

**Preparing for a World Without Nuclear Weapons:
Alternative Security Arrangements**

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“A world without nuclear weapons will not simply be today’s world minus nuclear weapons.”

(Shultz, Perry, Kissinger, Nunn)ⁱⁱ

There is no denying that for a world without nuclear weapons to be secure and stable it will have to be different in some fundamental ways from a world with many nuclear weapons – that latter itself being an insecure and unstable world.

But let’s not forget that today’s international security environment is already fundamentally different from what it was when nuclear arsenals were at their peak.ⁱⁱⁱ The Cold War is over. A greater awareness of the proliferation incentives generated by existing arsenals along with heightened concerns about non-state groups getting their hands on the bomb^{iv} have helped to galvanize a new constituency of support for nuclear abolition.

The lesson is that the world security environment can and does change, even for the better. Furthermore, while it is clear that a world without nuclear weapons will require significant changes to big power security arrangements and to regions of conflict that have been nuclearized, it is also true that credible progress toward zero nuclear weapons is itself transformative. So the point is not only that the achievement of a Nuclear Weapons Convention depends on transformed big power relations, the pursuit of nuclear disarmament contributes enormously to that transformation.

But there is also a sense in which the opening statement taken from the “gang of four” is wrong. Day-to-day security conditions in much of the world are unaffected by the contestations of the nuclear powers. No part of the world would be immune from nuclear catastrophe, but the two dozen intra-state wars now being fought, the deprivations and human insecurity of much of the planet, require their own particular remedies. Nuclear weapons have no currency in deterring intra-state war, they are impotent in the struggle to prevent terrorist organizations from acquiring nuclear weapons or materials, and they are irrelevant (except for the diversion of scarce resources) to many of the world’s most pressing security challenges.

So the following discussion of security arrangements for a world without nuclear weapons is focused in particular on big power and inter-state relations. The objective is to stimulate further discussion. It’s worth noting that while there is an ample literature on disarmament steps needed to reach zero, much less attention has been paid to the security arrangements that should attend disarmament. I want to explore some of the

proposals that are available, by first looking at nuclear and conventional deterrence, then at some approaches to alternatives to deterrence, and finally, briefly, at regional conflict zones that have been nuclearized (where nuclear weapons figure prominently into security calculations – and where the accompanying reality is that disarmament in those regions cannot be separated from efforts to genuinely and dramatically change regional security environments).

Nuclear Deterrence

The starting point, hardly new to people in this room, is that nuclear deterrence is less than a sound military, political, or moral foundation for global security. In 1982 Canadian church leaders, in a letter and a lengthy personal discussion, told Prime Minister Trudeau: “We can conceive of no circumstances under which the use of nuclear weapons could be justified and consistent with the will of God.” They added that, as a consequence, nuclear weapons and nuclear deterrence are unacceptable as agents of or the basis for security.^v

In 2009, former US Secretary of State Henry Kissinger made the same point using rather more secular language. In the context of affirming the pursuit of a world without nuclear weapons, Kissinger said: “Any use of nuclear weapons is certain to involve a level of casualties and devastation out of proportion to foreseeable foreign policy objectives.”^{vi}

There is no need to reprise the “level of casualties and devastation” that nuclear deterrence promises, but it is worth noting that if any state were to threaten even a fraction of that level of indiscriminate destruction by any means other than nuclear weapons, the international community would rightly recoil in universal horror at the brazen and unconscionable assertion of genocide and crimes against humanity as legitimate security mechanisms.

Yet every day that we rely on nuclear deterrence we affirm that the threat of almost infinite destruction is indeed a rational, moral national security policy. In 2010, a letter to Prime Minister Harper signed by all 23 Churches within the Canadian Council of Churches rejected such a policy for what it actually is. “We believe,” they said, “that to rely on nuclear weapons, to threaten nuclear attack as a foundation for security, is to acquiesce to spiritual and moral bankruptcy.”^{vii}

There has in our time been a slow convergence of morality and political realism to finally insist that nuclear weapons cannot continue to be regarded and maintained as sources of security and stability. That is to be celebrated, and that convergence in turn compels us to collectively “seek,” in the words of Barak Obama, “the peace and security of a world without nuclear weapons.”^{viii}

And that returns us to the point made by Kissinger and company, namely, that a secure and stable world without nuclear weapons “will not simply be today’s world minus nuclear weapons.” The commitment to the elimination of nuclear weapons, formalized in the Nuclear Non-Proliferation Treaty, and that should be further clarified and set

within a firm timetable through a Nuclear Weapons Convention, is a commitment to finally taking nuclear deterrence off the proverbial table.

