Nuclear order and disorder

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An immense international ordering problem had to be addressed after Hiroshima and Nagasaki, after nuclear weapons had entered the bloodstream of international politics with the onset of the East–West conflict, and after the engines of technological development and weapon production had been fired up. Although that problem found no sufficient solution, a 'nuclear order' of great sophistication and effectiveness was fashioned in response during the Cold War. Essentially a normative order, albeit an order that reflected the interests and the technological and structural features of the time, it rested, I shall argue, upon two linked governmental creations: a *managed system of deterrence*, and a *managed system of abstinence*.[1]

In the decade or so which followed the ending (at Reykjavik in 1986) of the nuclear Cold War, many came to believe that the ordering problem presented by nuclear weapons was diminishing and was capable of being cracked once and for all.[2] Nuclear weapons could be removed from the foreground of international politics, to everyone's advantage, even if they could not be eliminated in the near-term. Unfortunately, confidence that this marginalization of nuclear weapons could be and was being achieved was undermined by a now familiar list of setbacks including the Indian and Pakistani test explosions; the collapse of the UN inspection efforts in Iraq; North Korea and Iran's launches of ballistic

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[1] I am aware that this terminology may be controversial. In International Relations theory, but not in many other fields, the word 'system' is now commonly used to refer to a structural entity without normative content (especially in the neo-realist concept of an anarchic 'international system'), in contrast to 'order' which has structural *and* normative connotations. The systems of deterrence and abstinence alluded to here certainly contain strong normative elements. I have chosen to use the word 'system' in this broader sense (almost interchangeable with 'order') for two reasons: to avoid the linguistic clumsiness, repetitiveness and ambiguity that would have followed the alternative choice of 'order of deterrence' and 'order of abstinence'; and because the term system implies a rich and strong interconnectedness that is wholly appropriate.

[2] Reykjavik was the location of the summit between Gorbachev and Reagan at which dramatic arms reduction and disarmament proposals were discussed. The agreements that quickly followed applied to strategic (long-range) nuclear weapons which had the greatest political and symbolic importance. There are today still no agreements covering tactical (short-range) nuclear weapons.

missiles; the difficulties of ratifying security treaties in Moscow and Washington, culminating in the US Senate's rejection of the Comprehensive Nuclear Test-Ban Treaty (CTBT); and the US plans to deploy a national missile defence.[3]

Some have claimed that these have been more than contingent events—that the inherited order and its presumed successor have been rendered inappropriate by fundamental changes in power structure, in warfare, and in the nature and distribution of technology. According to this view, a different kind of security order *has* to be fashioned. The counterclaim is that no other effective and legitimate nuclear order, let alone security order, is imaginable or capable of realization. Although the current order needs strengthening, the understandings and bargains and practices embedded in it should not and cannot be replaced. The only alternative is a highly conflictual and destructive disorder. This was the essential message conveyed in the Final Document agreed in May 2000 by States Parties to the Nuclear Non-Proliferation Treaty (NPT). Keep moving down the familiar ordering track or everything will fall apart.

It is now widely appreciated that the policy choices made by the United States and other governments in these first years of the new century will have momentous consequences (President Clinton's decision in September 2000 on national missile defence defers but does not settle the issue). It is important that these choices should be informed by a clear understanding of what constitutes nuclear order, why the past few years have brought an apparent loss of order, and what amounts to an effective ordering strategy. That understanding has often seemed lacking in recent times: debates that have raged over national missile defence, the CTBT and much else have been marred by implicit if not explicit characterizations of nuclear order that have lacked subtlety and historical perspective.

This article is an attempt to respond to the need for greater clarity in our conceptions of nuclear order. It considers how 'a nuclear order' and an 'ordering philosophy' took shape in the 1960s and 1970s; how the 1980s began and ended with very different efforts to transcend that nuclear order; how a much strengthened order appeared to emerge in the early and mid-1990s, only to dissipate later in the decade; and how the ordering task may be judged today.[4]

The Cold War nuclear order: two linked systems

Hiroshima and Nagasaki brought an immediate appreciation of nuclear technology's unique ability to destroy and to mutilate. But by appearing to have hastened the end of a great war, the atomic bomb was attributed an exceptional

[3] The Aum Shinrikyo cult's attempts to develop and use chemical and biological agents, brought to light by the Tokyo subway bombing of 1995, were also important in changing perceptions of the range of actors against which societies had to be protected.

[4] The account that follows is, of course, an abstraction from a complicated and often messy history. But it is a useful abstraction if it gives us a clearer understanding of the problems that face us and how they arose. Nuclear ordering is also, obviously, only one aspect of global ordering. However, the nuclear order has a degree of autonomy and of 'sharpness' that no other order possesses.

power of persuasion, a power that nation-states might justifiably use for political and military purposes.

Two competing visions of order emerged in the United States in the months after August 1945. One involved an act of collective negation: members of the newly founded United Nations should join together to kill the nuclear child before it grew into a monster capable of global destruction.[5] The other entailed the US sustaining its nuclear monopoly and using it to determine behaviour—to coerce the Soviet Union, contain communism and establish a Pax Americana. Neither vision could be realized. The disarmament proposals were already dead by the end of 1946 as the East–West conflict took hold, and the Soviet Union had ended the American monopoly by the early 1950s.

The 'Cold War order' that emerged instead has often been depicted as arising out of a near automatic process of power balancing and mutual restraint as nuclear weapons were introduced to the East–West conflict. Although containing some truth, such an account underestimates the ordering problem created by three inescapable 'facts' of the nuclear age.[6]

The first 'fact' was that nuclear warfare was unlike any previous kind of warfare.[7] Once mounted on ballistic missiles, to which there were no plausible defences, nuclear weapons brought a great amplification of war—the ultimate total war—and a tremendous foreshortening of war. Reaction times to surprise attack were reduced to minutes, and world wars would now be conducted in a matter of hours in a frenzy of destruction.

The second 'fact' was that the acquisition of nuclear weapons by additional states had an exceptional capacity to disrupt power balances and create security dilemmas. Nuclear proliferation implied a constant destabilization of regional and global structures of power. More than that, few military analysts could imagine how strategic stability could be established if nuclear weapons and ballistic missiles became standard issue.

The third 'fact' was that materials, technology and know-how relevant to the manufacture of nuclear weapons were bound to spread internationally. Indeed, some capabilities would *have* to spread if the benefits of civil nuclear power were to be realized. Knowledge would eventually diffuse and with it the ability to manufacture nuclear weapons.

For these three reasons, the arrival of nuclear weapons created an unprecedented *ordering imperative* in international politics. Without a nuclear order there could

[5] These ideas were developed in the Acheson-Lilienthal and Baruch proposals. See John Lewis Gaddis, *The United States and the origins of the Cold War, 1941–47* (New York: Columbia University Press, 1972).

