.[66] Though the Northern Forum once had an active interest, it appears to have subsided. Nor has the shipping sector or for that matter the Department of Defense paid much attention.[67] The State Department's perspective on Russian oil and gas transportation by marine mode currently favors a sustainable development approach in which resource exploitation proceeds with full attention to the protection of Arctic ecosystems and populations.[68] As to the potential lead agency, the U.S. Coast Guard is "not interested," and has "nobody" working on NSR matters.[69] To associate considerations of environment and security with possible development of the Northern Sea Route at this time is to be way ahead of the game where the United States is concerned.

Leadership on the part of the United States in the international management of the Arctic marine environment can only be achieved by raising the issue-area to the political level in the U.S. policy process. Barring the appearance of Arctic marine threats that bear directly on the U.S. interest, it is the Senators from Alaska who are in the best position to move the Administration. They, however, are embroiled in a perennial dispute with the White House over the development of North Slope oil reserves and are not much taken with environmentalism. A coalition of environmental and native NGOs, scientists, and other interested parties, even if one could be formed,[70] seems very unlikely to capture the Administration's attention, much less that of officials. Otherwise, greater awareness of the need to act could in principle be injected by foreign governments approaching the United States up to and at the highest level. What with the inclination of other Arctic states to handle the AEPS at the bureaucratic and technical level, they, too, seem to be far removed from attaching any great significance to Arctic marine environmental issues. In these circumstances, the outlook for greater pro-action in U.S. Arctic waters policy seems bleak.

As to the potential of an ecological or environmental security discourse in assisting the United States to redefine its Arctic interests, and in adding to the force of civil considerations in the extension of security policy writ large, it is decidedly unpromising under current conditions. There is no felt need for a discourse of environment and security in dealing with Arctic issues. In any case, there is no consensus on how to integrate considerations of environment and security in a way that yields more than rhetorical policy effect. It seems to be a Catch-22 situation. As long as agreement lacks on what is being talked about, there is no way for a security-related approach to Arctic waters problems to speed early agreement in the wider U.S. discussion of environment and security. But the thought of working now for returns down the road is something different.

Conclusions

The subtext of this essay is one of timing. To discuss the potentialities of a security-related concept of the environment is not unlike talking about the character of a child before it has been conceived. In fact, it is like part of the decision on whether or not to conceive. To press the imagery, there is much intercourse among Americans on environment and security these days, but the moment of conception, if there is to be one, is still some time off. Whether or not the act of conception is a decision or an unintended outcome, it will be undertaken by Americans, in the light of perceived U.S. interests, and without decisive input from abroad. Nevertheless, at the margins and over time, outsiders may expect to make focused contributions to the extension of a U.S. security praxis that will inevitably affect them. They should explore the potential. The United States, after all, will not stop being guided by security considerations. Nor will the new break free from the old in U.S. policy on security and environment alike. These things are certain. So is the openness of the United States to ideas that work. At issue is whether and how a security perspective might benefit the environment more than another, such as sustainable development or environmental protection. This will not be known until the elements of a new security perspective have been clarified, tested, and begin to yield a basis on which to judge their effectiveness.

The fundamental problem in the U.S. discussion of environment and security is the lack of agreement on a concept that has demonstrated guidance value. Such a concept, if one can be achieved, will not be a literary construct divorced from practice. Rather, it is likely to emerge from intense interaction between practitioners and analysts. Even modest progress in this area could make a significant contribution in focusing the wider U.S. debate and providing direction for practice. Demonstration projects are in order to lend precision to the meaning of ecological or environmental se-

curity, and to show what may be accomplished internationally with such a concept that cannot already be done. Ventures of this kind could of course be confined to U.S. citizens. But they could also be international in character. The advantage of an international demonstration project lies in the pooling of insight and the discovery of potential subjects to be discussed in inter-governmental negotiation.

The point being made here is significant and suggests a change of perspective on the praxis of environment and security. It is that the development of an environmentally-related security concept that is not only of use to the United States, but also effective in providing for joint management of environmental issues, may more readily be achieved internationally in a process actively shaped by U.S. interests and thinking, than in a process confined to the United States alone. If security is to be cooperative, the elaboration of an environmental security concept should itself be a cooperative venture.

