Delegitimizing Nuclear Weapons

Examining the validity of nuclear deterrence

Ken Berry, Patricia Lewis, Benoît Pélopidas, Nikolai Sokov and Ward Wilson

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Cover photo: UK Royal Navy submarine leaving the River Clyde, heading out into the Irish Sea, with the Isles of Bute and Arran showing in the background. Photographer Ove Hansen, April 2010. http://www.flickr.com/photos/onlineove/4520057093

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Introduction

In addressing nuclear disarmament, people – be they expert, practitioners or one of the interested public – find themselves in a bind. All bar a few countries, including the five permanent members of the UN Security Council, have repeatedly committed themselves in word and in law to pursuing nuclear disarmament in good faith and to the elimination of nuclear weapons. There is enormous concern about the spread of nuclear weapons to more countries and – in the longer term – to non-state armed factions. On the other hand, however, we are told that nuclear weapons are important and useful. Those that possess them or feel protected by them say that they are not deployed to be used; rather they are employed solely as a deterrent to would-be attackers and thus prevent war. We are told that they ended the Second World War in 1945, that they "kept the peace" during the Cold War, and that they provide an "umbrella" or extended deterrence to military allies of the nuclear weapons possessors. Nuclear weapons are the great protectors, the ultimate guarantee. Why then would we ever want to eliminate such weapons if they could provide so much security, and why should we not want every country to have them so as to eliminate war completely? At the heart of the double bind of nuclear weapons is the issue of deterrence. It is the belief in nuclear deterrence that enables people to accept their presence on their territories. The belief in nuclear deterrence creates an underlying fear that if we were to give up this great protection, major conflict might once again ensue. In large part, it is this fear that is causing the delay in fulfilling the long-made promises of nuclear disarmament. The hypothesis of nuclear deterrence has conferred a degree of legitimacy on the possession – by some states only – of nuclear weapons.

If the global elimination of nuclear weapons is ever going to be undertaken in earnest, nuclear deterrence must be held up to scrutiny and found wanting. This paper sets out to examine deterrence as the core attribute assigned to nuclear weapons and their associated legitimacy in the international security system. We have examined the evidence for nuclear deterrence and found it to be paltry, if it exists at all. Our aim in this study is to stimulate thought, debate and action. We have written this paper with several audiences in mind: disarmament practitioners including government officials, diplomats and nuclear weapons designers; experts from policy analysts to academic dons; and the engaged, questioning public. This should not be a comfortable read; we hope to challenge the reader and to introduce new approaches and options for ways out of the nuclear conundrum.

Acknowledgements

This study was commissioned by the Swiss Federal Department of Foreign Affairs (MFA), and we are particularly grateful to Christian Schoenberger Head, Task Force on Nuclear Disarmament and Non-Proliferation for his insight, input and collegiality throughout. We are also thankful to the participants of a meeting held in Nyon, Switzerland, under the auspices of the Swiss MFA on 8 March 2010 to discuss an earlier draft of this paper. We are particularly grateful to two readers and discussants, Dr Rebecca Johnson of the Acronym Institute for Disarmament Diplomacy and Dr Pal Dúnay of the Geneva Centre for Security Policy. Cognitive diversity is vital to finding creative solutions to intractable problems; the wide range of government representatives and non-governmental experts at the Nyon workshop has made this paper so much better than it would otherwise have been. Finally, we are grateful to Ove Hansen and his generosity in allowing us to use his beautiful photograph for the front cover, to David Steiger for the cover design and to Sarah Diehl for her editing skills.

Executive Summary

The study on "Delegitimizing Nuclear Weapons: Examining the Validity of Nuclear Deterrence" by Ken Berry, Patricia Lewis, Benoît Pélopidas, Nikolai Sokov and Ward Wilson was commissioned by the Swiss Federal Ministry of Foreign Affairs and undertaken by the James Martin Center for Nonproliferation Studies, the Monterey Institute of International Studies.

Delegitimization and Deterrence

Decades of international security institution-building have been based on the Cold War constructs of nuclear deterrence and extended nuclear deterrence. In order to eliminate nuclear weapons, we first need to deconstruct the nuclear weapons security edifice, examine the beliefs surrounding nuclear deterrence and nuclear weapons, and remove the value that has been assigned to nuclear arms.

A process of delegitimization requires revoking the legal or legitimate status of the weapons, through a process of devaluation; diminishing and destroying all claims to legitimacy, prestige and authority. Although there has been a significant reduction in the numbers of nuclear weapons, the nuclear weapons states will continue to fail in their disarmament obligations so long as governments continue to confer legitimacy on nuclear weapons.

Nuclear deterrence has been such a risky strategy, fraught with the consequences of accident and unchecked aggression, bound to promote proliferation, and not based in historical evidence. Small mistakes are not possible with nuclear weapons.

Deterrence is the most commonly accepted quality of nuclear weapons - if only because advocacy of using them for an unprovoked offensive war is politically and morally unacceptable - and in debates on nuclear weapons it is an area where nuclear weapons proponents and arms control advocates find they can compromise. However, it is striking how widely accepted nuclear deterrence is, given the paucity of real evidence in support of it.

It is time now to place the burden of proof on those that would retain and employ nuclear weapons and require that they demonstrate – using real evidence – what they claim for the these weapons.

Selected Study Findings

1. **Deterrence, legitimacy and value**

- There is clear evidence that the destruction of Hiroshima and Nagasaki did not end the Pacific War in 1945, rather it was the declaration of war by the Soviet Union on 8th August.
- Contrary to common belief, there is no evidence that nuclear weapons "kept the peace" during the Cold War.

- There is positive evidence that nuclear threats do not prevent conventional, chemical or biological weapons attacks, even in circumstances where nuclear deterrence ought to work robustly.
- Possessing nuclear weapons provides little leverage. Nuclear weapons have failed to give their possessors decisive military advantage in war.
- If nuclear weapons were to be actually used, the historical record suggests that this would more likely strengthen resistance instead of coercing the victims of the strike.
- History shows that a nuclear security guarantee is neither a necessary nor a sufficient condition to give up nuclear weapons ambitions.
- It is a false argument to state that nuclear weapons cannot be disinvented; neither can chemical weapons, biological weapons, cluster munitions and anti-personnel landmines and yet the prohibition of these weapons is governed under by international law.
- It is feared that at low numbers, each nuclear weapon becomes increasingly valuable as a proportion of the whole. Evidence suggests that the opposite is true.
- If the nuclear weapons states have agreed to reduce numbers to a very low level and head to zero, it is because the value of nuclear weapons has been reassessed and so numbers are no longer as significant.
- A world with increasing numbers of nuclear weapons possessors is unlikely to be more stable than one of reducing numbers of weapons and possessors.
- Nuclear weapons have become a currency of power but although nuclear weapons provide status today, new and different status symbols could be designated tomorrow.

2. The legal framework

- Nuclear weapons and their use are generally prohibited under existing International Humanitarian Law and under customary international law.
- International Humanitarian Law has developed an approach to the use of weapons in combat. The use of weapons that cause widespread, long-term and severe damage to the natural environment is prohibited.
- International Humanitarian Law and human rights law are equally applicable to nuclear weapons, as they are to chemical, biological, anti personnel landmines and cluster munitions.
- Taking an International Humanitarian Law approach would mean focusing on the results that a negotiation will produce, not just go through the motions of a negotiation that will keep nuclear weapons possessors comfortable and virtually unaffected.
- The humanitarian approach demands highly effective outcomes, not lowest common denominator results.

3. Achieving nuclear disarmament

- Engagement of the public is the most single important factor in achieving success in delegitimizing nuclear weapons.
- However, there is no genuinely effective global public campaign to eliminate nuclear weapons today.

- Mobilizing international public and political support, and sustaining it throughout the disarmament process, is perhaps the most fundamental precondition for progress on the path towards a world without nuclear weapons.
- The nuclear disarmament debate also should include military personnel and weapons designers and manufactures.
- Ambition, such as a Nuclear Weapons Convention that will lead to the outlawing of nuclear weapons and their elimination, is the framework that will attract most public attention and passion.
- Nuclear history could be rewritten to analyze the 150 plus states that have never tried to develop nuclear weapons to include perspectives from developing countries for which important and urgent issues have been continually sidelined in favor of debates on nuclear weapons, and voices from nuclear-weapon free zones, nuclear-capable states and from states that gave up nuclear weapons ambitions.
- A like-minded representative core group of states, including key, progressive nuclear armed states and committed non-nuclear weapons states, could begin a parallel track process to negotiate such agreements as no-use treaty. Or they could stimulate a negotiation for a global nuclear weapons convention that would include the prohibition on use and possession, as a successor to the NPT.
- Pragmatism in the way things get done is far more effective than sticking to obsolete methods and practice; the outcome matters more than the process or venue.
- Nuclear disarmament will succeed only if there is a sustainable determination in civil society and in governments to eliminate nuclear weapons.
- The financial burden of deploying, maintaining and upgrading nuclear arsenals for the foreseeable future far outweigh the costs of disarmament.
- There needs to be a process of review, benchmarks, oversight and wide engagement.
- A multilayered approach to the issues is required, and different types of players and negotiation are required for different types of measures.
- It is time to open up a new debate, time to consider the possibility that nuclear deterrence is not a valid framework for international security in the 21st Century.
- It is time to set about getting rid of nuclear weapons while we still have the opportunity.

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"The doctrine of nuclear deterrence is not an eternal verity but is largely based on a belief system…. Concepts and institutions which were considered inescapable and having no alternatives have become totally unacceptable and discarded into the dustbin of history. Slavery was a hoary institution…. Monarchy and the divine right of kings had their day…. The colour bar and discrimination based on it was prevalent even a couple of decades ago, but is no longer defended as a way of life…. All that has changed within our lifetime. It is now clear even to the followers of the cult of nuclear deterrence that nuclear wars cannot be fought and won…. The sensible way out is to delegitimize and outlaw nuclear weapons as instruments of war."[1]

I. The problem with nuclear weapons

Nuclear weapons are capable of doing enormous damage to life, civilization and the environment. Their destructive power is not in any doubt, but does that make them more useful than conventional weapons? Nuclear weapons are large, clumsy weapons that are badly matched to almost any military task. They are really ideal in only one role, which is killing people en masse. Although high emotion is engendered by the threat of annihilation (which clouds debates and leaves a residue of confusion in our discussions), little work has been done on the practical realities of nuclear weapons. Is a nuclear weapon capability valuable to have? Are nuclear weapons all they are cracked up to be or have we endowed them with a magic power, with a desirability they would otherwise not possess? Hitherto, they have been

[1] K. Subrahmanyam, Chapter V, in *Study on Deterrence, Its implications for Disarmament and the Arms Race: Negotiated Arms Reductions and International Security and Other Related Matters*, Report of the Secretary-General, United Nations A/41/432,1987 paras 42, 43 46, pp. 78-79.

seen as weapons of status but if they were just about status, such as a Lulu Guinness handbag or a red Ferrari, we would not have spent the last sixty years arguing about their purpose, efficacy and legitimacy. Their capacity for destruction has been seen as a deterrent to war, but new evidence suggests that this is not the case. It is this combination of their power as status symbols and their power to destroy all that we hold dear that requires us to think through very carefully – and continually question – their purpose, legitimacy and how to get rid of them.

The problem with nuclear weapons is that human beings are fallible. Hand-in-hand with the very existence of nuclear weapons go scenarios for their use and the entire hypothesis of nuclear deterrence that dates back to the 1940s and developed primarily in the 1960s. The core principle of the supposed deterrence effect of nuclear weapons is the credibility of the threat of their use.[2] If nuclear weapons are ready to be used at all times, no system of controls will prevent their use forever - particularly if a war comes in which nuclear states feel their vital interests threatened. In the whirlwind of war, when stakes are high, who can be sure that folly can be prevented? Nuclear weapons can kill so many people so quickly that mistakes are magnified. It is possible, without significantly affecting the military outcome, to kill hundreds of millions of people. The difference between nuclear weapons and regular weapons is that nuclear weapons are bigger and their radiological effects in the environment and on health persist. This doesn't turn out to have any special military usefulness. But it does have other implications. When you make a mistake with conventional weapons, it is possible for it to be a relatively small mistake with physical impacts that do not have to last for generations. Small mistakes are not possible with nuclear weapons.[3]

In response to the repeated attempts of civil populations and non-nuclear weapons states to push for nuclear disarmament, the nuclear Non-Proliferation Treaty (NPT) States Parties agreed to “pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control.” That was in 1968. While that provision was formulated in deliberately vague terms, several subsequent obligations are unequivocal and cannot be escaped. In 1995, in order to extend the NPT indefinitely, the states agreed to do so within a package of decisions including a set of principles and objectives that included a determined commitment from the nuclear weapons states to pursue “systematic and progressive efforts to reduce nuclear weapons globally, with the ultimate goal of elimination of those weapons.” Likewise at the NPT Review Conference in 2000, the nuclear weapons states made an unequivocal undertaking to accomplish the total elimination of nuclear weapons, leading to nuclear disarmament.

Although there has been a significant reduction in the numbers of nuclear weapons held by the official nuclear weapons states (with the exception of China), there have been modernization

[2] For a tour de force on deterrence, see Lawrence Freedman, *Deterrence*, Cambridge, Polity Press, 2004.
[3] See Henry Shue, *Nuclear Deterrence and Moral Restraint*, Cambridge, Cambridge University Press, 1989, p. 1

programs in most of the countries that possess nuclear weapons so that capabilities have increased in some respects. Nuclear weapons still play a significant and in some regions (South Asia, North East Asia and the Middle East) an increasing role in international security dynamics. The nuclear weapons states will continue to fail in their disarmament obligations so long as these weapons continue to command legitimacy and utility; domestic politics will always prevail and make governments seek delaying action. Of course, if deterrence were truly believed to be the ultimate guarantor of peace, then all the costs and risks associated with nuclear weapons would be seen as worthwhile. It is the concept of nuclear deterrence that we have to address. Examining this framework for thinking about security is at the heart of all of the decisions that have been made on nuclear weapons and their legitimacy. The rest follows.

In considering the focus of this paper, we have grappled with the concept of legitimacy. Are nuclear weapons "legitimate"? If so, what has given them such a status? Do they have a legitimate use? Are they militarily useful? If not, how can we consider "delegitimizing" nuclear weapons? What would be the purpose of removing any legitimacy from nuclear weapons? What could we hope to achieve? Would the world be safer as a result? Would states be less likely to proliferate? Would we be more likely to achieve nuclear disarmament?

We have tried to approach the subject with humility and creativity. So much has been written on the subject. A whole edifice of security has been built on the basis of nuclear deterrence as a singularity. And yet the risks involved are so enormous that to leave this subject to the collective wisdom of the very nuclear strategists who have created the deterrence-as-security framework would be irresponsible. Premising security on the possession of a weapon that was never to be used but was instead maintained as a threat supposedly to deter aggression has been such a risky strategy, fraught with the consequences of accident and unchecked aggression, bound to promote proliferation and one that flies in the face of history.

As Robert F. Kennedy[4] so aptly wrote:

> *Those who disparage the threat of nuclear weapons ignore all evidence of the darker side of man, and of the history of the West – our history. Many times the nations of the West have plunged into inexplicable cataclysm, mutual slaughter so terrible and so widespread that it amounted nearly to the suicide of a civilization. The religious wars of the sixteenth century, the Thirty Years' war in the seventeenth century, the terrible excesses that followed the French Revolution, these have been equaled and grotesquely outmatched in the modern twentieth century. Twice within the memory of living men, the nations of Europe, the most advanced and cultured societies of the world, have torn themselves and each other apart for causes so slight, in relation to the cost of struggle, that it is impossible to regard them as other than excuses for the expression of some darker impulse. …Who can say that [nuclear weapons] will not be used, that a rational balance of terror will restrain emotions we do not understand? Of*

[4] Robert Kennedy, *To Seek a Newer World*, Garden City, New York, Doubleday & Company, Inc., 1967, pp. 149-151.

course, we have survived [so far with nuclear weapons.] Despite many limited wars and crises before 1914, Europe had known substantial peace for a century – and at its end saw war as deliverance. Nuclear war may never come, but it would be the rashest folly and ignorance to think that it will not come because men, being reasonable beings, will realize the destruction it would cause.

Our approach is one of fresh examination of the evidence for the previous and potential efficacy and value of nuclear weapons, and of the risks involved with their retention and proliferation. Much has been written on the inextricable connection between disarmament and nonproliferation, and this understanding has been embodied in the legal framework since the first resolution addressing the issue placed before the UN General Assembly by Ireland in 1961. The NPT in 1968 and its indefinite extension in 1995 have further cemented the well-understood linkage between nuclear disarmament and preventing nuclear proliferation. Consequently, we shall resist the temptation to rehearse all of those arguments that can be found in much of the literature on nuclear weapons, particularly in discussions of the NPT. Rather we shall confine ourselves to a discussion of how best to examine nuclear deterrence and the value of nuclear weapons and how the concept of deterrence plays into attempts to delegitimize and outlaw nuclear weapons. Decades of international security institution-building have been based on cold war constructs such as nuclear deterrence and extended nuclear deterrence – indeed the weapons themselves are often just referred to as a nuclear "deterrent capability" as if they were one and the same. In order to eliminate the risks posed by nuclear weapons (and therefore, in order to eliminate nuclear weapons themselves), including the risk of further proliferation to states and to non-state armed groups, we first need to deconstruct the nuclear weapons security edifice and examine the beliefs surrounding nuclear deterrence and nuclear weapons.

The delegitimization of nuclear weapons will need to address the core of the deterrence debate. The case that nuclear weapons are morally repugnant has been convincingly made for a long time.[5] However, despite the evidence for nuclear deterrence being so shaky, a case for nuclear weapons as a deterrent has been made at political levels in the nuclear weapons states in the name of prudence.[6] It is time perhaps to place the burden of proof on those that would retain and employ nuclear weapons and require that they demonstrate – using real evidence – what they claim for these weapons.

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[5] The moral dilemma can be stated as follows: to prevent a nuclear attack, the political leadership has to show resolve for massive killing and to behave as a hostage holder while accepting that its own population is also held hostage by the other side. Thus, the fact that the political leadership has to be determined to use the weapon for its deterrent value to operate is enough to condemn both the use and threat of use. For a clear statement of the moral dilemma, see Steven Lee, *Morality, Prudence and Nuclear Weapons.* Cambridge, Cambridge University Press, 1993, chapt. 2.

[6] *Ibid.*, chapt. 4. Note also that we are addressing primarily the "prudent" proponents of nuclear deterrence more than we are the maximalists (who see a use for nuclear weapons in fighting and winning wars). We wish to engage those who do not consider that nuclear weapons are legitimate on moral grounds nor do they advocate their use – they see nuclear weapons as solely for deterrence, never to be used.

The word legitimate can be used either as an adjective or as verb. If nuclear weapons were to be described as "legitimate" that would mean that the weapons are in accordance with the law or with established legal forms and requirements and conform to recognized principles or accepted rules and standards. As a verb, to legitimate means that nuclear weapons have been given legal status or authorization and have been justified, lent authority or respectability.[7] It is also possible to claim another type of legitimacy – the one conferred by an unwritten norm or convention. It is our contention that nuclear weapons have had legitimacy conferred upon them not by virtue of being legitimate – indeed, we argue that they are not in accordance with the norms of International Humanitarian Law, nor do they conform to recognized principles or accepted rules and standards – rather they have been lent authority and respectability for a few countries but not for others, as a result of several decades of concerted efforts to legitimize them for an elite group.[8]

A process of delegitimization is the revoking of the legal or legitimate status of the weapons, through a process of devaluation; diminishing and destroying all claims to legitimacy, prestige and authority.[9] This endeavor requires an assessment of the perceived legitimacy of nuclear weapons and a review of successful disarmament attempts for other kinds of weapons of mass destruction before turning to policy recommendations. Below, we have attempted to address some of the key questions and objections that are posed *vis a vis* nuclear disarmament, in the hope that in answering them, we may begin to shed some light on the way forward for nuclear disarmament. We then consider the case for a convention to eliminate nuclear weapons and propose a framework for achieving nuclear disarmament – in our lifetimes.

We approach the perceived legitimacy of nuclear weapons using Max Weber's three types of legitimacy: traditional, charismatic and legal/rational.[10] Obviously, Weber's typology is meant to apply to rulers and types of domination. However, if we transpose it to nuclear weapons, this typology is useful to frame the analysis.

Nuclear weapons have been around for sixty-five years. This leads to the idea that "you cannot put the genie back in the bottle." The belief is that nuclear weapons cannot be "disinvented" and therefore cannot be eliminated. However, that has not been the case for other weapons – such as the Paris Gun, chemical and biological weapons, and landmines and cluster munitions for example – and there seems to be no *a priori* reason why nuclear weapons should be different in this regard from other destructive technologies. There has also been a continuing discussion concerned with the uncertainties in nuclear disarmament and the stability of a world with zero nuclear weapons. This is the first kind of legitimacy that is associated with nuclear

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[7] Merriam-Webster's *Collegiate Dictionary*, Eleventh Edition 2008.

[8] There are five states that the NPT recognizes as nuclear weapons states (they are China, France, Russia, the United Kingdom and the United States), and there are three states with nuclear weapons that have never joined the NPT and thus claim not to be governed by that legal instrument (they are India, Israel and Pakistan).

[9] Adapted from Merriam-Webster's *Collegiate Dictionary*, Eleventh Edition 2008.

[10] Max Weber, *The Theory of Social and Economic Organization,* trans. Talcott Parsons, New York, The Free Press, 1964, p. 328.

weapons. It comes from habit, like any kind of traditional legitimacy, which in Weber's understanding builds on both tradition and convention.[11]

Second, legitimacy can come from the specifically "exceptional power or qualities"[12] that are attributed to nuclear weapons. Nuclear weapons have been assigned many positive attributes and just as many reasons abound as to why they have to remain – despite all their horrors – in perpetuity. They have been credited with ending the Second World War by forcing Japan to surrender and with keeping the peace in Europe for over sixty years, thus preventing a third world war, by providing a vision so horrific that none would ever countenance initiating such a conflict. They have bestowed a mini-superpower status on what would otherwise have been minor powers in a post-1945 world (France[13] and the United Kingdom) and have become associated with permanent membership in the UN Security Council (and hence the guardianship of international peace and security) by virtue of the fact that all of the P5 developed nuclear weapons between 1945 and 1964. Nuclear "umbrellas" have been extended to provide a nuclear threat to potential enemies of the nuclear weapons states' allies. Consequently, a belief has grown-up over recent years that without such so-called extended nuclear deterrence, states such as Japan, Germany and Turkey would be forced to consider developing their own nuclear weapon capability. Indeed, there are some who believe that the whole international order is predicated on a handful of states possessing nuclear weapons. All these properties supposedly come from the exceptional character of nuclear weapons. They are projected on the weapons just as exceptional qualities are projected on the charismatic leader whether he possesses them or not. The notion of rational deterrence theory, particularly in its ideological form, is the ultimate expression of this approach to nuclear weapons. This charismatic legitimacy[14] will also be reassessed and challenged in the paper.

Third, beyond the traditional and the charismatic claims for the legitimacy of nuclear weapons, their legal legitimacy will be reassessed, using the framework of International Humanitarian Law[15] and a new legal framework for considering the legitimacy and purpose of nuclear disarmament will be proposed.

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[11] *Ibid* , pp. 328, 342.

[12] *Ibid.*, p. 359.

[13] The French strategist Pierre Gallois conceptualized the often quoted "equalizing power of the atom" in his 1959 book "*The Balance of Terror: Strategy for the Nuclear Age,*, Houghton Mifflin, translated from the French by Richard Howard in 1961.

[14] Max Weber, *The Theory of Social and Economic Organization, op. cit.*, p. 359 and Max Weber, "The Social Psychology of the World Religions," in H. H. Gerth and C. W. Mills (eds.), *From Max Weber: Essays in Sociology,* London, Routledge and Kegan Paul, 1947, p. 259.

[15] On rational/legal legitimacy, see *The Theory of Social and Economic Organization*, *op. cit.*, p. 328.
These distinctions only have an analytical purpose. Weber himself considered that traditional legitimacy came from making charisma routine, which suggests both a connection and a radical difference between charismatic legitimacy and the two other kinds. "The Social Psychology of the World Religions", *op. cit.*, p. 297. *The Theory of Social and Economic Organization*, *op. cit.*, p. 361.

II. Reassessing the legitimacy of nuclear weapons

II.1 Traditional legitimacy

Genies, bottles and other myths

During the 2006-2007 debate on the renewal of Trident, Prime Minister Tony Blair admitted that the United Kingdom would not choose to acquire a nuclear deterrent "if starting from here".[16] This is one of the most telling clues that the debates on nuclear weapons are biased by a "path dependency" or a "traditional legitimacy" leading directly to the notions that we cannot disinvent this weapon system and that the prerequisites for abolition are insurmountable. As we shall see, these ideas are largely based on fears of the unknown into which the day-to-day nuclear risks are never factored.

Nuclear weapons are often regarded as an integral, almost indelible part of international relations, especially, of course, by states that possess or would like to acquire them. A rather complex system of arguments has been built over time to "prove" that complete elimination of nuclear weapons is impossible[17] and that they are a legitimate, even if undesirable (even many proponents of nuclear weapons are prepared to pay lip-service to the latter) element of international security.

While some key arguments in favor of retaining nuclear weapons will be discussed below, it is perhaps advisable to start with the simplest reason for pro-nuclear sentiment – habit. The majority of nuclear weapons states have possessed them for a long time and a large part of the population and the elites of these countries simply find it difficult to imagine life without them. A step as radical as renunciation of nuclear weapons makes many feel uncomfortable like a leap into the dark to an unknown future.

This phenomenon could be quite clearly seen in Ukraine, especially in the early 1990s. Initially the pro-independence groups actively promoted an anti-nuclear sentiment (which in large part was a result of the Chernobyl nuclear reactor disaster), but once the goal was achieved the denuclearization momentum waned. In fact, the first president of Ukraine, Leonid Kravchuk, even commissioned a study in 1991 of possible scenarios for using nuclear weapons. When elements of the Soviet Armed Forces deployed in Ukraine switched allegiance to the new state, military leaders, who had acquired a "habit" of having nuclear assets at their disposal, joined the opposition to the earlier denuclearization promises. As a result, the denuclearization of Ukraine became a rather lengthy and tortuous process. Ukraine might not have given up its

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[16] William Walker, "The UK Threshold Status and Responsible Nuclear Sovereignty," *International Affairs* vol. 86, No. 2, 2010, p. 13.

[17] For an analysis of the origins and political authority of this idea and a systematic critique, see Benoît Pélopidas, *The Seduction of the Impossible. A Study of Renunciation of Nuclear Weapons*. Ph. D. dissertation, Sciences Po (Paris) / University of Geneva, 2010 [in French].

nuclear weapons without intense external pressure from the United States, Russia and others – pressure that was amplified by the economic crisis that struck the entire post-Soviet region in the 1990s. From that example, it is easy to see why achieving complete nuclear disarmament is even more difficult in states that have possessed nuclear weapons for several decades and are not subject to overwhelming external pressure.

In contrast, in South Africa, where nuclear weapons had not been fully integrated into policy and military planning, the process of denuclearization was considerably easier and smoother. It helped also that the nuclear weapons industrial complex was virtually non-existent and that the African National Congress (ANC) had been planning to govern for several decades and in so doing, had developed strong anti-nuclear weapons policies.