[6] Kenneth Waltz's writings are, for instance, suffused with appreciation of the effects that nuclear weapons have on the behaviour of nation-states within the international system. This applies as much to general theoretical works such as his *Theory of international politics* (New York: McGraw-Hill, 1979) as to his more specialized writings on nuclear weapons. But nowhere does he describe how nuclear order is instituted. If he had given this due attention, he might have been less confident with his argument that 'more may be better' in, among other texts, Scott Sagan and Kenneth Waltz, *The spread of nuclear weapons: a debate* (New York: W. W. Norton, 1995).

[7] Some military analysts recognized this immediately while for others it was a more gradual awakening (perhaps especially in the Soviet Union). The development of the hydrogen bomb and intercontinental ballistic missile in the early 1950s largely dispelled any doubts.

be neither Cold War order nor any other kind of order. And without it, nuclear weapons would themselves lack political and military utility: using them to prevent war would be little more than a gamble with survival, a rush to the end of time.

To complicate matters further, profound questions of *legitimacy* had to be addressed before an effective nuclear order could be instituted. Why should certain states, and only those states, have rights to defend themselves with nuclear weapons and to inflict final destruction? Should *any* state and *any* political leader be entrusted with those rights? Why should it be *illegitimate* for most states to possess them? How could their possession by the few be squared with the egalitarian principles enshrined in the UN Charter?

A satisfactory response to these predicaments was not found. The Cold War nuclear order was never stable and always dangerous, especially because efforts to stem the development and production of weapons were unsuccessful (the failure to ban explosive testing being a particular failure). But a solution of sorts to the problem of order *did* begin to emerge in the 1960s, especially after the shock of the Cuban missile crisis of 1962. Fashioned mainly but not exclusively by the US and the USSR, and forged across ideological blocs, it involved two linked systems of cooperative endeavour:[8]

1. *a managed system of deterrence*, whereby a recognized set of states would continue using nuclear weapons to prevent war and maintain stability, but in a manner that was increasingly controlled and rule-bound;
2. *a managed system of abstinence*, whereby other states would give up their sovereign rights to develop, hold and use such weapons in return for economic, security and other benefits.

The *system of deterrence* involved, among other things:

- the nuclear hardware deployed by the major powers together with the command and control systems laboriously built up from the early 1950s;
- a set of understandings and practices, expressed in the 'deterrence theories' of Brodie, Schelling and others and enunciated in nuclear doctrine, of how military forces of various kinds should be deployed and managed to provide mutual vulnerability and restraint;[9]

[8] Although this endeavour entailed more than developments in law, the resulting systems of deterrence and abstinence (especially the latter) formed part of the growing 'legalization of world politics' discussed (mainly with reference to the economic sector) in the recent special issue of *International Organization*. Kenneth Abbott, et al. identify three dimensions of legalization, each of which is present in the nuclear field: obligation (whereby actors are bound by rules and commitments); precision (rules unambiguously define the conduct they require, authorize and proscribe); and delegation (whereby third parties, including international organizations, are granted authority to implement). See Kenneth Abbott, Robert Keohane, Andrew Moravcsik, Anne-Marie Slaughter and Duncan Snidal, 'The concept of legalization', *International Organization* 54: 3, summer 2000, pp. 401–20.

[9] We still know too little about the evolution of Soviet deterrence theory and doctrine. There may be a danger of exaggerating the degree of conformity in Soviet and Western thought and practice in this regard. It also goes without saying that a fully coherent deterrence theory was never developed whether in the US or elsewhere.

- the provision of 'hotlines' so that leaders could communicate in sudden crises; and
- the placing of limits on missile deployments through arms control treaties whose negotiation and implementation also served to increase trust amongst political and military elites across the East–West divide.

Central to this managed system of deterrence from the early 1970s onwards was the Anti-Ballistic Missile or ABM Treaty, the one treaty that involved a curtailment of technological innovation. By preventing the US and the USSR from building elaborate defensive systems, this treaty paradoxically ensured that nuclear weapons would not be used *offensively*. States could not attack one another with advantage from behind defensive shields. The ABM Treaty also allowed Britain, China and France some confidence that they could deter adversaries with 'minimum deterrents', thereby lessening pressures to expand their capabilities.

The *system of abstinence* involved, for its part:

- the nuclear umbrellas extended over allies of the US and the USSR, including the two Germanies and Japan, which made them feel reasonably secure without their own nuclear weapons;
- the formation of a non-proliferation regime, with the multilateral Nuclear Non-Proliferation Treaty at its heart. The NPT asserted among other things that the five states that had already acquired nuclear weapons by 1967 *and only those states* had legal rights to possess them.[10] Other states could only join the treaty by renouncing nuclear weapons and having their renunciations fully verified through international safeguards. The NPT sought to draw a line in the sand and to submit states other than the five to a powerful normative pressure to forego the nuclear option.

The precise manifestation of nuclear order varied from region to region. In some regions (such as Europe and East Asia), deterrent relations and patterns of acquisition and abstention were precisely drawn. In others (such as Latin America, the Middle East and South Asia) they were still indistinct. Nonetheless, the nuclear order was truly global in reach and normative pretension, a globalism that drew strength from US and Soviet desires to project power within a more stable framework and from the broad interest of states and peoples in diminishing the risks posed by nuclear weapons.

A global nuclear order was therefore founded in the 1960s and 1970s upon two mutually supportive cooperative orders: the systems of deterrence and abstinence. But those orders implied two worlds: one where nuclear arms could be deployed and deterrence could operate; the other where nuclear arms and nuclear deterrence were disallowed (only the countries belonging to formal

[10] This was the implication of Article IX.3 of the NPT: 'for the purposes of this Treaty, a nuclear-weapon State is one which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to January 1, 1967'.

nuclear alliances had feet in both worlds, Germany and Japan being most prominent among them). How could this inherently inequitable order acquire international legitimacy and thereby gain broad allegiance? With great difficulty. Many states, including China, France and India, refused to join the NPT. But the majority did join it, partly because it would bring them greater security within their own regions, partly because of the persuasive powers of the US and the USSR, and partly because of three solemn pledges made by the nuclear weapon States Parties:

- they would help the non-nuclear weapon States Parties to acquire nuclear capabilities for peaceful purposes;
- they would not use nuclear weapons to attack or coerce states that renounced them, unless those states attacked them in alliance with other nuclear powers ('negative security assurances' in the jargon);
- they would work to bring the nuclear arms race to an end and pursue complete nuclear disarmament. The language in the famous Article VI of the NPT may have been vague, but its intent was unambiguous.[11]

The nuclear order's legitimacy therefore rested upon mutual obligation and reciprocity. And it rested heavily upon the notion that the possession of nuclear weapons by the five acknowledged powers was a temporary trust and a trust that could be extended to no other nation-state. By the same token, the political settlement that underpinned the nuclear order implied that only one of its pillars, the system of abstinence, possessed true and lasting legitimacy. All states should work together, over time, to dissolve the system of deterrence—to create an international order in which nuclear weapons would no longer be present.[12] This implied that any future transformation in power structure could not entail, or be precipitated by, the nuclear arming of emergent powers: the nuclear empowerment of aspiring states that had followed the Second World War was a 'once and for all' phenomenon.