I therefore conclude that a track two international demonstration project should be set up to assess the merits of a security perspective on the Arctic marine environment. By track two I mean well-placed and knowledgeable practitioners and analysts working together in their capacity as private individuals. A project of this kind should evaluate not only the cost-effectiveness of an inter-governmental effort to engage in a follow-on venture, but also the utility of a security discourse for Arctic international environmental cooperation in the years ahead. If the answer is affirmative, the missing Arctic waters may finally be found. Ways will have been invented to raise Arctic marine issues to the political level in the circumpolar countries and, the United States and other regional governments will be prompted to redefine their interest in multilateral environmental cooperation. With compelling environmental threats to the U.S. national interest in short supply in this part of the world, the value of an ecological or environmental security concept will lie mainly in its capacity to fit the pieces of the policy puzzle together in ways that produce results cheaper and faster than current practice allows. And if the answer is negative, there will be cause to set aside a security discourse on the environment, to cast the issues in ecological terms, and to continue doing what can be done at the technical level.

Endnotes

[1] Emma Rothschild, "What Is Security?" *Daedalus* 124, No. 3 (Summer 1995): 55. I would add to this list the need for cooperation as well as responsibility.

[2] U.S. capabilities for Arctic scientific research and understanding of the physical environment, for example, exceed those of any regional country and indeed most of them combined. See *Arctic Research of the United States*, a series sponsored by the Inter-Agency Arctic Policy Group and issued by the Office of Polar Affairs, National Science Foundation.

[3] Quoted in Joseph J. Romm, *Defining National Security: The Nonmilitary Aspects* (New York: Council on Foreign Relations, 1993), 2.

[4] On NSC-68, see Samuel F. Wells, Jr., "Sounding the Tocsin: NSC-68 and the Soviet Threat," *International Security* 4, No. 2 (Fall 1979): 116-158.

[5] On the militarization of Arctic waters in particular, see Steven E. Miller, "The Arctic as a Maritime Theatre," in Franklyn Griffiths, ed., *Arctic Alternatives: Civility or Militarism in the Circumpolar North* (Toronto: Science for Peace/Samuel Stevens, 1992), 211-236.

[6] Willy Østreng, "Political-Military Relations Among the Ice States: The Conceptual Basis of State Behaviour," in Griffiths, *Arctic Alternatives*, 33.

[7] Quoted in Romm, *Defining National Security*, 3.

[8] Richard H. Ullman, "Redefining Security," *International Security* 8, No. 1 (Summer 1983): 129-153. Stephen J. Del Rosso, Jr., reports that Ullman's statement caused "hardly a ripple" in official thinking at the time. See his "The Insecure State: Reflections on 'the State' and 'Security' in a Changing World," *Daedalus* 124, No. 2 (Summer 1995): 186. Prominent among Ullman's precursors were Robert McNamara, *The Essence of Security: Reflections in Office* (New York: Harper and Row, 1968); Lester Brown, "Redefining Security," *WorldWatch* Paper 14 (Washington, D.C.: WorldWatch Institute, 1977); and Maxwell D. Taylor, "The Legitimate Claims of National Security," *Foreign Affairs* 52, No. 3 (April 1974): 592-594.

[9] Rachel Carson, *Silent Spring* (Boston: Houghton Mifflin, 1962); Garrett Hardin, "The Tragedy of the Commons," *Science* 162 (1968): 1243-1248; Barry Commoner, *The Closing Circle: Nature, Man and Technology* (New York: Bantam, 1971); Donnella H. Meadows et al., *The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind* (New York: New American Library, 1972); Independent Commission on Defence and Security (Palme Commission), *Common Security* (London: Pan, 1982); and United Nations, Department of Disarmament Affairs, Report of the Secretary-General, *Concepts of Security* (New York: United Nations, 1986).

[10] Jessica Tuchman Mathews, "Redefining Security," *Foreign Affairs* 68, No. 2 (Spring 1989): 162-177.

[11] World Commission on Environment and Development (Brundtland Commission), *Our Common Future* (London: Oxford University Press, 1987). On Soviet new thinking, see Franklyn Griffiths, "Current Soviet Military Doctrine," in Murray Feshbach, ed., *National Security Issues of the USSR: Workshop 6-7 March 1896, NATO HQ, Brussels, Belgium* (Dordrecht: Martinus Hijhoff, 1987) 241-258, and Eduard Shevardnadze "Ekologiya i diplomatiya" [Ecology and Diplomacy], *Literaturnaya gazeta*, November 22, 1989. The subse-

quent U.S. cascade is evident in the some 500 items listed in the first report of the Environmental Change and Security Project, *Environmental Change and Security Project Report* (Washington, D.C.: The Woodrow Wilson Center, Spring 1995).

[12] Mikhail Gorbachev, *The Speech in Murmansk* (Moscow: Novosti Press, 1987). The original is in *Izvestiya*, October 2, 1987.