So, if we take nuclear deterrence off the table, does it need to be replaced with something else? How do we organize global stability and security without recourse to the kinds of threats that are at the heart of nuclear deterrence and that cannot be reconciled with international humanitarian law?

Conventional Deterrence

If we look ahead and finally remove nuclear deterrence as an option, will it have to be replaced by conventional deterrence? Without nuclear deterrence, will we need the threat of devastation by other means. Destruction by conventional arms could never approach the scale of nuclear destruction, so removing the latter is a fundamental step toward a much safer world, but a post-nuclear world will not be more stable if it is heavily militarized through competing, offence-oriented, national and alliance military postures.

High levels of competing offensive conventional military forces are a primary source of nuclear proliferation pressure. And those pressures will not vanish with nuclear disarmament. Nuclear materials and technology will continue to exist and spread through civilian programs, and states that feel an existential threat from militarily superior powers will be no less tempted to acquire a nuclear weapons capability (even as a virtual deterrent) than are some states now, even though they have made unqualified and solemn political and legal commitments not to acquire nuclear weapons.

The new US Nuclear Posture Review (NPR)^{ix} unfortunately points in the wrong direction when it comes to conventional deterrence. While it articulates a welcome reduction in US reliance on nuclear weapons, it proposes to gradually replace nuclear deterrence with what it calls “the growth of unrivalled U.S. conventional military capabilities” (p. vi). While it cites other factors as facilitating reduced reliance on nuclear deterrence, notably the easing of Cold War tensions and the development of missile defences (p. vii), it cites “the advent of US conventional military pre-eminence” (p. ix) and “the prospect of a devastating conventional military response” (p. ix) as the alternative to nuclear deterrence. The NPR repeatedly links declining reliance on nuclear weapons with the pledge to “continue to strengthen conventional capabilities” (p. ix). In other words, it proposes that deterrence by weapons of *mass* destruction with deterrence by weapons that are *massively* destructive.

One particularly provocative emblem of the continuing US quest to maintain unrivalled conventional military pre-eminence is the “conventional prompt global strike capability” (CPGS)^x that is now coveted by US military planners. The NPR asserts a commitment to “preserving options for using heavy bombers and long-range missile systems in conventional roles” (p. x). A conventionally-armed strategic-range missile is, of course, generally regarded as extremely destabilizing since it could easily be misinterpreted as a nuclear attack. Furthermore, in a crisis, CPGS attacks would be militarily most effective in pre-emptive strikes, attacking an adversary’s military assets before they are

operationally deployed – and any state fearing such pre-emption could itself try to escape such an attack by deploying early and thus escalating a crisis situation.

Long before the US and Russia get close to zero nuclear weapons, the NATO-Russia conventional imbalance will become an impediment to further progress. The Conventional Forces in Europe Treaty – suspended by Russia in 2007 in response to European missile defence plans – is one attempt to address the imbalance. Russia has the added concern about Chinese conventional capabilities. Indeed, comparative Chinese and American conventional capabilities will also come into play – as will, of course, Indian and Pakistani imbalances.

The point is that conventional arms restraint, not escalation, is essential to continuing progress in nuclear disarmament and to reducing the demand for nuclear weapons. To that end, NATO's 2010 Strategic Concept includes a welcome nod toward “keep[ing] armaments at the lowest level for stability” (para 26) – and given NATO's disproportionate share of global military spending, there is plenty of room to cut to get to that lowest level.

Alternatives to Deterrence^{xi}

The retention of nuclear weapons and the pursuit of conventional military pre-eminence both continue to generate a powerful demand for persuasive countervailing threats – in other words, they generate proliferation pressures. A nuclear weapons convention, bolstered by a more effective and comprehensive verification system, is key to building an effective supply-side constraint on nuclear proliferation, but a durable non-proliferation regime also requires demand-side remedies. Non-proliferation in a world without deployed nuclear weapons will require security arrangements that promote stability, reduce threats, and thus reduce demand for a means of neutralizing or topping conventional threats.