Assumptions of sameness and exceptionalism

The Cold War cannot be left without two further observations that are important to understandings of recent development.

First, a necessary belief (or faith) in the 'sameness' of actors permeated the nuclear order constructed in the 1960s and 1970s. Despite the Cold War's great

[11] Article VI states that 'each of the Parties to the Treaty undertakes 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'.

[12] There has been a tradition of thought, however, that the anarchic state-centred international system would itself have to be transcended before there could be escape from the threat of political violence coming from nuclear and other weapons. See, for instance, Ken Booth, 'Security and emancipation', *Review of International Studies* 17: 4, October 1991. A discussion of emancipation and transcendence in International Relations theory, and much else on the subject of international ordering, can be found in Nicholas Rengger, *International relations, political theory and the problem of order* (London: Routledge, 2000), reviewed in this issue of *International Affairs*.

schisms, all states and all leaders—of whichever culture, race or ideology—would end up using the same rational calculus and would be guided in their behaviour by the same sense of obligation, the supreme obligation being to avoid nuclear war. I would suggest that this assumption of sameness underpinned *both* the system of deterrence, with its idea of a common rationality and currency of technological power, *and* the system of abstinence insofar as it was founded upon mutual obligation and respect for international law. Given this fundamental sameness of governmental behaviour, there could be trust, and given trust there could be peaceful coexistence.

The instruments of verification that were increasingly built into arms control treaties and the non-proliferation regime reinforced this possibility of trust. Through international inspection and monitoring, through a limited but genuine transparency, through the cooperative system of nuclear safeguards, states could gain confidence that others would not cheat.

The second observation is that, although many states gave shape to this nuclear order, it was seen by the United States as peculiarly *its* creation and responsibility, as the product of *its* exceptional genius, and with some justification. Throughout the nuclear age—this applies to later periods too—most of the *ordering ideas*, and most of the desire and power to realize those ideas, came from the United States. The American attitude towards the nuclear order has therefore always been monarchical, even in periods when its notion of order has been essentially liberal. The United States has unquestioningly conferred upon itself unique rights to decide when the game and its rules should be changed.

And change the game it did, briefly but spectacularly, in the early 1980s when the Reagan administration decided to uproot the 'managed system of deterrence' established by its predecessors.[13] Suddenly the Soviet Union was an 'evil empire', an irrational actor and an actor that was beyond trust. The assumption of sameness was replaced by an assumption of irreconcilable difference, and the security that lay in mutual deterrence was proclaimed a myth rather than a reality.

Instead, the US government veered towards an earlier discarded model of order—that founded upon supremacy and coercion. And Reagan offered the American people a transcendant vision of invulnerability gained through the construction of a defensive missile shield, the Strategic Defense Initiative or Star Wars.[14] Among his followers, arms control treaties were accorded little respect, the ABM Treaty being held in particular disdain by the Republican right.[15]

Many of the instincts, analyses and proposals that formed the Reagan policy of the early 1980s infused the approaches to nuclear ordering among those who gained ascendance in Washington in the late 1990s.[16] But the important difference,

[13] An earlier changing of the game, over nuclear trade (the Carter Policy), need not be discussed here.

[14] Frances Fitzgerald, *Way out there in the blue: Reagan and Star Wars and the end of the Cold War* (New York: Simon & Schuster, 2000).

[15] The commitments made in SALT and other bilateral treaties with the USSR continued, however, to be honoured.

[16] This is not to imply that the current proposals share quite the same fantastical qualities as the Strategic Defense Initiative.

as we shall see later, was that the system of abstinence as well as the system of deterrence came under attack.

The post-Cold War marginalization of nuclear weapons

In the event, the Cold War order, and the nuclear order underpinning it, was transcended in a different and unexpected way when Gorbachev embarked on a programme of domestic reform and moved to end the East–West conflict. Abandoning his confrontational stance, Reagan joined Gorbachev in bringing to a close the nuclear conflict in 1986 when they discussed radical plans to eliminate the bulk of their nuclear weapons.

Suddenly, a different kind of security order seemed possible (especially to the liberal West) resting not on difference, not even on sameness, but on togetherness. It involved basing international security on the rule of law, the global spread of democracy, conflict resolution, the interdependence and restraint that would follow free trade, and on deliberate avoidance of the bad old practices of military power balancing. In the military sphere, claims that a 'revolution in military affairs' was underway—claims that gained credibility from the Gulf war—also encouraged the belief that nuclear weapons belonged in the past.[17]

The long expansion of nuclear arsenals was driven into reverse. The two regulatory institutions that supported the systems of deterrence and abstinence—arms control and the non-proliferation regime—seemed capable of merging into a single edifice dedicated to the marginalization of nuclear weapons in international politics. The decade from 1986 to 1995 became a golden age of nuclear threat reduction, to borrow an American phrase. Especially after a number of 'rejectionists' (notably Argentina, China, France and South Africa) joined the NPT, and after all new states formed out of the former Soviet Union barring Russia had renounced nuclear weapons, a de facto 'marginalization strategy' began to take shape with the following components:[18]

- *Irreversible arms reductions by the nuclear weapon states*: the numbers of operational warheads in the arsenals of the NWS would be progressively reduced through the US–Soviet/Russian INF, START I and II Treaties which would be followed by deeper reductions in START III. Thereafter, China, France and the UK would be engaged in START IV and its successors as individual arsenals came to be counted in hundreds rather than thousands of warheads. Retired weapons would be dismantled and their components and materials rendered inaccessible to further military use. Simultaneously, further warhead innovation and material production would be curtailed

[17] See Lawrence Freedman, *The revolution in strategic affairs*, Adelphi Paper 318 (Oxford: Oxford University Press for the International Institute for Strategic Studies, April 1998).

[18] The term 'marginalization' was usually avoided by governments because it lacked the finality and normative status of disarmament. But Camborne and Garrity are correct in asserting that marginalization was the guiding principle, especially in the US government of the time. See S. Camborne and P. Garrity, 'The future of US nuclear policy', *Survival* 76: 4, winter 1994–5, pp. 73–95.

through the Comprehensive Nuclear Test-Ban Treaty (CTBT) and Fissile Material Cutoff Treaty (FMCT), and steps would be taken to ensure that redundant nuclear *matériel* and expertise could not be acquired by other states or by non-state actors;[19]

- *Consolidation of the NPT and its verification system*: the greatest possible number of states would be brought into the Treaty as non-nuclear weapon states (universal membership would be striven for).[20] Furthermore, compliance mechanisms would be strengthened to ensure that Iraq's and North Korea's development of weapon capabilities in violation of their NPT obligations was unlikely to be attempted by other states. This included reform of the IAEA safeguards system which had been shown to be ill-equipped to detect clandestine programmes (negotiations leading to reform were successfully concluded in May 1997);
- *Formation of nuclear weapon-free zones (NWFZ)*: renunciations expressed through NPT membership would be reinforced by the formation of regional treaty-based NWFZ which would gradually confine the geographical areas in which nuclear weapons were still located;[21]
- *'Capping' the Indian, Pakistani and Israeli weapon programmes*: the three non-NPT countries with active weapon programmes would be discouraged from 'crossing the threshold' by seeking resolution of the conflicts in their regions (through the Middle East peace process in Israel's case) and by gaining their adherence to the CTBT and FMCT if not the NPT;[22]
- *Reform and extension of trade controls*: multilateral trade controls would be extended to cover 'dual-use' items; trade with non-NPT countries would be barred unless they accepted international safeguards on all nuclear materials and facilities on their territories; and membership of the Missile Technology Control Regime (MTCR) would be widened, and its provisions strengthened, to help curtail the spread of missile capabilities;
- *Banning chemical and biological weapons*: global bans on the possession and usage of chemical and biological weapons would be instituted through the Chemical Weapons Convention (CWC) and a strengthened Biological and Toxin Weapons Convention (BTWC), partly to deny states the option of substituting such weapons for nuclear weapons.

