HOW TO MINIMISE THE PROLIFERATION IMPACT OF NUCLEAR DETERRENCE

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THE IMPACT OF NWS POLICIES

In his April 2009 speech in Prague, President Obama declared that the United States will "seek the peace and security of a world without nuclear weapons". At the same time, he pledged that "as long as nuclear weapons exist, a safe, secure and effective arsenal will be maintained to deter potential adversaries".[1]

If deterrence is the unavoidable twin of nuclear weapons, is its impact on nuclear proliferation unavoidable? From time to time, it has been argued that acquisition of nuclear weapons by more states is a regional matter, driven by regional conflicts and security concerns. This claim absolves the Nuclear Weapon States (NWS) of responsibility for nuclear proliferation, so another question has to be answered first: is there a connection between the

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1. Obama's April 2010 Nuclear Posture Review (NPR) says "The fundamental role of US nuclear weapons, which will continue as long as nuclear weapons exist, is to deter nuclear attack on the United States, its allies and partners". The NPR does not go as far as no first use, but commits the Administration to "work to establish conditions under which such a policy (of no first use) could be safely adopted", Department of Defence, April 6, 2010.

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nuclear postures of the NWS and the propensity of others to acquire nuclear weapons?

There are two broad kinds of answers to this question. First, the nuclear Non-Proliferation Treaty (NPT) is based on the assumption that there is a substantial connection between them. A credible movement in the direction of nuclear disarmament would facilitate the management of the non-proliferation regime. The modalities of that influence have been thoroughly analysed elsewhere[2] and will not be replicated here.

Second, the big power policies also affect the nuclear decision-making of Non-Nuclear Weapon States (NNWS) in a variety of other ways. They shape the *security environment* of potential proliferators. Recently, the main antagonists of the Cold War have geared their military policies less to each other and more to regional settings, notably to the Middle East, Central Asia and East Asia. This century, all P-5, except China changed their doctrines to enhance the utility of nuclear weapons in regional contexts. First of all, the focus has been on the Middle East, where Israel had acquired nuclear weapons by the end of the 1960s in response to Arab threats. There, the nuclear proliferation issue has been embedded in the regional conflict dynamics ever since, and it has become increasingly intertwined with big power politics. Also, in other parts of Asia, there is an international as well as a regional dimension to the proliferation problem. The NWS have it in their power to twist the proliferation problems for better or worse.

The same powers also influence the *political environment* of potential proliferators by projecting the status value that they attach to nuclear weapons. They have done so by maintaining and modernising big nuclear arsenals and by underlining the importance of nuclear weapons in their doctrines and statements. Some of them have been outspoken about the pride they take in their nuclear weapon achievements. This century,

2. Steven E. Miller "Proliferation, Disarmament and the Future of the Non-Proliferation Treaty", in Morten Maerli and Sverre Lodgaard, eds., *Nuclear Proliferation and International Security*. (Abingdon and New York: Routledge, 2007).

their policies endangered the entire non-proliferation regime. The US, in particular, weakened the non-proliferation norm by buying selectively into the provisions of the NPT. The Obama Administration changed that in support of the NPT and its disarmament dimension, and to the extent that it succeeds, it projects a diminishing belief in the political value of nuclear arms.

Whatever happens to the call for a Nuclear Weapon-Free World (NWFW), the thesis that proliferation is driven by regional conflicts and has little or nothing to do with the nuclear policies of the big powers is wrong. It was wrong in the past, and the focus on regional politics has made it even more so in recent years. To claim, as NWS sometimes do, that all of this "is inconsequential in the difficult and agonising deliberations of a government to go nuclear is far removed from political realism".[3]

The question to be discussed in the following emanates from this assertion. It centres on the doctrinal dimension of nuclear postures and relates to the second part of the Obama quote: *will maintenance of nuclear deterrence all through the disarmament process detract from the non-proliferation impact of nuclear build-down and, if so, how can that effect be minimised*?

DETERRENCE

The nuclear doctrines have always centred on deterrence. They have come in many different forms. One of them is deterrence by Mutually Assured Destruction (MAD). During the Cold War, all the NWS adopted this logic although operationally, they gave very different meanings to it. The United States and the Soviet Union built enormous forces to guarantee unacceptable destruction; China, France, and the United Kingdom introduced notions of sufficiency and minimal deterrence.

Deterrence of strong conventional forces is another function. For the United States, this goes back to the Soviet blockade of West Berlin in 1948 and what it might take to defend the city. In the face of superior Soviet

3. Harald Muller, 'The Future of Nuclear Weapons in an Interdependent World', *The Washington Quarterly*, vol. 31, no. 2, 2008.

Russia discarded the Soviet declaration of no-first-use of 1982 and adopted the Western first-use policy.

conventional forces, use or threats of use of nuclear weapons were deemed necessary to maintain access to the city and to defend it. First use became a crucial part of the North Atlantic Treaty Organisation (NATO) strategy from the inception of the alliance, and led to the deployment of thousands of tactical nuclear weapons in Europe.

This function also outlived the Cold War, but now the tables were turned: it was Russia's turn to be conventionally inferior and to raise the role of nuclear weapons to compensate for weakness. Russia discarded the Soviet declaration of no-first-use of 1982 and adopted the Western first-use policy.[4] For Israel, deterrence of Arab conventional forces has always been the essence of its nuclear policy, along with a determination to maintain nuclear monopoly in the Middle East. Later, the role of Pakistan's nuclear weapons also came to centre on first-use, deterring India from making deep intrusions into its territory.

A third function was that of nuclear war-fighting, contemplating nuclear exchanges between the USA and the USSR, involving thousands of nuclear weapons back and forth, as if nuclear war could be similar to conventional war and be lost or won. Even without actual war, the theoretical possibility of victory was thought to translate into political advantage: this was one of the perceived lessons of the Cuban missile crisis. Even in the absence of any expectation of waging large-scale nuclear war, both powers, therefore, went for demonstrated capabilities to win or at least deny victory to the other party. These plans, which could justify whatever number of weapons – about 10,000 deployed strategic nuclear weapons on each side during the height of the Cold War – were among the worst excesses of the Cold War.