The point is not that nuclear disarmament must await a totally transformed world, but it must be accompanied by the progressive emergence of a new security environment reflected in conventional arms control and military spending reductions (in essence, implementation of Article 26 of the UN Charter).

The following sections therefore discuss certain demand reduction measures and approaches: movement from deterrence to reassurance in major power security relationships; conflict resolution imperatives in the regional conflicts that have been nuclearized (North Asia, South Asia, and the Middle East); and transformation of defence alliances into mutual security arrangements.^{xii}

Reassurance

In calling for deliberate efforts toward a world without nuclear weapons, President Obama has always insisted that as long as nuclear weapons remain, the United States will maintain a credible deterrent.^{xiii} And it is true that as long as nuclear weapons remain deployed they will have a basic deterrent effect against other nuclear weapons.

But if other states feel genuinely intimidated by US nuclear arsenals and, notably, US conventional dominance, they will, as John Steinbruner reminds us, have “a strong incentive to pursue asymmetrical deterrent strategies.” It is in the US interest, therefore, to “reassure the [militarily] disadvantaged to prevent these asymmetrical deterrent strategies.” Thus he calls for arms control and security strategies to be focused on developing force structures and cooperation and confidence building measures that are designed not to enhance deterrence but to reassure adversaries. In nuclear arms control, Steinbruner said over a decade ago, the focus should shift toward operational security and “formal agreements ... designed to maximize reassurance by establishing high standards of operational safety” – operational safety objectives being “to prevent accidental, unauthorized, or inadvertent use of the deployed weapons more reliably.”

Reassurance policies thus emphasize policies such as de-alerting, no-first-use, and sole purpose doctrines, but the main point is to avoid provocative behaviour and thereby to reduce demand. Steinbruner again: “it is not only the imposing nuclear deterrent of the United States that creates a need for reassurance, but its increasingly intrusive and inherently more usable capacity for precise conventional attack as well.”

Significantly, reassurance does not only have relevance for big power relations. A much broader range of states is obviously intimidated by US conventional capacity, and as Steinbruner says, “the stark imbalance in capacity that has developed today will assuredly not be accepted as equitable, and the implications of inequity are likely to be relentless.”

Reassurance and cooperation are obviously not possible, or even logical, if the main purpose of military force is to prepare for war, but if, as Gorbachev’s “new thinking” had it (more on that later), the role of nuclear arsenals and military forces more broadly is to prevent war, then all of these reassurance measures are eminently sensible.^{xiv}

Reshaping Big Power Relations

Because we live in a rather imperfect and threatening world, and because nuclear disarmament cannot be delayed until peace prevails, the pursuit of a world without nuclear weapons must also include the pursuit of a more effective system of collective security. That is nothing new, and as Brad Roberts puts it, for upwards of a Century the international community has been trying to build an effective collective security system and the record of success to date is not entirely encouraging.^{xv}

A system of competing national defence strategies in which security is defended behind borders is no longer possible – security must now, more than ever, be mutual and collective. The Cold War ended when the Soviets and the Europeans both recognized that for them to enhance their own security, each side would have to begin demonstrating genuine regard for the security of their adversary. As a result, the threat environment was radically altered and the state of constant high-level east-west tension could be eased through the recognition of mutual security interests, through nuclear and conventional arms reduction, and notably through military strategies for preventing rather than winning wars.

A breakthrough was Mikhail Gorbachev's "new thinking" on security for the Soviet Union, and was in turn influenced by the European, West and East, academic peace research and international relations community. After Gorbachev the "new thinking" policies ran afoul of internal Russian dynamics and of NATO's policies on expansion and on intervention in Serbia. But the three core elements of "new thinking" continue to have relevance for big power relations and the search for a stable security framework beyond the balance of terror or MAD. As reviewed by Celeste Wallander in *Washington Quarterly*, the three core propositions of "new thinking" were:

- A rejection of the view that capitalist and socialist states were fundamentally incompatible with the existence of one being a fundamental threat to the security and well-being of the other;
- A rejection of the idea that military parity was necessary for security. Instead they emphasized "reasonable sufficiency" and "defensive defense," arguing that Soviet defence did not require the level of military forces with which it was then burdened; and
- Rejection of the idea that the purpose of Soviet military power was to defeat its enemies, concluding instead that "the purpose of military policy must be to prevent conflict and war, rather than to prosecute it."^{xvi}