The crowning event of this period was the Conference held in New York in April–May 1995 to extend the NPT's lifetime (it was initially a 25-year treaty).

[19] This last project entailed, in particular, the Nunn-Lugar Cooperative Threat Reduction Program which channelled funds from the US defence budget into rendering secure weapon-related fissile materials and facilities in the former Soviet Union.

[20] By 1996, only five states—India, Israel, Pakistan, Brazil and Cuba—remained outside the NPT. Brazil joined the Treaty in 1998.

[21] By the late 1990s, NWFZ were in force in Antarctica, Latin America and the South Pacific, and had been negotiated in South-East Asia and Africa.

[22] This was the least successful of all these initiatives. In London and Washington, government officials used the prospect of capping these programmes to garner political support for the FMCT and, in some degree, the CTBT. This was a mistake: it detracted from the wider significance of these treaties and made them vulnerable to any failure to convince India, Israel and Pakistan that their programmes should be capped.

The obvious option of giving the NPT an indefinite lifetime implied, Article VI notwithstanding, granting the nuclear weapon states indefinite rights to hold nuclear weapons, contravening the temporary trust referred to earlier. Not surprisingly, many states were reluctant to concede this. In addition, there was concern that the NWS would be less inclined to respect their Article VI obligations if anxieties over the Treaty's impermanence were removed.

In the event, the NPT's indefinite extension was secured through agreement on the 'Principles and Objectives for Nuclear Non-Proliferation and Disarmament'. In essence, this document committed *all* States Parties to a further confinement of the system of deterrence and to an extension of the system of abstinence—to a nuclear order that would move progressively towards disarmament. The NWS appeared to support this objective by committing themselves to 'the determined pursuit of systematic and progressive efforts to reduce nuclear weapons globally'.

It was a false dawn. Instead of nuclear weapons losing value, they gained value, and dramatically so in some contexts. Instead of strengthening order, there was an enveloping sense of disorder.

Sources of disorder

Why this happened is hard to pin down. One reason is that the marginalization project rested upon too optimistic a view of the course that international relations would take in the round:

- it assumed that nuclear weapons could be drained out of international politics through multilateral processes of two sorts: the treaty processes which would gradually reduce nuclear arms and confine their usage; and the persuasive processes whereby the international community would ensure that treaties were honoured. Instead, multilateral processes of all kinds became more problematic in the late 1990s, especially as the United States, Russia and China fell out over Bosnia, Iraq and Kosovo;
- it assumed that Russian and US governments had solid political backing at home for the treaties being proposed. Instead, treaties increasingly fell foul of battles between President and Congress, and President and Duma, battles which became more vicious and paralyzing as the 1990s wore on;
- it assumed that as Russia modernized its economy and polity, nuclear deterrence would continue to lose meaning in its relations with the outside world. Instead, its commitment to deterrence stiffened, especially as Russia sought to compensate for its humiliating loss of power and prestige, a loss rubbed in by NATO's expansion; and
- it assumed that the Middle East peace process would bring new opportunities for dealing with the vexed issue of Israel's nuclear weapon programme. Instead, the peace process faltered and no concessions were forthcoming.

All of this was a recipe for frustration and stagnation. But what happened in 1998 and 1999 was much more serious. The nuclear order's foundational norms were suddenly called into question by the actions of India and the United States.

There is no space here to explore the reasons for India's nuclear tests. Suffice it to say that grievance and ambition drove them as much as insecurity.[23] Whatever lay behind the decisions to test and deploy, they were extremely damaging to the nuclear order. India and then Pakistan had crossed the line drawn in the sand, reviving fears of nuclear war as they did so, and had upset the presumption that a permanent and universal shrinkage of nuclear arms was underway. Not surprisingly, governments began asking themselves whether the world might be entering a new age of nuclear expansionism. Furthermore, India's claim to be a nuclear weapon state on a political par with the five acknowledged NWS gave rise to a seemingly intractable problem: how to draw such a state into the nuclear order and meet its grievances over status when the NPT mandated its exclusion.

But these events were still not enough to unhinge a global order. Its perceived destabilization stemmed mainly from shifts in American attitudes and policies, shifts that began in the mid-1990s but gathered pace towards the end of the decade. They culminated in the US Senate's decisive rejection of the Test Ban Treaty in December 1998; and in the US Congress's passage into law, with presidential support, of the National Missile Defence Act in July 1999 mandating the deployment of missile defences. These and other developments seemed to confirm that a decisive shift had occurred in the US towards unilateralism, against arms control and against any technological constraint.[24] While the Clinton administration continued to proclaim its dedication to arms control, in practice it allowed its opponents inside and outside Congress to determine the course of US policy.

Taken together, these developments threatened injury to the system of deterrence, by implying that the US had lost confidence in it; injury to the system of abstinence by implying that the US had diminishing regard for the institutions of multilateral arm control; and injury to the project of marginalization, by implying that the US was not interested in its own technological and strategic restraint. As a consequence, US actions called into question the entire order that the US had itself so painstakingly constructed. 'So

[23] See George Perkovich's fine study, *India's nuclear bomb: implications for global proliferation* (Berkeley, CA: University of California Press, 1999).

[24] Anxieties that such a shift was occurring were also aroused *inter alia* by the US Senate's reluctance to ratify arms control treaties and agreements with Russia; its unilateral exemption of the US from certain provisions of the CWC; the US government's obstruction of efforts to strengthen the Biological & Toxin Weapons Convention (a multilateral treaty dating from 1972 which had banned these weapons without providing any means of verification) on the grounds that verification could not work and the Convention might damage American commercial interests (a telling statistic is that the US had by June 2000 submitted only six out of the 415 governmental working papers supporting these efforts); and the huge investments to develop alternative testing techniques under the Department of Energy's Stockpile Stewardship Program, including the National Ignition Facility.

be it' was a frequent American response: the inherited order was no longer effective and governments deluded themselves if they thought otherwise.

Reasons for the shift in US policy

Why did the United States move in this direction? Again there is no simple reason, but it had much to do with the threat from 'rogue states', and how that threat influenced perceptions of trends in the international system and was played within the American polity.