Nuclear weapons were developed in the first place because a) it was technologically possible to do so, and b) because of fear that the adversary in World War II (Nazi Germany) would acquire them first. By the beginning of World War II, many decades of nuclear research came to a stage when knowledge and understanding could be transformed into something more tangible and, perhaps because of the circumstance of war, perhaps because of the tendency of human societies to seek out the weaponization of any new technology, the first practical outgrowth of this research harnessed the enormous power of nuclear energy for the purposes of destruction. It was also technologically easier to master the uncontrolled release of energy for use in a weapon than the controlled release central to production of energy for civilian purposes. A significant feature of viewing history from the prism of the inevitability of technology is that the invention of nuclear weapons is believed to be a natural phenomenon that could not have been avoided and cannot be reversed because human progress (understood in terms of knowledge and its practical implications) cannot be reversed either. Proponents of nuclear weapons never tire of saying: "You can't put the nuclear genie back in the bottle."[18] This sentiment is not wrong; it misses the point. The problem does not come when a new technology is invented. The problem comes when a new technology is turned into a military application and subsequently allowed to remain a military tool long enough to become a permanent fixture in the arsenals of the major powers. There is a general belief that every weapon invented is used in war. This may be true; it is a difficult claim to document and prove. But except for the fact that it makes a good fodder for pessimists, it is a relatively unimportant point. The important issue is not whether this or that weapon has ever been used. The important question is whether such a weapon – once tried – has remained in the arsenals of warlike nations. Horrible weapons may have been imagined, invented, and tried. But are the horrible weapons still used?

The statement, for example, that every weapon that has ever been developed has gained a permanent place in the arsenals of most nations is certainly, demonstrably false.

Consider the Paris Gun: the first of a new class of super-guns, built by the Germans in World War I it was more than 90 feet long, weighed 256 tons and moved on rails. It fired a 210 pound

[18] For an analysis of this view of history, see Benoît Pélopidas, “On Fatalism in Nuclear Proliferation: Insights on a Tenacious Historical Reading,” *Swiss Political Science Review*, vol. 15 No. 2, 2009 [in French].

projectile more than 80 miles. Often confused with its smaller cousin, the large mortar called "Big Bertha," in its day it was the largest cannon ever built. It was a terrifying weapon. From March until August of 1918, the Germans used it to shell Paris. The shells fell out of the sky without warning and initially people believed they were being dropped by airplanes. Because the weapon was relatively inaccurate, it could not be used against any target smaller than a city. In all, the Paris Gun fired about 360 shells, killing 250 people and wounding 620. Only one or two superguns have since been built (Schwerer Gustav, V3, etc.) Their impact on the wars in which they participated was minimal.

Today countries do not race to build their own superguns. Governments do not try to trade their oil and diamond wealth for superguns bought from arms dealers. There are no angry diatribes in liberal papers about the horror of these weapons and the necessity of banning them. There are no "realist" op-eds in conservative papers asserting that there is "no way to shove the supergun genie back into the bottle." They were wasteful and ineffective. History is replete with weapons that were touted as war-winners that were eventually abandoned because they had little effect.[19] To say that every weapon that has ever been invented has been tried in war misses the point. The key question is whether a specific weapon is adopted into the arsenals of most militaries. To date more countries have begun and abandoned programs to build nuclear weapons (or given up weapons in hand) than have built nuclear arsenals. This fact ought to tell us something.[20]

The question is whether nuclear weapons are weapons that can be used for anything useful. Is blowing things up and killing civilians likely to get you what you want? It is not necessary to show that nuclear weapons can be disinvented, it is only necessary to show that they are not very useful in war or as an instrument of coercion short of war.

Critics of nuclear disarmament point to the apparent futility of repeated attempts to put the nuclear genie back into the bottle: first, by the failure of the Baruch Plan to put all nuclear energy, including its military applications, under UN control; and second, by the fact that several states, more or less independently, repeated the feat of the American (although truly international, to the extent that the Manhattan Project employed many foreign-born scientists) program – the Soviet Union, the United Kingdom, France, China, Israel, South Africa, India,

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[19] An often neglected example is the Japanese warriors' reversion to the sword after they had used guns for more than a century, from the mid-seventeenth to the mid-nineteenth centuries, at a period when the country was not decadent. See Noel Perrin, *Giving up the Gun. Japan's Reversion to the Sword, 1543-1879*, Boulder, Shambhala Publications, 1979. One should note that Perrin offers five reasons why the Japanese gave up the gun; utility is only one reason. Japan was hard to invade and Japanese fighters were so good than bows and arrows were largely sufficient. (p. 35).

[20] States that have built and retained nuclear weapons (9): United States, Russia, United Kingdom, France, China, Israel, India, Pakistan, North Korea; states that have abandoned programs to build nuclear weapons (8): Argentina, Brazil, Switzerland, Sweden, South Korea, Taiwan, Iraq, Libya; states that have abandoned weapons in hand (4): South Africa, Belarus, Kazakhstan, Ukraine. Total nuclear weapons possessors: 9; total who abandoned: 12. This does not take into account the many countries that may have considered nuclear weapons programs but decided they weren't worth the cost and effort.

Pakistan, and more recently North Korea; Iran (and possibly others) is perhaps on the same path today.

This argument is faulty at several levels. There are several examples of successful bans on weapons systems including weapons of mass destruction: the Chemical Weapons Convention (CWC) and the Biological Weapons Convention (BWC) (although the latter might not yet be classified as a fully successful endeavor because it lacks implementation mechanisms, including verification). More recently, the Mine Ban Convention (MBC) and the Convention on Cluster Munitions (CCM) have demonstrated the capability of people to eliminate classes of inhumane weapons, and there has also been the successful ban on a class of modern nuclear weapons in the shape of the 1987 Intermediate-range Nuclear Forces (INF) Treaty. While of course nuclear weapons cannot be disinvented, neither can chemical weapons, biological weapons, cluster munitions and anti-personnel landmines. This is a false argument. All of these weapons have been subjected to international regimes that guarantee that technical knowledge does not have to be harnessed to create weapons. The normative value of all of these conventions is that there is no inevitability for humanity to develop and use technology to destroy; it is possible for us to control our behavior and institute checks and balances to ensure that we all comply with the restrictions. This is indeed the very basis of local, national and international law – human societies elaborate sets of rules of behavior on which there is general agreement and institutions are established to monitor compliance and punish transgressions. There is an acknowledgement that not each and every person will behave according to those rules. Mechanisms have to be established to anticipate noncompliance, mitigate the damage and deal with the transgressors – this is true across a wide spectrum of controls - from misdemeanors such as traffic violations and tax evasion through felonies such as first degree murder and war crimes such as genocide.

In most cases of post-U.S. nuclear weapons programs, there were blatant circumstances that encouraged the proliferation of nuclear weapons. For the Soviet Union, acquisition of nuclear weapons was a specific response to the fear of a U.S. nuclear monopoly under the conditions of the nascent Cold War.[21] For states that acquired nuclear weapons in the 1950s-early 1960s, as well as for a much larger number of states that had active nuclear programs at that time, the full implications of nuclear weapons were not yet completely clear. The truth about them, as well as an understanding of their limited – at best – utility, needed time to sink in. This is the main reason why the global anti-nuclear movement developed only in the second half of 1950s, and the termination of many national nuclear weapons programs similarly occurred in the late 1950s through the mid-1960s. The fact was that humanity – including many of the scientists who first worked to develop nuclear weapons – did not quite understand the dangers associated with these weapons early on.

In the end, it is possible that the belief in what we call the traditional legitimacy of nuclear weapons is but a reflection of the fear of uncertainty. Nuclear weapons have been with us for

[21] David Holloway, *Stalin and the Bomb, The Soviet Union and Atomic Energy, 1939-1956*, New Haven, Yale University Press, 1994.

over six decades, and many have come to regard a non-nuclear world as a big unknown. What will happen when nuclear weapons disappear? Isn't a known danger better than an unknown? Maybe the new world will be better than the one we know, but what if it is more dangerous? These fears could sublimate themselves in the search for reasons to keep nuclear weapons around, if only for a bit longer. Of course the world will change without nuclear disarmament and dangers will wax and wane. We must understand, however, that this situation cannot continue indefinitely and that every year nuclear weapons continue to exist and enjoy a degree of legitimacy and value makes their spread – and perhaps their use – more likely. Indeed, time should not be considered as strengthening the taboo on the battlefield use of nuclear weapons for two reasons. First and foremost, the taboo does not reduce the risk of accidents. The last sixty-five years have already offered a significant series of events in which the absence of use was mostly due to luck.[22] Second, the case for the taboo has only been made convincingly for the United States.[23]

Overall, this reluctance to use nuclear weapons could be portrayed more accurately as a tradition, or an informal regime, which needs to be nurtured. The distinction between taboo and tradition builds upon the following elements. First, social taboos like incest and cannibalism are not assessed by a cost-benefit analysis. Whereas decisions to threaten or use nuclear weapons, contemplated on several occasions, have included a cost-benefit approach. Second, a taboo implies an inevitable and severe punishment if broken. There is no formal punishment laid down for violation of the so-called nuclear taboo, although there is a wide perception that the use of such weapons would incur international condemnation and any moral high ground previously held by a country that used them would be lost. However, the threat of use of nuclear weapons was not condemned by the International Court of Justice's (ICJ's) 1996 advisory opinion, strongly suggesting that the taboo is at best incomplete and should be approached as a tradition. Like others, this tradition can be – and has indeed been – contested in recent years.[24]

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[22] See Scott Sagan, *The Limits of Safety: Organizations, Accidents, and Nuclear Weapons,* Princeton, Princeton University Press, 1993.

[23] Nina Tannenwald, *The Nuclear Taboo: The United States and the Non-Use of Nuclear Weapons Since 1945*, Cambridge, Cambridge University Press, 2007. Even in the U.S. case, the hypothesis of a taboo is facing critiques. Scott Sagan, "Realist Perspectives on Ethical Norms and Weapons of Mass Destruction," in Sohail Hashmi and Steven P. Lee, *Ethics and Weapons of Mass Destruction: Religious and Secular Perspectives*, Cambridge, Cambridge University Press, 2004. For an analysis of the French nuclear history suggesting that the effect of the taboo was only truly felt after the end of the Cold War, see Bastien Irondelle, "Stratégie nucléaire et normes internationales: La France face au tabou nucléaire" *in* Yves Schemeil and Wolf-Deter Eberwein, eds., *Normer le monde*, Paris, l'Harmattan, 2009.

[24] For a discussion of how deeply ingrained tradition is in the second generation of nuclear states, and how it was sometimes ill-served by the first generation, see T.V. Paul, *The Tradition of Non-Use of Nuclear Weapons*, Palo Alto, Stanford University Press, 2009, mostly chapters 5, 6, 9 and 10. For the distinction between taboo and tradition, see pp. 4-13.

Peace first, disarmament will follow?

Increasingly, pro-nuclear weapons advocates are stressing their fears that in the absence of nuclear weapons, in a world of conventionally armed states, force will be politically, economically, and psychologically easier to use. They argue that nuclear forces compensate for weak conventional armies and prevent the use of conventional weapons in war due to fear of the "ultimate consequence." However, once nuclear weapons are removed, they fear that wide-scale war could again break out in Europe or elsewhere once again. Working in favor of this argument is the deep-seated memory of the horrors of World Wars I and II, as well as subsequent "limited" wars.

It is widely believed that during the Cold War the North Atlantic Treaty Organization's (NATO's) ability to balance Soviet conventional superiority with nuclear weapons (including tactical and intermediate-range weapons) helped preserve peace in Europe. The same argument was posited with regard to Japan and South Korea. The view held in the Soviet Union during the Cold War was a mirror image – namely, that only Soviet nuclear capability prevented the United States and NATO from aggression. This is also a rationale for Israel's nuclear capability. Within this logic, nuclear disarmament is possible, but only when we can be certain that states will not go to war, i.e., as long as major conflicts that exist in today's international system are resolved and will not come back or new ones will not emerge. Since complete world peace and global harmony is hardly achievable in the foreseeable future, the nuclear weapons states can continue to uphold the NPT's Article VI disarmament obligation, but only as a theoretical possibility whose implementation must be postponed indefinitely.

The demand for complete peace and harmony is little more than a trick. It is impossible to guarantee the absence of conflicts in international relations. And, in fact, it is not necessary for nuclear disarmament. The mistake is to assume that nuclear weapons could be used in any conflict whatsoever. Their nature and the widespread norm against their use determine a very narrow range of situations when employment of nuclear weapons or a nuclear threat would be feasible and credible. Such conflicts are very few. In the vast majority of situations, nuclear weapons will never enter the picture in any event, whether they exist or not.

Furthermore, conflicts may not need to be resolved completely at first – they have to be stabilized just enough to prevent the threat of a major war. For example, long-standing conflicts in the Middle East do not need to be completely resolved to rule out the possibility of nuclear use: it is sufficient to ensure that a number of major players in the region forego threats to Israel. This is difficult certainly, but by no means impossible – the example of Egypt, which concluded a peace treaty with Israel – testifies to that. The proliferation of international institutions and regimes in the post-World War II decades suggests that we may now possess a much better capability to manage conflicts instead of plunging into a fight as in the 19th or early 20th century.

In fact, one of the greatest impediments on the path of nuclear disarmament seems to be the continuing threat of proliferation (which, in part, is generated by the delays with disarmament, creating a vicious circle). Certainly the threat of continued nuclear proliferation makes it harder

for the nuclear weapons states to push for nuclear disarmament, both with their domestic constituencies and those states feeling under threat from new proliferators.

In the end, if the arguments about the war-prevention qualities of nuclear weapons are unpacked, the well-entrenched notion that a nuclear capability was useful in balancing Soviet conventional superiority during the Cold War is highly deceptive and counterproductive. Adherence to this view automatically justifies the current nuclear policies of Russia and Pakistan. Claims by NATO that it does not represent a threat to Russia, and similar claims by India with regard to Pakistan, hardly change anything. So long as the habit of basing defense policy on the worst-case scenarios continues to dominate policy planning, these countries will continue to think of nuclear weapons as a balance against conventionally superior neighbors. The fact that the United States and NATO have not rescinded their Cold War justification for reliance on nuclear weapons makes them an example to emulate and forces the United States and NATO to accept, even if tacitly, the logic of the Russian and the Pakistani positions.

Instability and uncertainty at zero are overstated

It is argued that while nuclear disarmament is highly desirable, the path to zero is so fraught with dangers that the world will be better off with the status quo. There are essentially three significant numbers that matter for nuclear weapons: zero, one and a hundred.[25] Zero (true zero) is the absence nuclear weapons and hence of the ability to launch a nuclear attack. One nuclear weapon, if used, would cause horrendous suffering for those attacked but not the end of civilization. One nuclear weapon, if found in a world supposed to be free of nuclear weapons, could sabotage attempts to sustain zero depending on the circumstances and thus its significance is political and psychological rather than military. One nuclear weapon if held back deliberately from the disarmament process could sabotage nuclear disarmament and nonproliferation progress. A hundred nuclear weapons (or a few hundred depending on their yields and targets) could effectively destroy a country's ability to function for decades.

The fear expressed is that if nuclear disarmament proceeds towards zero nuclear weapons, at low numbers, each nuclear weapon becomes increasingly valuable as a proportion of the whole. There are people who imagine, for example, that the threat of nuclear use will increase at low numbers. They speculate that it may be possible to "win" a nuclear war, i.e., eliminate the opponent's nuclear forces in the first strike. Or they imagine a situation in which two or more states with small arsenals combine nuclear forces against another state.

There are others that see a strong incentive to fabricate secretly one or two nuclear weapons because even such a small number will give its possessor immense leverage vis-à-vis the rest of the world. Many of the fears that surround the transition to very low numbers are centered on the belief that each nuclear weapon becomes more significant, more valuable as numbers decrease. Evidence suggests that the opposite is true, however. The four years when the United States held nuclear monopoly and the longer period when it enjoyed clear superiority

[25] Thanks to Dr Jay Davis for this insight.

over the Soviet Union (superiority further amplified by the scarcity of effective intercontinental delivery means in the Soviet Union) yielded remarkably few tangible gains. Based on that experience, we can anticipate that when nuclear arsenals make the circle and return to single digits or low dozens imbalances or even nuclear monopoly measured in single digits will not matter, meaning that the problem of "low levels" will not become an obstacle to denuclearization.

Perhaps even more significantly, a small number of nuclear weapons, if used, could inflict great destruction, but could hardly win a war – as evidenced by the only use of these weapons in combat against Japan, (See Appendix 1 for a more in-depth analysis of the U.S. bombing in Japan.) Small numbers of nuclear weapons are unlikely to provide a state with an overwhelming advantage; they are perhaps more likely to saddle the state that attempts to use them or even just to threaten use with massive problems. Such a state could become an outcast in the international system with all other key states aligned against it. That is, a small number of nuclear weapons in an otherwise non-nuclear world could well be a liability rather than an advantage.

If the nuclear weapons states have agreed to reduce numbers to a very low level and head to zero, it is because, the value of nuclear weapons has been understood as useless, akin to the Paris Gun (or the Bat Bomb or Snark missile[26]), and so numbers are no longer significant. Indeed, a world with increasing numbers of nuclear weapons possessors is hardly more stable than one with decreasing numbers of weapons and possessors, and there are well-tested verification measures that can be put in place now, and in the future, to address the issues of uncertainties and risks in nuclear disarmament.

So, the tradition upholding the legitimacy of nuclear weapons relies on scant evidence. The nuclear status quo is not supported by a comparison with other weapon systems, the risk of nuclear instability at low numbers, or the risk of conventional war. Giving up nuclear weapons is neither impossible nor more dangerous than the world we are living in and may indeed lead to a safer world – at least one without risk of nuclear war.[27]

II.2. Charismatic legitimacy, coercion and deterrence

It is sometimes said that because nuclear weapons are "special" and their ability to coerce is unrivaled, any comparison between conventional and nuclear attacks is pointless. Leaving aside the point that the only evidence for their "unrivaled" ability to coerce is the destruction of Hiroshima and Nagasaki, which will be shown not to have been coerced, this notion is based on a misapprehension.

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[26] "Weird, Whacked and Useless Weapons," Military Channel Web site, http://military.discovery.com/tv/backyard-battlefield/weird-weapons/weird-weapons.html.

[27] The idea that a nuclear catastrophe would be the only way to get to zero should be methodically challenged, because it is the strongest tool to invalidate the efforts to get to zero on moral grounds.

This position is perhaps best exemplified by Herman Kahn writing in his 1965 book, *On Escalation*[28]:

> *Despite the fact that nuclear weapons have already been used twice, and the nuclear sword has been rattled many times, one can argue that for all practical purposes nuclear war is still (and hopefully will remain) so far from our experience that it is difficult to reason from, or illustrate arguments by, analogies from history. Thus, many of our concepts and doctrines must be based on abstract and analytical considerations.*

The belief in the exceptional nature of nuclear weapons is widespread. As Fred Kaplan wrote in 1983: "In the absence of any reality that was congenial to their abstract theorizing, the strategists in power treated the theory as if it *were* reality. For those mired in thinking about it all day, every day, in the corridors of officialdom, nuclear strategy had become the stuff of a living dreamworld."[29] We will therefore bring history back in and reassess the three main supposed exceptional properties of these weapons: their coercive power,[30] deterrent power and incomparable technological achievement.

Nuclear non-coercion: Hiroshima and Nagasaki

There are some who claim that President Eisenhower used the threat of nuclear weapons to coerce successfully the North Koreans into agreeing to end the Korean war, but historians disagree and the record is far from clear.[31] However, the most common case for the use of nuclear weapons is based on the argument that bombings on Hiroshima and/or Nagasaki ended World War II. We will examine these cases in detail and provide additional evidence to show that nuclear threats did not provide significant leverage to those who issued them and that their actual use would not have a coercive effect.[32]

The first – and the only use of nuclear weapons in war – was by the United States against Japan in 1945. According to the traditional U.S. interpretation, the decision to use nuclear weapons was motivated by the desire to end the war quickly and reduce the number of U.S. casualties that would have been unavoidable had the United States been forced to land in Japan, most likely in 1946.[33]

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[28] Herman Kahn, On Escalation: Metaphors and Scenarios, New York, Frederick A. Praeger, 1965, p. 134.

[29] Fred Kaplan, *Wizards of Armageddon*, New York, Simon & Schuster, 1983, p. 390.

[30] On the origins of that idea, see Anne Harrington de Santana, "Nuclear Weapons as the Currency of Power: Deconstructing the Fetishism of Force," *Nonproliferation Review*, 16, No. 3, 2009.

[31] Richard K. Betts, *Nuclear Blackmail and Nuclear Balance*, Washington, D.C., Brookings Institution, 1987, pp. 31-47.

[32] A full version of this section is found in Appendix 2.

[33] This view has always been questioned by Russia which regarded the use of nuclear weapons against Japan as a "message" to Moscow in the emerging Cold War confrontation.

Recent historical research in Japan and not-so-recent research from the Soviet archives demonstrate that the destruction of Hiroshima and Nagasaki did not significantly influence the willingness of Japan's General Staff and government to fight (similarly neither did the Tokyo fire bombings). Rather the declaration of war by the Soviet Union on 8 August 1945 brought the Pacific War to an end, because only at that point did Japan find itself in a no-win situation of fighting on two fronts simultaneously.

Even a cursory examination of the facts shows that there are serious problems with the tale we have been telling ourselves about nuclear weapons for the last sixty-five years. And it is worth examining the truth about the bombing of Hiroshima and Nagasaki because so much of the international nuclear security structure has been founded on these beliefs.

Hiroshima is regularly described as the worst attack against a city in history, mostly by people who oppose nuclear weapons. The facts are quite different and the exaggeration is part of what gives nuclear weapons their psychological power. The U.S. Air Force bombed 68 cities in the summer of 1945, and it was one of the most devastating campaigns of city attacks in the history of mankind. Graph the number of people killed in each of the 68 city attacks that summer, and Hiroshima is second. Tokyo, the conventional attack that opened the campaign in March, is first. Graph the square miles destroyed and Hiroshima is fourth. Three other cities had more total square miles destroyed with firebombs and conventional high explosives. Graph the proportion of each city that was destroyed, and the outcome is even more striking. Hiroshima was seventeenth. Toyoma, attacked at the beginning of August, was 99.5% destroyed. Clearly, Hiroshima was not outside the scale of the conventional attacks against other Japanese cities that summer.[34]

The crucial event in that first week of August was the decision by Japan's leaders to consider unconditional surrender for the first time in a meeting on 9 August. The bombing of Hiroshima occurred three days earlier – indeed Foreign Minister Togo Shigenori requested a meeting of the Supreme Council to discuss the bombing of Hiroshima on 8 August,. but had his request turned down. The Hiroshima bombing did not cause the crisis, and indeed the Supreme Council was already meeting, already discussing surrender, when news of the bombing of Nagasaki reached Tokyo early in the afternoon of 9 August, so the Nagasaki bombing was not the reason for considering surrender.

What, then, could have caused Japan's leaders to change their minds and suddenly meet to discuss absolute surrender? At midnight on the night of 8 August the Soviet Union, which had been neutral, declared war and launched an invasion of Japanese-held territory in Manchuria, on Sakhalin Island and elsewhere. It was a massive, overwhelming attack by more than 1.5 million men that drove Japan's forces reeling back.

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[34] Destruction figures are based on United States Strategic Bombing Survey, Vol. IX, *"The Strategic Air Operations of Very Heavy Bombardment in the War Against Japan*," in Pacific Report No. 66, New York, Garland, 1976, p. 43.

On the morning of 9 August, as news of the Soviet invasion of Manchuria (and other places) began to filter into official circles in Tokyo, orders were drawn up declaring martial law – orders that were put into effect later that same day. No such break with ordinary routine occurred when Hiroshima was bombed three days earlier. Also on that morning, in a private meeting of Army officers planning strategy for the Supreme Council and Cabinet meetings later that day, Army Deputy Chief of Staff Kawabe Toroshiro suggested that the military overthrow the Emperor and declare a military dictatorship.[35] No such extreme responses were considered after the bombing of Hiroshima.

Word of the bombing of Nagasaki arrived early in the afternoon of 9 August while the full Cabinet was discussing unconditional surrender. What is remarkable about this news is that it does not appear to have substantially changed the debate in the Cabinet or even remained a matter of discussion for very long. When the news arrived, the Cabinet was deadlocked over whether to consider unconditional surrender. After a brief discussion the Cabinet remained deadlocked and went on to talk about other issues. This second bombing does not appear to have changed any minds or had any appreciable impact on the discussion.

In the spring of 1945, Japan was already largely defeated and Japan's leaders knew it. They hoped, however, through diplomacy or battle to win better terms than simple surrender. Research in the last twenty years has made clear that these were the only two options: Japan's ruling elite believed that no other plan for securing an acceptable surrender merited attention or effort. Once the Soviet Union intervened, hopes for a mediated settlement were extinguished; Japan surrendered because the Soviet declaration of war and invasion of Manchuria, Sakhalin Island and other territories deprived it of any viable options. They surrendered, in other words, because they had no choice. The Soviet declaration of war and invasion was strategically decisive; bombing two more cities in a campaign that had already bombed 66 other cities, was not.

Hindsight is not always 20-20. We see Hiroshima in a particular way precisely because we have been influenced by the myth of Hiroshima since 1945. We "know" that Hiroshima had a big impact on Japan's leaders (even though the evidence contradicts that "knowledge") because we "know" that it forced them to surrender. The facts show one thing, but we still retrospectively decide another. Of course, many people believe that the threat of a "rain of ruin" coerced Japan to surrender, but now we know that this was not the case.

Possessing nuclear weapons provides little leverage

Despite expectations to the contrary, the United States' nuclear monopoly in the four years after World War II did not yield significant diplomatic influence. Secretary of State James Byrnes is supposed to have told friends that nuclear weapons gave him an inestimable

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[35] Richard B. Frank, *Downfall: The End of the Imperial Japanese Empire*, New York, Random House, 1999, pp. 288-289.

advantage and "assured success in negotiations." He came back from negotiations with the USSR chastened, saying that the Soviets are "tough, mean, and they don't scare."[36]

Nuclear weapons did not prevent the Soviet Union from occupying and holding most of Eastern Europe in the years after World War II. These were years during which the United States had a monopoly on nuclear weapons. But the Soviets were not, apparently, intimidated. In fact, they were so little afraid that in 1948 they cut off access to Berlin, precipitating a crisis that could have led to war. Nuclear weapons had no impact on events in China, where communist forces swept to victory despite U.S. possession of nuclear weapons. Nuclear weapons appear to have had little influence on these or many other important events that occurred between 1945 and 1949 (when the Soviets tested their first nuclear weapon[37]).

During the Suez crisis in October 1956, British nuclear weapons did not work as an "equalizer" as some strategists suppose. Like the not yet nuclear-armed French and Israelis, engaged in a joint military expedition after Nasser nationalized the Suez Canal, the United Kingdom was forced to withdraw following pressure from both the United States and Soviet Union.[38]

Nuclear weapons also failed to give their possessors a decisive military advantage in war. The United States was fought to a draw in Korea and subsequently lost a war fought in Vietnam, despite possessing the "ultimate weapon." The Soviets as well suffered their own humiliating defeat in their own guerrilla war in Afghanistan. Since the Vietnam War, the United States has fought in Kosovo, the Persian Gulf, Afghanistan and Iraq. In none of these wars was the United States' opponent intimidated into surrender nor was a practical use for nuclear weapons devised.

Against these failures are often offered a range of explanations. The enemy had an ally who possessed nuclear weapons, the war was not sufficiently central to the interests of the nuclear power to justify using weapons of last resort, and so on. The evidence provides little support for the notion that nuclear weapons provide diplomatic leverage.

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[36] For U.S. expectations, see Gregg Herken, *The Winning Weapon: The Atomic Bomb in the Cold War 1945-1950*, New York, Vintage Books, 1982, especially chapters 2 and 3. For the thin harvest of nuclear influence, see McGeorge Bundy "The Unimpressive Record of Atomic Diplomacy" in Robert J. Art and Robert Jervis, editors, *International Politics: Enduring Concepts and Contemporary Issues*, New York, HarperCollins, 1996.

[37] Note however that the United States and USSR could not reach each other directly with nuclear weapons until 1957, although the United States had bases in Europe which would have allowed it to bomb the Soviet Union with nuclear weapons from 1945 onwards. One of the ways in which Truman tried to use nuclear weapons to coerce the USSR during the Berlin crisis was to order bombers that had been modified to carry nuclear weapons to Europe.