Relations between the major powers have of course undergone further change. Building mutual trust is a slow process and as arsenals get closer to zero mutual wariness could grow as each worries about the other's temptation to suddenly reverse course and try to gain (short-lived) strategic advantage. US Defense Secretary Robert Gates' recent visit to Russia, for example, was designed to ease Russian concerns about European missile defence systems, and Gates went further to speculate constructively on the development of a strategic relationship that would come to be similar to the US relationship with allies like the UK, France, and Germany^{xvii} -- a relationship in which war between the two would truly be unthinkable. Even so, in a speech to mid-level officers at the Kuznetsov Naval Academy, Gates spoke of economic impediments to military modernization as a "common enemy" that both Russia and the US now face.^{xviii}

The Russian scholar and diplomat, Alexei Arbatov, has just come out with Carnegie Paper offering a much more pessimistic view of continuing arms control cooperation and US-Russia relations generally: "At best, the two sides will have to resolve a number of hard military problems before proceeding with the next phase of New START: cooperation on ballistic missile development, dealing with conventional strategic weapons, tactical nuclear arms ([along with] conventional arms control in Europe), and third nuclear weapon and threshold states, among other issues."^{xix}

The US-China relationship also needs to finally move into a phase of cooperation that can build confidence that any disputes between them, such as Taiwan, will be settled diplomatically and not lead to military threats or actions. Both Russia and China will require persuasive assurances from the United States that it will not act unilaterally on the international stage, but it is hard to see Russia and China being persuasively assured as long as the United States maintains a commitment to overwhelming conventional military superiority.

Russia and China are also apt to look at each other with growing wariness as nuclear numbers decline and their relative conventional military advantages and disadvantages come more into focus. Relations between Japan and China, India and China, Pakistan and India all need to undergo important changes in order to facilitate not only nuclear disarmament but also a more stable international order.

Harald Muller has proposed the development of a “Great Power Concert” through which the major powers would pledge to ongoing consultation and cooperation, forego the resort to unilateral force, and respond collectively to crisis events. Competitive big-power relationships, which necessarily involve the ongoing risk of war, should be “replaced by one of joint stewardship for world security, in which war between great powers is considered unthinkable.”^{xx}

Mutual Security and Non-Offensive Defence (NOD)

The central point of non-offensive or mutual defence is for States to seriously consider the security needs of their adversaries because they understand their own security will be enhanced if their adversary feels more secure. Hence, says Bjorn Moller in his study of non-offensive defence,^{xxi} “states should take into serious consideration the security concerns of their opponents, because neither side can be really secure unless both are (and perceive themselves to be so). To opt for a military posture that would deliberately eschew posing threats to opponents is the only logical answer to this requirement, since this would enhance the opponent’s security and, by doing so, improve that of the first party as well.” (p. 41) Besides generally building stability into the international system, NOD force structures have particular relevance for promoting stability in crisis situations. By avoiding offensive capabilities, incentives for pre-emption are obviously reduced.

It is a posture that recognizes that because war has become so unremittingly horrible, the purpose of military forces, as Bernard Brodie said in 1946, must be to avert wars rather than to win them. A military establishment, says Moller, “can have no other useful purpose” (Moller, p, 105).

There are really three possible approaches to war prevention in the context of a world without nuclear weapons:

1. Deter war through the threat of a counter-offensive. This requires a major threatening force which is then perceived by an opponent as the threat of pre-emptive aggression and thus calls for a reciprocal counter-offensive strategy, leading to major, costly, and destabilizing conventional arms races – creating a much more dangerous world (albeit with the danger of nuclear annihilation removed, but with pressures to pursue a nuclear trump card still very much in play). Amongst advanced military states this kind of deterrence is already in play and effective.
2. A second form of conventional military deterrence can be pursued through non-offensive defence. Here the strategy is not the threat of counter-attack but the demonstration of “deterrence by denial” – a demonstration to an adversary that it would not be able to achieve its war aims within acceptable costs and sacrifice.

3. The third war prevention strategy sees NOD in terms of mutual security arrangements in which mutual conventional arms limitation or control arrangements put both sides on a clearly defensive posture, all with a demonstrated lack of capacity for aggression.