[13] Romm, *Defining National Security*, provides an overview of several of the issue-areas (the economy, the environment, energy, drug trafficking) in the U.S. discussion. On population, see for example Alex de Sherbinin, "World Population and U.S. National Security," Environmental Change and Security Project *Report,* Issue 1: 24-39.

[14] Janne E. Nolan, ed., *Global Engagement: Cooperation and Security in the 21st Century* (Washington, D.C.: Brookings Institute, 1994).

[15] *National Security Strategy of Engagement and Enlargement* (Washington, D.C.: The White House, February 1995): 1 and 7. The 1996 *Strategy* is not substantially different.

[16] Mary Douglas and Aaron Wildavsky, *Risk and Culture: An Essay on the Selection of Technological and Environmental Dangers* (Berkeley: University of California Press, 1993). A brilliant reading of the Soviet threat in American Life is to be had in William Pfaff, "Reflections: The Soviet Myth," *The New Yorker*, (November 6, 1978): 172-178. Following the collapse of socialism, Martin Malia sees in the ecological cause a new candidate for millennial utopianism complete with central ecoplanning for the collective planetary interest of humankind. Martin Malia, *The Soviet Tragedy: A History of Socialism in Russia, 1917-1991* (New York: The Free Press, 1994), 519-520.

[17] See Environmental Change and Security Project *Report* Issue 1: 92-105. Reviews of the U.S. discussion are to be had in Geoffrey D. Dabelko and David D. Dabelko, "Environmental Security: Issues of Conflict and Redefinition," *ibid*., 3-13, and Geoffrey D. Dabelko, "Ideas and the Evolution of Environmental Security Conceptions," paper presented at the annual convention of the International Studies Association, San Diego, CA, 16-20 April 1996. Also, Geoffrey D. Dabelko and P.J. Simmons, "Environment and Security: Core Ideas and U.S. Government Initiatives." *The SAIS Review* 17:1 (Winter/Spring, 1997). Also consider Marc A. Levy, "Is the Environment a National Security Issue?" *International Security* 20, No. 2 (Fall 1995); and the rejoinder to Levy from Thomas F. Homer-Dixon, " *ibid*., No. 3 (Winter 1996): 189-194.

[18] Discussed in Dabelko, "Ideas and the Evolution of Environmental Security Conceptions."

[19] *Ibid*. See also the statements from various agencies including the National Oceanic and Atmospheric Administration (NOAA) and the Environmental Protection Agency, as cited in *Environment and Security Debates*, 83-86; and, on Russian nuclear cleanup in Arctic seas, Kent Butts, "National Security, the Environment, and DOD," in *Environmental Change and Security Project Report*, Issue 2 (Washington, D.C.: The Woodrow Wilson Center, Spring 1996), 26.

[20] Office of the Assistant Secretary of Defense (Public Affairs), "Agreement Reached on Environmental Security Plan," *News Release* 430-96, July 18, 1996. See also the letter from the three agencies, July 18, 1996, conveying the MOU to Secretary Warren Christopher, and his reply of August 8, 1996 to Carol Browner of the EPA.

[21] *Environmental Change and Security Project Report,* Issue 1: 3-39, and 63-78.

[22] *Ibid*., 47-58 and 83-86.

[23] Ken Conca, "In the Name of Sustainability: Peace Studies and Environmental Discourse," in Jyrki Käkönen, ed., *Green Security or Militarized Environment* (Brookfield: Dartmouth Publishing, 1994), 7-24.

[24] Dabelko, "Ideas and the Evolution of Environmental Security Conceptions."

[25] *Ibid*.

[26] For example, the Secretary of State avoided the term altogether in a major statement of U.S. policy at Stanford University, April 19, 1996. "American Diplomacy and the Global Environmental Challenges of the 21st Century," in *Environmental Change and Security Project Report*, Issue 2: 81-85.

[27] Al Gore, *Earth in the Balance: Ecology and the Human Spirit* (New York: Houghton Mifflin, 1992); Dennis Pirages, *Global Technopolitics* (Pacific Grove: Brooks-Cole, 1989) and Pirages "Social Evolution and Ecological Security," *Bulletin of Peace Proposals* 22, No. 3 (Summer 1991), 329-334. Tim Wirth, Under Secretary of State for Global Affairs, also shares an ecological perspective: *Congressional Record — Senate*, June 28, 1990, S-8936-8938, and "Sustainable Development: A Progress Report," July 12, 1994, excerpted in Environmental Change and Security Project *Report*, Issue 1: 54-55.

[28] Dabelko, "Ideas and the Evolution of Environmental Security Conceptions."