[38] This case is also interesting in terms of the credibility problem of nuclear threats: Marechal Boulganine asked how France would feel if she were attacked by a country with "modern and terrible" means of destruction, but this threat was apparently not taken seriously for long. Dominique Mongin, *La bombe atomique française 1945-1958*, Brussels, Bruylant, 1997, p. 441.

An exceptional technology?

Hitherto, the development of nuclear weapons signified a certain technological prowess, as it was a new technology and therefore no easy matter to develop the know-how and acquire the material wherewithal for their manufacture. This argument seems to be important in states that have developed the technology – at least at that time. For example, South African President Frederik de Klerk, while presenting South Africa as a pioneer of nuclear disarmament, was unable to hide his pride in the fact that South African engineers had developed this technology without significant foreign assistance. It is true that basic nuclear weapons technology was developed in the 1940s, but it is also true that the fact that countries such as Libya failed to make significant progress in developing a nuclear weapons capability over more than thirty years forms part of the "technical prowess" appeal of nuclear weapons. The scientific and technical understanding is certainly within the grasp of almost all countries; it is the access to weapons-useable nuclear materials that is the hardest technical step in the development of a clandestine program. Prestige was a significant factor in India's and Pakistan's nuclear weapons programs in the 1970-1990s, and still has an impact in the discussions in and on North Korea and Iran. Prestige does not only work outside, it is politically useful to inspire domestic audiences as we have seen in India, Pakistan and North Korea. The argument too often stated that North Korea could go for the bomb with old technology and poorly trained engineers does not hold water.[39] It is now not so much the technology in itself that is considered extraordinary but the combination of the sophistication of this technology, its scarcity and prohibition.

A nuclear weapons program is prestigious because it is *difficult* to achieve on a technological level. Getting this technology also grants prestige because it is *rare and associated with great power status*. The combination is important because anything rare is not necessarily valued. And nuclear weapons technology can be desirable because those who already have it – and many others – have built many hurdles to prevent others from getting it. In other words, getting it is prestigious because it is *forbidden*.

There is no question that there have never been any weapons like nuclear weapons. They are remarkably powerful weapons. But that does not make them magic, or give them special powers. One of the fundamental mistakes of much of the thinking about nuclear weapons has been to be overly impressed with means, while ignoring ends. It is not surprising that this happened: nuclear explosions are awe inspiring and impressive events. But nuclear weapons have been around long enough that common sense should have returned.

In human affairs ends are almost always more important than means. Kill someone with a knife or kill them with a soft, fluffy pillow – you will still be charged with murder. Nuclear weapons are fundamentally means and the fact that they are new technology or remarkably impressive to look at, does not change the outcome of their use. The reason Japan's leaders were not overly

[39] Thanks to Dr. Ferenc Dalnoki-Veress for making this point.

impressed with the nuclear bombings of Hiroshima and Nagasaki is that they had had cities bombed before.

Nuclear weapons may indeed be special but the outcome of their use is not: cities have been destroyed in war going back to the beginning of time. Why does it make sense to imagine that the means one uses to accomplish a task are more important than the end result?

The argument here is that nuclear bombings deliver a special horror that is unlike other military actions. There is no question that nuclear weapons create horrible outcomes. But that does not mean that those horrible outcomes give states a unique power to coerce. If the effects of nuclear weapons are peculiarly horrible and that because of this unique horror they are far more likely to coerce, then nuclear weapons are weapons that you have to keep because they give you a power that no other weapon can provide. If you concede that nuclear weapons create special horror and that that horror creates a unique power to coerce you cannot abolish them. Nuclear weapons are new, remarkable technology: "special," if you like; the results of their use are not.

As far as the connection between scarcity and prestige is concerned, there are examples of things that have very little value that we treat as the most important thing in the world. They surround us in our day to day life. The answer to this riddle was provided by Anne Harrington de Santana.[40] Harrington solves the puzzle of how nuclear weapons could have so few real uses and yet be treated as if they were vital.

Harrington argues that nuclear weapons are like currency. We live our lives (most of us) as if money were the most important thing on the face of the earth (or at least one of the most important things). But if we stop and think about it, money has very little practical value. We can't eat it, we can't build a shelter out of it, we can't wear it as clothing (not if we don't want the clothes ripped off our backs, that is.) Money is an object that we treat as important but which has little practical usefulness in itself.

Consider a man washed ashore on a desert island who is magically given a wish. He can have anything. What would he wish for? A great stack of hundred dollar bills? Or a Swiss army knife? A pile of gold coins? Or fish hooks and some good nylon line? A credit card with a $10,000 spending limit? Or a pair of rabbits, one male, one female? On a desert island, money is worthless. It is only in a society that money has value.

And different societies can value different currency. In the United States, people tend to think of money as universal because they can take their dollars and spend them almost anywhere in the world. But Mexicans cannot bring pesos and spend them in Vermont. Although pesos can buy you whatever you want in Mexico City, they will not get you even a bottle of maple syrup in Burlington. You have to take those pesos to a special institution and trade them for the local currency, for dollars.

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[40] Anne Harrington de Santana, "Nuclear Weapons as the Currency of Power," *op. cit.*, p. 333.

Harrington reminds us of the Portuguese traders who, while exploring the western coast of Africa in the 1400s, discovered African tribes whose whole economy was based on cowrie shells. Cowrie shells are the small, rounded shells with a horizontal opening that looks like a mouth with small black teeth. They are common on beaches throughout Europe. But they were rare in the world of these African tribes.

The local people believed the shells had medicinal and religious power. A bracelet or a necklace of cowrie shells could ward off sickness or prevent harm from coming to the wearer. They brought good fortune and protected the life of the person who owned them. A man with a large necklace of cowrie shells was a rich man.

The Portuguese collected barrels of cowrie shells from the beaches at home and brought them for trade in Africa. They could not believe their luck. The tribes were willing to trade cowrie shells for gold. The Portuguese were dumbstruck. It was a chance for them to make fortunes exchanging something that was worth nothing for something that was tremendously valuable. They must have laughed to themselves all the way back to Lisbon.

But the indigenous people were laughing, too. They knew that gold was entirely useless. You couldn't eat it, you couldn't wear it. You could build a house from it, but why would you want to? They had mines which supplied lots of this heavy, shiny metal. In their world gold was common and shells were rare. And shells were the basis of their whole economy, the most valuable thing in the world. And these stupid Portuguese were willing to trade the most valuable thing in the world for a common, worthless metal. "What a deal!" they must have thought to themselves.

Currency is a medium of exchange. The physical object that you use as currency is essentially unimportant. It can be lumps of metal, it can be (as it was in ancient Rome) salt or it can be pieces of paper with particular pictures and numbers on them. The actual object is largely beside the point. It is the value that is assigned to it that matters. People could choose to use buttons for currency. Or any object that was durable and relatively rare.

Different societies can (and do) set up their currencies in different ways. The value of money does not depend on the practical value of the materials that make up the coin or bill. A five dollar bill isn't worth five dollars because the paper and ink it is printed with are worth that much. Its value is settled by common agreement. We agree to treat this piece of paper as money, and therefore we can trade it for goods and services. Its value is assigned by common agreement, not by the cost of the materials it is made from or what you can actually use it for.

And this is Harrington's central insight: nuclear weapons are tokens of exchange. They have become a currency of power. We use them to evaluate how powerful different countries are. We use them to trade threats back and forth. We use them to judge who should be seen as a nation of importance. It is often pointed out that the permanent members of the United Nations Security Council are all nuclear weapons states. All bar one of them, however, did not possess nuclear weapons when the UN Security Council was established – nuclear weapons followed their world-power status. Nuclear weapons are tokens of power and as we have seen their actual usefulness is not essential for them to play this role.

It is perfectly possible for a society to give value to a not very valuable object. The African tribes gave value to cowrie shells. Harrington's insight is to understand that it is possible to see nuclear weapons as a currency. Because their primary function is deterrence and other forms of threatening, and because threatening does not require practical tests to determine how useful something actually is, it is possible for nuclear weapons to be treated as vital while still being untested. Isn't it possible, Harrington asks, that nuclear weapons are our cowrie shells? We treat them as if they were magical and others treat them that way too, but it might turn out that their practical value is relatively limited. The fact that nuclear weapons provide status today does not mean that they are the only things that could be used as a status symbol. Since status is a socially created attribute, new and different status symbols could be designated tomorrow.

Using or threatening use

If nuclear weapons were to be actually used, the historical record suggests that this would more likely strengthen resistance instead of coercing the victims of the strike. It is important to note in this discussion that we have not distinguished greatly between "deterrence" and "compellence" as nuclear theorists are wont to do. The reason for our contrariness in this regard is part of our whole examination of nuclear deterrence. Compellence (threatening someone so that you compel someone to do something) and deterrence (threatening someone so that they do not do something) have been distinguished in nuclear strategic studies since the 1960s. This allowed nuclear deterrence to be uncontaminated by the documented failure of nuclear coercion – indeed, we suspect the distinction to be an after-the-fact intellectual construction to explain the whole string of nuclear coercion threats that obviously failed. Do compellence and deterrence with conventional force show a striking and measurable difference in success rates?[41] In addition, it is worth examining here the distinction between the threat of use and the actual use of nuclear weapons. At the very basic level, a threat will deter if there is belief by the threatened that it could well be executed. Therefore, the distinction between the threat of use and the actual use vanishes at a moral level at least. Furthermore, over time, if the threat of use does not seem to be backed up by the probability of use, then any credible deterrent effect will disappear. Documented threats[42] demonstrate two main points. The first is that threats have been made over a period of several decades and thus there hangs a question mark over the behavior of the nuclear weapons states. Second, the threats have not worked in that they appear to have no impact – perhaps they were not believed.

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[41] See John Mearsheimer, *Conventional Deterrence*, Ithaca, Cornell University Press, 1985.

[42] The most comprehensive treatment of this subject is in Richard Betts. For a further list of threats, see Daniel Ellsberg, "Roots of the Upcoming Nuclear Crisis (or, Dr. Strangelove Lives: How Those Who Do Not Love the Bomb Should Learn to Start Worrying)", Chapter 4 in David Krieger (ed.), *The Challenge of Abolishing Nuclear Weapons*, Transaction Publishers, 2009. See also Samuel Black and Shireen Havewala, "Nuclear Threats 1970-2010," Henry L. Stimson Center, http://www.stimson.org/nuke/pdf/Nuclear_Threats_1970-2010.pdf.

There are five categories of targets possible in a nuclear war, and they form the basis for thinking about the threat of use, as well as the actual use of nuclear weapons. They are as follows: 1) leaders, 2) civilians, 3) military personnel, 4) economic targets and 5) the country as a whole. Of these five targets, civilians are the group most likely to suffer from nuclear weapons regardless of the actual set of targets, and civilians also form the group that is the easiest to destroy with nuclear weapons. There are three reasons for this.

First, their utility for attacks against cities (and hence civilians) has been characteristic of nuclear weapons since the very beginning. The first – and so far only -- use of nuclear weapons was against cities. When their power is described to the uninitiated, nuclear weapons are almost always defined by saying "one weapon is powerful enough to blow up a city." Discussions about nuclear war have always been filled with talk of attacks against cities.

Second, attacks against leaders, military targets and (especially) economic targets are likely to result in large-scale civilian losses. Even when attacks are limited to relatively isolated military targets, it is difficult to prevent considerable civilian losses. In a now famous study in 1976, physicists Frank von Hippel and Sydney Drell demonstrated that a "limited" nuclear attack on U.S. nuclear forces could result in as many as 110 million civilian deaths.[43]

Third, any war that involves nuclear weapons is likely to end up targeting civilians. Almost all scenarios for nuclear war include the possibility that the war will "get out of control" – a euphemism for unrestricted attacks against civilians. In fact, it has been a staple of deterrence theories that a response strike must have "counter-value" properties, i.e., intentionally target population centers. The great majority of nuclear deterrence threats seem likely to involve threats to attack civilians. It makes sense, therefore, to examine the threats to attack civilians first.

It seems intuitively obvious that a threat to destroy an entire city at a single blow would necessarily coerce in any conceivable circumstances. But what seems intuitively obvious is not always the case.

Review the record from the beginning of recorded history and the story is largely the same: attacks against cities or civilians do not lead to victory. Sometimes cities are destroyed after war has been won (Carthage) but never does city destruction or more generalized slaughter of civilians lead to surrender. Attila the Hun's attack on and destruction of Aquileia in 452 AD did not convince the Western Roman Empire to surrender and had little obvious impact on the military campaign. In the Khwarazmian war of 1219 to 1221, Genghis Khan carried out one of the most comprehensive campaigns of city destruction in the history of warfare. At least eight cities were destroyed, and perhaps several million civilians killed. The city attacks could not have been more thoroughly or brutally carried out. Yet, the Khwarazmian forces fought on for three long years. The war only came to an end when the last Khwarazmian army, under the son of the former Shah, was defeated on the banks of the Indus in 1221. The war did not end when cities were destroyed or civilians killed, but only when the last army was defeated.

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[43] Sydney Drell, and Frank von Hippel, "Limited Nuclear War," *Scientific American*, November 1976.

One of the most remarkable cases of city destruction occurred during the Thirty Years War. Tilly, commanding Imperial forces, besieged the German city of Magdeburg and its Protestant defenders. When the city fell it was burned and some 30,000 died. What is notable about the attack, however, is that this act of slaughter did not lead the Protestant forces to capitulate. In fact, Protestant recruitment and support surged throughout northern Europe. Far from bringing the war to a close, the fighting continued for another seventeen years.

All of these examples are in line with the American experience during the American Civil War of 1860-1865. The Southern states did not surrender when Atlanta was burned in the summer of 1864, nor did they cease fighting when their capital, Richmond, Virginia, was captured and partially burned in 1865. The war only came to an end when Robert E. Lee's Army of Northern Virginia was surrounded at Appomatox and J. E. Johnston's army surrendered in North Carolina. Only when the armies were defeated – or faced certain defeat (as with Japan) – did war come to an end.

Consider the record of World War II. The Japanese did not surrender even though sixty-eight of their cities were bombed. Eighty percent of all the cities over 100,000 people were destroyed. Three hundred and thirty thousand civilians died. Yet Japan's leaders thought so little about city bombing that they barely even mentioned it in the Supreme Council, the effective ruling body of Japan at the time. It was discussed once in May 1945 in passing and once on the night they discussed surrender.[44] On the evidence, it is difficult to build a case that city bombing was a major factor in Japanese officials' decision-making at all.

Germany suffered the highest loss of civilian life due to bombing of any country in World War II. Some 570,000 civilians were killed in a massive campaign of attacks against civilians in all the main German cities. Hitler, at the outset of World War II, was concerned that bombing attacks against Germany would damage German morale. In the event, the German people took a fearsome pounding without giving up the will to continue the fight.

British civilians seem to have had their resolve stiffened by German bombing attacks against cities. No Member of Parliament rose to urge surrender when London was attacked or Coventry devastated. There is no evidence that Winston Churchill ever considered surrender because of the German attacks on civilians.[45] As Bernard Brodie has said, "The Allies learned after the war that the attack on enemy morale had been on the whole a waste of bombs . . .."[46]

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[44] Frank, *Downfall*, *op. cit.,* p. 294.

[45] In fact, far from being afraid that city attacks might drive the United Kingdom from the war, there is some evidence that Prime Minister Winston Churchill used British cities as a sponge to soak up German air attacks and to divert them away from precious military assets. In the first years of the war there had been a commitment not to bomb cities. Historians claim that Churchill seized on an accidental bombing of London on the night of 24 August to launch a counter raid on Berlin. The next day Hitler ordered the Luftwaffe to shift away from attacks on British airfields (which were close to breaking the Royal Air Force) and concentrate on attacking London and other cities. George Quester notes, "Churchill admits his desire, in late August, for an immediate shifting of the massive Luftwaffe offensive from the RAF airstrips to London, and he admits his personal responsibility for the bombings

The historical record is convincingly one-sided: destroying cities does not coerce surrender. There are no instances – at least none discussed in the literature – of cities being destroyed and states surrendering. This clear record of failure raises serious doubts about the effectiveness of the use of nuclear weapons – attacks against civilians paradoxically seems to strengthen resistance, rather than breaking the will of people to resist. This is as true for terror campaigns as it is in classic military conflict.[47]

What nuclear weapons do best is kill massive numbers of civilians. We imagine, because our mental image of so many civilian deaths is so horrible, that threats to kill civilians en masse must surely coerce. There are two startling flaws with this intuition: not only are there no unambiguous instances of such a threat working, but even the act carried out does not seem to have achieved the desired end. This seems counter-intuitive, but it is worth keeping in mind when evaluating claims about the coercive ability of nuclear weapons.

Few military leaders hesitate to kill civilians if there is some justifiable military goal in prospect. And the unimportance of civilians is so well established that Just War doctrine takes account of the right of military forces to kill civilians who get in the way of justified military action. It is true that as the number of civilians killed rises, so the moral objections to killing them also rise. But the numbers can rise extraordinarily high without the moral objections overwhelming necessity. As Hugo Slim wrote: *"Most warring states do not see civilians as humanitarian agencies might like them to. Either they do not find civilians particularly innocent or they decide that, innocent or not, killing them is useful, necessary or inevitable.*"[48]

Many people seem to believe that the truly appalling thought of killing hundreds of thousands or even millions of innocent civilians necessarily would deter leaders. But this assumption has not been closely examined. At a relatively low level of strategic importance, when relatively unimportant interests are at stake, horror and morality surely do influence decision-makers. All other things being equal, most leaders would like to avoid unnecessary civilian deaths – and this may be even more compelling with instantaneous global communications. But as the stakes rise, the importance of horror and morality decreases, the emphasis on necessity rises, and decision-makers become more willing to allow innocents to suffer. Bruno Tertrais,[49] for example, notes "Most modern states have less tolerance for human suffering and destruction than was the case until 1945." He then makes the case that massive casualties caused by bombings have a stronger effect on decision-making and thus provide a stronger coercive force. It is certainly true that there seems to be less stomach for violence since World War II

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of Berlin begun on August 25; it seems quite likely that he was aware of the probable connection between the two." George H. Quester, "Strategic Bombing in the 1930s and 1940s," in Art and Waltz, *The Use of Force*, pp. 249-250.

[46] Bernard Brodie, *Strategy in the Missile Age,* Princeton, NJ: Princeton University Press, 1959, p.103.

[47] See, for example, Max Abrahms, "Why Terrorism Does Not Work," *International Security*, Vol. 31, No. 2, Fall 2006.

[48] Hugo Slim, *Killing Civilians: Method, Madness and Morality in War*, London, Hurst Publishers Ltd., 2007, p. 3.

[49] Bruno Tertrais, "Nuclear Myth-Busting," *Nonproliferation Review*, Vol.16, No. 2, p. 133.

(although the Iraqis, Iranians, Cambodians and Rwandans, for example, might see things differently).

However, rather than be complacent, remember that at the end of the 19th century the European Victorians congratulated themselves on their civility and good manners. There might be wars in the colonies (fighting savages), they said, but there would never be savage war again in Europe. We have evolved too far, they said, our commercial interests are too intertwined, we are too cultured for the sort of brutal, rampaging war that engulfed all of Europe during the 1600s or the Napoleonic era. Massive wars like that, they confidently and complacently asserted, are gone forever. World War I disabused them with a savage fury.

It is hard to make a case for the importance of civilian deaths in preventing or halting war based on historical examples. There is a strong emotional desire (particularly among civilians) for civilian deaths to matter in war, but attempts to bolster this emotional desire with evidence prove remarkably frustrating. A review of three thousand years of history by serious scholars turns up no war that was won by killing civilians or destroying cities. There are no well-known examples of leaders who are praised for surrendering in order to bring the suffering of their people to an end. In war, it seems, civilians are expected to suffer – although there are many instances of leaders earning immortal fame for gloriously fighting until the bitter end. As in the cases of Hiroshima and Nagasaki, a general overview of the bombing of cities and civilians, has not proven the coercive efficacy of nuclear weapons.

The claims for nuclear deterrence

A great deal is claimed for nuclear deterrence. It keeps us safe, stabilizes crises, deters attacks, offsets conventional force imbalances, allows us to affect political events from afar, protects our friends, awes and influences, and acts as the ultimate insurance of national survival. The first problem with nuclear deterrence is a generalized one. Even if one were inclined to believe everything said about nuclear deterrence, the sheer multiplicity and diversity of the claims made about it might be enough to inspire skepticism. How could it be possible for one thing to accomplish so much in so many different arenas? This faith-based approach suggests specific powers assigned to nuclear weapons that lend them “charismatic legitimacy”. The high stakes and political determination to make a case for possession of the bomb lead to a quest for certainty and knowledge in areas where it is not reachable. Therein lies the deadlock of ideological thinking in the disarmament debate.[50]

Therefore, our examination of the deterrent power of nuclear weapons does not pretend to deny it entirely – indeed any weapon potentially has a deterrent value on an opponent even if the credibility of its use is low.[51] Rather we are calling into question – and casting grave doubts

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[50] On that point, see Benoît Pélopidas, “Critical Thinking about Nuclear Weapons”, *Nonproliferation Review,* Vol. 17, No.1, March 2010 and *The seduction of the Impossible, op. cit.*

[51] This is the difference between a deterrent effect and a strategy of deterrence. You can have the first one without the intent that makes the second one.

on – the theories of nuclear deterrence and asking for more than a theory. For such risks and huge consequences, on which so much rests, we need strong evidence that nuclear deterrence works. The costs are too high to wish otherwise. Deterrence is the most commonly accepted quality of nuclear weapons[52] – if only because advocacy of using them for an unprovoked offensive war is politically and morally unacceptable – and in debates on nuclear weapons it is an area where nuclear weapons proponents and arms control advocates find they can compromise.[53] However, it is striking how widely accepted nuclear deterrence is, given the paucity of real evidence in support of it.[54]

The proponents of nuclear weapons claim two different levels of legitimization. The maximalists see the weapons as a near-infallible shield that is strictly defensive: the misleading notion of "nuclear umbrella." Nuclear weapons are even seen as valuable in the anticipation of surprises; they are claimed to be an "insurance against the unforeseeable."[55] This idea of the perfect weapon makes abolition seem both impossible and undesirable – although it should be noted that few advocate the widespread uptake of these excellent useful weapons. Almost all believers in nuclear deterrence also support nuclear nonproliferation.[56]

However, prudent proponents of nuclear weapons would not hold such positions. They understand and recognize the "limits of validity" of nuclear deterrence.[57] Back in 1965, the "stability-instability paradox"[58] was posited. If a nuclear weapons state has sufficient numbers of nuclear weapons to survive a first strike and is able to execute an all-out second strike, then two nuclear-armed states might be said to have strategic nuclear deterrent stability. It has been believed – up until now – that neither state would have enough incentive to strike first in this bilateral relationship. All of this was imagined, of course, and relied on a great deal of

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[52] Freedman, *Deterrence, op. cit.*

[53] Jeffrey Knopf shows that it was the case for the deterrent strategy as a whole, not only at the nuclear level, during the Cold War. Critiques from the right favoring rollback over containment and deterrence as well as proponents of disarmament and accommodation of the Soviet concerns as an effort to preserve the World War II alliance ended up backing deterrence, which at first sight, had few strong allies. "Three Items in One: Deterrence as Concept, Research Program and Political Issue" in T.V. Paul, Patrick Morgan and James Wirtz, eds., *Complex Deterrence: Strategy in the Global Age*, Chicago, University of Chicago Press, 2009, pp. 32, 46.

[54] See, for example, Ward Wilson, "The Myth of Nuclear Deterrence," *Nonproliferation Review*, Vol. 15, No. 3, November 2008.

[55] Pierre Gallois, *Nuclear Weapons: Insurance Against the Unforeseeable* , Paris, Cahiers du Centre d'Etudes d'Histoire de la Défense, 1997 [in French].

[56] With the exception of course of Kenneth Waltz and his school. See Kenneth Waltz, "The Spread of Nuclear Weapons: More May Better," Adelphi Papers, Number 171, London, International Institute for Strategic Studies, 1981.

[57] One of the major French nuclear strategists, Lucien Poirier explained in a *France Culture* interview on 13 November 2008 how he had always rejected the idea that nuclear weapons were able to prevent any kind of war. (In his view, it was only the best possible way to prevent a nuclear attack in a probabilistic way. See Lucien Poirier, *Des strategies nucléaires*, Paris, Hachette, 1977 p. 156). However, Charles Hernu had to use the argument of the "weapon against war" to convince his fellow socialists to adopt the weapon.

[58] Glenn Snyder, ''The Balance of Power and the Balance of Terror,'' in Paul Seabury, ed., *The Balance of Power,* San Francisco, Chandler, 1965.

common understanding between the two enemies. However, this "strategic stability" implied that nuclear threats to deter lower levels of aggression, with say conventional weapons, would lose credibility and a stronger incentive to low-intensity attacks would result as nuclear weapons were deployed for a first-strike-second-strike configuration. Nuclear strategists have considered this a serious limitation of the so-called deterrent value of nuclear weapons.[59] Even before this dilemma was explored by scientists, it had served as a foundation for NSC-68, a U.S. government policy that abandoned exclusive reliance on nuclear weapons vis-à-vis the Soviet Union, and posited a need to develop a robust conventional capability. The Soviet Union went down the same path in the early 1960s.

Of course, prudent understanding of deterrence rejects certainty and instead postulates careful probabilistic statements concerning the success of deterrence. Proponents will argue that nuclear weapons should be kept for the sake of prudence, not absolute security.[60] However, the enormous consequences of the failure of nuclear deterrence as the mainstay of international security with all of the attendant risks does not seem to be the overriding factor in these esoteric debates. Prudent proponents tend to be critical of the maximalists.[61] However, the debate has not yet shifted from an assessment of the "absolute deterrent value" of the weapon to an assessment of its "additional deterrent value." The question to be debated is not "did nuclear deterrence work?" but rather "was the nuclear component of an arsenal the necessary cause of the absence of a given action?" How can we be sure that the deterred had the original strong intent to do what they ended up not doing? If they had no such intent, there was no deterrent effect even if the outcome was the one that was expected. Can the change in behavior be related to the nuclear nature of the threat they faced? How can we be sure that they considered the threat to be credible?[62]

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[59] Symmetrically, if you chose to retain weapons for use on the battlefield, that would make the threat of nuclear retaliation more credible, even at low levels of aggression but that would deprive you of a way to prevent escalation. Contemporary critiques of the paradox suggesting that South Asia never reached the level of nuclear stability required for the paradox to apply would be useful for the delegitimization endeavor. S. Paul Kapur, *Dangerous Deterrent: Nuclear Weapons Proliferation and Conflict in South Asia*, Stanford, Stanford University Press, 2007, pp. 36-41.

[60] Lucien Poirier has always insisted on what he called the limits of validity of nuclear deterrence. Not every crisis is supposed to reach the nuclear threshold. On 13 November 2008, he repeated on *France Culture* that even a nuclear attack on nonmetropolitan French territories should not be expected to trigger a nuclear response. Among the theorists, even the proponents of the so-called "rational deterrence theory" recognize the existence of deterrence failures. Their purpose is to defend the theory and to blame actors for not being rational enough, not to pretend that deterrence never fails. See notably Christopher H. Achen and Duncan Snidal, "Rational Deterrence Theory and Comparative Case Studies," *World Politics*, Vol. 41, January 1989.

[61] See Raymond Aron, blaming Pierre Gallois for "pushing to the absurd ideas which all held a portion of truth" and succumbing to a "logical delirium." Raymond Aron, *The Great Debate: Theories of Nuclear Strategy*, New York, Doubleday, 1965. (Our translation from the original edition in French, Paris, Calmann-Lévy, 1963, p. 135.).