In a recent book, Richard Litwak observes that:

> Throughout history, dissatisfied states—whether revolutionary or revanchist—have rejected international norms and the status quo. This is a normal condition of international relations. Designing effective strategies to deal with such states is a traditional challenge that great powers have faced to maintain the stability of the international system.[25]

But the 'rogue states', chief among them Iraq, Iran and North Korea, were dissatisfied states with a difference:[26]

- they had placed weapons of mass destruction (including chemical and biological weapons) at the centre of their strategies for attaining security and leverage, and had begun to acquire ballistic missiles which would allow them to threaten over large distances;
- they were located in regions of vital interest to the United States, regions in which they could exert leverage by threatening some of America's closest allies (such as Israel and Japan) and the military forces deployed for their defence; and
- they had 'cheated from within': they had mounted covert weapon programmes and shown no compunction about violating international treaties, including the NPT which all had joined. If there were no effective response, the non-proliferation regime would be gravely weakened.

In the early 1990s, broad international support developed around a policy of zero tolerance of these countries' weapon programmes. They *had* to be closed down; compliance with legal undertakings *had* to be enforced. Hence the formation of the UN Special Commission on Iraq (UNSCOM) and the various other initiatives which need not be detailed here. The task proved enormously

[25] Richard Litwak, *Rogue states and US foreign policy: containment after the Cold War* (Baltimore, MD: Johns Hopkins University Press, 2000). The manner in which potential threats from rogue states and from biological weapons were used, among other arguments, to discourage a comprehensive review of US deterrence policy in the early 1990s is discussed in Janne Nolan's fascinating *An elusive consensus: nuclear weapons and American security after the Cold War* (Washington DC: Brookings Institution Press, 1999).

[26] Although these states (and Libya) attracted most attention, the challenge was not limited to them. Especially in the Middle East, other states were developing chemical and biological weapon capabilities despite international efforts to prohibit them.

frustrating and contentious. Weapon programmes were certainly blunted, but they were not abandoned despite immense efforts by the United States. The efforts relating to Iraq were thwarted by disputes in the UN Security Council over the terms and means of intervention and by Iraq's own intransigence; thwarted over Iran by difficulties in persuading some other powers to join the US nuclear and missile trade embargoes; and thwarted over North Korea by the difficulties of implementing the Agreed Framework.[27]

Together, these cases demonstrated a serious deficiency in the nuclear order: the lack of agreed enforcement strategies enabling governments to respond predictably and effectively to breakouts from the system of abstinence. In addition, there was a serious loss of confidence, especially after experience with Iraq, that agreement could be reached in the UN Security Council on appropriate enforcement measures.

The aggravation over rogue states—often mixed in the American mind with the struggles against Islam and Islamic terrorism—fed a radical critique of the previous 'ordering strategy', especially as it involved arms control and reliance upon international law. Helped by right-wing Republican dominance of security discourses in Congress and by the Clinton administration's reluctance to fight its ground, and encouraged by scientific, industrial and military interests, this radical critique began to enter the political mainstream in Washington in the second half of the 1990s. The opinion gained ground that:[28]

- assumptions of sameness or togetherness no longer applied outside a defined community of Western democratic states. An assumption of irreconcilable difference, most famously expressed in Samuel Huntington's *The clash of civilizations*, increasingly permeated American political culture.[29] Furthermore, China began to be included among the states and civilizations whose interests were bound to collide with those of the US and the liberal West;
- this being the case, arms control—and especially multilateral arms control—could not be trusted to provide security. Even if states joined treaties, some would join to cheat, and the march of technology was all the time making it easier to cheat;
- nor could classical deterrence be relied upon as before. The United States was now faced with myriad irrational actors, actors who might even risk suicide in pursuit of their aims. More than that, the risk-aversion of Western democracies meant that 'rogue states' armed with a handful of weapons of

[27] The US–North Korean Agreed Framework established a phased programme leading to the dismantlement of the North Korean nuclear weapon capability and the submission of its fissile materials to IAEA safeguards.

[28] A book that conveys this mood tellingly is Ashton Carter and William Perry, *Preventive defense: a new security strategy for America* (Washington DC: Brookings Institution Press, 1999). How the factors identified in the following indented text underpinned calls for missile defences is very evident in Keith Payne, 'Looming security threats: the case for National Missile Defense', *Orbis* 44: 2, Spring 2000, pp. 187–96.

[29] Samuel Huntington, *The clash of civilizations and the remaking of world order* (London: Touchstone Books, 1997).

mass destruction might be better able to deter the US with its thousands of warheads than they could be deterred by the US. The sense of threat was augmented by claims that biological weapons might soon attain the destructiveness and thus deterrent value of nuclear weapons;

- on top of all this, access to the materials and expertise relevant to weapons of mass destruction had become easier after the breakup of the former Soviet Union. However much money the US poured into Russia to tighten security on its facilities, some leakage was probably inevitable. To make matters worse, China appeared to be helping (and not discouraging North Korea from helping) a number of states to acquire missile capabilities (including Pakistan and Iran), and Russia's allegiance to trade controls was weakening as its need for income and employment became more desperate.[30]

Taken together, this interpretation of the 'risks out there' led American policy-makers down a road towards the downgrading of arms control and upgrading of political and military coercion, to a focusing on the mainly politico-military practice of 'counter-proliferation' rather than the politico-legal practice of 'non-proliferation', and to a search for new technological means of protecting the United States and its allies against blackmail or attack.[31] This trend was accompanied by a shift in influence in these matters from the Executive to Congress, from State Department to Pentagon, and from non-governmental organizations supporting arms control to those advocating its demise.

The vehemence of America's reactions came in part from a realization of the vulnerability of American power to the proliferation of weapons of mass destruction and ballistic missiles. Eager not to expose its citizens to mortal danger, the US was coming to rely increasingly on the capacity to project technological power from a distance. An opponent's possession of such weapons would diminish even that capacity, allowing it to strengthen dramatically its bargaining position. This could present the US with unpalatable options: to stay away from regions where weapons of mass destruction were deployed, leaving allies to fend for themselves (a recipe for arms racing and war); or to be prepared to threaten and use massive military force, including nuclear force, pre-emptively or in retaliation against states acquiring weapons of mass destruction. The persistent bombing of Iraq was already showing how the United States might be drawn into acts of violence and illegality if its power were challenged in this way. At the same time, the high costs of using force against North Korea and Iran showed that military coercion was often not a realistic option.

[30] There were fierce arguments between the Russian and US governments over the Russian decision to help Iran complete its Bushehr nuclear power reactors; and by concluding a sale of power reactors to India in 1998, Russia was retreating from the policy of full-scope safeguards that had been adopted by the Nuclear Suppliers Group (of which it was a member) in 1992. The Russian government claimed in mitigation that negotiation of the deal had begun before 1992.

[31] For an interesting attempt to develop an approach that bridges counter- and non-proliferation, see Brad Roberts, 'From non-proliferation to anti-proliferation', *International Security* 18: 1, summer 1993, pp. 139–73.