As Moller says, “compared with nuclear deterrence, this NOD grand strategy is a relatively low-risk strategy. Whereas a breakdown of nuclear deterrence would have utterly disastrous consequences, even a lost conventional war would not constitute a complete and unmitigated disaster, since defeat would never be entirely irreversible, and because damage would be less than total.” (p. 119)

Risk must also take likelihood into account. In other words, the failure of nuclear deterrence would be an unmitigated disaster – but it is arguably highly unlikely. The failure of conventional deterrence is a more contained disaster

New Approaches to Conflict Management

Perhaps the most daunting challenge is to find the means to manage regional conflict in a zero nuclear weapons environment. It is no accident that nuclear weapons are most deeply entrenched in national security calculations, and that nuclear proliferation pressures are most intense in the world’s most conflict ridden regions. The chances are we won’t settle these conflicts during this conference, but we can certainly reaffirm that attending to those challenges is central, not peripheral, to the pursuit of a world without nuclear weapons.

South Asia: No one anticipates the removal of nuclear weapons from South Asia without there being a convincing end to dispute over Kashmir and without Pakistan becoming persuaded that it can enjoy a long-term stable relationship with a conventionally and numerically superior India without a nuclear deterrent.

Middle East: The commitment made at the 2010 NPT Review Conference is one of the most significant recent developments for the pursuit of a world without nuclear weapons. And it will turn out to be one of the biggest impediments to broader disarmament progress if that commitment is once again ignored. The US political climate for nuclear disarmament will turn very sour very quickly if the international community once again proves to be impotent in the face of the challenges of Israel’s undeclared weapons and Iran’s cloudy nuclear programs. Ultimately, Israel will have to come to the recognition that its security will be enhanced by the removal of nuclear weapons from the regional equation, a development that also requires that all states in the region insist that Iran and Syria submit fully to international inspection and disclosure requirements.

North Asia: This is perhaps the least daunting regional security challenge inasmuch as the DPRK is the least capable of pariah states. The denuclearization of the Korean peninsula is not only essential but seems feasible. That in turn will quieten Japan’s nuclear anxieties, but it will even then still need be in need of a new relationship with

China in which the latter's rise on the international stage can come to be understood as non-threatening to Japanese security.

Conclusion

The pursuit of a world without nuclear weapons carries with it a requirement to reshape global security relationships – it's a tall order to be sure, but it is also an opportunity to make a virtue out of necessity through the pursuit of a less militarized world.

Notes

- ⁱ Thank you to Robin Collins and Bev DeLong for providing many ideas and references to consider.
- ⁱⁱ George P. Shultz, William J. Perry, Henry A. Kissinger and Sam Nunn, “Deterrence in the Age of Nuclear Proliferation: The doctrine of mutual assured destruction is obsolete in the post-Cold War era..,” the Wall Street Journal, 7 March 2011.
<http://online.wsj.com/article/SB10001424052748703300904576178760530169414.html>.
- ⁱⁱⁱ James Doyle makes the compelling point that the Perkovich/Acton paper on nuclear abolition does “not give enough emphasis to the transformed nature of the security environment and the implications of that transformation for traditional nuclear strategies.” James E. Doyle, “Eyes on the Prize: A Strategy for Enhancing Global Security,” in George Perkovich and James M. Acton, editors. *Abolishing Nuclear Weapons: A Debate*, Carnegie Endowment for International Peace, 2009, 337 pp.
http://www.carnegieendowment.org/files/abolishing_nuclear_weapons_debate.pdf.
- ^{iv} In fact, in the current security environment, as pointed out by Mohamed ElBaradei some time ago, the only actors on the international stage that could “rationally” use (that is, actually detonate) a nuclear weapon to their perceived advantage would be a non-state extremist group. Mohamed ElBaradei, “In Search of Security: Finding an Alternative to Nuclear Deterrence,” 4 November 2004, Speech to the Stanford University Center for International Security and Cooperation.
<http://www.iaea.org/newscenter/statements/2004/ebsp2004n012.html>.
- ^v <http://www.ploughshares.ca/abolish/index.html>
- ^{vi} Henry Kissinger, Speech to the 45th Munich Security Conference, delivered 6 February 2009.
<http://www.americanrhetoric.com/speeches/henrykissinger45thmunichsecurityconference.htm>.
- ^{vii} June 25, 2010 Letter to Prime Minister Harper.
<http://www.ploughshares.ca/libraries/Statements/CCC%20Church%20Leaders%20Letter%2025%20June%202010%20to%20PM%20English.pdf>.
- ^{viii} President Barak Obama, in Prague in April of 2009, made this a solidly mainstream view: “One nuclear weapon exploded in one city -- be it New York or Moscow, Islamabad or Mumbai, Tokyo or Tel Aviv, Paris or Prague -- could kill hundreds of thousands of people. And no matter where it happens, there is no end to what the consequences might be -- for our global safety, our security, our society, our economy, to our ultimate survival.” Then he spoke of the “fatalism” of continued reliance on nuclear deterrence as “a deadly adversary,” for “if we believe that the spread of nuclear weapons is inevitable, then in some way we are admitting to ourselves that the use of nuclear weapons is inevitable.” Obama Prague Speech, 05 April 2009. <http://www.whitehouse.gov/the-press-office/remarks-president-barack-obama-prague-delivered>.
- ^{ix} *Nuclear Posture Review Report*, US Department of Defense, April 2010.
<http://www.defense.gov/npr/docs/2010%20nuclear%20posture%20review%20report.pdf>.
- ^x Amy F. Woolf, *Conventional Prompt Global Strike and Long-Range Ballistic Missiles: Background and Issues*, Congressional Research Service, 1 March 2011.
<http://www.fas.org/sgp/crs/nuke/R41464.pdf>.
- ^{xi} George Perkovich and James M. Acton, editors. *Abolishing Nuclear Weapons: A Debate*, Carnegie Endowment for International Peace, 2009, 337 pp.
http://www.carnegieendowment.org/files/abolishing_nuclear_weapons_debate.pdf.
- ^{xii} ElBaradei argues that mutual security arrangements requires renewed efforts to build what he calls “a functional system for collective security,” which in turn calls for changes to the Security Council’s membership, for more active preventive diplomacy, and more effective enforcement. Mohamed ElBaradei, “In Search of Security: Finding an Alternative to Nuclear Deterrence,” 4 November 2004,