4. The Soviet declaratory policy of NFU had little credibility anyhow, as long as large numbers of tactical nuclear weapons were deployed along the dividing line in Europe. Oleg Grinevsky cites the former head of the Soviet General Staff, Marshall Nikolay Ogarkov, "We are not about to wait when we are attacked. We ourselves will attack if we are forced to and when we find initial indications of a NATO nuclear assault… We have the right to consider it as a response even without being under actual missile attack." Oleg Grinevsky, *The Turning Point: From Brezhnev to Gorbachev* (Moscow: Olma-Press, 2004).

A fourth function was that of extended deterrence. The United States maintains extended deterrence postures in cooperation with its allies in Europe and East Asia. The end of the Cold War changed the weapons configurations in these regions[5], but not the essence of the doctrines. The United States keeps the option of being first to use nuclear weapons in response to an attack on its allies, be it an attack by conventional or by unconventional means.

The credibility of this doctrine was always in doubt. At one point, Henry Kissinger warned the European allies not to repeat requests for assurances that the United States could not possibly mean.[6] President Obama's disarmament initiatives triggered renewed debate about extended deterrence at official levels in both Japan and Europe, some leading politicians holding that the role of nuclear weapons should be limited to deterring their use by others. The alliances were not at stake, nor nuclear deterrence: the issue was deterrence of what. Another round of discussion about no-first-use ensued, the third round since 1980.

Finally, there is the notion of existential deterrence. Karl Marx wrote that the most effective power is the structural one which functions without being used. Nuclear weapons function this way. Military strength is an important determinant of the international hierarchy of states, and nuclear weapons are the ultimate expression of strength. States are sensitive to the international hierarchy: consciously or subconsciously, they shape their policies and actions with a view to the power that others can wield, accommodating to those who are high in the hierarchy. Nuclear weapons are unique in their destructive capacity, instilling a sense of awe in the minds of opponents and fostering caution and respect in the minds of

5. In Asia, nuclear weapons were withdrawn from Japan and South Korea. About 100 nuclear warheads for Tomahawk sea-launched cruise missiles were retained for deployment in case of emergency. In Europe, successive reductions brought the number of US nuclear weapons down to the low hundreds. Obama's NPR called for elimination of the nuclear-tipped Tomahawks assigned to East Asia.
6. 5. "European allies should not keep asking us to multiply assurances that we cannot possibly mean, or that if we do mean, we should not want to execute because if we execute, we risk the destruction of civilization. Our strategic dilemma isn't solved with reassurances". Henry Kissinger, "The Future of NATO" in K. Myers, ed., *NATO: The Next Thirty Years* (Boulder, CO: Westview Press, 1980).

Credible NFU doctrines give one function to nuclear weapons and one only: deterring others from using theirs. It follows that nobody would need them if nobody had them.

others. Their structural impact comes down to what McGeorge Bundy called existential deterrence:[7] stripped of sophisticated doctrines and war plans, nuclear weapons influence others by their sheer existence. They function without being used, just by being there.

In a sense, Obama's statement in Prague – repeated in the April 2010 Nuclear Posture Review (NPR) – was to say the obvious. As long as the weapons exist, there has to be a stated justification for them; that justification has always been put in security terms; and the postulated security gains have been phrased in the language of deterrence. Governments are loath to talk about status motives even if in some cases, getting "a seat at the table" seems to have been the main objective. Reservations made for the path dependence of nuclear disarmament, deterrence will remain the name of the game throughout the process.[8]

NO FIRST USE: A MILESTONE

The next question is, therefore, deterrence in what form? The NPR says that the US will work to establish the conditions for a transition to No First Use (NFU) doctrines. NFU – sometimes referred to as core deterrence – is an important milestone. Credible NFU doctrines give one function to nuclear weapons and one only: deterring others from using theirs. It follows that nobody would need them if nobody had them.

Under credible doctrines of NFU, premeditated use of nuclear weapons is ruled out. Per implication, threats of use are ruled out as well. Apart from whatever status gain continued possession may be seen to yield, their value becomes negative, for there would still be a risk of nuclear war by human or technical error and that risk is first of all a risk for their possessors. If deterrence fails, they will themselves be the targets and prime victims of devastation.

7. McGeorge Bundy, *Danger and Survival*. (New York: Vintage Books, 1988).
8. While taking the lead on disarmament matters, Obama reassured his critics that the US deterrent would be second to none.

Therefore, if the NWS adopt NFU postures, the doctrinal part of their postures would no longer incite others to acquire nuclear arms.[9] NFU does not stimulate proliferation by example, for it leaves nothing attractive to emulate. Furthermore, when the weapons become a liability, it adds realism to the disarmament corollary noted above – that nobody would need them if nobody had them. However, while use of nuclear weapons is inhibited by tradition or taboo (see below) and ruled out by doctrines of NFU except in retaliation, possession may still confer status on their owners. There is an intriguing relationship between the software and hardware components of nuclear postures, which William Walker has characterised as "shame in use, glory in possession".[10]

An NFU agreement could include a provision branding first use of nuclear weapons a crime against humanity. If NFU takes hold by unilateral action, as is more likely, the Security Council could be invited to issue such a declaration. That would send a message to recalcitrant NWS that are not permanent members of the Council, urging them to forego first use on moral grounds. A non-use agreement, on the model of the Geneva Protocol of 1925, would convey the same message: the effects of nuclear weapons are such that no civilised state or sane leader should or would use them. As with the Geneva Protocol, it would in practice be an NFU agreement. So why not phrase this doctrinal milestone as a prohibition of nuclear weapons use?

Prohibition of use is a taller order than NFU. Literally understood, it undercuts deterrence even if indirectly it amounts to the same. Seemingly questioning the right to respond in kind, it puts another hurdle on top of what is required for NFU, making the decoupling of NWS policies from the nuclear considerations of NNWS unnecessarily difficult. Those who favour non-use over NFU usually do so because they *want* to question retaliatory use, and public opinion mobilisation is easier on the basis of non-use than in

9. Except for whatever status value that might be accorded to nuclear weapons. Under conditions of NFU, that value would be much reduced if not entirely eliminated. The status aspect is beyond the scope of this paper, however.
10. William Walker, "The Absence of a Taboo on the Possession of Nuclear Weapons", *Review of International Studies*, no 4, October 2010.

reference to the not so simple logic of NFU. Also, for that reason, it would be harder to accept for the NWS.