The reality was that the US was not prepared to accept a relationship of mutual deterrence with minor powers that threatened its vital interests. Mutual vulnerability implied an equality of influence, and a loss of freedom to project power and establish order, that no US politician could endorse. Nor was it prepared to accept that such minor powers could violate their legal undertakings with impunity.

Ballistic missile defences

This challenge to American power, to which the established systems of deterrence and abstinence appeared to offer no sufficient response, led directly to the re-emergence of earlier proposals for a defensive shield against missile attack. Theatre missile defences (TMD) giving local protection to American forces and allies, especially in the Middle East, had been discussed for many years. But in July 1998, the Rumsfeld Report to the US Congress claimed that Iran and North Korea would soon be able to threaten the US mainland with missiles armed with weapons of mass destruction. Just one month later, North Korea tested the Taepo-Dong ballistic missile over Japan, lending weight to the assertion. Calls for TMD mutated into calls for a national missile defence (NMD), calls that quickly gathered political momentum and gave birth to the National Missile Defence Act in July 1999. This Act required the President to authorize deployment once he had satisfied himself that the proposals met certain criteria.[32] A strong presumption developed in Washington that a national missile defence would eventually be constructed, come what may.

In geopolitical, as in technical, terms, there is a huge difference between TMD and NMD. By seeking to intercept long-range strategic weapons, a national missile defence is bound to affect deterrent relations between established nuclear powers. More than that, the proposed NMD could not be constructed without heavy amendment of the ABM Treaty or, failing that, its abrogation by the United States. Besides altering the ground upon which the system of deterrence had been constructed, the abandonment of this treaty could damage the whole fabric of arms control.

Like Reagan's Star Wars proposals, NMD's effect on the behaviour of states far exceeded the project's technical plausibility.[33] The anxious response was due, one can only assume, to a prudent calculation that NMD *might* work if resources were lavished on it, and that the US could attain a valuable technological advantage even if an effective NMD were not achieved. Russia, China and other states (including NATO allies) knew that they would be unable to come near to matching the capabilities emerging from a US missile defence programme, given the programme's roots in information and systems integration

[32] The criteria were technical progress, the threat, system costs and the impact on arms control.

[33] A sustained and influential critique of NMD has been provided by Theodore Postol among others. See, for instance, George Lewis, Theodore Postol and John Pike, 'Why national missile defense won't work', *Scientific American* 281: 2, August 1999, pp. 22–7.

technologies in which the US had an unassailable lead. This added to the temptation for the US: if successful, the NMD programme could open a defensive technology gap that was much less bridgeable than any remaining gap in offensive capabilities (warheads and missiles). At the strategic level, the US might be able to emulate the advantage gained at the conventional military level since the end of the Cold War. The downside was that adversaries might respond by expanding their offensive capabilities, thereby cancelling any US gains especially if NMD proved technically ineffective.

The scope of missile defence therefore had a direct bearing on the scaling of offensive arsenals. The Clinton administration tried to reassure other nuclear powers that the US wished to develop a sufficient capacity to nullify the threat from 'rogue states' without upsetting existing deterrent relations. Unfortunately, the signals coming from elsewhere in the US body politic were either ambiguous or betrayed a long-term ambition to nullify the Chinese and even the Russian deterrents.[34]

As Party to the ABM Treaty with the US, Russia holds the keys to the amendment which is required for there to be any possibility of developing an effective NMD. The new Russian government of President Putin adroitly reasserted its position as principal interlocutor with the US by ratifying the START II and Test Ban Treaties early in 2000 and by presenting itself as defender of the ABM Treaty. Although the size of the Russian arsenal would probably remain large enough for Russia to sustain a deterrent of sorts against the US, Putin's government insisted that its cooperation in arms control with any future US government hinged on the Treaty's survival. But Russia would be negotiating from weakness and showed increasing awareness that the era of strategic competition and nuclear parity with the US was drawing to an end.[35]

For China, US strategic supremacy has always been a reality. This has not prevented it from believing that it had a sufficient nuclear force to protect its vital interests in Asia, and that this sufficiency could be maintained through a programme of gradual modernization. With as few as 20 missiles capable of reaching the US mainland, the Chinese government came to fear that the combination of an American missile defence system and tremendous American conventional military capability—especially in precision bombing—could expose it to a decapitating nuclear strike.[36] Armed with this option, an external power could

[34] While this intent was clearest in relation to China, the following extract from an article by Loren Roberts shows that some US analysts also had Russia in mind: 'In the years after the end of the Cold War, defense became both more feasible and more necessary…some US intelligence analysts believe that the [Russian nuclear] arsenal will deteriorate to less than 1000 usable weapons by 2010. Defense will accordingly be easier, especially if attack comes in the form of a limited—accidental or unauthorized—nuclear launch. But the same internal decay driving down warhead numbers also makes nuclear accidents, security breakdowns and proliferation more likely. With assumed stability of the Cold War era gone, active defense becomes more necessary'. See 'Military supremacy and how we keep it', *Policy Review* 77, October–November 1999.

[35] An account of recent debates in Moscow about the orientation of Russian defence policy is provided by Nikolai Sokov, 'The "denuclearization" of Russia's defence policy', *Disarmament Diplomacy* 48, July 2000, pp. 15–18. It is possible that the *Kursk* submarine accident in August 2000 might also convince the Russian political and military elites that the competitive game was becoming too dangerous to play even by the modified rules of the post-Cold War era.

[36] On the implications of the NMD proposals for China, see Brad Roberts, Robert Manning and Ronald Montaperto, 'China: the forgotten nuclear power', *Foreign Affairs* 79: 4, July/August 2000, pp. 53–63.

again coerce China, a situation that China had vowed to prevent happening again. In addition, China was keenly aware that Taiwan could be emboldened if protected by a missile defence system. This said, China knew that too aggressive a reaction to US proposals could trigger its worst nightmare—the nuclear arming of Japan—and could encourage India to accelerate its nuclear programme. Caught between the devil and the deep blue sea, Chinese policy-makers have displayed an understandable confusion over how to react to the NMD proposals.

If the next US administration were to withdraw from the ABM Treaty, as George W. Bush has threatened, the Chinese government might feel compelled —whatever the price—to strengthen its offensive nuclear capabilities. It might also seek new ways to frustrate US ambitions in the great abroad, for instance by extending the 'Pakistan tactic' that it has used to balance Indian power.[37] The stabilizing effects of bilateral arms control with Russia might also be lost. Alive to these dangers, US allies in Europe and elsewhere would be faced with an unenviable choice. They could accept US actions and begin shifting alliance relations towards some blend of extended deterrence and extended protection, even if doubting that the latter would bring any real gains in security. Alternatively, they could deny the US their cooperation, thereby weakening alliances and putting their own security at risk, especially if the ABM Treaty's abrogation brought forth a more aggressive China and Russia. Although acceptance of US proposals seemed more likely than rejection, given Europe's heavy reliance on the US in so many fields, alliance cohesion would suffer and there could be a serious loss of trust in the US and its political processes. Among countries upon which the US was counting to provide sites for radar and communications (notably Denmark and the UK), governments might also have to contend with a strong domestic reaction to any complicity with a US policy that threatened arms control.