[29] See however Murray Feshbach and Alfred Friendly, Jr., *Ecocide in the USSR* (New York: Basic Books, 1992), Laurie Garrett, *The Coming Plague: Emerging Diseases in a World of Balance* (New York: Farrar, Straus, 1994), and Garrett, "The Return of Infectious Disease," *Foreign Affairs* 75, No. 1 (January/February 1996) which cites change in the ecological relationship between microbes and humans, 72-73.

[30] Thomas F. Homer-Dixon, "On the Threshold: Environmental Changes as Causes of Acute Conflict, *International Security* 16, No. 2 (Fall 1991): 76-116, and "Environmental Scarcities and Violent Conflict," *ibid*., 19, No. 1 (Summer 1994): 5-40.

[31] For excerpts from President Clinton's Remarks to the National Academy of Sciences, June 29, 1994, see, *Environmental Change and Security Project Report*, Issue

1: 51-52.

[32] Interview, Toronto, April 2, 1996. In his view, the project on Environment, Population and Security has been driving the U.S. debate. Papers produced by the project and sent out to a list of 1,500 officials and others were all written by Canadians. For a critique of thinking that would replace communism with "chaos" as the prime concern of U.S. foreign policy, see Jeremy D. Rosner, "The Sources of Chaos: The Latest Bad Foreign Policy Idea," *The New Democrat*, (November 1994): 20-22.

[33] Conca, "In the Name of Sustainability," which offers a critique of "ecological security," and Daniel Deudney, "The Case Against Linking Environmental Degradation and National Security," *Millennium* 19, No. 2 (Winter 1990): 461-476.

[34] C. Boyden Gray and David B. Rivkin, Jr., "A 'No Regrets' Environmental Policy," *Foreign Policy* 83 (1991): 47-65; and Stephen Walt, "The Renaissance of Security Studies," *International Studies Quarterly* 35, No. 2 (Winter 1991): 211-239 who, aside from a brief reference to economics, made the point simply by defining security in military-political terms. This however is a waning position. Gary D. Vest, Principal Assistant Deputy Under Secretary in the Department of Defense, reports that, "DoD's view of environmental security is comprised of the following: (1) ensuring environmentally responsible action by military units wherever they may be; (2) ensuring adequate access to land, air and water to conduct a defense mission; (3) protecting DoD's warfighting assets (people, equipment, facilities); (4) understanding where environmental conditions contribute to instability, and where the environment fits into the war and peace equation; (5) bringing defense-related environmental concerns to the development of national security; (6) studying how defense components can be used as instruments of U.S. global environmental policy." *Environmental Change and Security* Project *Report*, Issue 2: 83. See also Kent Hughes Butts, "Why the Military Is Good for the Environment," in Käkönen, *Green Security*, 83-109.

[35] See Hans Bruyninckx, "Environmental Security: An Analysis of the Conceptual Problems in Defining the Relationship Between Environment and Security, paper presented at the annual meeting of the International Studies Association, Acapulco, Mexico, March 1993.

[36] U.S. Department of Defense, "Report on a Joint U.S.-Russia Ecological/Environment Seminar," Washington, D.C., May 15-19, 1995. See also Peter Gizewski and Alan Chong, "Military Activity: The Case of Radioactivity in the Arctic," in Daniel Deudney and Richard Matthew, eds., *Contested Ground: Security and Conflict in the New Environmental Politics* (Albany: SUNY Press, forthcoming).

[37] *Arctic Systems: Natural Environments, Human Actions, Nonlinear Processes* (Oslo: IASC Secretariat, 1996).

[38] On decoupling, see Franklyn Griffiths, "Epilogue: Civility in the Arctic," in Griffiths, *Arctic Alternatives*, 279-309.

[39] The negotiation that produced the AEPS began in 1989, on a Finnish initiative, and ended with a multilateral declaration in June 1991. For the founding document, see "Arctic Environmental Protection Strategy," *Arctic Research of the United States* 5 (Fall 1991): 29-35. Whereas other states sent delegations ready to do business at the first negotiating session, the United States was represented by junior staff from the embassy in Helsinki. Subsequently the U.S. commitment to the talks lagged well behind that of other participants. On the negotiations, see Oran R. Young, *Creating International Regimes: Arctic Cases, Generic Processes* (forthcoming), esp. ch 4. Whereas the AEPS took the form of a standing conference or process, two Arctic multilateral organizations were also created in the early 1990s: the International Arctic Science Committee (1990), a non-governmental body representing national science establishments; and the Northern Forum (also 1990), which unites territorial governments from around the circumpolar North and as far south as Sakhalin.