[62] See Steven Lee, *Morality*, *Prudence and Nuclear Weapons*, Cambridge, Cambridge University Press, 1993, pp. 119-132

The problem in trying to judge the truth of claims about nuclear deterrence is that proof – the essential ingredient of prudent judgment – is entirely missing. This suggests that what matters here is not objective assessments but political perceptions. As we suggested earlier, in areas where knowledge is not achievable, nuclear deterrence works as a construct in which simply the belief in the power of nuclear weapons to deter is – in fact – the deterrence.[63] We have already shown the difficulty in assessing the deterrent effect of nuclear weapons, independently from the existence of an intention to deter.[64] If deterrence is considered just as a "coercive strategy" using threats to influence a choice, not brute force to prevent some choices to be taken,[65] then "deterrence" depends on the beliefs of the one who is supposed to be deterred. So, if those who are supposed to be deterred manage to convey that they do not consider nuclear threats as credible, then the construct of nuclear deterrence is considerably weakened.[66] The Emperor may not actually be wearing any clothes.

Questioning the effectiveness and demonstrating the failures of nuclear deterrence provides an empirical refutation of the claims for nuclear deterrence as the credibility of nuclear retaliation is at the heart of the belief system. If it is believed that nuclear weapons can be used toward some "rational" end, their value for potential proliferants increases dramatically. The potential value of nuclear weapons and of the status supposedly conferred by nuclear weapons played an important role in the decision of India and perhaps also Pakistan to "go nuclear." Thus, by suggesting that the threat of nuclear use can help manage a variety of threats to international security and stability, the proponents of this logic effectively invite other states to follow the example of the nuclear weapons states and thus promote proliferation rather than reduce it.

If there were a concrete foundation of fact on which to base our assessment of the usefulness of nuclear deterrence it might justify our reliance on these threats. As it is, almost all of the conventional wisdom about nuclear deterrence is so speculative that any conclusions drawn from it are doubtful at best. When talking about choosing between conflicting predictions about

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[63] Even Robert Jervis, who believes in nuclear deterrence, recognizes that experts stating that deterrence works are in fact strengthening the deterrent effect of the weapons. Robert Jervis, *The Meaning of the Nuclear Revolution*, *Statecraft and Prospect for Armageddon*, Cornell, Cornell University Press, 1989, p. 177-178. The opposite could be true.

[64] This is what Patrick Morgan calls "general deterrence" as opposed to a strategy of deterrence based on an intention to deter and existing deterrent threats. Cf. *Deterrence Now*, Cambridge, Cambridge University Press, 2003, chapt. 3.

[65] Freedman, *Deterrence*, *op. cit*., pp. 26, 86.

[66] One has to remember the reaction of the French nuclear experts after the 1996 advisory opinion of the International Court of Justice. They did not worry about the moral attack on the idea of deterrence; they were mostly concerned with the risk of weakening the credibility of deterrence because of external critique. See Bruno Tertrais, La dissuasion nucléaire française après la guerre froide: continuité, ruptures, interrogations ,, in *Annuaire français des relations internationales*, Vol. 1, 2000, p. 773.

nuclear war, Bernard Brodie pointed out: “In these matters, to be sure, we are fundamentally dealing with conflicting intuitions.”[67]

Sixty-five years of safety?

Perhaps the strongest case for the usefulness of nuclear deterrence is the claim that nuclear deterrence helped maintain peace during the Cold War. Proponents of the efficacy of deterrence often point to the fact that no nuclear war was fought during the Cold war – despite many confrontations.

Nuclear threats are difficult and exasperating problems to try to sort out accurately. Certainty, certainly not the sort of certainty that one would want to base national security policy on, is almost impossible to find. In general historians judge that the success of these threats can neither be proved nor disproved in most cases (exceptions are the Hiroshima case and the threat during negotiations to end the war in Vietnam which both clearly failed).

Contrary to common belief, there is no evidence that nuclear weapons “kept the peace” during the Cold War. All war plans drawn on both sides (including those that have been declassified after the end of the Cold War) proceeded from the notion that the other side would have launched the attack. If we do not have evidence that an attack was planned, how can we assume that nuclear weapons prevented it? Perceptions are a different matter – attack was feared during the entire Cold War, and the opponent was always suspected of preparing to attack. It has been demonstrated, however, that even the widely touted “first-strike” Soviet nuclear posture of the late 1970s to early 1980s resulted from a series of faulty decisions and technical shortcomings and was “unintended” in the sense that the Soviet military aspired to build a very different type of arsenal.[68]

It is important to recognize that various explanations are still competing to account for the absence of actual use of nuclear weapons since 1945.[69] Because the record is impossible to definitely interpret, it makes no sense to make life or death decisions based on it. And, if nuclear weapons had deterred war over the last 60 years, there is still little comfort to be drawn from this history. We will not restate here the many cases of near-misses in which nuclear conflict has been avoided by mere luck.[70] This is because no nuclear weapon state has yet

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[67] Bernard Brodie, “The Development of Nuclear Strategy,” in Steven E. Miller, *Strategy and Nuclear Deterrence*, Princeton University Press, 1984,

[68] See Nikolai Sokov, *Russian Strategic Modernization: Past and Future,* Rowman and Littlefield, 2000, chapters 1 and 2.

[69] Cf. François Heisbourg, “Has Nuclear Deterrence Preserved Peace?” *Annuaire stratégique et militaire*, Paris, Odile Jacob, 2005 [in French].

[70] For example, the Able Archer 1983 scare and others around the same time, see https://www.cia.gov/library/center-for-the-study-of-intelligence/csi-publications/books-and-monographs/a-cold-war-conundrum/source.htm#HEADING1-13; see also False Alarms on the Nuclear Front by Geoffrey Forden, http://www.pbs.org/wgbh/nova/missileers/falsealarms.html; and see Alan F. Phillips, “20 Mishaps that Might Have

faced a war in which its vital interests were at stake. Despite the "domino theory," Korea and Vietnam were, at best, peripheral to U.S. interests. Rebellion in Afghanistan did not put the vital interests of the Soviet Union into jeopardy.

Failures to deter conventional attack

These explanations, however, cannot account for the striking failure of deterrence in both the Yom Kippur War and the Falkland War/Guerra de las Malvinas. Twice, during the Cold War, countries that had nuclear weapons – or were believed to have nuclear weapons – were attacked by states that did not have nuclear weapons. In both cases the possible threat of nuclear retaliation failed to deter. How can these failures be accounted for? One of the benefits of nuclear deterrence is that it is supposed to protect against conventional invasion. Yet in both of these cases nuclear weapons failed to provide this protection.

The case of Israel is particularly striking. Given the deep animus between Israel, on the one hand, and Egypt and Syria, on the other, the repeated statements by various Arab spokesmen that Israel had no right to exist, and the resulting probability that Israel would interpret any attack as a threat on its very existence, the danger of a nuclear attack by Israel would seem to be far greater than in any other instance of Cold War confrontation. Yet nuclear weapons failed. They did not deter. In fact, they failed twice: neither Anwar Sadat, the leader of Egypt, nor Hafez al-Assad, the leader of Syria, was deterred.[71] Rather, these cases seem to demonstrate the power of the non-use norm: attackers clearly understood that the chances of the opponent resorting to nuclear weapons were slim, at best.

There is positive evidence that nuclear threats do not prevent conventional attacks, even in circumstances where nuclear deterrence ought to work robustly.

Some proponents of nuclear weapons suggest that they can deter a wider range of attacks including biological, chemical as well conventional attacks. Proponents of this deterrent value often point to the fact that no nuclear weapon state has ever been attacked by such means

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Started Accidental Nuclear War," January 1998, http://www.wagingpeace.org/articles/1998/01/00_phillips_20-mishaps.php.

[71] It might be argued that since Israel, which has a stated policy of not commenting on whether it has a nuclear weapons program, did not announce the existence of its nuclear weapons, this is not a failure of deterrence, but merely of knowledge. You can't be deterred by weapons you don't know exist. It seems likely that Egyptian and Syrian intelligence services, however, would have been aware of Israel's nuclear program (if for no other reason than it would be in Israel's interest to quietly pass word of the existence of the weapons to those it was trying to intimidate). Even if Egypt's and Syria's intelligence services were not reporting the existence of the Israeli weapons program, press reports were relatively widespread by 1973. In January 1969, NBC News reported that Israel "had nuclear weapons or would soon have one." On 18 July 1970, *The New York Times* reported that "for at least two years the United States Government has been conducting its Middle East policy on the assumption that Israel either possesses an atomic bomb or has the component parts available for quick assembly." Avner Cohen, *Israel and the Bomb*, New York, Columbia University Press, 1998, pp. 327-328; 337-338.

and give three examples when such weapons were not used: Iraq in 1991, Egypt in 1967 and 1973.[72]

Accounts by James Baker and former Iraqi minister Tariq Aziz suggest that the nuclear threat contained in the letter Baker gave to Aziz on behalf of President George H. W. Bush in January 1991 deterred Iraq from using chemical or biological weapons against the coalition.[73] The letter reads as follows:

> *Should war come it will be a far greater tragedy for you and your country. Let me state, too, that the United States will not tolerate the use of chemical or biological weapons or the destruction of Kuwait's oil fields and installations. Further, you will be held directly responsible for terrorist actions against any member of the coalition. The American people would demand the strongest possible response. You and your country will pay a terrible price if you order unconscionable acts of this sort.*[74]

Two elements however suggest that deterrence failed. Assuming that a nuclear threat is hidden behind these words, it aims to deter three outcomes: the use of chemical or biological weapons, the destruction of Kuwait's oil fields and installations, and terrorist action against members of the coalition. Saddam Hussein's interrogations on 11 and 13 March 2004 suggest that the absence of use is better explained by the fact that the coalition did not threaten the Iraqi regime and did not march on Bagdad, rather than by any nuclear threat.[75] In addition, the threat clearly did not deter the destruction of Kuwaiti oil fields, suggesting that the threat was not taken seriously in that regard either.

As for the 1967 war, the fact that the Egyptians targeted the Dimona reactor to prevent Israel from getting a capability shows that they were anything but deterred by the possibility that Israel had already developed a nuclear weapon capability (which indeed they had).[76] In 1973, the Egyptians were sure that Israel had developed a nuclear capability. It is true that they did not use biological or chemical weapons but they attacked anyway. Even in that case, the deterrent value of nuclear weapons should be called into question.

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[72] For a recent example, Bruno Tertrais, "The Trouble with No First Use," *Survival,* Vol.51, No. 5, October-November 2009, p. 25 and see Bruno Tertrais, "The Illogic of Zero," *The Washington Quarterly*, April 2010, pp. 125-138.

[73] Keith B. Payne, *The Great American Gamble: Deterrence Theory and Practice from the Cold War to the Twenty-First Century,* Fairfax: National Institute Press, 2008, pp. 414–416 (emphasis original). See also Keith B. Payne, *Deterrence in the Second Nuclear Age,* Lexington, University of Kentucky Press, 1996, pp. 81–87.

[74] George H.W. Bush, *All the Best, George Bush: My Life in Letters and Other Writings,* New York, Simon and Schuster, 2000, p. 500.

[75] "Saddam Hussein Talks to the FBI: Twenty Interviews and Five Conversations with 'High Value Detainee # 1' in 2004," Interview Session 13, 11 March 2004, National Security Archive, George Washington University, http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB279/index.htm. The argument was first made by Scott Sagan, "Reply: Evidence, Logic and Nuclear Doctrine," *Survival, V*ol. 51, No. 5, October-November 2009, pp. 39-41, 43.

[76] Cohen, *Israel and the Bomb op. cit.* pp. 259–276.

The 2010 U.S. Nuclear Posture Review[77] addresses this issue head-on:

> *During the Cold War, the United States reserved the right to use nuclear weapons in response to a massive conventional attack by the Soviet Union and its Warsaw Pact allies. Moreover, after the United States gave up its own chemical and biological weapons (CBW) pursuant to international treaties (while some states continue to possess or pursue them), it reserved the right to employ nuclear weapons to deter CBW attack on the United States and its allies and partner nuclear weapons to deter CBW attack on the United States and its allies and partners. Since the end of the Cold War, the strategic situation has changed in fundamental ways. With the advent of U.S. conventional military preeminence and continued improvements in U.S. missile defenses and capabilities to counter and mitigate the effects of CBW, the role of U.S. nuclear weapons in deterring non-nuclear attacks – conventional, biological, or chemical – has declined significantly. The United States will continue to reduce the role of nuclear weapons in deterring non-nuclear attacks. To that end, the United States is now prepared to strengthen its long-standing "negative security assurance" by declaring that the United States will not use or threaten to use nuclear weapons against non-nuclear weapons states that are party to the NPT and in compliance with their nuclear non-proliferation obligations.*
>
> *…… .In making this strengthened assurance, the United States affirms that any state eligible for the assurance that uses chemical or biological weapons against the United States or its allies and partners would face the prospect of a devastating conventional military response – and that any individuals responsible for the attack, whether national leaders or military commanders, would be held fully accountable.*[78]

Extending nuclear deterrence

The most common version of the extended deterrence argument applies to U.S. security guarantees to its NATO allies, Japan, and South Korea. Supposedly, by threatening nuclear retaliation against the Soviet Union in case of attack on Western Europe (during the Cold War) or against China or North Korea in case of an attack on Japan or South Korea, the United States has helped maintain relative peace and stability in these regions.

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[77] U.S. Department of Defense, The Nuclear Posture Review Report, April 2010.

[78] The 2010 U.S. Nuclear Posture Review notes that "Given the catastrophic potential of biological weapons and the rapid pace of bio-technology development, the United States reserves the right to make any adjustment in the assurance that may be warranted by the evolution and proliferation of the biological weapons threat and U.S. capacities to counter that threat "

An integral part of this argument is the need to maintain credible nuclear options so that the deterrence message is clearly understood by potential adversaries. For many years this need served as a justification for the deployment of nuclear weapons in Europe, Japan, and South Korea: it was assumed that deployment of nuclear assets at the potential war theater is essential to make the threat credible both through the maintenance of capability and the symbolic value of these assets. Following the end of the Cold War, forward deployment was scaled back rather radically: nuclear weapons have been withdrawn from Japan and South Korea (but the United States assigns about 100 nuclear warheads for long-range sea-launched cruise missiles (SLCMs) to be deployed in case of an emergency) while the number of nuclear weapons in Europe has been cut seven or eight times. These reductions have been justified by the radical reduction of the immediacy of the perceived threat.

While this argument may appear logical within the framework of nuclear deterrence belief, it can be easily challenged. First and foremost, we really do not know whether deterrence worked: to know that for certain we must know that there was an immediate threat operationalized through actual war-fighting plans of the potential adversary. Rather, we know that the adversary did not attack. We do not know whether this was because there was no intention in the first place, or because the enemy was deterred from attacking. And if action was deterred, we still do not know if the specifically nuclear component of the threat was decisive. Evidence of such threat does not exist, however, even after the opening of archives in the Soviet Union and former Soviet bloc countries. Scenarios of potential war in Europe that were developed in the Soviet Union all proceeded from the assumption that NATO would attack first. Thus, we cannot judge whether extended deterrence could actually work.

However, the 2010 U.S. Nuclear Posture Review is illuminating in this regard as it states:

> *….the United States has maintained extended deterrence through bilateral alliances and security relationships and through its forward military presence and security guarantees. When the Cold War ended, the United States withdrew its forward deployed nuclear weapons from the Pacific region, including removing nuclear weapons from naval surface vessels and general purpose submarines. …. Although nuclear weapons have proved to be a key component of U.S. assurances to allies and partners, the United States has relied increasingly on non-nuclear elements to strengthen regional security architectures, including a forward U.S. conventional presence and effective theater ballistic missile defenses. As the role of nuclear weapons is reduced in U.S. national security strategy, these non-nuclear elements will take on a greater share of the deterrence burden. Moreover, an indispensable ingredient of effective regional deterrence is not only non-nuclear but also non-military – strong, trusting political relationships between the United States and its allies and partners.*[79]

[79] U.S. Department of Defense, Nuclear Posture Review Report, *op. cit.*, p. xiii.

Thus the U.S. nuclear weapons posture is moving away from extended nuclear security guarantees, to more credible conventional capabilities[80] as part of a broader concept of security including non-military aspects.

Preventing proliferation through nuclear extended deterrence?

The hypothesis about the ability of nuclear weapons to prevent or deter the nuclearization of non-nuclear weapons states – allies that are well-behaved members of the NPT – is based on the willingness of a nuclear weapon state to use such weapons for war or as a threat. The logic of the argument is that if an ally feels protected by the nuclear weapons of its protector, then it will not feel the need to develop its own nuclear weapons. Conversely, the fear is that once nuclear weapons are removed from the security guarantee, the ally will then seek to acquire its own nuclear weapons. However, this is a complicated relationship because the supposed deterrent relationship includes a. third type of actor (there could be a range of potential attackers) and two kinds of bilateral relationships involving nuclear weapons. The first one is between the nuclear-armed protector and the potential attacker of an ally.[81] The potential attacker is supposed to be deterred in attacking the ally for fear of nuclear retaliation from the protector. The second relationship links the protector and the ally who must trust that the protector would carry out the promise and agrees that this would be in its interests. Likewise, the protector has to provide a credible deterrent so as to be believed by both the ally and the potential attacker. This bargain is then expected to lead the ally to give up its nuclear weapons ambitions. Using nuclear threats in defense of allies would then prevent proliferation.

Ironically, this logic leads to the dilemma that if an extended nuclear deterrent is an effective way to prevent the spread of nuclear weapons, then nuclear weapons will always be needed.

However, this argument is flawed. History shows that a nuclear security guarantee is neither a necessary nor a sufficient condition to give up nuclear weapons ambitions. France, the United Kingdom – and arguably China if you take into account Khrushchev's letters to Eisenhower in September 1958 – decided to build their own weapons while they benefitted from a nuclear security guarantee. Likewise, Ukraine, South Africa and Libya gave up nuclear weapons capabilities or ambitions in the absence of an extended nuclear deterrence agreement.[82]

II.3 Legal recognition and nuclear weapons

It can be argued that nuclear weapons and their use are already illegal under existing International Humanitarian Law and under customary international law (note that customary

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[80] See George H. Quester, *Deterrence Before Hiroshima*, New York, John Wiley & Sons, 1966.

[82] For a review of the political use of this argument in U.S. history and a systematic assessment of extended nuclear deterrence as a nonproliferation tool, see Benoît Pélopidas, *The Seduction of the Impossible, op. cit.*, chapt. 6.

international law has the same force as treaty law[83] – and indeed in some cases might be stronger where it is *erga omnes* [a statutory right, binding on all states]; whereas treaties for the most part only bind the parties to them – unless they come to be considered as reflecting such a fundamental principle that they are regarded as embodying that principle in customary law and *erga omnes*).

Some of the rules derived from the UN Charter and the Geneva Conventions, for example, require that the use of any weapon:

- must be proportional to the initial attack,
- must be necessary for effective self-defense,
- must not be directed at civilians or civilian objects,
- must be used in a manner that makes it possible to discriminate between military targets and civilian non-targets,
- must not cause unnecessary or aggravated suffering to combatants,
- must not affect states that are not parties to the conflict, and
- must not cause severe, widespread or long-term damage to the environment.

Nuclear weapons violate every one of these rules.

Article 2(4) of the Charter of the United Nations provides that "All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state." This in effect means that all UN Member States have bound themselves not to mount a "first strike" against other states, regardless of the type of weapon used, be it nuclear or conventional. Similarly, in 1961, the UN General Assembly Resolution 1653 declared the use of nuclear weapons "a crime against mankind and civilization."

This seemingly unconditional ban, has, however, lately been more honored in the breach than in the observance. Indeed, the doctrine of preemptive war, developed during the George W. Bush administration in the wake of 9/11, was designed precisely to circumvent it, and includes the possibility of preemptive nuclear strikes against other weapons of mass destruction (i.e. chemical or biological weapon) threats.[84] This is also mirrored in the strategic doctrines of France, Russia and India. Indeed, the past ten years have seen the retrograde step of doctrines based purely on nuclear deterrence moving to the active first use of nuclear weapons in certain circumstances. The U.S. 2010 Nuclear Posture Review however has gone a substantial way to reversing such policies in the United States and will likely be reflected in the strategic doctrines of other states with nuclear weapons.

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[83] This is the effect of the 1986 International Court of Justice case on military and paramilitary activities in Nicaragua.

[84] *Weapons of Terror: Freeing the World of Nuclear, Biological and Chemical Arms,* Stockholm, 2006.

Examining the legal legitimacy of nuclear weapons.

The possession, use and misuse of weaponry have been an important part of humanitarianism and the development of International Humanitarian Law (IHL) since the foundations of the Red Cross and Red Crescent Movement.[85]

Even at the height of the Cold War, when political sensitivity was at its highest, the humanitarian community[86] was tackling weapons of mass destruction. In 1954, for example, the Board of Governors of the Red Cross pleaded with all the powers to "work unceasingly for general disarmament and to prohibit the use —— absolutely and effectively —— of all nuclear weapons as well as chemical and biological weapons." Despite the 1956 rejection of the International Committee of the Red Cross's (ICRC's) draft rules for the limitation of the dangers incurred by the civilian population in time of war, the 21st International Conference, in Istanbul in 1969 requested the United Nations to pursue efforts towards the adoption of a special agreement on the prohibition of weapons of mass destruction. It also requested that the ICRC continue to devote great attention to this question and take every possible step to ban such weapons. At the same meeting a resolution was adopted that appealed for a comprehensive, adequately verified nuclear test ban treaty.

The convergence of International Humanitarian Law, the norms and values on which it is based, and international disarmament law now has an impressive track record. International Humanitarian Law has developed an approach to the use of weapons in combat. Combatants are prohibited from using weapons that are inherently indiscriminate or of a nature to inflict suffering greater than that required to take combatants "out of action." Weapons that violate the "dictates of the public conscience" may also be prohibited on that basis alone. The use of weapons that cause widespread, long-term and severe damage to the natural environment is also prohibited.

A body of International Humanitarian Law and Disarmament Treaty Law has been built up to control and prohibit a range of conventional weapons. This approach has led to regulations and prohibitions on a variety of conventional weapons, including the Mine Ban Convention and the Convention on Cluster Munitions.

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[85] In 1862, in his *Memory of Solferino*, the founder of the Red Cross Movement, Henri Dunant said: "If the new and frightful weapons of destruction, which are now at the disposal of the nations, seem destined to abridge the duration of future wars, it appears likely … that future battle will become more and more murderous."

[86] By "community" here we refer to a wide group of governments, non-governmental organizations, international organizations, military officers and other individuals who have worked together to further the cause of humanitarianism.

The 1996 ICJ Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons is relevant[87] here. The justices examined current treaty law, customary law rules and state practice with regard to nuclear weapons and concluded unanimously that the principles and rules of International Humanitarian Law apply to the use of nuclear weapons. They added that: "...the threat or use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflict, and in particular the principles and rules of humanitarian law."[88]

In response to the ICJ's Advisory Opinion, the ICRC made a statement to the 51st session of the United Nations General Assembly:

> *We were pleased to see the reaffirmation of certain rules which the Court defined as "intransgressible", in particular the absolute prohibition of the use of weapons that are by their nature indiscriminate as well as the prohibition of the use of weapons that cause unnecessary suffering. We also welcome the Court's emphasis that humanitarian law applies to all weapons without exception, including new ones. In this context we would like to underline that there is no exception to the application of these rules, whatever the circumstances. International humanitarian law is itself the last barrier against the kind of barbarity and horror that can all too easily occur in wartime, and it applies equally to all parties to a conflict at all times….. Turning now to the nature of nuclear weapons, we note that, on the basis of the scientific evidence submitted, the Court found that '...The destructive power of nuclear weapons cannot be contained in either space or time...the radiation released by a nuclear explosion would affect health, agriculture, natural resources and demography over a very wide area. Further, the use of nuclear weapons would be a serious danger to future generations...' In the light of this, the ICRC finds it difficult to envisage how a use of nuclear weapons could be compatible with the rules of international humanitarian law……. We are convinced that because of their devastating effects no one ever wants to see these weapons used. It is the ICRC's earnest hope that the opinion of the Court will give fresh impetus to the international community's efforts to rid humanity of this terrible threat..*

In an historic statement,[89] Jakob Kellenberger, President of the ICRC, to the Geneva Diplomatic Corps in Geneva, April 2010 stated:

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[87] For an excellent account and analysis of the ICJ Advisory Opinion see John Burroughs, *The Illegality of Threat or Use of Nuclear Weapons: A Guide to the Historic Opinion of the International Court of Justice*, International Association of Lawyers Against Nuclear Arms, Transactions Publishers Rutgers University, 1998.

[88] ICJ Advisory Opinion, http://www.lcnp.org/wcourt/opinion.htm, para. 97. The judges were evenly split on this aspect of the opinion, and this paragraph was included only by virtue of the deciding vote of the President of the Court.

[89] Jakob Kellenberger, President of the International Committee of the Red Cross, Official Statement to the Geneva Diplomatic Corps "Bringing the era of nuclear weapons to an end," Geneva, 20 April 2010, http://www.icrc.org/web/eng/siteeng0.nsf/html/nuclear-weapons-statement-200410.

The International Committee of the Red Cross firmly believes that the debate about nuclear weapons must be conducted not only on the basis of military doctrines and power politics. The existence of nuclear weapons poses some of the most profound questions about the point at which the rights of States must yield to the interests of humanity, the capacity of our species to master the technology it creates, the reach of international humanitarian law, and the extent of human suffering we are willing to inflict, or to permit, in warfare…..
… The currency of this debate must ultimately be about human beings, about the fundamental rules of international humanitarian law, and about the collective future of humanity.

That there is a case for approaching nuclear disarmament from the perspective of International Humanitarian Law is well established. What this would mean in practice is an opportunity to explore nuclear disarmament from new perspectives and practices. The practices of the humanitarian community, which differ markedly from the arms control and nonproliferation community in their focus on human protection, are of considerable interest to those keen to make serious progress in nuclear disarmament. When progress in disarmament has been achieved, it is in part because the devastating impact of the weapons on people has been understood and because the lack of true military utility of the weapon has been understood.

In recent years, the 1997 Mine Ban Convention, the 2001 UN Programme of Action on the Illicit Trade in Small Arms and Light Weapons, and the 2008 Convention on Cluster Munitions have all brought together the technical, political arms control community with the humanitarian and development communities to produce three of the most far-reaching and effective international agreements/action plans ever negotiated, particularly given their normative value.[90]

III. Lessons from success

Attempts to control the spread of nuclear weapons technology and curb the arms race began in 1946. The very first resolution of the UN General Assembly called for "the elimination from national armaments of atomic weapons and of all other major weapons adaptable to mass destruction" and established the UN Atomic Energy Commission (AEC), the precursor of the IAEA. The UN AEC was mandated to exchange scientific information for peaceful ends; control atomic energy to ensure its peaceful use; eliminate from national armaments atomic and all other major weapons adaptable to mass destruction; and establish safeguards by way of inspection to protect complying states against the hazards of violations and evasions.

Sounds familiar does it not? So, despite countless hours of negotiation, headway made through treaties has not got us so very far. Treaties such as the 1963 Partial Test Ban Treaty were brought about through the efforts of non-governmental organizations that raised

[90] See Elvira Rosert, "Cluster Bombs – a Taboo in the Making?" a paper presented to the International Studies Association Convention, February 2010.

awareness about the growing fears of the consequences of the nuclear arms race and how testing nuclear weapons in the atmosphere destroyed peoples' health and devastated the local environment and communities. In other words, it was humanitarian considerations that drove the push for the constraints, and eventual prohibition on nuclear testing. This treaty—which originally started out as a negotiation for a comprehensive test ban treaty—that prohibited nuclear weapons tests in the atmosphere, underwater or in outer space. It was followed by bilateral and unilateral restraints on nuclear weapons testing, leading eventually to the negotiation of the Comprehensive Test Ban Treaty (CTBT) in 1996, which still has not entered into force. Bilateral treaties such as SALT-I and SALT-II helped shape the arms race rather than curtail it. The Anti-Ballistic Missile Treaty (ABM) Treaty, which the United States withdrew from in 2002, the START-I Treaty that expired in 2009 before the signing of a new START Treaty in 2010 to replace it – all of these have helped reduce the threat but few have not done very much to bring about nuclear disarmament. The Intermediate-range Nuclear Forces Treaty (INF) did eliminate a whole class of newly-deployed weapons in Europe and instigated a new approach to building trust through joint transparency and verification measures. Other treaties also helped to increase trust and decrease the risk of accidental nuclear war; not least of which was the 1963 Hot-Line Agreement and nuclear risk reductions centers established between the United States and the Soviet Union Russia in 1987 – although their efficacy in preventing accidental nuclear war was not put to the test according to the various case-studies in Cold War near-misses.