Existential deterrence – the notion that the sheer existence of nuclear weapons is enough to deter others, no doctrine or explanation being needed – reflects the same basic thinking, but does not explicitly exclude threats or use against NNWS. To insulate the continued existence of nuclear weapons from the security considerations of NNWS, NFU doctrines are, therefore, better.

For NFU to be credible, the script must be confirmed by matching deployments. In Europe under the Cold War that meant, for instance, withdrawal of tactical nuclear weapons from the frontlines in order not to be tempted to use them before they might be overrun and lost. Today, this is less of a problem. The Presidential Initiatives of 1991/1992 did away with many of them, and others were withdrawn to rear locations. However, these weapons remain numerous, especially in Russia, and so far they have not been included in any disarmament agreement.

NFU means low numbers of weapons in rear positions, but long-range systems can be used with very high accuracy over a range of distances and can be retargeted on short notice, so their use cannot be made unambiguous only in reference to geography and technology. Substantial reductions of force levels would alleviate the problem, but not eliminate it. The credibility of NFU doctrines would have to be judged on the basis of the totality of nuclear-related hardware and software and that, in turn, presupposes a high degree of military transparency. The conclusions will hardly be clear-cut. In practice, there may be shades of grey.

APPROACHES TO NO FIRST USE

To eliminate the proliferation impact of current nuclear postures, a transition to NFU is, therefore, of the essence. It is a tall order: the US NPR identifies the objective, yet NATO's new strategic concept does not even copy the negative security assurances that the NPR extends to NNWS. What is divisive for NATO is even more difficult for Russia, Pakistan and Israel.

As is so often the case with major undertakings, no single approach will do the trick. A combination of efforts along many different lines – addressing

the historical utility, legality, legitimacy and political order functions of nuclear weapons – is required. This is not the place to discuss them at length, only to draw attention to what they offer.

So far, there is no international legal instrument prohibiting the use of nuclear weapons, yet there is the strong impression that by using them one would lose the high moral ground.

History

Nuclear history may be read as a political struggle over the utility of nuclear weapons, and over the viability of nuclear deterrence in particular. On the one hand, there is a creeping norm of non-use that tends to undermine deterrence. Nina Tannenwald argues that this norm is more than a prudential tradition: it has become a taboo. Traditions are not so strong that people accept them blindly. Taboos, on the other hand, imply an unthinking adherence to the norm.[11] The taboo is a moral conviction: so far, there is no international legal instrument prohibiting the use of nuclear weapons, yet there is the strong impression that by using them one would lose the high moral ground. Civilised nations and sane leaders do not use them first.

Tannenwald argues that policy-makers have come to believe that first use is forbidden. She shows that some US Presidents – Eisenhower and Nixon – felt constrained by domestic and world opinion and that others – Truman, Kennedy and high officials in the George H.W. Bush Administration – came to the conclusion that nuclear weapons were fundamentally unusable. On the other hand, vested interests and believers in the utility of nuclear arms have made recurrent efforts to stem and undermine the norm. New weapons have been developed that would be more thinkable to use, and that would, therefore, more likely be used,[12] and ships and other nuclear weapon platforms have been sent to hot spots around the world in shows of force, instilling respect and awe. These options were curtailed by the

11. "A taboo is also generally associated with such qualities as absoluteness, unthinkingness, and taken-for-grantedness". Nina Tannenwald, *The Nuclear Taboo: The United States and the Non-Use of Nuclear Weapons Since 1945* (UK: Cambridge University Press, 2007), p.11.

12 A well known example being enhanced radiation or neutron weapons.

moratoria on nuclear weapon tests, which made it hard to introduce new types of weapons, and by the US-Soviet/Russian presidential initiatives, which removed tactical nuclear weapons from surface vessels and other platforms. In the beginning of this century, nuclear weapon proponents raised the relevance of nuclear arms once more by adopting doctrines that envisage a much wider range of situations in which nuclear weapons might have a role. Obama took a step back again by extending unconditional negative security assurances to NNWS in good standing under the NPT, reservations made for developments in the biological weapons sector.

Under current doctrines, it remains the legitimate role of the military to make plans for the use of nuclear weapons beyond retaliatory use.[13] Furthermore, the US and others still consider it legitimate to threaten to use nuclear weapons first. Throughout the nuclear age, the United States has issued nuclear threats in some shape or form more than 20 times, apparently in the belief that they might function as intended.[14] To the extent that the taboo exists, it applies to use in war and not to threats of use. All the time, moreover, the importance of nuclear weapons is emphasised in speeches made by state leaders and other high officials. The norm of non-use is, therefore, less than a taboo. Under the impact of Obama's disarmament drive and NPR, it has been strengthened, but the continuation is open to doubt. From a non-proliferation point of view, the problem with all of this is that it keeps telling others how important nuclear weapons are. In upholding the utility of nuclear weapons for themselves, the NWS are teaching others the same lesson.

However, the postulated utility of nuclear weapons has probably been much inflated. Naturally, the NWS have done their best to maximise the military and political returns on their investments. Fortunately, some of the most glaring exaggerations have receded. The nuclear war-fighting doctrines that were among the most bizarre products of the Cold War have been toned down, if not totally laid to rest. The credibility of the US' extended deterrence doctrines is questioned more than ever before.

13 Even China may be doing so, its NFU policy notwithstanding, for that policy is believed not to apply to territories that it considers as its own (Aksai Chin and part of Arunachal Pradesh).

14 Daniel Ellsberg, "Roots of the Upcoming Nuclear Crisis" in D. Krieger, ed., *The Challenge of Abolishing Nuclear Weapons* (New Brunswick and New Jersey: Transaction Publishers, 2009).