[40] "Canada Hosts Inauguration of Arctic Council," Government of Canada *News Release*, No. 166, September 19, 1996. The Arctic Council proposal was floated as a what-if proposition by the Canadian Prime Minister in Leningrad in November 1989, and announced as a commitment by the Minister of External Affairs in a speech made in Ottawa in November 1990. For comment, see Oran R. Young, *The Arctic Council: Making a New Era in International Relations* (New York: The Twentieth Century Fund, 1996); and David Scrivener, *Environmental Cooperation in the Arctic: From Strategy to Council* (Oslo: The Norwegian Atlantic Committee, 1996).

[41] U.S. Department of State, Office of the Spokesman, "Statement by Christine D. Shelly, Acting Spokesman: United States Announces New Policy for the Arctic Region," September 29, 1994. See also Robert Senseney, "U.S. Arctic Policy Aims for Circumpolar Cooperation," *Witness the Arctic* 3, No. 2, 1995, 1-2. *Witness* is published by the Arctic Research Consortium of the United States, at Fairbanks, Alaska.

[42] Interviews with Raymond V. Arnaudo, former Polar Affairs Chief, in London, May 11, 1995, and with Robert S. Senseney, current Chief, in Washington, D.C., November 1, 1995.

[43] The release of ice-thickness data was very largely the doing of then Senator Gore in 1991. Dabelko, "Ideas and the Evolution of Environmental Security Conceptions."

[44] Arnaudo interview.

[45] *Ibid*.

[46] Interview in Cambridge, U.K., February 17, 1996 with Lawson W. Brigham, former Commander and head of policy planning, USCG. Brigham retired in 1995, having skippered the *Polar Sea* to the North Pole the year before.

[47] *Ibid*.
[48] *Ibid*.
[49] Arnaldo interview.
[50] Brigham interview. Nevertheless, the Navy does assist global scientific research in the Arctic, as has been indicated. As well, the Office of Naval Research manages the Arctic Nuclear Waste Assessment Program in cooperation with Russia and several other countries. "ANWAP Prepares Risk Assessment," *Witness the Arctic* 3, No. 2 (Autumn 1995): 10.
[51] Brigham interview.
[52] *Ibid*.
[53] *Ibid*.
[54] *Ibid*. Also interview in Washington, D.C., at U.S. Coast Guard HQ, November 2, 1995, with Lt. Commander Stephen M. Wheeler, Ice Operations Division. Whether or not to refer to "environmental security" is seen by Brigham as a problem in the "tactics of terms."
[55] Arnaudo interview. Arnaudo is also of the opinion that the Arctic has stood "at the bottom" of the U.S. pollution prevention agenda.
[56] Interview with Gene Delatorre, International Affairs Director, Environmental Restoration and Waste Management, U.S. Department of Energy, in Washington, D.C., November 1, 1995.
[57] Arnaudo interview.
[58] Senseney interview.
[59] Arnaudo interview.
[60] Senseney interview.
[61] Arnaudo and Senseney interviews.
[62] Arnaudo interview. Arnaudo also reports that in preparing the 1994 Arctic policy statement the money people caused him "much grief."
[63] Senseney interview. See also "U.S. Discussion Paper: Sustainable Development," paper dated November 1, 1995, Office of the Polar Affairs Chief.
[64] Senseney interview. Michael Schneider, Senior Advisor to the Under Secretary for Global Affairs, suggests that environmental security need not compete with or take away from sustainable development: whereas the latter is a core belief with sweeping implications, the former connotes regulatory action by diverse government agencies to defend and protect the environment. Interview, Washington, D.C., November 1, 1995.
[65] Terms of reference for PAME are to be found in "Arctic Environmental Protection Strategy." See also "Report to the Arctic Ministers: PAME Working Group Publishes Findings," *Arctic Bulletin*, No. 1, 1996, 5-6. The *Arctic Bulletin*, published quarterly by the World Wide Fund for Nature, is a useful source of comment on the AEPS, which was folded into the Arctic Council's work at the Council's creation in September 1996. On the Harmonization Talks, see International Maritime Organization, "Harmonization of Polar Ship Rules (Code of Polar Navigation)," Document DE 39inf.4, December 1, 1995, and "Summary of Minutes" from the St. Petersburg, Russia meeting, 15-18 October 1996, both available from Ship Safety Northern, Transport Canada.
[66] Arnaudo interview.
[67] *Ibid*.
[68] Senseney interview.
[69] Wheeler and Brigham interviews.
[70] Environmental NGOs such as the Audubon Society, the Environmental Defense Fund, and the World Wildlife Fund have joined with U.S. native and health groups in an Arctic Network to shape government policy on some of the AEPS working groups. The Network issues a newsletter from Anchorage entitled *Leads: Arctic Network News Summary*. Young, *Creating International Regimes*.