The 1968 NPT needs no detailed analysis in this paper, except to say that it is the only treaty that requires the nuclear weapons states to negotiate nuclear disarmament measures in good faith. It is a treaty fraught with difficulties, particularly the installation of two tiers of countries – the nuclear weapons states and the non-nuclear weapons states. In the minds of the original instigators, the "haves versus have-nots" framework of the treaty was supposed to be a temporary situation, not a vehicle for legitimizing nuclear weapons for five countries.

The emphasis in most of the bilateral treaties has been on reductions in missiles and delivery systems for nuclear weapons. Very little emphasis has been placed on behavioral change and doctrines, even though such matters are at the heart of nuclear weapons policies and possession.

Certainly, if we take a cue from the outlawing of other weapons of mass destruction, success came through a prohibition of use prior to a prohibition of possession. Could that be an approach we should re-examine for nuclear weapons?

III.1 Prohibition of use, prohibition of possession

The use of chlorine gas by Germany at the start of the Second Battle of Ypres in 1915 was roundly condemned (although prior to that prolonged lethal attack, incapacitants such as tear gas had been used first by France and then by Germany in 1914). The effects of the chemical were terrifying, fatal or worse – inflicting life-long debilitating injury and mental trauma. However, at that time, the use of chemical weapons (CW) was thought militarily effective, and retaliation, counter-measures and counter-counter-measures quickly escalated employing

chlorine, phosgene, the “white star” combination of phosgene and chlorine, and blistering mustard gas. By the end of the war, a total of some 100,000 tons of gas had been used, resulting in an extra million casualties that counted about 100,000 extra deaths, with the unfortunate survivors left severely disabled and traumatized for the rest of their lives.

The public outrage at the long-lasting traumatic effects of chemical weapons pushed governments into prohibiting Germany from the use, manufacture and importation of asphyxiating, poisonous or other gases and all analogous liquids, materials or devices.[91]

Attempts had been made to prevent the use of poisons in warfare before; these included the Brussels Declaration Concerning the Laws and Customs of War in 1874, which prohibited the "employment of poison or poisoned weapons," and the Hague Conference, in 1900, that banned the "diffusion of asphyxiating or deleterious gases” by projectiles. Of course, given the retaliation in-kind by the allies and the production of various forms of chemical agents by Austria-Hungary, France, Italy, Russia, the United Kingdom and the United States, the prohibition for Germany was hardly adequate. So following the Treaty of Versailles, the Washington Arms Conference Treaty similarly prohibited the use of asphyxiating, poisonous or other gases, and would have bound the United States, Britain, Japan, France, and Italy, but the treaty never entered into force. Another attempt at the 1925 Conference for the Supervision of the International Trade in Arms and Ammunition, at the League of Nations, led to the Geneva Protocol that prohibits the use in war of asphyxiating, poisonous or other gases, and of all analogous liquids, materials or devices, and of bacteriological methods of warfare.[92] Despite new CW having been developed by Germany, including nerve agents, World War II did not see the deliberate employment of chemical weapons in the European battlefields. Chemical weapons were used extensively by Japan throughout Asia, however, and Japan also tested and used bioagents against Chinese citizens. Poison gas was of course used throughout the war in Europe in Nazi gas chambers where Zyklon B (hydrogen cyanide) and also carbon monoxide killed millions of people, in groups of up to some 2,000 people.

Chemical weaponry was used in the 1960s in Yemen and in the 1980s by Iraq, where Iranian soldiers (about 100,000) were attacked along with countless civilians in Iran during the Iran-Iraq war. In addition, the Anfal campaign against the Kurds in Northern Iraq, including one brutal attack that killed 5,000 people in Halabja, consisted of a month-long series of CW

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[91] 1919 Treaty of Versailles, Article 171. (Notably, the prohibition also applied to materials specially intended for the manufacture, storage and use of the said products or devices.)

[92] Protocol for the Prohibition of the Use of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, Geneva, 17 June 1925: “Whereas the use in war of asphyxiating, poisonous or other gases, and of all analogous liquids materials or devices, has been justly condemned by the general opinion of the civilized world; Whereas the prohibition of such use has been declared in Treaties to which the majority of Powers of the world are Parties; and To the end that this prohibition shall be universally accepted as a part of International Law, binding alike the conscience and the practice of nations; Declare: That the High Contracting Parties, so far as they are not already Parties to Treaties prohibiting such use, accept this prohibition, agree to extend this prohibition to the use of bacteriological methods of warfare and agree to be bound as between themselves according to the terms of this declaration.”

attacks against civilian populations and employed combinations of mustard gas and sarin, tabun and VX.

Following World War II, many states developed chemical warfare agents and spent inordinate amounts of time and money so doing. Several attempts were made to negotiate a ban on the possession of nuclear weapons, and after a decade of painstaking work on a “rolling text,” Member States of the Conference on Disarmament were able to take advantage of the end of the Cold War, and the accompanying new era of international arms control that took place from 1986 (the Stockholm Accord) to 1996 (the CTBT), and agreed to the Chemical Weapons Convention (CWC) in 1992. The CWC prohibits all development, production, acquisition, stockpiling, transfer, and use of chemical weapons. It requires complete disarmament in that each State Party has to destroy chemical weapons and chemical weapons production facilities, as well as any chemical weapons it may have abandoned on the territory of another State Party. The verification provisions are far-reaching, and include inspections at civilian industry as well as military facilities.

The history of the prohibition of the possession of biological weaponry is rather different. Bioweapons remain covered by the same prohibitions on use since the 1925 Geneva Protocol, but the Biological and Toxins Weapons Convention (BWC) banning the development, production and stockpiling of bacteriological (biological) and toxin weapons, and governing their destruction was negotiated in 1972. Due to the weapons programs of a number of states – particularly the USSR – coupled with the politics of mistrust at the time, the BWC was agreed to without any verification provisions. Despite (perhaps because of) there being a number of concerns regarding violations of the BWC, the States Parties have not yet been able to agree on a set of verification provisions for the Convention, and it has suffered as a result in terms of compliance and commitment. Recent attempts to strengthen the Convention through regular meetings of experts, confidence-building measures and an implementation support unit have all helped improve the situation but the BWC remains a treaty without teeth until further work can be done.

In summary, the Chemical and Biological Weapons Conventions that prohibit the existence of chemical and biological weapons stemmed from the earlier prohibition of use and had their roots in International Humanitarian Law. It is the humanitarian approach that provided the common ground for prohibitions on a wide range of weaponry and for what we have come to think of as “traditional” arms control. In the case of chemical and biological weapons, the emphasis at first was on the prohibition of use. Following acceptance of the prohibition of use in the form of the 1925 Geneva Protocol, the 1972 Biological Weapons Convention and the 1992 Chemical Weapons Convention have outlawed possession of these types of weapons by additionally prohibiting development, production and stockpiling, and providing for the destruction of the weapons. This makes perfect sense from the perspective of human security, International Humanitarian Law and human rights law and could be equally applicable to nuclear weapons. First, the international community should protect human life and prevent the death and destruction caused by such weapons. Next, states should remove the source of the problem – leading us to the outlawing of nuclear weapons (through for example, a Nuclear Weapons Convention) and nuclear disarmament.

III.2 Humanitarian disarmament principles and practices[93]

The nuclear arms control community has found itself paralyzed – and all too often co-opted – by resistance from those who believe in the military utility of nuclear weapons. It has not been able to fight the battle on its own turf, where challenges to the concept of nuclear deterrence could be made; or indeed where expressions of concern over the indiscriminate and horrific impacts of nuclear weapons (which go beyond the "dictates of public conscience") could be made without accusations that emotion is being allowed to dominate reality. Instead, the debate within the arms control community has been entirely fought on the grounds of the pro-nuclear weapons strategists – these are the same people who came up with the idea of "flexible response" and the "ladder of escalation" during the Cold War as if they were realistic, practical military doctrines.

It is time to reframe the debate and bring it back to its center – back to a rational discussion of the actual military purposes, the opportunity costs, the proliferation costs and the human and environmental[94] impacts of nuclear weapons. We agree that emotion has long clouded the debate. However, the dominant emotions have not been those of compassion and caritas, but instead have been fear, anger and panic, which have befuddled rational thinking. It is time to stop apologizing for being peace-loving and caring about the future of the planet.

A rational discussion would allow us to look more clearly at the effects of the weapons, whether the threat of massive attack has ever or is ever likely to, prevent conflict. We could look for workable alternatives to nuclear weapons and see them in a more dispassionate light. The International Humanitarian Law community did not fall into the same trap as their arms control brethren (although it came very close to so doing on occasion). In the effort to ban landmines and cluster munitions, for instance, they recognized resistance to new approaches and dealt with the intransigence on the part of many possessor states by going ahead with the negotiations anyway, building coalitions and being clear that what was at stake is the security of people and communities, rather than theories of deterrence.

The International Humanitarian Law community has been pragmatic, recognizing and acknowledging that no treaty is perfect and rarely allowing the best to become the enemy of the good. Their *modus operandi* is to place the protection of people at the center of decision-making. This has led to an approach whereby the treaties are negotiated with fewer players and a higher common factor rather than the lowest common denominator approach to arms control. The impact of the treaty, whether or not everyone has joined, is the critical factor in International Humanitarian Law. The approach to treaty-making is that the treaty can wait for others to join later – better that than water it down to a point where all can join from the beginning but it will have little real impact in a humanitarian sense. This results also in treaties that are very specific and achieve the prohibition of a class of weapons. The arms control

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[93] Much of this section is based on Patricia Lewis, *A New Approach to Nuclear Disarmament: Learning from International Humanitarian Law Success*, www.icnnd.org.

[94] For example, see Alan Robock and Owen Brian Toon, *Local Nuclear War, Global Starvation*, *Scientific American*, January 2010, pp. 32-39.

community used to think like that – indeed the NPT entered into force without all of the nuclear weapon states being on board.

In taking the framework of International Humanitarian Law as a starting point for action, it would make sense to take the approach of recent successes in disarmament and merge International Humanitarian Law and disarmament treaty law. There are several good reasons for doing this.

In the first place, the framework for negotiations on nuclear disarmament issues has unraveled over recent years. The multilateral disarmament negotiating machinery consists of the 65-country Conference on Disarmament (CD) in Geneva, the UN Disarmament Commission and the First Committee of the General Assembly.

The Conference on Disarmament has not begun negotiations since a three-week stint in 1998, and the last treaty it negotiated was the CTBT in 1996. The CTBT could not be agreed in the CD itself and instead was tabled at the UN General Assembly by the Australian government. On the CD agenda there is much that would make a difference: nuclear disarmament, a fissile material production ban and preventing weapons in space. All would be significant contributions to human security – if the Conference could ever get beyond agreement on an agenda and start work. The breakthrough in 2009, in which the CD agreed to a program of work has led to nothing by April 2010, and recent, off-the-record statements from Pakistan suggesting that it is not in a position to accept the beginning of negotiations on a fissile material cut-off treaty in the foreseeable future does not bode well for the immediate commencement of practical work in Geneva.[95]

Indeed, the multilateral agenda for disarmament was set at the first General Assembly Special Session on Disarmament in 1978 and it has never been updated. For over thirty years the agenda has remained the same and there still seems to be little prospect for changing it.

One of the big difficulties within these structures is that although the overwhelming majority of the participating states could agree and begin negotiations, there are a few (sometimes just one) who refuse to respect the will of the majority and block progress. The CD, because it is not a UN body per se, has its own set of rules and procedures; voting is not allowed and so any state can block consensus.

If we look at the three areas in disarmament where there has been significant progress over the last ten years, we can see a pattern emerge in which a recipe for success could be developed.

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[95] Stephanie Nebehay, "Pakistan Rules Out Fissile Talks for Now: Diplomats," Reuters, 22 January, 2010, http://www.reuters.com/article/idUSTRE60L4S720100122.

The Mine Ban Convention

Treaty-making in disarmament is not for the faint-of-heart or for people interested in short-term, high-return gains. This is a long-term investment and a treaty can take decades from its inception (usually in the minds of a few activists or academics) to its adoption and entry into force – and even longer for the norm it establishes to be considered as universally binding, even on those states which have never become party to it. The Mine Ban Convention (MBC), for example, was a long time in the making. First employed in the mid-nineteenth century, there were objections to the use of landmines from the start.[96] Prior to the start of what became the MBC negotiations, the humanitarian community was not in agreement over a range of issues. Most significant was whether to include all mines or all landmines or just anti-personnel landmines. Also contentious was whether to negotiate within the Convention on Certain Conventional Weapons (CCW) – the existing plurilateral framework – or even the CD, or whether to begin a separate negotiating process. Other thorny issues –particularly as talks got going – were how much money and effort should be put into institutionalizing the convention, and whether a verification regime was needed. Not all of these choices were so clear at the time either. A huge amount of research was carried out by NGOs, think-tanks, universities, the military and international organizations in order to ascertain the problem and find ways to a solution. The role of the military was a major factor in subsequent success, in that the military usefulness of antipersonnel landmines was challenged and found wanting—which helped persuade a number of otherwise reluctant governments.

In trying to work through the CCW, the attempts to address the humanitarian crisis caused by antipersonnel landmines floundered in the face of military and state power interests. Although many of the states were attempting to put the humanitarian problem at the center of the negotiation, several significant military powers blocked progress in that regard and succeeded in watering down language and removing the fundamental essence of a protocol that eventually ended up as an amended version of Protocol II on the use of mines, booby traps and other devices. Amended Protocol II contains clearer restrictions on the use of both anti-personnel and anti-vehicle mines, booby traps and other devices. It requires parties to a conflict to clear these weapons and take additional measures to protect civilians from the dangers they pose. The Protocol also requires that anti-personnel mines outside of marked, fenced and guarded minefields have self-destruct features. It is far from the ban on landmines that was first sought.

Frustration with the power politics of the CCW process led a group of governments, international organizations and non-governmental organizations to begin a process that was initiated by Canada, called the Ottawa Process that began in October 1996. This started with a

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[96] "… (neither a) proper nor effective method of war." General James Longstreet, U.S. Confederate Army (Brigadier-General Rain's commanding officer), 1862, quote from: http://members.iinet.net.au/~pictim/mines/history/history.html.

small group of energetic, committed individuals and officials (the Core Group) and later expanded to begin the negotiation with a wider group of states. Non-governmental organizations formed an umbrella group (the International Campaign to Ban Landmines [ICBL)]) and worked collectively and effectively. The process was tight. Following the Ottawa conference, meetings were held throughout 1997 in Vienna, Bonn, and Brussels, ending in adoption of the convention's text in Oslo in September 1997. The MBC bans antipersonnel landmines completely, and provides for their destruction and removal from the conflict zones where they had been deployed. In February 2010, the MBC had 156 States Parties. A small Implementation Support Unit (ISU) has been set up to assist countries in the implementation of the convention and a well-run international network of NGOs monitors the implementation of the MBC and reports on it every year through the publication of the *Landmine Monitor*.

A Meeting of States Parties (MSP) is held annually, and every other year it takes place in a mine-affected country in order to raise awareness within that country and among those in a position to assist. Intersessional meetings take place in Geneva months ahead of the MSP, where much of the technical discussions are held. Focus includes minefield clearance, stockpile destruction and survivor assistance. Although thirty-nine countries have yet to join, there is almost no trade in antipersonnel landmines among any states due to the large number of parties to the MBC and the taboo that has grown against landmine use as a result.

The way in which the treaty processes work is exemplary. Governments, international organizations and NGOs meet regularly; all participate fully (although any voting or formal document adoption would be left to governments only); meetings are business-like, representation of mine-affected countries is high thanks to a sponsorship program; and people under threat are put first in the priorities that are decided upon.

The Convention on Cluster Munitions

The Convention on Cluster Munitions (CCM) was similarly born from a frustration with attempts to negotiate a ban on these inhumane weapons through the CCW. Following a long hiatus since 1974 when Sweden along with Egypt, Mexico, Norway, Sudan, Switzerland and Yugoslavia proposed a ban on the use of such weapons,[97] concerned countries, NGOs and international organizations did not wait for failure of the CCW process to manifest. The government of Norway held a meeting in Oslo in February 2007 that marked the beginning of negotiations, known as the Oslo Process. Further meetings were held in other parts of the world, notably Lima, Vienna, Wellington and Dublin – where the text of the Convention was agreed and adopted in May 2008. The signing ceremony was held in Oslo in December 2008 – so in a little under two years, the treaty was negotiated and signed with ninety-five states

[97] "Working Paper submitted to the Diplomatic Conference on the Reaffirmation and Development of International Humanitarian Law Applicable in Armed Conflicts," February-March 1974, referenced by Eric Prokosh in John Borrie, *Unacceptable Harm, A History of How the Treaty to Ban Cluster Munitions was Won*, UNIDIR 2009. See also http://www.loc.gov/rr/frd/Military_Law/RC-dipl-conference-records.html.

already on board. By May 2010, the CCM had 106 signatories with thirty ratifications, and it will enter into force on 1 August 2010.

Again a huge amount of research was carried out by NGOs, think-tanks, the military and international organizations to ascertain the problem and devise solutions. Again the military's questioning of the usefulness and efficacy was vital in demonstrating to some doubting governments that cluster munitions were not essential to their defense. Again, the successful process involved a humanitarian approach, a core group of states, international organizations and NGOs (that also formed an umbrella group – the Cluster Munitions Coalition that organized and educated so as to maximize NGO cohesions and impact). Again the outcome was the goal – a ban on the weapons. There was a clear timeframe for the negotiations, the future humanitarian impact of the treaty was the priority, and it was made clear that the wish of the majority would not be over-ridden by any spoiler state (and thus they tended to stay away).[98]

The UN Program of Action on Small Arms and Light Weapons

The 2001 UN Program of Action (PoA) on the illicit trade in small arms and light weapons (SALW) was a very different process. Born in the United Nations, through a series of resolutions and studies, it was driven by the devastating impact of the proliferation of small arms and light weapons through illegal trade networks to countries in conflict, primarily in sub-Saharan Africa and Asia. A significant number of studies had been carried out and – most importantly – humanitarian workers in conflict-prone countries were crying out for attention to be paid to the problem. Small conflicts, which might otherwise have been manageable, were escalating out of control due to the influx of surplus weapons via illicit dealer networks left over, in the main, from the end of the Cold War.

A small group of NGOs, international organizations and governmental officials in Geneva began to meet to discuss ways to address the growing problem. The generally held view was that it was best tackled regionally, building from where the problem occurs and dealing with it in the regional context before going to an international level. However, events in New York overtook that approach and a conference to address the illicit trade in small arms and light weapons was called for July 2001.

There was some hope, particularly among NGOs and officials new to the issue, that the outcome of the conference would be a treaty or at least a treaty process. This was never a realistic option, particularly as the United States had recently voted in President George W. Bush and the U.S. National Rifle Association had huge influence in the U.S. decision-making process. Instead, it became a program of action.

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[98] For a thorough history and analysis of the negotiations for the Convention on Cluster Munitions, see Borrie, *Unacceptable Harm, A History of How the Treaty to Ban Cluster Munitions was Won*, *op. cit.*

It was a grueling process leading up to the conference and throughout it, with intransigence all round. However, thanks to a highly competent, well prepared and supported chair, expert NGOs and international organizations and a core group of states, whose officials were experienced, successful negotiators, a program of action was agreed – although two important clauses were omitted on civilian possession and transfer to non-state actors.

The UN PoA has proved to be a useful framework on which to hang many important initiatives, including an instrument to ensure that all small arms and light weapons are marked and traceable. In addition, there have been a significant number of national and regional initiatives that have reduced the impact of the illicit proliferation of the ubiquitous weapons. However, the number of surplus weapons in circulation is such a problem that even if no more guns were manufactured ever, we would still be addressing the problem of illicit weapons for decades to come.

Again, the success of the UN PoA and its subsequent implementation was due to large amounts of NGO, international organization and academic quality research on the problem and a host of solutions. Again there was a core group of states that helped shepherd the negotiation and who have supported it with funds and initiatives. Again the NGOs had formed an umbrella group (the International Action Network on Small Arms [IANSA]) that was able to coordinate and educate throughout its international network. Again there was military involvement in the solution. The single biggest difference in the case of the PoA was that a treaty was not negotiated – in large part because all UN Member States participated and so the text was watered down and important elements that were unpalatable to some key states were vetoed.

IV. Delegitimizing nuclear weapons

There are many elements that can be learned from a cross comparison of successful disarmament processes such as the MBC and CCM. UNIDIR's multi-year project, Disarmament as Humanitarian Action, has studied the processes across the board and found:

> *The humanitarian perspectives of deminers, landmine survivors and medical personnel among others were vital ingredients in international efforts leading to the Mine Ban Convention. And they have since contributed to progress on several other weapons issues such as small arms, explosive remnants of war and cluster munitions—even multilateral efforts in support of the ban on biological weapons ….. 'disarmament as humanitarian action' can be seen as reflecting the generic value of diversity of perspective in multilateral disarmament work. It should also not be underestimated that being moved by the plight of others is a powerful spur to encouraging people with diverse perspectives to 'do the right thing', even in multilateral disarmament contexts. Seeing security in human terms makes sense. And problems of human insecurity, augmented by the availability of weapons, are nearer our doorsteps in an increasingly interconnected world than we often imagine.*[99]

Learning the lessons from recent success in International Humanitarian Law will mean focusing on the results that a negotiation will produce, not just going through the motions of a negotiation that will keep even those that produce weapons feeling happy, comfortable and unaffected.

The humanitarian approach demands highly effective outcomes, not lowest common denominator results. In learning the lessons from the success of International Humanitarian Law disarmament treaties, we have learned that one of the most important factors in success is to keep the bar high. It is the content of the agreement, not the process and not, at first, the inclusion of all of the nuclear-armed states, that matters. It is worth noting in this regard that France and China did not join the NPT until 1992, but this did not stop the treaty from being negotiated, implemented. The treaty expanded and became very successful for the 22 years these countries remained outside. It may be that in order to prevent dilution of the meaning and impact of a Nuclear Weapon Convention, not all of the nuclear weapon states should be engaged in the multilateral process at the start; nor perhaps should there be any concern that they are not involved.

Pragmatism in the way things get done is far more effective than sticking to obsolete methods and practice. For too long in the multilateral system, the process has mattered more than the outcome. Excellent, creative ideas – such as negotiating nuclear disarmament issues under

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[99] J. Borrie and A. Thornton, "The Value of Diversity in Multilateral Disarmament Work," UNIDIR, United Nations, December 2008.

the auspices of the General Assembly – were squashed, in part, because of the fear that they would undermine the Conference on Disarmament, although that institution was already deadlocked.

A multilayered approach to nuclear disarmament

The solutions to the problems that we face with nuclear weapons require clear thinking, diversity and leadership in the community as well as at the governmental level. They require long-term sustainable commitments at all levels of society and a deep understanding that the solutions are worth attempting. Nuclear disarmament will succeed only if there is a sustainable determination in civil society and in governments to eliminate nuclear weapons. There needs to be a process of review, benchmarks, oversight and wide engagement throughout the world – in states that possess nuclear weapons, in those under extended nuclear deterrence guarantees (often misleadingly-called nuclear umbrellas), in states that have kept their options open and in states that have rejected nuclear deterrence as a security strategy. A multilayered approach to the issues is required and different types of players and negotiation are required for different types of measures. An optimal political strategy is outlined below.

Ideas, efforts and leadership

Engagement of the public is the most single important factor in achieving success in delegitimizing nuclear weapons. Mobilizing international public and political support, and sustaining it throughout the disarmament process, is perhaps the most fundamental precondition for progress on the path towards a world without nuclear weapons. Global political campaigns from governments and public movements for the abolition of nuclear weapons testing drove the negotiations in the 1950s and 1960s for the 1963 Partial Test Ban Treaty and the 1968 Non-Proliferation Treaty.[100] Leadership in the efforts to manage and reduce nuclear arsenals and to prevent further proliferation has resided jointly in the governments of nuclear weapons states, non-nuclear weapons states and in non-governmental organizations, including universities, think-tanks and advocacy groups.

The nuclear weapons possessors – in the first place the United States and Russia but including those outside the NPT – have primary responsibility for reducing and eliminating their nuclear weapons arsenals, either in concert or through unilateral confidence-building measures. Leadership in nuclear disarmament and nonproliferation has been a hallmark of a significant number of non-nuclear weapons states such as those in the New Agenda Coalition, the Seven Countries' Initiative, all the states that have negotiated nuclear weapon free zones and the groups of governments that have established commissions and expert studies to move the issue forward.

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[100] Lawrence S. Wittner, *Confronting the Bomb. A Short History of the World Nuclear Disarmament Movement*, Palo Alto, Stanford University Press, 2009, chapt. 5.

Governmental and non-governmental expertise also cuts across a wide range of processes and issues. As a consequence there is a body of knowledge on the various approaches to controlling weapons contained in bilateral and multilateral approaches. Increasingly, nongovernmental organizations have cross-cutting experiences in such forums as bilateral and multilateral arms control, non-proliferation and disarmament treaties along with the use of International Humanitarian Law in weapons control – such as experience in the Geneva Protocols, the Convention on Certain Conventional Weapons and the Mine Ban Convention. The in-depth knowledge of the complexity of the problems created by nuclear weapons has resulted in an international repository of knowledge on how to solve the nuclear dilemmas in which we find ourselves today. If we do not manage to find a set of pragmatic, workable solutions to nuclear non-proliferation and nuclear disarmament it will not be due to a scarcity of ideas, effort or leadership. All these are in abundance.

Since the establishment of the political anti-nuclear weapons movements at the end of the World War II, a core group of civil society organizations have focused primarily on action to end the nuclear arms race. The movement has been extraordinarily diverse and international: women's groups, scientists, engineers, physicians; indigenous people organizations; trade unions, city councils; mayors; writers, scientists, artists, musicians, actors and so on. They have created a wide range of activities including: mass demonstrations; non-violent direct action; television documentaries; advocacy and educational activities; national and international campaigns; engagement in negotiation processes; model treaty drafting; and scientific verification experiments – to name but a few. In taking on such responsibility, civil society institutions and governmental bodies alike have developed extensive, highly respected expertise on nuclear weapons, their meaning, limitations and the magnitude of their legacy. Leadership in the efforts to manage and reduce nuclear arsenals and to prevent further proliferation has resided both in governments and in non-governmental organizations including universities, think-tanks and advocacy groups. In many countries, government officials have either come from such grass-roots bodies or will be working in them once they leave office. There is a healthy international interchange between officials and non-governmental experts around the world through a process of publication, international conferences and participation in official negotiations and treaty reviews. From any cursory engagement with Facebook, Twitter, YouTube, or any of the current social networking tools, along with the growing number of serious blogs and new media outlets, it is clear that nuclear disarmament is again a passion of civil society, in particular among the young. There is a real awareness that this is a problem we can do something about and a strong aversion among the next generation to accepting any more legacy problems that they have to. They have quite enough on their plate with environmental degradation, climate change, financial stress, population control, aging populations, global deadly disease, water resources, food shortages and so on. That there will be wars as a result of instabilities is expected; that these wars could be nuclear is unacceptable.