It has been customary to ascribe the Japanese surrender in 1945 to the bombing of Hiroshima and Nagasaki: it turns out that the Soviet declaration of war on Japan and its sweeping offensive in Manchuria were more important.[15] Shows of force and threats of nuclear weapon use may or may not have worked: in most cases, the effects can neither be proved nor disproved. Realistic reviews of nuclear history in these respects, deleting the propagandistic arguments to uphold deterrence and justify investments in huge arsenals, can do much to reduce the attractiveness of nuclear weapons and nuclear deterrence and so contribute to non-proliferation.

Saddam Hussein and his government believed the United States was prepared to use nuclear weapons if Iraq used chemical weapons against coalition forces or against Israel.

The nuclear threat that was levelled at Iraq in connection with the first Gulf War illustrates the complexities and ambiguities of nuclear weapon threats. In delivering a warning letter to Iraqi Foreign Minister Tariq Aziz, Secretary of State James Baker said, "I purposely left the impression that the use of chemical or biological agents against Israel could invite tactical nuclear retaliation."[16] President Bush says in his memoirs that he had "privately decided" not to do so: in his own mind, the threat was, therefore, a bluff.[17] However, William Arkin's interviews with Iraqi officials left him in no doubt that Saddam Hussein and his government believed the United States was prepared to use nuclear weapons if Iraq used chemical weapons against coalition forces or against Israel.[18]

Another reading points in a different direction. Baker's letter also warned Aziz that if Iraq used chemical or biological weapons, supported terrorist attacks, and burnt Kuwaiti oil fields, the US objective "won't just be

15 Berry, Lewis, Pélopidas, Sokov and Wilson, *Delegitimizing Nuclear Weapons. Examining the Validity of Nuclear Deterrence* (James Martin Centre for Nonproliferation Studies, 2010).

16. James Baker, *The Politics of Diplomacy* (New York: Putnam, 1995).

17. G.H.W. Bush, *All the Best, George Bush: My life in Letters and Other Writings*. (New York: Scribner, 1999).

18. William Arkin, "Calculated Ambiguity: Nuclear Weapons and the Gulf War," *The Washington Quarterly*, Issue 4, 1996.

the liberation of Kuwait, but elimination of the current Iraqi regime."[19] Two of these three actions were actually taken by the Iraqis during the last days of the war, which perhaps implies that they were not deterred from using chemical weapons either. So why did the Iraqi leaders say that the nuclear threat deterred them from using chemical and biological weapons? Joseph Fitchett cites an unnamed Arab diplomat: "The regime had to explain to its military commanders why it was pulling back from the brink, so it looked a lot better to say that it was sparing the Iraqi people from nuclear holocaust than to admit that the leaders were worried about their own skins".[20]

However, Baker believes the calculated ambiguity about the response was part of the reason why Iraq did not use its chemical and biological weapons. To him and others, the utility of nuclear threats, therefore, appeared to be confirmed. Whether that interpretation was correct or not, whatever chance there might have been for the United States to adopt a policy of no first use shortly after the dissolution of the Warsaw Pact and the Soviet Union, it effectively disappeared with this experience. It took the US twenty years to bring it to the fore again.

Legality/Illegality of Nuclear Weapon Use

The NNWS are more vulnerable to use and threats of use of nuclear weapons than the NWS. Where mutually assured destruction applies, resort to nuclear weapons is an ordained act of suicide, while in relation to the NNWS, the aggressor may get away with it. Non-aligned states have, therefore, called for an international convention committing the NWS not to use or threaten to use nuclear weapons against NNWS parties to the NPT, no qualifications added. While Obama's NPR may lead to a new Security Council (SC) resolution containing stronger security assurances than does Resolution 984,[21] it takes more to meet the non-aligned demand for an international convention.

NFU doctrines meet the same concerns. In addition, they are more relevant in deep cuts and elimination scenarios because of their in-

19. Baker, n.16.
20. Joseph Fitchett, "Threat of Annihilation Deterred Iraq, They Say," *The New York Times*, 1995.
21. So far, however, the US assurances have not been emulated by anybody else.

built disarmament logic. Negative security assurances to the NNWS are primarily a part of the non-proliferation bargain: NFU would be a major contribution to both disarmament and non-proliferation.

The Geneva Protocol of 1925 prohibited the use of chemical and biological weapons. These weapons were considered inhumane. Later, possession of them was outlawed as well: biological weapons by the Biological Weapons Treaty (BWT) of 1972; chemical weapons by the Chemical Weapons Convention (CWC) of 1992. The CWC set a timeline for destruction of the arsenals, and agreement was reached on a comprehensive verification system. In the 1990s, a verification protocol was negotiated for the BWT as well, but the Bush Administration turned it down.

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Stressing that any use of nuclear weapons must be compatible with international humanitarian law, the International Court of Justice (ICJ)Advisory Opinion of 1996 came close to a non-use position also for these weapons. The effects of nuclear arms are such that it is hard to imagine circumstances in which they could be used without colliding with humanitarian law.[22] If the use is illegal, threats of use are illegal as well.[23] However, unlike illegal use, threats of use are not punishable under international law.[24] A protocol banning the use of nuclear weapons, on the model of the Geneva Protocol, would convey the same message: the effects of nuclear weapons are such that no civilised state should or would use them.

The ICJ Advisory Opinion ended on an understatement: use of nuclear

22. The court said, "In fact, (the use of nuclear weapons) seems scarcely reconcilable with respect for (the requirements (of) international law." "Scarcely" appears to be an understatement. Nevertheless, the court could not agree on the legality of use in situations where national survival is at stake (as in the case of Israel). It failed to rule out the use of nuclear weapons in such circumstances.
23. "The notions of 'threat' and 'use' of force under Article 2, paragraph 4, of the UN Charter stand together in the sense that if the use of force itself in a given case is illegal – for whatever reason – the threat to use force will likewise be illegal" (para. 47).
24. Ståle Eskeland, *Internasjonale forbrytelser*. (Oslo: Universitetsforlaget, 2011).

weapons is "scarcely" reconcilable with respect for the law. The court was unable to definitely conclude that nuclear weapons use would be unlawful in all circumstances, such as the use of small weapons against naval targets in desolate ocean areas. But can it ever be reconcilable in practice? Isn't that possibility of hypothetical interest only? In this respect, there may be scope for further consideration of nuclear weapons and international law.