Speech to the Stanford University Center for International Security and Cooperation.
<http://www.iaea.org/newscenter/statements/2004/ebasp2004n012.html>.

^{xiii} In his 2009 Prague speech he said: “Make no mistake: As long as these weapons exist, the United States will maintain a safe, secure and effective arsenal to deter any adversary, and guarantee that defense to our allies.” Obama Prague Speech, 05 April 2009. <http://www.whitehouse.gov/the-press-office/remarks-president-barack-obama-prague-delivered>.

^{xiv} John Steinbruner, “Renovating Arms Control through Reassurance,” *The Washington Quarterly*, Spring 2000, 23:2, pp. 197–206. Available at: <http://www.twq.com/spring00/232steinbruner.pdf>.

^{xv} Brad Roberts, “On order, Stability, and Nuclear Abolition,” in George Perkovich and James M. Acton, editors. *Abolishing Nuclear Weapons: A Debate*, Carnegie Endowment for International Peace, 2009, 337 pp. http://www.carnegieendowment.org/files/abolishing_nuclear_weapons_debate.pdf.

^{xvi} Celeste A. Wallander, “Lost and Found: Gorbachev’s ‘New Thinking’,” *The Washington Quarterly*, Winter 2002, 25:1 pp. 117–129. Available at: <http://www.twq.com/02winter/wallander.pdf>.

^{xvii} “Gates Reflects on US-Russian Cooperative Relations,” *America.gov*, 23 March 2011.
<http://www.america.gov/st/peacesec-english/2011/March/20110323142150elremo.1896479.html?CP.rss=true>.

^{xviii} “Gates hopes to expand US-Russian cooperation,” 21 March 2011, *America-Russia.Net*.
<http://www.hurriyetdailynews.com/n.php?n=gates-hopes-to-expand-us-russian-cooperation-2011-03-21>.

^{xix} Alexei Arbatov, *Gambit or End Game? The New State of Arms Control*, The Carnegie Papers, March 2011. http://carnegieendowment.org/files/gambit_endgame.pdf.

^{xx} Harald Muller, “The Importance of Framework Conditions,” in George Perkovich and James M. Acton, editors. *Abolishing Nuclear Weapons: A Debate*, Carnegie Endowment for International Peace, 2009, 337 pp. http://www.carnegieendowment.org/files/abolishing_nuclear_weapons_debate.pdf.

^{xxi} Bjorn Moller, *Common Security and Nonoffensive Defense: A Neorealist Perspective*, Lynne Rienner Publishers, 1992, 285 pp.