Civil society action

However, despite all of this energy, knowledge and expertise, there is no genuinely effective public campaign to eliminate nuclear weapons today. Gone are the Freeze Movement, the

Greenham Common Women and the CND of the 1980s. We now have a host of think-tanks and NGOs that are as much part of the problem as they are the key to help solve it. We need new blood in the debate. Recently there have been signs of some green shoots that may provide the young energy that is required for campaigning to eliminate nuclear weapons, such as the International Campaign to Abolish Nuclear Weapons (ICAN)[101], the Two Futures Project and the films "*The Strangest Dream", "The Nuclear Tipping Point*[102]*", "Signs for Hope - Talking About Nuclear Disarmament*[103]*"* and "*Countdown to Zero*[104]*"*even a nuclear disarmament online video game[105] - but it needs nurturing. The Ploughshares Fund has been steadily building up youthful energy and expertise for the elimination of nuclear weapons but there is a limit to their funds and they are, naturally, focused on campaigning in the USA. *Global Zero*[106] has raised awareness in the older generation. Having a figurehead such as Queen Noor of Jordan has certainly attracted attention, and the weighty government sponsored commissions such as the Hans Blix WMD Commission and the Evans-Kawaguchi International Commission on Nonproliferation and Nuclear Disarmament have done likewise. However, the ideas contained within most of these commissions and initiatives are tame. We often find it easier to think of small steps or giant leaps that could take us there. Yet we know, from decades of experience, that the path to zero has been littered with wishes, lost steps, false steps and feet that went backwards for each one that went forward. The step-by-step approach, relying on good will and favorable political winds, has been tried and found wanting but the giant leap approach is always too big a jump. It is not enough to list a number of well-meant prescriptive measures. Public engagement does not mean a few well-placed op-eds and some seminars in New York.

The authority of experts and disappointment about the past failures of disarmament since the end of the Cold War help explain this lack of public mobilization. Proliferation experts have for too long agreed on the history of the nuclear age as a one-way street. Nuclear history has been portrayed as proliferation history and you could at best stop or slow the pace of this historical dynamic but not reverse it. The complexity of the topic and the difficulty for citizens to check information about nuclear weapon programs, associated with the institutional recognition of the leading experts and their seeming consensus, plus the political importance of the issue lent a considerable authority to their orthodox views. In their version of history, limited arms-control and non-proliferation, rather than disarmament is the only way possible, thus cautious policymakers have had their political preferences backed by the authority of experts. Paradoxically, the strongest advocates of disarmament have often also subscribed to this view as a means of blaming the Nuclear Weapon States for failure in nuclear disarmament. The political assumptions and preferences lying behind this teleological memory of the nuclear age

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[101] www.ican.org

[102] http://www.nucleartippingpoint.org/

[103] http://www.talkworks.info/Talkworks/current_films_2010.html

[104] http://www.takepart.com/countdowntozero

[105] http://nobelprize.org/educational_games/peace/nuclear_weapons/game.html

[106] http://www.globalzero.org/

are finally being debunked.[107] Cases demonstrating absence of interest in nuclear weapons (ie most of the world) and reversal of nuclear weapons programs[108] should be brought more to light so that the public could realize that nuclear disarmament is, in fact, achievable.

Ambition, such as a Nuclear Weapons Convention that will lead to the outlawing of nuclear weapons and their elimination, is the framework that will attract most public attention and passion. Small steps on the way—however necessary—will only attract the experts and minutiae-loving arms controllers that are already engaged and frankly not succeeding in moving things along. A sustained, media campaign is required, using electronic social networks, in addition to the more traditional formats—these are additive, not substitutional. This will all cost money. Any well-targeted, successful campaign requires adequate financing. Professional communicators will need to be hired; some pro bono work could be done through cause-related marketing strategies if the companies involved see this cause to be in their interests. Women's groups such as the WILPF (the Women's International League for Peace and Freedom) and their work on Reaching Critical Will, along with organizations such as the Nobel Women's Initiative could form the backbone of a revived NGO effort. More establishment bodies such as religious organizations, business groups (for example Rotary, Kiwanis and Lions) and international civic groups such as Mayors for Peace and the Inter-Parliamentary Union, along with professional bodies of physicians, scientists, health practitioners and so on would be important players in a new public engagement for nuclear disarmament. International humanitarian bodies such as the ICRC, WHO, UNHCR and IOM for example could bring the realities of the use of nuclear weapons to the attention of the general public. For example, the work of Robin Coupland and Dominique Loye[109] on victim assistance has illustrated the need for organizations such as the ICRC to address the practicalities of international response in event of nuclear, radiological, biological and chemical (NRBC) weapons use.

Rewriting an international history of the nuclear age

In addition to expert communities supporting the idea that nuclear disarmament was impossible since the 1960s, nuclear weapon states' official histories of the nuclear age also overstate the role of these weapons and tend to favor a form of worst-case thinking that promotes the retention of nuclear weapons. The official accounts of Hiroshima, Nagasaki and the first Iraq war are good examples.

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[107] For a study of the US case, Benoît Pélopidas, "When experts back policy makers' historical memory and biases. The shared "nuclear proliferation paradigm" in the US since the 1960s." Paper presented at the 51st International Studies Association conference, New Orleans, February 19, 2010.

[108] For a recent attempt at looking at the notion of nuclear threshold from a disarmament perspective, William Walker, "The UK threshold status and responsible nuclear sovereignty", *International Affairs* vol.86 n°2, 2010.

[109] Robin Coupland and Dominique Loye, "International assistance for victims of use of nuclear, radiological, biological and chemical weapons: time for a reality check?", International Review of the Red Cross, Volume 91 Number 874 June 2009

It was in the interests of the United States to identify the Bomb as the decisive event that brought World War II to a close. It was also, for different reasons, in the interests of the Japanese to blame the Bomb for losing. Only the Soviet Union had an interest in de-emphasizing the bombings of Hiroshima and Nagasaki, and it should surprise no one that Russian historical accounts do not talk much about the role of nuclear weapons in ending the war in the Pacific. The Russian version of events, however, is not as widely known. More people today read English than Russian.

From the U.S. perspective it was highly desirable that the Bomb be the cause of Japan's surrender. If the bombings of Hiroshima and Nagasaki brought the war to an end, then the reputation of U.S. military power would be enhanced and the expense of the Manhattan project – as well as, by implication, its result – would be legitimized. The United States, after all, was the sole possessor of this powerful new weapon. If the bombings brought the war to an end, then U.S. political influence in Asia and around the world would also be enhanced and extended. And U.S. prestige would be greater. On the other hand, if the Soviet invasion caused the war to end, then the Soviets could claim that they had won the war and the reputation of their military would be enhanced, their political influence would be enhanced, and their prestige burnished. It is easy to see why even today it would be difficult for some Americans to admit that the Soviet Union might have played a role in bringing the war to an end. There is so much national pride at stake in telling the story of the end of the war in the Pacific that it makes sense to be cautious with U.S. and Russian accounts. Third parties are likely to be more objective. Notably, the official British history of World War II, published in 1969, ascribes the end of the war to the Soviet declaration of war and invasion - not to the dropping of atomic bombs.[110]

On the Japanese side, there were even greater reasons for wanting to put the blame for defeat on the atomic bombings. Emphasizing the bombings created sympathy for Japan, certainly. But more importantly the bombings served as a way of obscuring certain uncomfortable truths. Japan had fought a long and costly war. Its Navy was now confined to port, its air force decimated, its cities lay in ashes, its economy was in a shambles, and its military forces had been defeated again and again. It would undermine the legitimacy of the regime to have to admit that serious errors of judgment had been made and that they had led to defeat. What would the people of Japan have thought if it was admitted that the Army and Navy routinely failed to cooperate closely during the course of crucial military operations? -That the rapidity of the American build-up and the determination of U.S. leaders had been badly misjudged? -That the government had long misled the people about the extent and severity of the military reverses that had been suffered?

Being able to put the responsibility for defeat on an unexpected scientific breakthrough by the enemy that no one could have predicted was a lucky stroke for Emperor Hirohito. And those at

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[110] The British official history states, "The Russian declaration of war was the decisive factor in bringing Japan to accept the Potsdam declaration." S. Woodburn Kirby, The War against Japan, Vol. 5: The Surrender of Japan (London: Her Majesty's Stationery Office, 1969), pp. 433-434. See also May, "The United States, the Soviet Union, and the Far Eastern War, *Pacific Historical Review* vol.24 n°2, 1955.

the top of Japan's government admitted as much in diaries and post-war interviewers. Here is Admiral Yonai in another conversation with Admiral Takagi after the decision to surrender had been taken.

> *I think the term is inappropriate, but the atomic bombs and the Soviet entry into the war are, in a sense, gifts from the gods [tenyu, also "Heaven-sent blessings"]. This way we don't have to say that we have quit the war because of domestic circumstances. Why I have long been advocating control of the crisis of the country is neither from fear of an enemy attack nor because of the atomic bombs and the Soviet entry into the war. The main reason is my anxiety over the domestic situation. So, it is rather fortunate that now we can control matters without revealing the domestic situation.*[111]

Historians may argue with Yonai's assessment of why Japan lost, but it is striking to hear him talk about how relieved he is that it will be possible to conceal the real reasons that Japan surrendered. Keeper of the Privy Seal Kido said much the same thing in subtler terms. "If military leaders could convince themselves that they were defeated by the power of science but not by lack of spiritual power or strategic errors, they could save face to some extent[112]." Secretary of the Cabinet Sakomizu Hisatsune was even more explicit. "*In ending the war, the idea was to put the responsibility for defeat on the atomic bomb alone, and not on the military. This was a clever pretext*."[113]

American historians have long pointed to post-war statements by Japan's leaders in order to justify their belief that victory was the result of the atomic bombings. But these post-war statements are highly suspect. It was in their interest for Japanese officials to blame the Bomb for defeat. Yonai's statement reveals how happy and excited they were not to have to admit their own failings to their people, to their American captors, or to historians.

As far as Iraq is concerned, accounts by James Baker as well as former Iraqi minister Tariq Aziz suggest that the nuclear threat contained in the letter Baker gave to Aziz on behalf of President George H. W. Bush in January 1991 deterred the Iraqis from using use chemical or biological weapons against the coalition.[114] However, as we showed earlier, nuclear weapons did not prove decisive in deterring Saddam Hussein from setting fire to the Kuwaiti oil fields or in other respects. So the validity of nuclear deterrence is questionable in this instance. It could be interpreted as a post-facto explanation – as a form of face-saving.

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[111] Quoted in Frank, *Downfall*, p. 310.

[112] Asada, "The Shock of the Atomic Bomb and Japan's Decision to Surrender," p. 507.

[113] Frank, *Downfall*, p. 348.

[114] Keith B. Payne, *The Great American Gamble: Deterrence Theory and Practice from the Cold War to the Twenty-First Century* (Fairfax, VA: National Institute Press, 2008), pp. 414–16 (emphasis original). See also Keith B. Payne, *Deterrence in the Second Nuclear Age* (Lexington, KY: University of Kentucky Press, 1996), pp. 81–7.

The rewriting of the nuclear history could focus on three aspects that involve "non-nuclear" voices:[115]

1. The 150 plus states that have never tried to develop nuclear weapons but which would nevertheless be embroiled in nuclear war
2. Developing countries for which important and urgent issues have been continually sidelined in favor of debates on nuclear weapons.
3. Voices from nuclear-weapon free zones, nuclear-capable states and from states that gave up nuclear weapons ambitions.[116]

Such an approach would include going beyond a worst-case scenario in terms of proliferation forecasts through a reassessment of past surprises. The worst-case planning approach, which has provided long-term legitimacy to nuclear weapons, has been, in part, based on the idea that disarmament does not take into surprise into account. However, on numerous occasions, worst-case forecasting and planning in the nuclear field has been plain wrong and has had negative political effects over the last fifty years. Opportunities for disarmament should be reconsidered in the light of an analysis based on these worst-case failures.[117] Indeed, some proponents of nuclear weapons agree that nuclear deterrence is not needed today but might be necessary in a long-term future. This need is clearly stated in the 2008 *National Security Strategy of the United Kingdom* and is echoed among the so-called prudent strategists advising the nuclear weapon states.[118]

> *"We judge that no state currently has both the intent and the capability to pose a direct nuclear threat to the United Kingdom or its vital interests. But we cannot rule out the risk that such a threat will re-emerge over future decades."*[119]

Involving the military

Not surprisingly, military leaders have continually questioned the usefulness and morality of nuclear weapons. However, due to their vows of loyalty, they have, for the most part done so publicly only once they have retired from office.

As early as 1948, General Omar Bradley, was saying: *"With the monstrous weapons man already has, humanity is in danger of being trapped in this world by its moral adolescents. Our*

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[115] See the notion of "contrapuntal reading" proposed by Edward Saïd. "Reflections on Exile *Granta 13* (Autumn 1984): 159–72 and *Culture and Imperialism* (New York: Alfred Knopf, 1993)

[116] Fiction writers and artists could start to work on narratives of the nuclear age oriented towards abolition. Richard Rhodes' 2009 play Reykjavik was a recent example that worked in that direction.

[117] For a critical assessment of that view of surprises, Benoît Pélopidas, "The Color of the South African Swan. The Role of Surprises in Nuclear History and the Effects of a Partial Amnesia", *French Yearbook of International Relations*, 2010 [in French].

[118] Lucien Poirier and François Géré, *The Reserve and the Waiting. The Future of French Nuclear Weapons*, Paris, Economica, 2001 [in French]; Interview with Lucien Poirier, November 13, 2008 on *France Culture*.

[119] *National Security Strategy of the United Kingdom. Security in an Interdependent World*, March 2008, §3.11 p.12. "Future decades" is characterized as "50 years" in §4.22 p.31.

knowledge of science has clearly outstripped our capacity to control it". In 1979, Lord Mountbatten struck home when he stated: *"As a military man who has given half a century of active service I saw in all sincerity that the nuclear arms race has no military purpose. Wars cannot be fought with nuclear weapons. Their existence only adds to our perils because of the illusions which they have generated".*[120]

Following the Indian and Pakistani nuclear weapons tests in 1998, sixty-three retired Indian and Pakistani military personnel made a joint statement: *"By virtue of our experience and the positions we have held, we have a fair understanding of the destructive parameters of conventional and nuclear weapons. We are of the considered view that nuclear weapons should be banished from the South Asian region, and indeed from the entire globe."*

In the same year, General Lee Butler, U.S. Air Force (Ret.), former Commander-in-Chief, United States Strategic Air Command (1992-94) made waves at the National Press Club Speech, when he announced:

> *"... as a nation we have no greater responsibility than to bring the nuclear era to a close. Our present policies, plans and postures governing nuclear weapons make us prisoner still to an age of intolerable danger. We cannot at once keep sacred the miracle of existence and hold sacrosanct the capacity to destroy it. We cannot hold hostage to sovereign gridlock the keys to final deliverance from the nuclear nightmare. We cannot withhold the resources essential to break its grip, to reduce its dangers. We cannot sit in silent acquiescence to the faded homilies of the nuclear priesthood. It is time to reassert the primacy of individual conscience, the voice of reason and the rightful interests of humanity. "*

In 1996, sixty-one retired generals and admirals from seventeen countries (Canada (1), Denmark (1), France (1), Ghana (1), Greece (3), India (2), Japan (2), Jordan (2), Netherlands (1), Norway (1), Pakistan (1), Portugal (1), Russia (18), Sri Lanka (2), Tanzania (1), United Kingdom (4), and the United States (19)) held a press conference in London in which they made a detailed statement including: "*We, military professionals, who have devoted our lives to the national security of our countries and of our peoples, are convinced that the continuing existence of nuclear weapons in the armouries of nuclear powers, and the ever present threat of acquisition of these weapons by others, constitutes a peril to global peace and security and to the safety and survival of the people we are dedicated to protect….. Through our variety of responsibilities and experiences with weapons and wars in the armed forces of many nations, we have acquired an intimate and perhaps unique knowledge of the present security and insecurity of our countries and peoples……We know that nuclear weapons, though never used since Hiroshima and Nagasaki, represent a clear and present danger to the very existence of humanity. ……. We have been presented with a challenge of the highest possible historic importance: the creation of a nuclear-weapons-free world. The end of the Cold War makes it possible. The dangers of proliferation, terrorism, and a new nuclear arms race render it necessary. We must not fail to seize our opportunity. There is no alternative."* The previous

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[120] On these two cases and a few others, see Jerome D. Frank and John C. Rivard, "Antinuclear Admirals. An Interview Study", *Political Psychology* vol.7 n°1, 1986.

day in Washington DC, two retired senior US military officials - Generals Lee Butler (former US Strategic Commander) and Andrew Goodpaster (former NATO Supreme Allied Commander, Europe) released a statement urging similar action, aimed at the same goal. Military opposition to nuclear weapons is also found at a very high level in Argentina with physicist and vice-admiral Castro Madero who did his best to postpone the discussions about the security implications of the nuclear plan adopted in 1979. The same is true at a more general level in Ukraine after independence, where the military was just not interested in the weapons, and in Sweden during the last years of the program.[121]

More recently, three retired British Generals wrote a letter to *The Times* in which they asked in what way, and against whom, UK nuclear weapons could be used, or even threatened, to deter or punish. Nuclear weapons, they said "have shown themselves to be completely useless as a deterrent to the threats and scale of violence we currently, or are likely to, face — particularly international terrorism; and the more you analyse them the more unusable they appear". In France, General (Ret.) Bernard Norlain the President of the Comité d'Études de la Défense Nationale and Director of the Revue Défense Nationale has joined the Global Zero Movement[122]. General Norlain is the former Air Defense Commander and Air Combat Commander of the French Air Force, and served as military adviser to French Prime Ministers Jacques Chirac and Michel Rocard. He recently was one of the 40 senior Europeans who penned an open letter calling for renewed urgency in tackling problems of nuclear proliferation[123] and one of the French "Gang of Four"[124] in 2009 that also included former Prime Ministers Alain Juppé and Rocard and Former Defence Minister Alain Richard, and who wrote an article entitled "For Global Nuclear Disarmament, the Only Means to Prevent Anarchic Proliferation".

One of the key lessons learned from the successful disarmament negotiations banning landmines and cluster munitions was how important it is to involve military personnel in the intellectual development of the disarmament endeavor and in outreach to the general public, the media and politicians. Military personnel are uniquely placed to understand the horrors of war, the utility of – or lack thereof – a specific weapons system and have a duty to make those views known– although not always in public. The military utility that campaigners were always being told meant that states had to retain antipersonnel landmines or landmines was squashed by military personnel who had encountered them in the field and had their military campaigns thwarted by their own landmines. Peacekeepers, military humanitarian workers and deminers, all weighed in with their experiences and strong views on the negative use of landmines and

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[121] On Argentina, Jacques E. C. Hymans, *Psychology of Nuclear Proliferation*, *Identity, Emotions and Foreign Policy*, Cambridge, Cambridge University Press, 2006, p.213. On Ukraine, cf. Christopher A. Stevens, "Identity Politics and Nuclear Disarmament: The Case of Ukraine", *Nonproliferation Review* vol.15 n°1, 2008. On Sweden, Jerome Garris, "Sweden's Debate on the Proliferation of Nuclear Weapons", *Cooperation and Conflict*, vol.8, 1973, p.203.

[122] http://www.globalzero.org/en/who/bernard-norlain

[123] http://www.guardian.co.uk/commentisfree/cifamerica/2010/apr/14/nuclear-proliferation-washington-summit

[124] "For Global Nuclear Disarmament, the Only Means to Prevent Anarchic Proliferation", Prime Ministers Alain Juppé and Rocard, Former Defence Minister Alain Richard, and General Bernard Norlain, Le Monde, 14 October 2009

cluster munitions) in the field. Military officers, who had not had the same experiences in conflict and post-conflict situations, learned from those that had and went back to their countries with the knowledge that such weapons were not useful and were best eliminated.

For the most part, as the above quotes and many others illustrate, senior military planners do not like nuclear weapons. They tend to see nuclear weapons as unusable, and therefore not a genuine threat. They wonder what else the money that had been spent on nuclear weapons could have been spent on: life-saving body armor perhaps; helicopters that the army cannot afford; better housing or medical care for soldiers and their families; and so on. Because military personnel, from officers to conscripts, have their lives on the line they tend to think in very practical, realistic ways. For that alone, they are a vital part of any disarmament campaign. What we need is a mechanism in which they can discuss the issues of nuclear weapons with each other, the public and with politicians. The various defense and military colleges around the world do enable such an international discourse, as do the services institutes such as the Royal United Services Institute in London and equivalent bodies around the world.

Involving nuclear weapons personnel

The issue of involving the military should be extended to nuclear weapons personnel. Past successes in disarmament policy in that regard suggests ways to alleviate the political pressure statesmen feel when they commit themselves to disarmament. Taking concrete steps in favor of nuclear disarmament can be politically costly for a policymaker because of bureaucratic hurdles, but also because of what he/she expects to be the reaction of his/her voters. When Robert McNamara asked the US Congress for 1000 minuteman missiles instead of 600 in spite of the fact that he knew the "missile gap" did not exist, he did so because he was convinced that with lower numbers, he would have lost his credibility.[125] Taking that into account, the post-Soviet and South African experiences provide interesting insights. Indeed, the Nuclear Threat Reduction Program provided housing and retraining for former members of the Soviet Strategic Forces that had to be dismantled.[126] On November 27, 1992, an agreement was signed between the USA, Japan, the European Union and Russia establishing an *International Science and Technology Center* to help with the reconversion of former Soviet scientists.[127] Similarly, in South Africa, many engineers and physicists who participated in the weapon program have been recruited by the IAEA. These examples suggest that proposing to fund an institution in charge of the re-employment of this personnel might alleviate a part of the

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[125] Robert S. Norris, Steven M. Kosiak and Stephen I. Schwartz, "Deploying the Bomb" *in* Stephen I. Schwartz, (ed.), *The Atomic Audit*, Washington D.C., Brookings Institution Press, 1998, pp.186, 189-190 note 203.

[126] William C. Potter and John M. Schields, *Dismantling the Cold War. US and NIS Perspectives on the Nunn Lugar Cooperative Threat Reduction Programme*, Cambridge, MIT Press 1997 and Anatolii Rozanov, "Belarussian Perspectives on National Security and Belarussian Military Policy," in Bruce Parrot, (ed.), *State Building and Military Power in Russia and the New States of Eurasia*, Armonk, NY: ME Sharpe, 1995, p.201.

[127] R. Adam Moody, "The International Science Center initiative in William C. Potter and John M. Schields, *Dismantling the Cold War. US and NIS Perspectives on the Nunn Lugar Cooperative Threat Reduction Programme*, *op. cit.*

reluctance policymakers have vis-à-vis the idea of giving up nuclear weapons.[128] The recent report from the American Physical Society Panel on Public Affairs (POPA) on "Technical Steps to Support Nuclear Arsenal Downsizing"[129] suggests a number of practical steps for the science and technology base of the United States to support nuclear arms reductions including, for example, establishing international centers for verification research and validation to serve as test-sites for assessing technologies and methodologies. In the April 2010 US Nuclear Posture Review, a number of proposals for investing in the scientific and technical support for nuclear disarmament were made and the Review stated:

"A modern nuclear infrastructure and highly skilled workforce is not only consistent with our arms control and nonproliferation objectives; it is essential to them ….. Further, a corps of highly skilled personnel will continue to expand our ability to understand the technical challenges associated with verifying ever deeper arms control reductions."

and

"Increased investments in the nuclear infrastructure and a highly skilled workforce are needed to ensure the long-term safety, security, and effectiveness of our nuclear arsenal and to support the full range of nuclear security work to include non-proliferation, nuclear forensics, nuclear, counter-terrorism, emergency management, intelligence analysis and treaty verification. Such investments, over time, can reduce our reliance on large inventories of non-deployed warheads to deal with technical surprise, thereby allowing additional reductions in the U.S. nuclear stockpile and supporting our long-term path to zero." [130]

Counting the costs

The costs of nuclear weapons have been notoriously hard to ascertain with any accuracy. In the United States, Stephen Schwartz has carried out the path-breaking work on this. In his book, "Atomic Audit",[131] he calculated that between 1940 and 1996, the United States spent in excess of $5.8 trillion on its nuclear weapons program, representing some 29% of all US military spending. This was a far larger figure than hitherto had been understood and led many experts and policy makers to reconsider the so-called "cost-effectiveness" of nuclear weapons

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[128] For a detailed proposal to internationalize the Nunn-Lugar program for other scientists, see Cristina Hansell, "Internationalizing Nunn–Lugar:Lessons for Future Multilateral Cooperative Threat Reduction Projects", paper for the ICNND commission. http://www.icnnd.org/research/Hansell_InternationalizingNunnLugar.pdf. (Accessed on March 3rd 2010) Previously, see also Rose Gottemoeller, "Cooperative Threat Reduction beyond Russia", *Washington Quarterly*, Spring 2005.

[129] http://www.aps.org/policy/reports/popa-reports/nucdown-exec.cfm

[130] The Nuclear Posture Review Report, US Department of Defense, April 2010

[131] Stephen I. Schwartz, Atomic Audit: The Costs and Consequences of U.S. Nuclear Weapons Since 1940, Brookings Institution Press 1998

whereby there was "a bigger bang for a buck[132]". To put this in context, this figure represented about $21,000 for every person in the United States, or more graphically, imagining it in a single stack of one-dollar bills it would reach to the moon and nearly back (739,117 km).

Further work by Stephen Schwartz and Deepti Choubey[133] attempted to delineate the US spending by allocating nuclear security spending to one of five categories: nuclear forces and operational support; deferred environmental and health costs; missile defense; nuclear threat reduction; and nuclear incident management. There were able to show that 56 percent of the total went toward operating, sustaining, and upgrading the U.S. nuclear arsenal, whereas 1.3 percent ($700 million) of the nuclear security budget was devoted to preparing for the consequences of a nuclear or radiological attack. Nuclear security funding is 14 times what energy-related research and development funding (accounting for 67 percent of DOE's budget), it consumes $13 billion more than international diplomacy and foreign assistance and is approximately double the US allocations for science, space, and technology;

In another context in the UK debate over the replacement of the Trident weapon system, figures have ranged from £20 billion to £130 billion[134] – and costs are playing a major role in the arguments in terms of opportunity costs in regards to the protection of British soldiers in Afghanistan and more generally in the current economic crisis and the issue of public spending. This is all the more acute when nuclear weapons are never meant to be used; it is hard to justify such expenditure in times of financial crisis. Success in nuclear deterrence means that the taxpayers' money will be going to a weapon of which the efficacy may never be known or even be tested.

In work, assessing the cost effectiveness and cost benefits of nuclear disarmament, Susan Willett[135], pointed out that in fact a large portion of the costs of disarmament – those of dismantling and disposition in particular – are incorrectly assigned as they really are part and parcel of the full lifecycle of nuclear weapons and would have to have been spent with or without disarmament. All weapons have a lifecycle and all weapons have to be dismantled and their material components disposed of or recycled in some way. In other work Willett [136] conducted a cost-effective analysis of disarmament versus rearmament and demonstrated that nuclear disarmament policies are far more cost-effective and increase security more than the development of new nuclear weapons—"taking into account all of the costs and risks associated with them".

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[132] A phrase coined by Defense Secretary Charles E. Wilson referring to the policy of Massive Retaliation as announced by Secretary of State John Foster Dulles in 1954, see William Safire, Safire's Political Dictionary, revised edition 2008,Oxford University Press, p51

[133] Stephen I. Schwartz with Deepti Choubey, Security Spending: Assessing Costs, Examining Priorities, Carnegie Endowment for International Peace, 2009

[134] Richard Norton-Taylor, The Guardian, Friday 18 September 2009

[135] Susan Willett, Costs of Disarmament – Rethinking the Price Tag: A Methodological Inquiry into the Costs and Benefits of Arms Control, UNIDIR 2002

[136] Susan Willett, Costs of Disarmament—Disarming the Costs: Nuclear Arms Control and Nuclear Rearmament, UNIDIR 2003

In recent work by Justin Alger and Trevor Findlay[137], the experts concur with Willett that the cost of dismantling and destroying nuclear weapons is "more accurately attributed to being a normal part of weapon life cycles rather than to nuclear disarmament" and conclude that costs of disarmament should be only a secondary concern. Their work shows that the costs of disarmament "pale in comparison to the financial burden of deploying, maintaining and upgrading nuclear arsenals in perpetuity". In their view, an international verification regime to monitor and build confidence in disarmament would be a bargain compared with the alternative and in relation to the confidence in a world free of nuclear weapons. Findlay and Alger strongly recommend further study on the issue, particularly looking at a wider and more accurate data set.