The NPT Review Conference in 2000

In the late 1990s, the United States therefore edged, despite strong international protest and obvious risks, towards a different conception of order, one entailing:[38]

1. A system of deterrence augmented by defensive shields against ballistic missiles: in short, a *system of protection* (largely involving *self*-protection) that blended strategic offence and defence;
2. A system of abstinence maintained primarily through the exercise of US economic, political and military power, and secondarily (it has often seemed) through cooperative security, regimes and the rule of law, notwithstanding continuing strong US support for the NPT and insistence on States Parties' compliance with it; in short, towards a system of *enforced* abstinence.

[37] Rather than respond directly to the Indian nuclear threat, China has countered it partly by helping Pakistan to build up its deterrent capabilities.

[38] Inside and outside government, many Americans were appalled by this trend, but they were unable to arrest it. See, for instance, the impassioned editorials by Spurgeon Keeny in successive issues of *Arms Control Today*, the journal of the Arms Control Association.

Anxieties over this apparent shift in ordering philosophy were compounded by deep uncertainties over US capacities to deliver protection and enforcement, by the unilateral manner of its decisions, and by an evident lack of concern in Washington for the political legitimacy of whatever order it was trying to construct. Furthermore, the NMD proposals threatened to unsettle the NATO alliance and damage relations between the US, Russia and China. While Russia might be forced to compromise out of weakness, these proposals could even tip China and the US into a confrontational relationship that would have grave and lasting consequences for global politics.

It was against this background of great worry over US intentions, and over the whole drift in international nuclear politics, that States Parties to the NPT met in New York in April–May 2000 to review the condition of the Treaty and its associated instruments and undertakings, prominent among them the NPT Principles and Objectives agreed in 1995. As so much had gone wrong since 1995, little was expected of the Review Conference. The outcome therefore came as a great and welcome surprise. A consensus was reached on a final statement (the Final Document) only for the third time in the history of NPT review conferences. Still more surprisingly, the Final Document was more purposeful, indeed radical, than anyone had imagined possible coming into the Conference, especially where the responsibilities of the five NWS were concerned.

In essence, the NWS committed themselves to honour two principles. The first was the *principle of irreversibility*, whereby inherited arms control, arms reduction and disarmament measures would be fully upheld.[39] The second was what may be termed the *principle of completion*, which has two aspects:

- completion of negotiation, ratification and implementation of measures in which there has already been political investment (such as the CTBT, START II and III, and the FMCT);
- completion of the project of nuclear disarmament through a series of steps including arms reductions, increased transparency, the reduced operational status of nuclear weapons systems, and 'the engagement as soon as appropriate of all the nuclear weapon States in the process leading to the total elimination of their nuclear weapons'.

The NWS lent weight to the latter principle by expressing in the Final Document their 'unequivocal undertaking…to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament'.[40]

Why did the States Parties, including the five NWS, agree on the Final Document and the objectives and measures expounded by it? Skilful and forceful diplomacy, and the emergence of new groupings of states that proved adept at

[39] To be precise, they accepted 'the principle of irreversibility to apply to nuclear disarmament, nuclear and other arms control and reduction measures'.
[40] Final Document, Article VI, Paragraph 15.6.

exerting pressure to find compromises, were partly responsible.[41] But the search for consensus was undoubtedly driven by the anxiety felt by all governments—including the US, Chinese and Russian governments—that the conference's failure could bring about a fatal loss of confidence in the NPT and in its associated institutions. However wide the disagreements on nuclear policy, and however deep the misgivings about multilateral arms control in the US, this treaty remained indispensable.

The conference was also conducted in full awareness of the gravity of the decisions that would be taken by the next US administration. The Final Document can be read as a consensual declaration that this was the kind of security order, and the *only* nuclear order, in which the bulk of nation states believed and in which they were prepared to invest. If a future US government wished to move in another direction, it would have to contend with that opinion and that solidarity. To a degree, the Clinton administration was complicit in this quasi-ultimatum. The deep unhappiness of US governmental representatives at the conference over the drift in US policy was no secret.

But was the conference a success? Could a conference be so described that reached agreement only by evading, by sleight of hand, the most contentious and momentous issue of the day—that of missile defence;[42] which provided China with the means to frustrate the work of the Conference on Disarmament until its concerns about missile defences were satisfied;[43] which was reluctant to consider how States Parties should respond to Treaty violations; and which provided no solution to India and Pakistan's claims for NWS status beyond insisting on their continued isolation?

A word that haunted the conference was 'stability'.[44] The Final Document openly referred to the ABM Treaty 'as a corner stone of strategic stability' and accepted that NWS Parties should pursue nuclear disarmament only 'in a way that promotes international stability, and based on the principle of undiminished security for all'. So there was acknowledgement that the disarmament project required the maintenance of 'stability'. For China and Russia, that implied the preservation of deterrent relations in the face of threats from missile defences. For all participants, 'stability' implied that actions should not be taken

[41] For discussions of the Conference, see Rebecca Johnson, 'The 2000 NPT Review Conference: a delicate, hard-won compromise', *Disarmament Diplomacy* 46, May 2000, pp. 2–20; and especially Tariq Rauf, 'An unequal success? Implications of the NPT Review Conference', *Arms Control Today* 30: 6, July/August 2000, pp. 9–16. One should not overlook the importance of the prior meetings held by the US and Egyptian governments to resolve differences over Israel and its responsibilities.

[42] In Article VI, Paragraph 15.7 of the Final Document, reference is made to preserving *and strengthening* the ABM Treaty. By using 'strengthening' as a euphemism for 'amendment', the drafters of the Final Document cleverly averted controversy.

[43] The Final Document recognizes the necessity of negotiating the FMCT, but effectively makes it conditional upon the Conference on Disarmament (where the treaty would be negotiated) agreeing a programme of work. In recent months, China has insisted that negotiation of a treaty prohibiting the militarization of outer space should be part of this programme, a demand that the US in particular has not been prepared to accept.

[44] On 4 June 2000 in Moscow, Presidents Clinton and Putin also highlighted this word when signing a Joint Statement of Principles of Strategic Stability, which was followed in Okinawa on 21 July by their Joint Statement on Cooperation on Strategic Stability.

in pursuit of disarmament that inadvertently increased the likelihood of nuclear arms racing, nuclear proliferation or nuclear war, or that gave a free hand to states to use other weapons of mass destruction as instruments of intimidation.

The implication was that disarmament could not be achieved if deterrent relations were destabilized. Paradoxically, stable nuclear deterrence was a prerequisite for its removal from international politics. While the Final Document therefore goes further than any previous multilateral statement in advocating disarmament and describing the steps required to achieve it, it also comes closer to endorsing nuclear deterrence or, more precisely, the stability of existing deterrent relations. In this respect, the Final Document of 2000 is more pragmatic than the Principles and Objectives of 1995.