What about first use when national survival is at stake? In 1996, the ICJ was evenly split. The permissibility of it was argued with the case of Israel in mind. Today, Pakistan could be added, and possibly Russia and even China. The Russian doctrine of 2010 allows for employment of nuclear arms when "the very existence (of Russia) is under threat" (Sokov 2010), and China's NFU policy may not apply if its own territory, or territories that it claims as its own (such as Taiwan and Arunchal Pradesh), are under threat. The fear in these huge state conglomerations is that dismemberment, even on a small scale, might be the beginning of national breakdown. If all of this is allowed under international law, does it not need an update? In all likelihood, such use would be contrary to international humanitarian law.

The best approach to NFU may be a gradual one in the form of unilateral commitments as soon as more NWS are ready for it. However, for the norm of NFU to become a taboo, it has to become a legal prohibition signed by all of them.

Legitimacy/Illegitimacy of Nuclear Weapon Use

Similar to the Advisory Opinion of the ICJ, which held that the threat or use of nuclear weapons would generally be contrary to the principles and rules of humanitarian law, public opinion is distinctly negative to the use of nuclear arms. A six-country poll from 2007 showed that in the Western NWS, 40-50 per cent thought that the use of these weapons would never be justified. In the US, 20 per cent said the threat of use would be justified as a deterrent of possible, attack while in the UK and France, 29 and 37 per cent were of that view. In Italy and Germany, 70 and 77 per cent respectively said that use of nuclear weapons by NATO

would never be justified. Only in Israel did those who consider that use might be justified outnumber those who said it would never be.[25]

The NWS elites take a more positive view of the utility of nuclear arms. Among the staunchest believers in the utility of nuclear weapons are the employees of the nuclear weapon establishments, whose jobs depend on the maintenance of significant nuclear weapon systems. More than others, they are the ones who have to be eclipsed on the way to an NFU and NWFW. Nuclear history shows that initiatives and pressures for restraint and disarmament have come from top leaders as well as public opinion, but quite often they have been undermined and neutralised by vested bureaucratic interests and inertia.

Similar to the legal attempts to outlaw nuclear weapons use, public opinion mobilisation against it is also based, first and foremost, on humanitarian considerations (along with proliferation costs, opportunity costs and rejection of the military and political utility of nuclear weapons). They derive from the same fundamental concerns and are, therefore, mutually reinforcing. Both communities – the legal and the humanitarian – can give an extra spin to the synergism by stressing the inhumane and indiscriminate effects of nuclear weapons.

The humanitarians have some recent successes to refer to, the landmines and cluster munitions conventions in particular. In the processes leading up to these agreements, they built coalitions; they were goal-oriented; and they went for majority decisions rather than consensus texts on more modest measures. Arms controllers are known for the latter. The Geneva Conference on Disarmament is consensus stricken.

The International Campaign to Abolish Nuclear Weapons (ICAN) builds on this experience and on the lessons from chemical and biological weapons disarmament. ICAN's main objective is to outlaw the use of nuclear weapons and promote an international convention for disarmament to zero.

There is much to speak for in that approach. However, the limitations should also be understood. Nuclear weapon issues are issues of high

25. Source: The Simons Foundation / Angus Reid Strategies. Methodology: Online interviews with 1,000 adults in Britain, France, Germany, Israel, Italy, and the United States, conducted from July 26 to August 8, 2007. Margin of error for each country is 3.1 per cent.

politics, i.e. they belong to the innermost sanctum of state interests. High politics – covering all matters that are vital to the survival of the state – has been present in all cultures and at all times, but the term was coined during the Cold War. The advent of the atomic bomb made it clear what it was ultimately all about. For the NWS, nuclear deterrence became the core element of survival, and for all its limitations and flaws, it so remains. When reviving the objective of an NWFW, Obama, therefore, put the world on notice that as long as nuclear weapons exist, the US will maintain a nuclear deterrent. The salience of landmines and cluster munitions is in a different category, way below that accorded to nuclear arms.

Landmines and cluster munitions have, moreover, been in the hands of many governments while nuclear weapons have been acquired by a few. Majority conventions eliminating anti-personnel weapons, therefore, made sense: the inventories of many states are now being destroyed and more states may accede later on. A nuclear weapons convention, on the other hand, does not have the same prospect as long as the NWS oppose it. If initial support for a convention is limited to the NNWS, no nuclear weapon would be dismantled as a consequence. The convention would follow the NPT distinction between haves and have-nots and, in essence, repeat the disarmament obligation of Article VI of the NPT.

The effects of nuclear weapons are also much different from those of chemical munitions, however, often they are lumped into the same category of Weapons of Mass Destruction (WMDs). On occasion, chemical agents have been used as weapons of terror, but they have not been effective means of war. Therefore, chemical weapons were never integrated into the military forces the way nuclear weapons are. The relevance for nuclear disarmament of the non-use/elimination sequence of chemical weapons must, therefore, be qualified.

The history of biological weapons reinforces that reservation. Biological weapons were part of the same 1925 non-use protocol. US and Soviet stocks were slated for elimination in 1972, when the superpowers concluded a treaty

to this effect.[26] The treaty was easily agreed and there were no verification provisions, for, like chemical weapons, biological weapons were considered useless. This has changed, however. In recent years, revolutionary developments in biological research are raising new possibilities for weapons applications. What it will come to is unclear, but in extending unconditional negative security assurances to the NNWS the US made a reservation for unforeseen developments in the biological field. It all comes back to the point about chemical weapons and high politics made above: it is only when an entirely new spectrum of military applications emerges that the biological sector begins to affect nuclear planning, and then the 1972 BW Treaty may no longer be of interest. As inspiration and model for nuclear disarmament, the experiences from the chemical and biological sectors are, therefore, of limited value.