Creating a representative group of states

A like-minded representative core group of states, including key, progressive nuclear armed states and committed non-nuclear weapons states, could begin a parallel track process to negotiate such agreements as no-use treaty. Or they could stimulate a negotiation for a global nuclear weapons convention that would include the prohibition on use and possession, as a successor to the NPT.

The advantages of the likeminded group approach include a high level of commitment to the process and the outcome. A larger number of states are involved – thus increasing the stakeholder effect in nuclear disarmament. The content of the treaty is usually far more forceful – less lowest-common-denominator, watered-down language – than in a treaty where many states are reluctant negotiators. In addition, once they get going the negotiations are fast (12-18 months). The criticism of this approach is that they are self-selecting and thus don't include all of the "problem" countries – by definition, those countries that join like-minded negotiations have already decided to move forward on the limitations under negotiation. However there are two important aspects of this approach to counter such critics. First, the countries that self-exclude usually end up joining the treaty later when there has been a change in government or a change of heart – let us repeat that the NPT negotiations did not include France and China and neither country joined until 1992. Their absence for all those years, while regrettable, was not sufficient a reason to delay negotiations or entry into force of the NPT. Second, a parallel-track, like-minded negotiations will not be the only game in town and the more reluctant countries will be engaged in the top-down negotiations as well as in the Conference on Disarmament negotiations etc.

A group of like-minded countries could come together, assess what is ripe for this type of negotiation and begin a process that would support the global nuclear disarmament effort. As ever in such negotiations, not all states will approve of the methodology; some of the nuclear-

[137] Justin Alger and Trevor Findlay, The costs of nuclear disarmament, ICNND Research Paper, www.icnnd.org, September 2009

armed states and their allies will try to undermine the negotiations; and the commitment of the like-minded states will be sorely tested. However there is a core group of states that have had extensive and positive experiences of achieving great things through this type of approach, and we can only hope that they can muster the energy to do so again. Along with the likeminded states a partnership with NGOs and international organizations forming a group of "friends of nuclear disarmament" would be vital. This group could be ambitious and begin to delineate and develop the terms and elements of a nuclear weapons convention, using as a basis the draft model Nuclear Weapons Convention[138]. Or it could focus on the issue of prohibition of the use of nuclear weapons. As a second stage in the process, the group could begin to share the results of its work with a wider group of interested states and begin to build momentum.

Below we outline two options for such a group to consider. The first a convention prohibiting the use of nuclear weapons and the second is a convention to outlaw and elimination nuclear weapons completely. Finally we propose a civil society monitoring body that can be put in place with immediate effect to monitor and report on progress towards nuclear disarmament.

No Use, No Use at all[139]

"I can think of no circumstances under which it would be wise for the United States to use nuclear weapons"[140]

From the perspective of human security, International Humanitarian Law and Human Rights Law it makes sense to protect and prevent the impact of the use of the weapons. The next step is to remove the source of the problem—leading us to the outlawing of the weapons. In the context of renewed engagement on nuclear disarmament, the role of a no use agreement would take on a new meaning. Deciding to reduce reliance on nuclear weapons and eventually achieve a world without them requires a radical rethink of the role of nuclear weapons, which at some point would include rethinking the doctrine of first use and a treaty on no-use as part of the fabric of nuclear disarmament.

At the Munich Security Conference in February 2009, the National Security Adviser of India, Mayankote Narayanan, called for a No-Use Treaty. Some of the steps in a phased approach suggested by Narayanan and India are reproduced below:

- Reaffirm the unequivocal commitment by all nuclear weapon States to the complete elimination of nuclear weapons;
- reduce the salience of nuclear weapons in security doctrines;

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[138] http://www.icanw.org/

[139] Based on the work of Ken Berry, A Draft Convention and Commentary on the Non Use or Threat of Use of Nuclear Weapons and A Draft Treaty and Commentary on No First Use of Nuclear Weapons www.inccnd.org

[140] Robert F. Kennedy, *To Seek a Newer World,* New York, Doubleday, 1975.

- reduce nuclear danger, including the risk of accidental nuclear war, by de-alerting nuclear-weapons to prevent unintentional or accidental use of nuclear weapons;
- negotiate a global agreement among nuclear weapons States on 'no-first-use' of nuclear weapons;
- negotiate a universal and legally-binding agreement on non-use of nuclear weapons against non-nuclear weapon States;
- negotiate a convention on the complete prohibition of the use or threat of use of nuclear weapons; and
- negotiate a Nuclear Weapons Convention prohibiting the development, production, stockpiling and use of nuclear weapons and on their time-bound destruction, leading to the global, non-discriminatory and verifiable elimination of nuclear weapons.

As already noted, one important limitation on the ICJ's finding was that it could not reach:

> *"...a definitive conclusion as to the legality or illegality of the use of nuclear weapons by a State in an extreme circumstance of self-defence, in which its very survival would be at stake".*

Given the ICJ's inability to agree on this issue, it is clear that a fundamental element of any treaty banning the threat or use of nuclear weapons must be to make clear one way or another just what the situation relating to self-defense should be. In this regard it needs to be borne in mind that the right to self-defense itself has never been considered as unlimited. Many of the humanitarian law considerations listed above also apply here, and particularly those relating to indiscriminate destruction, the targeting of civilians and aggravated and unnecessary suffering. Since nuclear weapons are capable of all these effects, and indeed designed to achieve them, it is difficult to see that an effective argument about their legal use in self-defense could ever be maintained except perhaps in very limited cases of carefully targeted and specifically designed sub-strategic nuclear weapons.

China has undertaken "not to use or threaten to use nuclear weapons against non-nuclear-weapon States or nuclear-weapon-free zones at any time or under any circumstances". China has also proposed a No-First Use agreement between the five nuclear weapons states. However, many non-nuclear weapons states see such a measure as falling far short of nuclear abolition and the prohibition of use. Some see it as a potential impediment to nuclear disarmament in the long run, in that nuclear structures would have to be in place to survive a first strike and execute a retaliatory response. Others however see such a step as a useful confidence-building measure so long as it is clearly in the spirit of aiming towards the full prohibition of use and the global elimination of nuclear weapons. For a fuller discussion on no first use ideas see Appendix 3.

Negating the possibility of using nuclear weapons in self-defense would *ipso facto* include their use in response to chemical or biological weapons. While biological weapons in particular could in some circumstances cause the sort of widespread loss of life that might occur from use of nuclear weapons, questions must arise as to the appropriateness of a nuclear response to a biological or chemical attack. Apart from anything else, with bioweapons in particular, it may be difficult to localize the source of an outbreak, and thus accurately identify a perpetrator. Moreover, many of the effects of chemical and biological weapons can be countered by

antidotes and vaccinations or through the use of protective clothing and decontaminants, whereas there are no such protections against the effects of nuclear weapons.

It is highly likely that the nuclear-armed states will resist any proposal to take away their claimed right to retaliate in kind—as a proportional and appropriate response—to a nuclear attack on them. In other words, they might only be prepared to accept a ban on first use.[141]

One of the issues with respect to a No-Use Convention would be whether it should contain provisions relating to criminal penalties for breach of it - many would see a Convention without criminal sanctions as being a paper tiger. At best, it would be a confidence building measure without teeth. Indeed, a good case can be made that the only way of ensuring that the ban on threat or use of nuclear weapons is respected would be to include penalties for any breach. In this context, it goes without saying that if States agree that not even self-defense arguments would justify the threat or use of nuclear weapons, then any breach of that undertaking would not only run against the very fabric of the Convention itself, but against the broad current of International Humanitarian Law.

The Convention would probably also need to continue the trend which makes it clear that traditional notions of immunity for State leaders would not apply in this case, and that anyone of any rank or status involved in a breach, should be liable for punishment.

A provision to criminalize any breach of the treaty would probably need to include a provision that respects the legal principle of *aut dedere aut judicare*—a state should either try a person accused of breaching the Convention or extradite that person to a country or jurisdiction willing to do so. In the latter case, the obvious international jurisdiction for offences under the Convention would be the International Criminal Court (ICC). However, this in turn would require an amendment to the ICC's Statute providing for an expansion in the Court's jurisdiction to include offences under this Convention. States, including the United States, which have refused to accept the jurisdiction of the ICC, are likely to oppose inclusion of such a provision.

In his historic address in Geneva 2010[142], the President of the International Committee of the Red Cross, Jakob Kellenberger, stated:

"Some have cited specific, narrowly defined scenarios to support the view that nuclear weapons could be used legally in some circumstances. However, the Court found that "...The destructive power of nuclear weapons cannot be contained in either space or time (...). The radiation released by a nuclear explosion would affect health, agriculture, natural resources and demography over a very wide area. Further, the use of nuclear weapons would be a

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[141] Alexei Arbatov, *Non-First Use as a Way of Outlawing Nuclear Weapons*, ICNND research paper, www.icnnd.org.

[142] Jakob Kellenberger, President of the International Committee of the Red Cross, Official Statement to the Geneva Diplomatic Corps "Bringing the era of nuclear weapons to an end", Geneva, 20 April 2010, http://www.icrc.org/web/eng/siteeng0.nsf/html/nuclear-weapons-statement-200410.

serious danger to future generations...". In the light of this finding, the ICRC finds it difficult to envisage how any use of nuclear weapons could be compatible with the rules of international humanitarian law. The position of the ICRC, as a humanitarian organization, goes – and must go – beyond a purely legal analysis. Nuclear weapons are unique in their destructive power, in the unspeakable human suffering they cause, in the impossibility of controlling their effects in space and time, in the risks of escalation they create, and in the threat they pose to the environment, to future generations, and indeed to the survival of humanity. The ICRC therefore appeals today to all States to ensure that such weapons are never used again, regardless of their views on the legality of such use."

Taking the leap: negotiating a nuclear disarmament convention

> *A nuclear-weapon convention would, however, strip nuclear weapons of their legitimacy, their mystique and their use as a currency of international power. Over time it would help to change attitudes towards nuclear weapons and the doctrine of nuclear deterrence and make them as unacceptable to the world as are biological and chemical weapons.*[143]

The draft Nuclear Weapons Convention proposes a fully integrated, all-encompassing, negotiated treaty to eliminate nuclear weapons. In a letter dated 17 December 2007 from the Permanent Representatives of Costa Rica and Malaysia to the United Nations addressed to the Secretary-General, the two countries published the Model Nuclear Weapons Convention[144]. The NWC had been originally drafted in response to the 1998 Indian and Pakistani nuclear weapons tests, and has been more recently updated by an international consortium of lawyers, scientists and disarmament experts. It was submitted as "a useful tool in the exploration, development, negotiation and achievement of such an instrument or instruments" and set out the legal, technical and political elements for the treaty. It is a useful tool. It lays out clearly the package of measures and illustrates the potential for negotiation. Thanks to that work, a nuclear weapons convention is very thinkable. Getting to that point is the harder part. There is a great deal of support for this approach in civil society and among several significant non-nuclear weapons states. There is less support at the moment from the nuclear armed states but that is to be expected.

The Model Nuclear Weapons Convention would prohibit development, testing, production, stockpiling, transfer, use and threat of use of nuclear weapons. States possessing nuclear weapons would be required to destroy their arsenals according to a series of phases. The Convention would also prohibit the production of weapons-usable fissile material and require

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[143] K. Subrahmanyam Chapter V, in Study on Deterrence, Its implications for disarmament and the arms race: Negotiated arms reductions and international security and other related matters, Report of the Secretary-General, United Nations A/41/432,1987,p. 79
http://www.un.org/disarmament/HomePage/ODAPublications/DisarmamentStudySeries/PDF/SS-17.pdf

[144] Draft Nuclear Weapons Convention appended to a letter dated 17 December 2007 from the Permanent Representatives of Costa Rica and Malaysia to the United Nations addressed to the Secretary-General, http://www.icanw.org/nuclear-weapons-convention.

delivery vehicles to be destroyed or converted to make them non-nuclear capable. The Convention outlines five phases for the elimination of nuclear weapons: taking nuclear weapons off alert; removing weapons from deployment, removing nuclear warheads from their delivery vehicles; warhead disabling; removing and disfiguring the "pits"; and placing the fissile material under international control. In the initial phases the U.S. and Russia would make deep cuts in their nuclear arsenals. An International Monitoring System would be established under the Convention to gather information, with mechanisms for information sharing and confidentiality. Verification would include, inter alia: declarations and reports from States; routine inspections; challenge inspections; on-site sensors; remote sensors for a range of particulates; satellite imagery; environmental sampling; information sharing; and citizen reporting. The Model Convention is structured traditionally with a preamble, and includes articles on obligations, definitions of nuclear materials, devices, prohibited activities etc. There are phases for implementation and deadlines, exemptions from deadlines and a structure for implementation including a secretariat and states parties decision-making procedures. Of particular interest is a proposed "special provision" for the temporary retention of small and diminishing quantities of nuclear weapons or proscribed materials by nuclear capable states (defined as a state that has developed or has the capacity to develop nuclear weapons and which is not party to the Non-Proliferation Treaty and includes all States outside of the NPT that have a current capability.). "States meeting the criteria of this Special Provision shall follow the requirements, guidelines and phases outlined in this Article. They shall not be expected to implement the provisions of this Convention in advance of other States Parties, nor shall they be exempted from the requirements of each phase."

Other proposals have been made for a convention. Recently Frederick Mattis has proposed the Nuclear Ban Treaty (NBT)[145] but the idea is not at all new; in 1963 for example, Philip Noel-Baker[146] made the case for urgency in nuclear abolition and in later years wrote strongly against a step-by-step approach[147], believing that the only way to achieve nuclear disarmament was by a grand treaty.

Another approach to take would be to negotiate a framework convention in which there is a legally-binding commitment to the elimination of nuclear weapons, addressing the problem through regular negotiating meetings at which benchmarks are established and the next steps are negotiated as protocols or adjuncts to the framework treaty. The advantage to the framework approach is that there is a framework – next steps are not left just to good will and favorable climates. The disadvantage is that not all states in the framework convention will join all the protocols at the same time but they are part of the negotiations and thus can slow or water things down. The advantage would include a commitment to negotiate and a mechanism for new elements to be incorporated over time. At the 2005 NPT RevCon, a number of states circulated a working paper which called for the commencement of negotiations leading either to the conclusion of a nuclear weapons convention or a framework

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[145] Frederick Mattis, *Banning Weapons of Mass Destruction*, Westport, Praeger Security International, 2009.
[146] Philip John Noel-Baker, *The Way to World Disarmament-Now!* London, Union of Democratic Control, 1963.
[147] Philip John Noel-Baker, "Gradualism is Not Realistic" in *A New Design for Nuclear Disarmament*, W. Epstein and T Toyoda, eds, Nottingham, Spokesman, 1977.

of instruments for the complete abolition and elimination of nuclear weapons. It provided a negotiating model which combined the positive aspects of both the step-by-step approach favored by some of the NPT nuclear weapon states and their allies, and the more comprehensive approach favored by the Non-Aligned Movement. Malaysia called this a "comprehensive-incremental approach", as it included the achievement of disarmament steps within a comprehensive disarmament framework. Pursuant to such an approach the completion of disarmament steps in areas where agreement can be reached within a short to medium timeframe would be facilitated. More difficult issues requiring more complex arrangements would be resolved through continuing negotiations and achieved in subsequent steps. Framework conventions have proved to be successful in other fields. However, as everyone who has worked through the climate change convention and the convention on certain conventional weapons (CCW) knows, there are severe limitations and drawbacks to framework conventions down the road.

Monitoring Progress

The ICNND Report "Eliminating Nuclear Threats"[148] proposed the establishment of an independent non-governmental monitoring body staffed by a small cadre of researchers and guided by a senior governing board that would produce a "report card" on progress towards nuclear disarmament.

One idea is to establish a scientific body - an Intergovernmental Panel on Nuclear Materials – similar to the Intergovernmental Panel on Climate Change. Experts appointed to the panel would be scientific and legal experts and would address the whole range of issues pertaining to fissile materials from stocks, transparency, and the nuclear fuel cycle to complete nuclear disarmament. Their studies would inform and drive the nuclear disarmament process from the technical perspective. Technical and legal problems that arise would be discussed and studies in the panel and would be reported to the United Nations Secretary-General for transmission to member states and to negotiating bodies. The information would also be transmitted to the any non-governmental monitoring body as proposed by the ICNND.

Another possibility is to establish the International Campaign to Ban Nuclear Weapons (ICBN[149]) research network to produce the "Nuclear Weapons Monitor" – an annual report on nuclear disarmament progress. This is entirely an imitation of the International Campaign to Ban Landmines (ICBL[150]) and Cluster Munitions Coalition[151] network of researchers that produce the annual and so very useful "Landmine and Cluster Munitions Monitor[152]". The Landmine and Cluster Munitions Monitor is a civil society-based program providing research and monitoring on progress made in eliminating landmines, cluster munitions, and other

[148] www.icnnd.org
[149] See www.ican.org
[150] www.icbl.org
[151] http://www.stopclustermunitions.org/
[152] http://lm.icbl.org/

explosive remnants of war. The Monitor is known and trusted as independent and impartial. It has become the "de facto monitoring regime for the Mine Ban Treaty." It will now take on the same role for the Convention on Cluster Munitions.

V. In Conclusion

The delegitimization of nuclear weapons is fundamental to preventing their use and achieving nuclear disarmament. Delegitimization is a process of devaluation; diminishing and destroying all claims to legitimacy, prestige and authority. Delegitimization gets to the heart of the nuclear deterrence debate and the evidence for nuclear deterrence has been found wanting. We are at a point in history when whatever the rights and wrongs of nuclear weapons, whatever the debates that have been rehearsed and repeated for the last 65 years, the fact is that nuclear weapons are not particularly useful in today's world, and may even have increased pre-existing dangers in the form of international terrorism and old and decaying weapons still in storage.

Nuclear weapons have no inherent legitimacy as weapons of war in that they are inhumane, indiscriminate and cause unacceptable harm. What deterrent legitimacy they possess has been conferred on them through the mind-games of the Cold War, a period that is now over. Delegitimization will be a self-reinforcing endeavor, affecting the credibility of deterrent threats and allowing the restatement of the immorality of both the use and threat of use of nuclear weapons. Delegitimization has been neglected in the name of a strategic utility. Reinstating the more cautious approach of conventional weapons, whereby one mistake in their use, while ghastly and to be utterly avoided, is not on the scale of one mistake with a nuclear weapon.

In a situation where modern armies are stretched to the hilt and where wealthy countries cannot afford to equip their soldiers with bullet-proof armor, small wonder senior military officers are asking the questions – out loud in some cases – as to why scarce money and precious human resources should be spent on weapons that are intended never to be used and are not useful on the battlefield. Indeed, states that possess nuclear weapons find themselves increasingly vulnerable to proliferation. Certain smaller states seem to have worked out that nuclear weapons serve one major purpose today and that is to prevent attack by one of the nuclear weapon states. North Korea calculates that the U.S. would not attack Pyongyang if a nuclear weapon were aimed at Seoul or Tokyo. Others may well calculate the same vis-à-vis U.S. interests in the Middle East, such as the fear of a nuclear attack on Israel or Saudi Arabia.

Nuclear weapons – along with weapons such as landmines and cluster munitions – cannot be used to take territory in a military campaign. They cannot be used in the types of conflicts in which we find ourselves increasingly embroiled, such as in Afghanistan, the Congo, Iraq, Georgia and so on. Nuclear weapons are blundering, polluting weapons that cause long-lasting environmental damage and create hostile terrains. They lack precision in a world where advanced militaries increasingly focus on reducing collateral damage and civilian deaths. The weapons of choice in war these days are precise, manoeuvrable and low-yield; they are often aimed at individual heads of state or leaders of terrorist operations. Like the move to smart sanctions, smart weapons aim not to hurt the innocent civilian and thus lose the

campaigns for hearts and minds, rather to target solely the irascible elite who had created the mayhem and destruction. Nuclear weapons are useless in these regards.

A group of like-minded countries, in partnership with NGOs and international organizations, could begin a process that would begin the drive for global nuclear disarmament. The group would begin with developing the terms and elements of a convention to outlaw the possession and use of nuclear weapons. The process would of course be open to all who shared the vision and over time, a wider group of interested states would help build momentum.

It is time to place the burden of proof on those that would retain nuclear weapons. International security for many countries has been built around the concept of nuclear deterrence for over sixty years. The evidence for its reality is weak, whereas the risks are enormous. Continuing to premise security on the basis of a concept with weapons with which a “small accident” would have huge consequences would be folly. It is time to open up a new debate, time to consider the possibility that nuclear deterrence is not a valid framework for international security in the 21st Century. It is time to set about getting rid of nuclear weapons while we still have the opportunity.

Appendix 1

A more detailed analysis of the nuclear bombings of Hiroshima and Nagasaki

There have been several instances when nuclear weapons are believed by many theorists to have demonstrated their utility in war. The first – and the only use of nuclear weapons in war – was against Japan in 1945. This was an afterthought in that the primary foe for which these weapons were intended, Germany, had already been defeated before the first test of the A-bomb in July 1945. According to the traditional (U.S.) interpretation, the decision to use nuclear weapons was motivated by the desire to end the war quickly and reduce the number of U.S. casualties that would have been unavoidable had the United States been forced to land in Japan, most likely in 1946.

This view has always been questioned by the USSR/Russia, which regarded the use of nuclear weapons against Japan as a "message" to Moscow in the emerging Cold War confrontation. Recent historical research in Japan and historical evidence from the Soviet archives demonstrate that the stated calculation underlying Truman's decision was off the mark, at best. The destruction of Hiroshima and Nagasaki did not significantly influence the willingness of Japan's General Staff and government to fight (similarly neither did the Tokyo fire bombings); rather, it was the declaration of war by the Soviet Union on 8 August 1945. Only at that point did Japan find itself in a no-win situation of fighting on two fronts simultaneously (see below for further discussion in the section on decisiveness).

Indeed, the doctrine of "strategic bombing," which was very influential in Europe prior to World War II and continued to dominate U.S. military thinking throughout the war, supports the evidence against the efficacy of nuclear weapons to end a war. Examples of this doctrine were the horrendous conventional- and fire- bombing of Dresden and Tokyo. The purpose of "strategic bombing" was to undermine the will of the country to resist, and as a post-war study by U.S. government demonstrated, these attempts failed to achieve that purpose.

In retrospect, it seems clear that people believed in the power of nuclear weapons because they wanted to, not because such a belief was supported by the facts surrounding Hiroshima and Nagasaki. Even a cursory examination of the facts shows that there are serious problems with the tale we have been telling ourselves about nuclear weapons for the last sixty five years.

Hiroshima and Nagasaki: Timing

The first and most important problem is timing. The traditional story about the end of the war has the U.S. bombing Hiroshima on 6 August, bombing Nagasaki on 9 August, and the Japanese deciding to surrender on 10 August. At a superficial level this sequence of events has some plausibility. Look more closely, however, and serious problems emerge.

The crucial event in that first week of August was not the bombing of Hiroshima. That is the event that draws our eyes because of the drama associated with nuclear weapons since. But if the goal is to understand why Japan surrendered, looking toward Hiroshima is nothing more than prejudging the issue. The decisive event that week was the decision by Japan's leaders to consider unconditional surrender for the first time. Japan had been fighting a war since 1931. During those long years, and especially as the situation worsened in 1945, they had sometimes talked about surrender. But never had they called an emergency meeting of the Supreme Council (the effective ruling body of Japan at the time) in order to put immediate surrender on the table. 9 August was the first day that Japan's leaders seriously met to discuss unconditional surrender. Focusing on this event raises an important question: What motivated them to sit down and consider surrender on this day? What got them to finally abandon their stubborn resistance and face the possibility of defeat?

It cannot have been the bombing of Nagasaki. The Supreme Council was already meeting and already discussing surrender when news of the bombing of Nagasaki reached Tokyo early in the afternoon of the 9th. The bombing of Hiroshima does not make a very good candidate either. It occurred three days earlier. What sort of crisis erupts after lying dormant for three days? It might be argued that they were not aware that it was an atomic bomb or what such a bomb's capabilities were. But Japan's leaders knew the nature of the bomb due to President Truman's 7 August announcement. They were aware of the extent of the damage as early as the afternoon of 6 August when the mayor of Hiroshima reported that two-thirds of the city had been destroyed and about one-third of the civilians killed. From the 6th onward, therefore, they had at least a rough idea of the power of such a weapon.

At least one member of the inner circle on the Supreme Council, Army Minister Anami Korechika, had consulted with the head of Japan's own nuclear weapons project to discuss the capabilities of nuclear weapons. Other members of the inner circle discussed in their diaries that it was a nuclear weapon. Yet they did not meet to discuss surrender on the 7th or the 8th. Most tellingly, Foreign Minister Togo Shigenori requested a meeting of the Supreme Council to discuss the bombing of Hiroshima on 8 August but had his request turned down.[153] Look at the contemporaneous documents for the days after Hiroshima and you do not find a sense of crisis.

[153] Asada, "The Shock of the Atomic Bomb and Japan's Decision to Surrender," p. 505.

What, then, could have caused Japan's leaders to change their minds and suddenly meet to discuss absolute surrender? At midnight on the night of 8 August the Soviet Union, which had been neutral, declared war and launched an invasion of Japanese-held territory in Manchuria, on Sakhalin Island and elsewhere. It was a massive, overwhelming attack by more than 1.5 million men that drove Japan's forces reeling back. Looking only at timing it seems highly likely that the cause of Japan's decision to surrender was actually the Soviet declaration of war and invasion of Japanese-held territory.

Hiroshima and Nagasaki: Proportion

The second problem is one of proportion. Hiroshima is regularly described (mostly by people who oppose nuclear weapons) as the worst attack against a city in history. The facts are quite different and the exaggeration is part of what gives nuclear weapons their power.

The U.S. Air Force bombed 68 cities in the summer of 1945 and it was one of the most devastating campaigns of city attacks in the history of mankind. A B-29 bomber, loaded with conventional bombs, could carry about 16,000 to 20,000 pounds of bombs on a high-altitude trip to Japan and back. A typical raid consisted of 500 bombers. This means that most raids against Japanese cities delivered something on the order of 4 to 5 kilotons of explosive force onto their target.[154] The Hiroshima bomb was 16 kilotons but consider: most of the explosive power of a single, powerful bomb is concentrated at the center, it gets wasted re-bouncing the rubble at the center, as it were. If destructive force is distributed more evenly, it tends to be more effective. Simple calculation demonstrates that the Hiroshima attack was not orders of magnitude worse than the conventional bombing that had already been going on for five months.

Put in the perspective of this larger bombing campaign, Hiroshima appears in a very different light. Graph the number of people killed in each of the 68 city attacks that summer, and Hiroshima is second. Tokyo, the conventional attack that opened the campaign in March, is first. Graph the square miles destroyed, and Hiroshima is fourth. Three other cities had more total square miles destroyed with firebombs and conventional high explosives. Graph the proportion of each city that was destroyed, and the outcome is even more striking. Hiroshima was seventeenth.[155] Toyoma, attacked at the beginning of August, was 99.5% destroyed. Clearly, Hiroshima was not outside the scale of the conventional attacks against other Japanese cities that summer. Seeing that these attacks were in many ways similar in terms of destruction and death raises troubling questions. "Why," one might ask, "if these other attacks were roughly similar, didn't Japan surrender after one of these other 66 city attacks?" The attacks had been going on all summer - five long months. A comparison of the scale of the

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[154] Frank, *Downfall*, p. 253.