Although disarmament remained the NPT's primary goal, the Final Document can therefore be interpreted as asserting that disarmament is above all a goal intended to entrench a trend—a trend towards lower levels of armament and towards a less dangerous deployment of nuclear arms, a trend whose persistence would gradually prepare the ground for the final act of elimination. The insistence on a stronger commitment to disarmament therefore expressed an overwhelming desire to prevent the feared reversal of this trend; a desire that could be shared by all conference participants even in the absence of unanimity on disarmament itself.

Equally, the Final Document can be read as a claim to the inherent superiority of a security politics that placed the achievement of a cooperative order-through-law above a unilateralist order-through-power; and as an implicit if quixotic assertion that the community of NPT Parties, although lacking the political authority or instruments to override the decisions of its most powerful members, has a greater right to determine outcomes than the agencies and factions of individual nation-states.

Conclusion: a return to consensual ordering?

Two lessons above all others can be drawn from this discussion:

- there has to be nuclear order, but that order is much more than a structure of power and a set of deterrent relations, just as it is much more than a security regime rooted in international law.[45] It is a complex edifice founded on instruments of *both* power and law which is held together by mutual interest *and obligation*.

[45] It is sometimes argued that it is no longer appropriate to think in terms of 'nuclear order' when the main task should be to construct an integrated 'WMD order' embracing chemical and biological as well as nuclear weapons. Although this argument has some validity in the Middle East, I am not generally persuaded by it. The political and strategic linkages between the three weapons of mass destruction are now obvious, but there are sufficient differences between the technologies, their effects, control mechanisms and productive systems to justify separate treatment. Their attempted unification in a single order might also hinder what may be the next great task: the construction of a 'biological security order' that would stand alongside, but be significantly different from, the nuclear order. This said, the politics of weapons of mass destruction are bound together by the great but troubling necessity to ensure compliance with treaties affecting their acquisition and usage.

- the only nuclear order that we have (it has no *reliable* substitute) is unambiguously dedicated, for practical as well as moral reasons, to the elimination of nuclear weapons. This nuclear order's survival now relies upon contraction: it cannot tolerate another prolonged period of expansion in or refinement of nuclear arsenals, let alone the acquisition of nuclear weapons by nation-states acting in violation of international law. Yet that contraction has to be judicious and its wisdom has to be evident to all.

After a period in which so much went wrong, events in the spring and summer of 2000 suggest that a new and more constructive phase of nuclear ordering *could* lie ahead. In May 2000, agreement was reached on the NPT Final Document discussed above. During the summer, gradual progress was made in the UN Security Council towards reinstituting the inspection regime for Iraq; North and South Korea began a dialogue raising hopes that the threat from North Korea's nuclear and missile programmes might soon be lifted; Iran took some steps towards improving its foreign relations; and there was renewed life in the Middle East peace process.[46] Then on 1 September 2000, President Clinton announced that deployment of a national missile defence would have to await more convincing evidence of its technical feasibility.[47] Furthermore, his emphasis on the need for consultation with Russia, China and America's allies implied a retreat from unilateralism and an increasing acceptance that the interests of friends and foes in 'strategic stability' would have to be respected.[48] A week later, the United Nations Millennium Declaration enjoined member states 'to strive for the elimination of weapons of mass destruction, particularly nuclear weapons and to keep all options open for achieving this aim, including the possibility of convening an international conference to identify ways of eliminating nuclear dangers'.

It is too early to be optimistic. International nuclear relations remain very unsettled. Many issues need to be addressed, high among them the strategic relations between China and the United States and between China and India.

[46] For reasons of space, I have been unable to give due attention to regional approaches to nuclear ordering, and to the essential role of conflict resolution (Kashmir and Taiwan being high on the list). Daryll Howlett and his colleagues warn that 'the existence of disparities between geographic areas of high and low nuclear salience is likely to create the potential for retrograde steps in regions where disarmament has been moving forward. One way to help prevent this outcome would be for policy-makers to take a contextual approach to security—one that emphasizes and attempts to understand the regional context of nuclear behaviour'. See Darryl Howlett, Tanya Ogilvie-White, John Simpson and Emily Taylor, *Nuclear weapons policy at the crossroads* (London: Royal Institute of International Affairs, 2000).

[47] See 'Nuclear Missile Defense', Fact Sheet, Office of the Press Secretary, The White House, Washington DC, 1 September 2000. The Fact Sheet states that 'the NMD program is sufficiently promising and affordable to justify continued development and testing, but…there is not sufficient information about the technical and operational effectiveness of the entire NMD system to move forward with deployment'.

[48] Early September 2000 also saw the collapse of the case against Wen Ho Lee, the Los Alamos scientist accused of transferring warhead design information to China; and the US Senate's decision to cap expenditure on the National Ignition Facility (and submit its programme to independent review) which had aroused concerns that weapons laboratories would use it to develop new warhead designs, thereby undermining the CTBT's purpose. Together with the predictions that Senator Gore would probably win the coming federal election, the tide was perceptibly if not decisively turning.

But one senses a change in atmosphere that *could* lead to a recovery of that all-important perception of movement towards the reduction and elimination of nuclear arms. That movement now has to be entrenched through political action and made tangible through progress in treaty ratification and negotiation among other things.

All governments have responsibility for achieving this end. But much will inevitably depend on how the United States uses its hegemonic authority under a new President. Over the past couple of years, national missile defence has gripped the US body politic. If the disorder that everyone fears is to be averted, another much weightier project needs to gain ascendancy in Washington, in the national as well as the international interest: the restoration of international confidence in the nuclear order's health and vitality. A project of restoration has to be wide-ranging, embracing multilateral arms control, compliance measures and much else besides. Above all, it has to recognize that nuclear order rests upon a plurality of measures and approaches, and that a shared normative commitment to restraint provides the best protection in today's complex international system.

However, a return to confidence-in-order may no longer be feasible without a genuine embrace by the United States and the other nuclear powers of the project of nuclear disarmament. For this to occur, disarmament will have to be brought into the centre of strategic discourses within and between the nuclear powers—it is not enough for disarmament to lie just at the centre of regime discourses.

Is this pie in the sky? It may be less fanciful than current attitudes suggest. Recent events have reminded all governments of the perils of nuclear weapons; and if NMD falls from grace, as is possible, the US may be left with no persuasive ordering ideas other than pressing for complete nuclear disarmament (along with chemical and biological weapon disarmament). An American push for disarmament which mobilized collective support through the commitments contained in the NPT Final Document would transform the outlook. But any push for disarmament would have to be orderly, it would have to deliver security, and it would not succeed amidst fears that great powers would shed the habitual restraint that deterrence brought to their relations.

Establishing an effective non-nuclear order will therefore be as tough and lengthy—and as essential—a task as establishing the nuclear order. Governments will not, however, be starting from scratch: the nuclear order already provides essential building blocks for a non-nuclear order. The efforts of the past forty years, and the renunciation of nuclear weapons by all but a few nation-states, provide an impressive foundation for complete nuclear disarmament.