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Power Politics

A transition to NFU is more of a problem for Russia and the Western NWS – the Cold War antagonists – than for the emerging powers in the East. China sticks to a doctrine of NFU; India declared a policy of NFU when it tested, but later emulated the US and added deterrence of chemical and biological weapons to the role of nuclear weapons. However, inspired by Obama's disarmament drive, India has revived its radical disarmament ambition, which is now pursued in parallel with the pragmatic arms control approach that was adopted after the tests in 1998. It hardly takes much to move it back to NFU.

In an exchange of letters between the Chinese and Russian heads of state of 1994, these countries committed themselves to NFU in relation to each other. When the big powers are ready for *de jure* recognition of India as an NWS – and sooner or later, they will be – a triangular NFU commitment between the Asian giants will be possible. So in contemplating a gradual

26 The US complied with it. When the Cold War was over, it turned out that the Soviets had not destroyed their stocks.

approach to universal NFU commitments, there is much to build on: an existing Chinese commitment; an Indian policy which may revert to NFU; a Russian NFU commitment in relation to China; and a US declaration of intent to establish the conditions for transition to NFU.

To reduce Russia's reliance on nuclear weapons, threat perceptions must be alleviated. The US accounts for 45 per cent of world military expenditures; Russia for 3 percent; so to wait for stronger conventional forces to reduce the role of nuclear weapons makes little sense. For the West, that means policies that can ease tensions along Russia's borders in Europe, the Caucasus and Central Asia. When Obama pushed the "reset button" to improve relations with Russia, US policy got closer to that of the big West European countries, but caused anxiety in Eastern Europe. Three different political cultures are at work: a Western European culture where Germany is the heavyweight, disposed for closer cooperation with Russia, depending on political and economic developments there: an East European culture still marked by its recent history of subordination to the Soviets, but gradually moving closer to the rest of the European Union (EU); and an American culture, which currently translates into policies that are sensitive to Russian concerns, but which has controversial elements. The first one seems rather stable and predictable. The second one is likely to swing back and forth on the way to closer EU integration. US culture bodes for political shifts of much greater consequence.

Pakistan is a bigger challenge. It is prepared for first use to stop deep Indian incursions into its territory. To turn the conventional imbalance into a force relationship where the defensive capabilities on both sides are stronger than the offensive capabilities on the other – a stable non-provocative relationship – is beyond grasp. And as long as the territorial conflict over Kashmir exists, confidence building is a Sisyphean activity. Still, threat reduction is the more realistic approach also in this case. Similar to Russia's relationship with the West, Pakistan will remain militarily inferior to India, so the way to a Pakistani NFU doctrine goes via resolution of the Kashmir problem and alleviation of threat images. Of course, regional force adjustments can also facilitate a Pakistani transition to NFU.

Israel is the hardest problem. It does not admit to having nuclear weapons, but the existence of a nuclear arsenal – the only one in the Middle East – is well known. To maintain its monopoly, the Begin doctrine raises the option of bombing weapons-related facilities in other Middle Eastern countries. An Iraqi reactor was bombed in 1981; an alleged nuclear reactor under construction in Syria was bombed in 2007; and a military attack on Iran is not ruled out. Since it does not admit to being an NWS, no policy for nuclear weapon use has been promulgated. However, the purpose seems obvious: nuclear weapons may be used to stem advancing conventional forces, as a means of last resort if national survival is at stake.

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The Israelis say they are ready for a nuclear weapon-free zone when peace has become a stable prospect, i.e. when all else has been solved. In the Middle East, that is a long-term ambition. In Northeast Asia, the predicament is much the same. There, too, there is a long way to go before all else has been settled, and until then, the regime in Pyongyang may want to retain a nuclear deterrent as an ultimate insurance premium, like the Israelis.

The smallest and weakest NWS are, therefore, among the hardest to convert to NFU and nuclear disarmament. In the Middle East, South Asia and Northeast Asia, it can only be achieved through regional peace arrangements. To succeed, major power support is needed.

THE MEANING OF ZERO

Words like *zero*, *elimination*, and *abolition* all have in common the idea of no nuclear weapons. However, *zero* can be conceived of in a variety of ways, and not everyone means the same when referring to it. It may be taken to mean no deployed weapons; no stockpiled weapons; no assembled weapons; no nuclear weapons in the hands of the military (but possible under civilian governmental control as an insurance premium); or no national nuclear weapons (but possibly nuclear weapons controlled by an international body).

Beyond the various meanings of zero, the vision of an NWFW also comes in several other forms, one of which imagines a world where all ready-made weapons have been eliminated, but where many states maintain a mobilisation base for reintroduction of them. It might include fissile materials in stock, able nuclear weapon engineers and manufacturing equipment on hand, and delivery vehicles ready for use. For the NWS, this would be a form of deep dealerting, approaching the status of Japan today. The purpose of such a base is to deter others from breaking out of the agreement, and to confront violators if deterrence breaks down.

Such an NWFW could be the end result of a prevailing logic in US disarmament affairs: the stronger the nuclear infrastructure, i.e. the more advanced the capacity for reconstitution, the more the nuclear arsenal can be cut. The NWS would be left with advanced capabilities for reconstitution, while under the NPT, the NNWS are not allowed to engage in activities that are specifically weapons-related. As the last nuclear weapons go away, some states would be virtual nuclear weapon states while the great majority of others would be without similar capabilities. In one particular respect, the NWS lead is unavoidable: they are the ones to have design and testing experience, and that knowledge cannot be erased.

Different ground rules for different categories of states are hard to imagine, however. Forty years of discontent with the NPT's division of the world into nuclear and non-nuclear weapon states, and persistent complaints over the slow implementation of Article VI, which was supposed to end it, have led many NNWS to insist on equal rules for all. In general terms, Obama's Prague and Cairo speeches alluded to the same. The principle of equity will, therefore, be important all throughout the disarmament process. The majority of NNWS will protest any attempt to maintain the current imbalance in the implementation of the NPT; they will demand that single arms control and disarmament measures be equitable; and they will do their utmost to ensure that capability differences are reduced as the process unfolds. If the principle is compromised by moves for unilateral advantage on the part of the most advanced NWS, the emerging powers of Asia, in particular, are unlikely to be cooperative.