[155] The casualty figures are drawn from Frank, *Downfall,* p. 334. The homeless, area and buildings destroyed figures are from *United States Strategic Bombing Survey*, Vol. IX, "The Strategic Air Operations of Very Heavy Bombardment in the War Against Japan," in Pacific Report No. 66 (New York: Garland, 1976), p. 43.

attacks justifiably raises the question: How can it be that all these other attacks failed, but Hiroshima succeeded?

Advocates insist Hiroshima was different. Nuclear weapons are special. Even though these other attacks, in some cases, outdid Hiroshima in terms of destruction, the normal rules of human conduct do not apply because nuclear weapons are exceptional. This nuclear exceptionalism is one of the ideas that has invested nuclear weapons with so much power in peoples' minds for the last 70 years. It is this article of faith - that nuclear weapons have a power to coerce that no other weapon has - that has allowed generations to ignore the facts.

Hiroshima and Nagasaki: Reactions

The third problem is one of reaction: the Soviet declaration of war clearly touched off a crisis, while the bombing of Hiroshima did not. On the morning of 9 August, as news of the Soviet invasion of Manchuria (and other places) began to filter into official circles in Tokyo, orders were drawn up declaring martial law - orders that were put into effect later that same day. No such break with ordinary routine occurred when Hiroshima was bombed three days earlier. Also on that morning, in a private meeting of Army officers planning strategy for the Supreme Council and in Cabinet meetings later that day, Army Deputy Chief of Staff Kawabe Toroshiro suggested that the military overthrow the Emperor and declare a military dictatorship. No such extreme responses were considered after the bombing of Hiroshima.[156]

These specific responses are not surprising because in general terms, the attitude of Japan's leaders toward the relative importance of city bombing as opposed to the actions of the Soviet Union were already clear. Japan's leaders identified the actions of the Soviet Union as the pivotal factor and virtually ignored city bombing. In a June meeting the Supreme Council stated that if the Soviet Union entered the war it would "determine the fate of the Empire." In that same meeting, Kawabe elaborated that: "The absolute maintenance of peace in our relations with the Soviet Union is one of the fundamental conditions for continuing the war with the United States."[157] On the other hand, a review of the documents reporting the work of the Supreme Council shows that they never had a full dress meeting to discuss the city bombings and - remarkably - it is only even mentioned twice: once in passing in May and once in August.[158]

Clearly, based on this evidence alone, it is difficult to make the case that there was any general feeling that the city bombings had a decisive impact. But in the decisive meeting on the nights of 9 and 10 August, Army Chief of Staff Umezu is asked what the army intends to do about the atomic bomb. His answer is remarkable on two counts. He implies that nuclear bombing and conventional bombing are equivalent, and he seems to suggest that no city

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[156] Frank, *Downfall*, pp. 288-289.
[157] Asada, "The Shock of the Atomic Bomb and Japan's Decision to Surrender," p. 504.
[158] Frank, *Downfall*, p. 294.

bombing could ever be strategically decisive, in any case. Japan's leadership seems to have regarded city bombing in general as not strategically important.[159]

Their reactions to the specific bombings of Hiroshima and Nagasaki are just as telling. Word of the bombing of Nagasaki arrived early in the afternoon of 9 August while the full Cabinet was discussing unconditional surrender. What is remarkable about this news is that it does not appear to have substantially changed the debate in the Cabinet or even remained a matter of discussion for very long. When the news arrived, the Cabinet was deadlocked over whether to consider unconditional surrender. After a brief discussion the Cabinet remained deadlocked and went on to talk about other issues. This second bombing does not appear to have changed any minds or had any appreciable impact on the discussion.

A second example of the kinds of reactions that Hiroshima caused is a diary entry of Army Deputy Chief of Staff Kawabe. On the night of 8 August, writing in his diary, General Kawabe writes that when he learned that the weapon that destroyed Hiroshima was an atomic bomb it gave him a serious jolt. He uses the word *shigeki*, which is best translated as "serious jolt" not its more powerful cousin *shogeki* which is best translated as "shock." His word choice is confirmed (and his general attitude toward the event made clear) by his next words. He says, "We must be tenacious and fight on." Clearly this particular Army general was not imagining that the next morning he would be sitting in meetings discussing the final surrender of Japan.[160]

Also telling is a rather extended diary entry by Admiral Takagi, recounting a conversation he had with his boss, Navy Minister Yonai.[161] This diary entry also comes from 8 August and is reproduced in an appendix to this paper. There are several things that are striking about this. First, it is clear from what Yonai says that discussing surrender is not on the agenda for the next day's meeting of the Supreme Council (9 August). Since this is the meeting that would eventually result in the decision to surrender, whatever was going to happen that would force them to consider unconditional surrender had not yet occurred by the evening of 8 August.

Second, Hiroshima is mentioned, but it is mentioned only in passing. It is a problem, but it is only one problem among many. One gets the impression that Yonai is more concerned with

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[159] Hasegawa, *Racing the Enemy*, p. 211. This attitude is in keeping with the experience of the British government in World War II. As far as I know, Churchill never considered surrendering because of attacks by the Luftwaffe on British cities. In fact, some historians have speculated that Churchill deliberately goaded the Germans into switching from attacks on radar installations to British cities at a crucial moment in the Battle of Britain to protect the severely overstretched Royal Air Force. The apparent indifference of Japan's leaders is also in keeping with the German experience. Although the Germans had more civilians killed due to aerial bombing than any other belligerent, the German government did not consider surrendering because of city bombing. In fact, city bombing seems to have stiffened the will of the countries that were bombed, rather than the opposite.

[160] Quoted in Hasegawa, *Racing the Enemy*, p. 200.

[161] Diary of Takagi Sokichi for Wednesday, 8 August 1945, quoted in document 55 of William Burr, ed., "The Atomic Bomb and the End of World War II: A Collection of Primary Sources," National Security Archive Electronic Briefing Book No. 162, National Security Archive, 5 August 2005, http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB162/index.htm.

the rationing of rice that will start on the 11th, than with the bombing of Hiroshima two days before. Hiroshima is not the crucial event leading to the collapse of morale, but one of "many respects" in which the situation is getting worse. It is not the single event around which everyone's attention is focused. It is merely one more event that adds to the general gloom.

Finally, the general tone of this conversation is not one of crisis. This is not the tone of men who are facing absolute defeat. These men are not struggling to come to grips with the fact that tomorrow they will have to sit in meetings and discuss whether they will have to lose their honor, the possibility of facing war crimes trials, or the admission of mistakes that led to defeat and all the other things that go with surrender. This is not the despairing conversation that takes place in extremis. This is quite clearly the talk of people who are in a crisis, facing difficulties, but who still feel that they have cards to play. This is the conversation of people still trying to manage.

They talk about how to talk sense into the Prime Minister and debate who can explain the seriousness of the morale problem to him. They talk about the dangers of being too aggressive and relying too much on military solutions. They talk about the chances that the attempt to get Stalin to mediate might still work. They poke fun at Suzuki. These officials do not sound like people who are struggling emotionally to come to grips with disaster. The next day, men in the Supreme Council will weep openly in the late night meeting with the Emperor where the decision to surrender is finally taken. But these men do not sound at all as if they are close to tears.

If one looks closely at the contemporaneous evidence - at the meetings and conversations that Japan's leaders had in the days following Hiroshima - there is almost no evidence of a crisis arising from the bombing. On the other hand, if one looks at the words and deeds of these same men following the news that the Soviet Union had declared war and invaded, it is obvious from their words and deeds that a full-blown crisis is underway.

Hiroshima and Nagasaki: Decisiveness

The final problem is one of decisiveness. The bombing of Hiroshima was not decisive militarily in any way. It neither foreclosed crucial options nor forced a response. The declaration of war by the Soviet Union, on the other hand, removed the last options that Japan's leaders had.

In the spring of 1945, Japan was already largely defeated and Japan's leaders knew it. They hoped, however, through diplomacy or battle to win better terms than simple surrender. Research in the last twenty years has made clear that these were the only two options: Japan's ruling elite believed that no other plan for securing an acceptable surrender merited attention or effort.

The “peace” faction, led by Foreign Minister Shigenori Togo (and including Navy Minister Mitsumasa Yonai, Lord Privy Seal Koichi Kido, and many civilian ministers) hoped that diplomacy could provide a solution to Japan’s predicament.[162] They believed it might be possible to persuade Stalin to mediate a settlement between Japan on the one hand and the United States, Great Britain, and their allies on the other. The Soviets and the Japanese had signed a neutrality pact in 1941, which would not expire until April 1946. The Japanese judged that only the Soviets had sufficient status as a great power to mediate between themselves and the United States, and they believed it was possible for such mediation to result in the preservation of their form of government and at least some of their conquered territory.

Historians often treat this diplomatic effort by Japanese officials as inexplicable and unrealistic. Japanese leaders knew that this option did not have a high probability of success. They were aware that the Soviets would be predisposed to join the United States and Great Britain in attacking Japan. But they were also aware of tensions that had developed between the Soviet Union and its allies, and they were willing to offer considerable territorial concessions to the Soviets in Asia. They were unaware, of course, that Stalin had already been persuaded by President Franklin D. Roosevelt and Prime Minister Winston Churchill to join the war against Japan. Their choice of the Soviets was clever: it would be in the Soviets’ interest, after all, to make sure that the United States did not gain too much from a peace settlement, because any increase in influence for the United States in Asia would mean a corresponding loss of influence for the Soviets.

The “hard-liners,” led by Minister of War Korechika Anami (and including Army Chief of Staff Yoshijiro Umezu and Navy Chief of Staff Soemu Toyoda), believed that a military solution to Japan's current crisis could be found. Even though the Japanese military had suffered a series of costly defeats, their economy crippled and their navy incapacitated, Japan still had many soldiers willing to fight. One last-ditch battle, the hard-liners felt, could generate better surrender terms.[163] The hard-liners’ plan is also often characterized as wrong-headed and fanatic. Seen through the lens of a warrior culture and Japan’s experience in the 1904-1905 Russo-Japanese war, however, their behavior may have been desperate but it was not

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[162] “Peace” faction is a consistently employed misnomer. It suggests a fundamental disagreement over ends – war or peace. But Japan's leaders were largely united in their goal (bringing the war to a close); they were divided only over the best means to achieve that end (diplomacy or battle).

[163] Both the diplomatic and the military approaches were based on Japanese historical experience. Historians generally believe that the experience of the Russo-Japanese war of 1904-05 set the stage in many ways for Japan’s plans and attitudes in World War II. The Russo-Japanese war consisted of a series of relatively inconclusive land campaigns in which casualties were high, followed by a decisive naval battle at Tsushima Straits, which the Japanese dramatically won and which persuaded the Russians to seek an end to the war. This sequence of events is the clear model for the “decisive” battle that Japan’s military leaders sought throughout World War II. Mediation follows the model of the Russo-Japanese war as well, which was settled through the mediation of U.S. President Theodore Roosevelt. The war of 1904-05 also began with a Japanese surprise attack against its opponent’s navy. For more on a “decisive” battle, see Drea, In the Service of the Emperor, especially chap. 12, “Chasing a Decisive Victory: Emperor Hirohito and Japan's War with the West (1941-1945).”

irrational.[164] And the astuteness of the Japanese plan to use U.S. casualties as leverage is confirmed by the fact that the U.S. high command repeatedly expressed concerns about the possibility of high casualties during an invasion.[165] The hard-liners correctly identified their opponent's weakness. Whether their hope that they could leverage better terms in this way was realistic seems doubtful, but cannot be known.

Once the Soviets intervened, hopes for a mediated settlement were extinguished, and historians generally acknowledge this. They less often discuss, however, the impact the Soviet intervention had on the strategic military situation. The Soviet force in Manchuria consisted of 1.5 million men who had a 5 to 1 superiority in tanks and who made rapid progress.[166] Japan would have had difficulty mounting an effective defense against an invasion of the home islands from the north as Japanese forces had been steadily shifted south toward the island of Kyushu – the likely first target of a U.S. invasion. The Japanese Fifth Area Army, for example, charged with defending the northern island of Hokkaido, was under strength (at two divisions and one brigade) and was dug in on the east side of the island. Soviet plans called for the 100,000 troops of the Sixteenth Army, after quickly securing the southern half of Sakhalin Island, to launch an immediate invasion of Hokkaido from the west. The difficulties of fighting a decisive battle on two fronts at once would have been clear. Equally clear would have been the likelihood that Soviet forces would be landing on the home islands within ten days to two weeks.[167]

Both plans for obtaining better terms – diplomatic and military – had a low probability of success, but each had some merit. Whether either plan was ultimately realistic is beside the point; the Japanese leadership believed that these were the only two options that offered any hope of securing better terms. Efforts on behalf of both options were being actively pursued at the end of July and in the first week of August of 1945. When the Soviet Union intervened in the early hours of 9 August, however, both of these options were invalidated. The Soviets could not serve as mediators if they were belligerents in the conflict, and although hard-liners

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[164] Morgan, Compellence and the Strategic Culture of Imperial Japan. See especially chap. 6.

[165] Richard Frank argues that the planned invasion would have been canceled: "With the Navy's withdrawal of support, the terrible casualties in Okinawa, and the appalling radio-intelligence picture of the Japanese buildup on Kyushu, Olympic was not going forward as planned and authorized–period." Richard B. Frank, "Why Truman Dropped the Bomb," Weekly Standard, Vol. 10, No. 44, 8 August 2005.

[166] In some cases, units halted only when they ran out of fuel.

[167] Frank, in the H-Diplo roundtable discussion on Hasegawa's Racing the Enemy, argues that Japan's leaders would have discounted the Soviet invasion both because they had already written off Manchuria and because the Soviet's paucity of amphibious landing craft made the possibility of an invasion of the Home Islands far less threatening than the sheer number of Soviet troops makes it appear. Accepting his point requires disbelieving a number of contemporaneous Japanese statements. It is possible the the Japanese high command had secretly written off Manchuria, although the evidence is ambiguous. On the landing craft, however, the United States had a history of supplying crucial war material to the Soviets. Even presuming that the Japanese had accurate estimates of the numbers of Soviet landing craft, and that they had confidence in those estimates, prudence would still have dictated that Japanese leaders assume that the United States would supply their allies with the necessary ships.

might be able to convince themselves that an all-out effort against one invasion was possible, no one would believe that such a decisive battle could be fought against two opponents at the same time.

Japan surrendered because the Soviet declaration of war and invasion of Manchuria, Sakhalin Island and other territories deprived it of any viable options. They surrendered, in other words, because they had no choice. The Soviet declaration of war and invasion was strategically decisive; bombing two more cities in a campaign that had already bombed 66 other cities, was not.

Appendix 2

An annotated excerpt from the diary of Admiral Takagi Sokichi for Wednesday, August 8, 1945, recounting a conversation he had with his boss, Navy Minister Yonai quoted in Burr, "The Atomic Bomb at the End of World War II"

[Yonai]: *"I met with Foreign Minister Togo on August 1, but he said he wanted to ask the Prime Minister for his opinion*."
[Takagi]: *"Is he still thinking about such a thing at this very moment?"*

> Takagi and Yonai do not seem to have high regard for Prime Minister Suzuki Kantaro. Suzuki was 77 when he was made Prime Minister in April of 1945 (when it was already clear to many in Japan that the war was lost) and historians have noted that Suzuki does not seem to have taken a position and stuck with it very often in the final months of World War II. Some suggest that he came down in debates on the side of the last person who spoke privately with him.

[Yonai]: "*Prime Minister's words are also difficult to understand. When he speaks, he still tries to sound tough by mentioning [the Battle of]: Komaki-yama, the Winter Siege of Osaka, and such. The other day as well, at the cabinet meeting, he started to argue that to talk about ending the war would be almost as if we were encouraging front-line soldiers to start a riot and that it had been common knowledge for a long time that commanders abroad would not obey their master's orders. It was almost like sending a wrong signal that could instigate a riot. So I called [Seizo] Sakonji and told him to tell the Prime Minister that such a comment was not appropriate at a Cabinet meeting."*

[Takagi]: "*How does the Prime Minister assess the situation inside the country?"*

[Yonai]: "*It seems he hasn't heard anything about it. And no one knows [the real situation]."*

> Yonai is unhappy with Suzuki's actions and one can sense the dismissive tone in Yonai's response. Suzuki, he seems to be saying, does not know the first thing about the real problem facing Japan. Yonai was deeply concerned that the people of Japan would lose hope and that a popular (possibly communist) uprising would result. Few others at the upper reaches of Japan's government (and few historians) seem to have shared this

assessment, but Takagi is clearly aware of his boss's fears: he alludes to it several times and indicates his agreement.

[Takagi]: "*In my opinion, someone like the Interior Minister should have a straight talk with the Prime Minister about domestic conditions. I used to think that by September or October the domestic situation would rapidly deteriorate while you said it would start deteriorating in mid-August. Actually, the situation is getting steadily worse in many respects during these couple of days, especially after Hiroshima [6 August].*"

Here Takagi is flattering his boss. He is saying, in essence, "I guessed civilian morale would dip in October but it seems now that you were right when you guessed it would happen in August." He doesn't say specifically what evidence there is that civilian morale is falling. His final sentence mentions the situation is worsening in "many respects" and also mentions the bombing of Hiroshima.

[Yonai]: "*Bad news continues and the ration of rice in Tokyo will be reduced by 10% after [the] 11th of this month. The Army Minister still sounds aggressive all the time, but I am worried that you may end up in a situation where you will realize, when you look back after vigorously moving forward assuming that others are following, that no one is actually following. The Foreign Minister has an appointment with the Army minister today. The independence of East India will be on the agenda at the Supreme War Council tomorrow. I have doubts about such a plan (a farce?), but I can't say so in public.*"

In a consensus-based government getting out ahead of the consensus is one of the worst errors a leader can make. Yonai is suggesting that War Minister Anami, who is the most influential man in government at this point, is being too aggressive. (The "independence of East India" is a euphemism for the planned withdrawal of 30,000 troops from the Burma theater of operations.)

[Takagi]: "*There is a rumor that the Prime Minister has said that [Koichi] Kido, taking advantage of his position as an aid to his Majesty, is trying to influence his Majesty's opinion. Did you hear that?*"

[Yonai]: "*I heard the prime minister complained what [is] the point of being a Prime Minister [in this kind of situation].*"

This is funny. Kido Koichi was one of the smartest men in government during the war years and he used his position as Lord Keeper of the Privy Seal to constantly influence Emperor Hirohito. He was, probably, the Emperor's closest advisor. Yonai and Takagi are chuckling because suggesting that Kido might be using his position to influence Emperor is stating the obvious. Yonai's joke in response makes it clear how little influence Suzuki is perceived to have.

[Takagi]: *"I think the real problem is not whether the enemy will invade our mainland and when it will be if they do so, but rather the diminishing spirit of the people. Therefore, it will be a big*

mistake if the Foreign Minister is thinking that we can spend more time on diplomacy if invasion comes later."

> It seems from what Takagi says that the main focus of conversation in ruling circles has been when the Americans will invade. That, however, is not the important question, he says. The important question is how long the spirit of the people will last. Imagining that there is lots of time to make diplomacy work is a mistake, he thinks.

[Yonai]: "*I met the Foreign Ministry yesterday and he told me that no telegram [from the Soviet Union] had come. But it was on the fifth that Stalin returned home from Potsdam and it takes a few days for a telegram to arrive, so we will probably get some response either today or tomorrow. I will ask him tomorrow since I have a meeting. Perhaps we may also have to be ready for a situation where we won't receive any response from Russia."*

> Clearly, even this late in the game (8 August) these two government leaders, one of whom is on the Supreme Council, are still hoping that a Soviet-led mediation can bring better surrender terms.

Appendix 3:

No First Use, brief history and current positions.

The call for a No First Use of Nuclear Weapons Treaty (NFU[168]) is not new. In 1982, the USSR General Secretary Brezhnev at the United Nations made a pledge not to be the first to use nuclear weapons. China's NFU pledge "not be the first to use nuclear weapons at any time or under any circumstances" dates back to 1964, from its first nuclear weapons test and is part of a wider set of pledges forming a part of China's nuclear weapons doctrine. Throughout the cold war, the USSR and China called on the western nuclear weapons states to adopt similar nuclear doctrines. However, the United States, the United Kingdom, and France have never responded in kind, reserving instead (since the end of the Cold War specifically) the option to use nuclear weapons in response to a conventional, chemical or biological attack.

Following the end of the Cold War, the Russian Federation changed its declaratory NFU pledge and aligned its views on first use with the NATO stance where first use is an option to be considered.[169] On February 5, 2010, Russia published its new Military Doctrine, replacing the one signed in 2000.[170] (Note: at the same time as he signed the 2010 Military Doctrine, President Dmitri Medvedev also signed "The Foundations of State Policy in the Area of Nuclear Deterrence until 2020," which has not yet been made public.) The 2010 Doctrine does

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[168] Also sometimes referred to as NoFUN.
[169] Arbatov, *op. cit.*
[170] Nikolai Sokov, "The New, 2010 Russian Military Doctrine: The Nuclear Angle," CNS Feature Story, February 5, 2010, http://cns.miis.edu/stories/100205_russian_nuclear_doctrine.htm.

not alter Russia's policy on first use, reserving the right to use nuclear weapons not only in response to a nuclear attack or an attack with other WMD but also in response to a conventional attack. However, the new Russian doctrine has tightened the criterion for the employment of nuclear weapons allowing for their use when "the very existence of [Russia] is under threat."

In 1995 China issued an unconditional negative security assurance as follows:[171]

> *1. China undertakes not to be the first to use nuclear weapons at any time or under any circumstances.*
> *2. China undertakes not to use or threaten to use nuclear weapons against non-nuclear-weapon States or nuclear-weapon-free zones at any time or under any circumstances. This commitment naturally applies to non-nuclear-weapon States parties to the Treaty on the Non-Proliferation of Nuclear Weapons or non-nuclear-weapon States that have entered into any comparable internationally binding commitments not to manufacture or acquire nuclear explosive devices.*
> *3. China has always held that, pending the complete prohibition and thorough destruction of nuclear weapons, all nuclear weapon States should undertake not to be the first to use nuclear weapons and not to use or threaten to use such weapons against non-nuclear-weapon States or nuclear-weapon-free zones at any time or under any circumstances. China strongly calls for the early conclusion of an international convention on the non-first use of nuclear weapons as well as an international legal instrument assuring the non-nuclear-weapon States and nuclear-weapon-free zones against the use or threat of use of nuclear weapons.*
> *4. China, as a permanent member of the United Nations Security Council, undertakes to take action within the Council to ensure that the Council takes appropriate measures to provide, in accordance with the Charter of the United Nations, necessary assistance to any non-nuclear-weapon State that comes under attack from nuclear weapons, and to impose strict and effective sanctions on the attacking State. This commitment naturally applies to any non-nuclear-weapon State party to the Treaty on the Non-Proliferation of Nuclear Weapons or to any non-nuclear-weapon State that has entered into any comparable internationally binding commitment not to manufacture or acquire nuclear explosive devices, in the event of aggression involving the use of nuclear weapons or the threat of such aggression against the State.*
> *5. The positive security assurance provided by China, as contained in paragraph 4, does not in any way compromise China's position as set out in paragraph 3 and shall not in any way be construed as endorsing the use of nuclear weapons.*

In 1994, China proposed to the other NPT nuclear weapons states a draft treaty on no first use. Russia responded positively to the proposal and the two countries undertook bilateral no

[171] It is doubtful that China regards this assurance as extending to Taiwan, which it considers to be part of its sovereign territory. How far it applies to India is also not clear, since China claims one Indian state.

first use commitments.[172] It is worth noting here that China's undertaking on no first use is expressed to apply to not only non-nuclear weapons states but to Nuclear Weapon Free Zones (NWFZs) as well. In 1999, following the nuclear tests in 1998, India announced that it would not "resort to the use or threat of use of nuclear weapons against states which do not possess nuclear weapons, or are not aligned with nuclear weapons powers." However in 2003, India adopted a doctrine of nuclear first use in response to chemical or biological weapons use, thus mimicking the NPT nuclear weapons states, excluding China.

Pakistan explicitly includes the possibility of first use in its doctrine. Israel is ambiguous on the subject – as indeed it is on nuclear weapons generally – but it has declared since 1965 that it "will not be the first to introduce nuclear weapons in the region"[173] North Korea has issued relatively explicit threats about its preparedness to use nuclear weapons, particularly in the wake of its second nuclear test in May 2009. It has also been suggested that North Korea's nuclear capability would in any case clearly be a "use-it-or-lose-it" nuclear arsenal due to its small size and lack of survivability.[174] However, North Korea's actual possession of functional nuclear weapons in a form capable of delivery, let alone its political will to use them, is highly uncertain.

The United States, the United Kingdom, France, China and Russia made for the most part qualified security assurances to non-nuclear weapon states at the 1995 NPT Extension and Review Conference.[175] UN Security Council Resolution 984 (1995) took appreciative note of these statements and recognized the "legitimate interest of non-nuclear weapons states to receive security assurances."

The absence of such commitments made by the nuclear weapon states to each other is not helped by the dearth of discussions between themselves and between their protected allies on concrete military concerns, strategic concepts and the armed forces of nuclear powers. However, the 2010 U.S. Nuclear Posture Review goes some way to opening up the topic of NFU again due to its self-imposed restriction on which circumstances the United States would respond with nuclear weapons and when it would not. For example, the United States has stated that it will not use or threaten to use nuclear weapons against non-nuclear weapons

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[172] It is worth noting that China also proposed including a reference to no first use in the Preamble to the CTBT, but this was eventually excluded. See Butler, Nicola and Young, Stephen, "New Text for a Comprehensive Test Ban Treaty," Occasional Papers on International Security Policy, 30 May 1996, Number 18. http://www.basicint.org/pubs/Papers/BP18.htm

[173] Avner Cohen's forthcoming book, *The Worst-Kept Secret: Israel's Bargain with the Bomb*, New York, Columbia University Press, 2010.

[174] Arbatov, *op. cit.*

[175] The United States reaffirms that it will not use nuclear weapons against non-nuclear-weapons States parties to the Treaty on the Non-Proliferation of Nuclear Weapons except in the case of an invasion or any other attack on the United States, its territories, its armed forces or any other troops, its allies or States towards which it has a security commitment, carried out or sustained by such a non-nuclear-weapon State, in association or alliance with a nuclear-weapon State. To this has been added the possibility of nuclear response to a chemical or biological weapons attack. The no first use policies of the UK and France are virtually identical to this, except that they do not espouse a nuclear response to chemical or biological weapons attack. http://www.nuclearfiles.org/menu/key-issues/nuclear-weapons/issues/policies/no-first-use_1995-04-05.htm

states that are party to the NPT and in compliance with their nuclear non-proliferation obligations.[176]

It has been suggested that the nuclear-armed states might be willing to consider a treaty containing only unconditional negative security assurances.[177] The United Kingdom and Russia supported the idea of such a treaty at the 1995 NPT Review and Extension Conference, but did not have the support of France and the United States.[178] The 2000 NPT RevCon however, endorsed the concept of legally binding assurances, and the Blix WMD Commission in 2006 made a similar recommendation not only in relation to the NPT nuclear weapons states, but also to states which were not Party to the NPT.[179] The ICNND report, Eliminating Nuclear Threats, recommends that a No First Use agreement be in place before 2025.[180]

[176] The Nuclear Posture Review Report, US Department of Defense, April 2010, p viii.
[177] Pugwash Workshop Report, *supra*.
[178] Arbatov, *op. cit.*
[179] Weapons of Terror. Freeing the World of Nuclear, Biological and Chemical Arms, Stockholm 2006, EO Grafiska, p. 73.
[180] "Eliminating Nuclear Threats; A Practical Agenda for Global Policymakers," www.icnnd.org

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