If the NWS disarm on the formula "the stronger the reconstitution capabilities, the deeper the cuts", and the world of zero is based on equitable rules, the NNWS would be free to emulate the same logic. Equity on the basis of ground rules that allow virtual arsenals may tempt many more states to exercise this option. Then, nuclear deterrence – latent or virtual rather than manifest – would be an option free for all, quite possibly leading to a multiplication of deterrence relationships. Especially if nuclear power stations and national fuel cycle facilities proliferate, there may be many more threshold states. Reservations made for the path dependence of nuclear disarmament – always a big caveat – it could, at worst, lead to life in a virtual deterrence crowd.[27] A world without nuclear weapons would not be a world without conflict and if nothing is done to prevent it, tense relations would encourage hedging.

A world without nuclear weapons would not be a world without conflict and if nothing is done to prevent it, tense relations would encourage hedging.

As a fixed end state, this is, therefore, a bad idea.[28] First, because it sustains the mentality that nuclear war is possible at any time. Many states may come to think that hedging is prudent, suspecting that others may be cheating, with the result of a hedging race: vertically toward capabilities that can be turned faster and faster from virtual to real; horizontally to involve more states. The trust on which abolition was achieved would then evaporate. Second, virtual arsenals need arsenal keepers, and they are never disinterested experts, but socio-political actors legitimising their activities in terms of threats to be met and demanding more resources to counter them. In effect, the arsenal keepers are likely to push for a hedging race, and would quite possibly prefer a return from virtual arsenals to real ones. Such an end state would contain the seeds of its own destruction. Third, it is a particularly

27. Paraphrasing Henry Rowen in Albert Wohlstetter, Thomas Brown, Gregory Jones, David McGarvey, Henry Rowen, Vincent Taylor and Roberta Wohlstetter, *Moving Toward Life in a Nuclear Armed Crowd*?, final report prepared for the US Arms Control and Disarmament Agency in fulfillment of ACDA/PAB-263, PH76-04-389-14 (Los Angeles, CA: PAN Heuristics, December 4, 1975 [Revised April 22, 1976]).
28. Harald Muller, "The Importance of Framework Conditions" in G. Perkovich and J. Acton, eds. *Abolishing Nuclear Weapons: A Debate* (Carnegie Endowment for Peace, 2009).

bad idea because in the breakout scenarios, first strike capabilities are more likely to emerge than in current nuclear constellations.

It would, therefore, be better to go "below zero" to eliminate the fissile materials that have been dedicated to nuclear explosive uses; to institute strict international control of all remaining materials; to dismantle the nuclear weapons infrastructure; and to redirect the workforce to other sector. Even more, nuclear materials that can be used to build weapons should be banned from civilian use as well. Highly Enriched Uranium (HEU) is not the big issue here – there is little HEU left in the civilian sector and what remains is being phased out – but plutonium continues to pose a problem. Technical fixes may or may not solve it: if not, a compromise would have to be struck to accommodate the civilian industry. Dual-capable production facilities for civilian use would remain, possibly based on proliferation-resistant technologies and certainly subject to international control. This would be a more stable NWFW, building trust in a non-nuclear future. It would be a world where nuclear deterrence no longer applies.

However, the worlds sketched above are not dichotomous. They should rather be seen as end points on one and the same scale. Going below zero is a matter of more or less, so this image of an NWFW comes in several variations. Sidney Drell and James Goodby, who argue that a reconstitution capability would be needed to deter breakout, are attentive to the concerns that such capabilities may invite a reconstitution race and, therefore, produce its own instabilities: "A careful judgement will have to be made among nations of comparable technical capabilities regarding nuclear activities that would be reasonable to retain in a state of latency, as opposed to those that are impermissible because they would push the world dangerously close to a reconstitution race".[29] Activities, facilities, or weapons-related items that should be prohibited would have to be "tested during the run-up to the end state, when responsive nuclear infrastructures would be maintained on relatively small scales and under conditions of agreed transparency". At that stage, it would be necessary to make a pause to determine what kind of an NWFW to

29. Sidney Drell and James Goodby, *A World Without Nuclear Weapons: End-State Issues*, (Hoover Institution, 2009).

go for. Drell and Goodby suggest that it might be appropriate to stop at the level of 50-100 weapons to consider whether the conditions for a final leap onto nuclear weapon freedom are reassuring enough, and to establish what rules and regulations should apply at the destination. Another view, coming close, notes that the powers that subscribe to minimum deterrence keep close to 200 nuclear weapons; that India and Pakistan may be going for forces in about the same range; and that Israel may already be there. This level may have been chosen for good reason, out of regard for strategic stability, and may, therefore, be an appropriate interim halting point.

The dangers of a world immediately below – of virtual arsenals – have been spelt out above. Similar dangers would exist in a world immediately above.

At that point, the continuation is hard to foresee, for the world will look much different from today's world. Indeed, it would be presumptuous to claim to know much about it. However, political order issues aside, some force constellations are known to be more unstable and dangerous than others. A few parameters may, therefore, be laid down to steer the process away from the greatest risks in the final approach to an NWFW.

This pertains, in particular, to the worlds immediately above and immediately below zero. The dangers of a world immediately below – of virtual arsenals – have been spelt out above. Similar dangers would exist in a world immediately above. At the level of, say, 30 nuclear weapons, the retaliatory capabilities may be in doubt. Some weapons may be destroyed by an attacker, others may be intercepted, and yet others may not function as planned. As a result, first-strike propensities may be too great for comfort. It may lead to surprise attack, hitting the enemy when his guard is down, or to inadvertent escalation when decision-makers begin to think that war can no longer be avoided. However flexible the notion of minimum deterrence is, force levels in the low hundreds may have been chosen for good reason.

It may, therefore, be wise to skip those transitional phases immediately above and immediately below zero and go from the low hundreds directly to an NWFW significantly below zero. That can be done by eliminating weapon-grade materials, dismantling dedicated nuclear infrastructure

and redirecting nuclear weapon expertise *before* eliminating the remaining weapons. In other words, the stability of minimum deterrence postures would be maintained till the stability of an NWFW has been ensured. Then, and only then, would it be time to move from one state to the other.[30]

FRAMING THE APPROACH TO ZERO

In response to the question of how the proliferation impact of nuclear deterrence can be minimised, this paper has homed in on an interim milestone – NFU – which would decouple NWS' policies from those of NNWS, and an end state – an NWFW significantly below zero – which would do away with any and all notions of deterrence. Four paths downgrading the role of nuclear weapons have been indicated. How should these objectives and paths be framed? In particular, how can disarmament in its two main dimensions – software and hardware – become a dependable prospect?

Similar to the integration theory, which distinguishes between integration as a process and integration as a state of affairs, disarmament may be viewed as a process where one move leads to the next, or it may be seen in a static perspective where measures are introduced without any particular promise or expectation of further steps.

The static perspective carries an immanent risk of reversal. When the continuation is uncertain, the action space for rearmament – for qualitative improvements in particular – remains significant, thriving on the hedging argument. Single steps toward nuclear disarmament may have little or no impact on governments contemplating to go nuclear. For instance, if the US and Russia were to reduce the number of deployed strategic nuclear weapons to 1,000 each with no commitments to further reductions, while all the NWS modernise their weapon systems, the non-proliferation impact would at best be uncertain. As long as the continuation is open to doubt, states of proliferation concern would hardly be impressed.

This would be different if expectations were created that more would follow. Then, proliferators would be singled out as exceptions to a *trend*

30. Sverre Lodgaard, *Nuclear Disarmament and Non-Proliferation. Towards a Nuclear Weapon Free World?* (UK: Routledge, 2011).

of improved compliance with treaty obligations, and it is always more difficult to act against an existing trend, especially if it enjoys broad support from both nuclear and non-nuclear weapon states. If the trend takes hold, the non-proliferation norm would be enhanced; the states that have rolled back would find it harder to roll forward again; and the international environment for management of critical contemporary cases of proliferation concern would be more benign. In the UN Security Council, decision-making in support of the trend would be easier.

More than anything else, the NWS are stiffly opposed to any specific timeline for disarmament. A crucial question is, therefore, how to make the disarmament process dynamic without resorting to the calendar.

The opposite of single steps in a static perspective is a convention with a timeline for nuclear disarmament to zero. The NPT is a roadmap to zero, but it is a rudimentary map and it says nothing about what kind of NWFW to go for. At some stage in the disarmament process, a more detailed, comprehensive agreement is needed to guide the final approach to abolition.

The Final Declaration of the 2010 NPT Review Conference noted "the five-point proposal for nuclear disarmament of the Secretary-General of the United Nations, which proposes, *inter alia*, consideration of negotiations on a nuclear weapons convention or agreement on a framework of separate mutually reinforcing instruments, backed by a strong system of verification".[31] The upside of this text is that the idea is mentioned; the downside, the convoluted and non-committal way in which it is composed. More than anything else, the NWS are stiffly opposed to any specific timeline for disarmament. A crucial question is, therefore, how to make the disarmament process dynamic without resorting to the calendar.

For reasons indicated above, timelines are objectionable to the big powers. Precisely because they have so much power, they treasure the freedom to exercise it. There is, furthermore, something simplistic about reducing the complexities of nuclear disarmament to a timeline.

31. http//:www.un.org/en/conf/npt/2010

In the absence of a timeline, it is hard to make disarmament a dependable prospect. Still, in the spirit of SC Resolution 1887, where the P-5 declared themselves in favour of a world without nuclear weapons, it may be possible to generate explicit commitments from one step to the next: a from New Strategic Arms Reduction Treaty (START) to a follow-on agreement on deep cuts to further steps setting the stage for multilateral negotiations; from a Fissile Material Cut-off Treaty (FMCT) to further cuts in fissile material stocks; from the steps taken by the US NPR to limit the role of nuclear weapons to a new SC Resolution, to an international convention on unqualified non-use assurances, to no-first-use doctrines; from procedural to material steps toward an NWFZ in the Middle East, etc. – all the time invoking the advantages of an NWFW in support of the process. By dropping the timeline in favour of less ambitious provisions for progress, more states may be willing to entertain the convention idea.

Pinning down essential rules of the road toward nuclear weapon freedom can also reduce the action space for spoilers and for unforeseen developments, takinge the process off track. The lessons from the Oslo process on the Middle East and from negotiations with North Korea point in the same direction. If at all possible, a compressed, comprehensive approach to the final objective has distinct advantages. A convention with no timeline may be preferable to no convention at all.

For the time being, the challenge is to pursue disarmament without a convention and without a timeline i.e. by forging commitments from one step to the next. However, a convention or framework of mutually reinforcing instruments is desirable, the sooner the better. NWS participation should be sought from the beginning not to replicate the NPT distinction between nuclear and non-nuclear weapon states. Should this depend on the timeline issue, a timeline had better wait. Beyond the deep cuts and NFU milestones, the path dependence of nuclear disarmament makes it hard to envisage how these and other issues should be phrased and resolved.

For all its weaknesses, the NPT and the regime that it harbours are a major achievement. The treaty is resilient at that: in the beginning of this century the grand bargain from the second half of the 1960s on which it is based

came apart, yet it survived. Therefore, a nuclear weapon convention should not be pursued in order to replace it, but to supplement and supersede it.

All the time, two arguments carry particular weight. First, sixty years of no use do not guarantee another sixty years without the use of nuclear arms. On the contrary: there is much to suggest that the risk of nuclear weapon use is greater than before. The premium on abolition has, therefore, grown. For the proponents of an NWFW, this is hard-nosed realism. The four US horsemen were always known to be realists, and so are many other statesmen who have joined them in the call for an NWFW. Second, the threat of mass destruction is morally unacceptable and should be made unambiguously illegal. Chemical weapons are already outlawed on such grounds. Since the effects of nuclear weapons are stronger, more indiscriminate and long-lasting than those of any other weapon, there is all the more reason to ban them. From both angles, MAD is an appropriate acronym for continued reliance on nuclear deterrence.