It is an honour and a privilege for me to deliver the annual John Holmes Lecture to this distinguished audience. John was a model of clear thinking, lucid analysis and elegant writing combined with wit, wisdom and insight. He also happened to be the external examiner for my Ph.D. thesis that examined the international control commission in Vietnam. John was not entirely pleased with my analysis, arguments and conclusions. I protested that surely he did not expect me to argue that in every case where Canada and India disagreed in the commission, the Indians were wrong. "No," he replied, "I don't expect you to argue that the Indians were always wrong. Only that the Canadians were always right." Well, on the subject that I have chosen for today's talk, my worldview has been much closer to Canadian than Indian policy for most of my professional life.

Nuclear arms control is back on the international agenda with a vengeance. It has three inter-linked components: nonproliferation, arms control (for example de-alerting and de-mating), and disarmament (the partial, limited or total abolition of nuclear weapons). The mushroom clouds headed in our direction from over the horizon appear to be the darkest in years. According to the High-Level Panel on Threats, Challenges and Change, there is a twofold threat of nuclear proliferation. First, some countries, from within the shelter of the nuclear Nonproliferation Treaty (NPT), could either develop a full-fledged weapons capability covertly and illegally, or else acquire all the materials and expertise needed for a weapons program and withdraw from the treaty when they are ready to proceed with weaponization. Second, there is genuine reason to fear an erosion and possible collapse of the whole NPT regime over the longer term. The panel recalls US government fears in 1963 that over the following decades the number of nuclear-weapons-states (NWS) would climb to 15 to 25, while others worried that the number could be as high as 50. Instead, as of 2004 only eight countries are known to have nuclear weapons. A still greater surprise, historically speaking, is that they have not been used as an instrument of war since Hiroshima and Nagasaki in 1945.

There were two great pillars of the normative edifice for containing the nuclear horror: deterrence, which prevented their use among those who had nuclear weapons, and the nonproliferation regime centred on the NPT that both outlawed their spread to others and imposed a legal obligation on the nuclear-weapons-states (NWS) to eliminate their own nuclear arsenals through negotiations - their only explicit multilateral disarmament commitment. At the start of the new millennium, both these pillars were at risk of crumbling. Some commentators
fear that arms control is at an impasse and disarmament could be reversed. Treaties already negotiated and signed could unravel through non-ratification or breakouts. The testing of nuclear weapons could be resumed. The lengthening list of proliferation-sensitive concerns includes the embarrassing failure to find weapons of mass destruction in Iraq, the strident bellicosity from Pyongyang proclaiming a weaponized nuclear capability that outsiders are sceptical of but dare not discount totally, the concerns expressed by the International Atomic Energy Agency (IAEA) about Iran's nuclear program, reports that Saudi Arabia may be contemplating an off-the-shelf purchase of nuclear weapons, and the revelations of a previously unsuspected underground nuclear bazaar run by Abdul Qadeer Khan, the 'father' of Pakistan's bomb. Iran's confrontation with the IAEA could lead it to pull out of the NPT altogether following the example of North Korea. No one seriously advocates letting market forces triumph in order to level the killing fields for the whole world. A world in which anyone who wanted to and could get nuclear weapons was allowed to do so would be a far more dangerous place for all of us.

By proliferation I mean the dispersion of weapons, capabilities and technologies. Weapons can be sought for one or more of six reasons: deterrence of enemy attack; defence against attack; compellence of the enemy to one's preferred course of action; leveraging adversary and great-power behaviour; status; and emulation. On the supply side, a major proliferation challenge is the globalization of the arms industry, the flooding of the global arms market and a resulting loosening of supplier constraints. Specific causes of proliferation are many, diverse and usually rooted in a local security complex. Persuading key problem states to move to a non-nuclear-weapons status requires convincing them that the balance of advantage lies with forsaking the nuclear option. This necessarily includes not just the national security calculus, but also the internal political constellation, the regional security complex, and considerations of international equity. The most crucial elements in preventing proliferation are 'the creation and maintenance of political and security conditions which are conducive to nonproliferation'.

The barriers against the acquisition, spread and use of nuclear weapons include legal conventions, norms and the fact of their non-use for over fifty years. Norms, not deterrence, have anathematized the use of nuclear weapons as unacceptable, immoral and possibly illegal under any circumstance - even for states that have assimilated them into military arsenals and integrated them into military commands and doctrines. There have been occasions since 1945 when nuclear weapons could have been used without fear of retaliation but were not, even at the price of defeat on the battlefield (the US in Vietnam, the Soviet Union in Afghanistan).

In The Structure of Scientific Revolutions, Thomas S. Kuhn outlined the process by which a dominant paradigm in science is replaced by a new paradigm. Normal science is concerned with solving puzzles within a particular framework. However, in the course of ongoing research, anomalies are uncovered suggesting deficiencies in the theory/existing paradigm and generating auxiliary hypotheses within the dominant paradigm to explain the anomalies. But if the old paradigm proves unable to accommodate the anomalies, the pressure
grows for a new paradigm to emerge. At this point ‘the anomalous has become the expected’. Can a similar process be underway (a) with regard to the NPT regime and, more generally still (b) with regard to the dominant paradigm of the contemporary world order?

Since 1968, the symbol of the dominant arms control, disarmament and nonproliferation paradigm has been the NPT regime. Over the course of three decades, however, significant anomalies have accumulated and now weigh down the regime. The question is: are they so insubstantial that they can be accommodated within the NPT regime through reforms and auxiliary agreements, or are they of sufficient number and magnitude that the NPT needs total replacement? They can be grouped into seven broad categories: a discrepancy between the legal definition and actual nuclear-weapons status; the problem of nonstate actors; the dangerous gap in time between the threat of nonproliferation becoming evident and the capacity of the existing international modalities to respond effectively to them; the risks of lumping together biological, chemical and nuclear weapons under the one label of WMD; the tensions between norms and treaties, on the one hand, and compliance mechanisms and enforcement agents, on the other; the moral hazard of encouraging the acquisition of nuclear weapons as the deterrent of choice by efforts at compulsory or preemptive disarmament; and the growing gulf between the theory of universal and the reality and practice of differentiated nonproliferation. Let us examine each of these.

Lecture 3 | Ramesh Thakur

Anomaly 1: Legal Definition vs Strategic Reality

The definition of a NWS is chronological - referring to a country that had manufactured and exploded a nuclear device before 1 January 1967 (NPT Article 9) - rather than analytical or existential. The nuclear arsenals of India, Pakistan and Israel are NPT-illicit. They could test, deploy and even use nuclear weapons, but cannot be described as NWS. In principle, Britain and France could dismantle their nuclear edifice and destroy their nuclear arsenals, but would still count as NWS. This is an Alice-in-Wonderland approach to affairs of deadly seriousness. When legal fiction comes into collision with strategic reality, either the fiction gives way or the world becomes a more dangerous place. Moreover, if the gap between strategic reality and the NPT worldview is not bridged, in time it is the NPT that will become progressively less credible and relevant. Yet can the NPT definition be opened up for revision through a formal amendment of the treaty, with all the unpredictable consequences regarding the status of existing States Parties? For how long after they have acquired nuclear weapons should countries be approached conceptually within the framework of nonproliferation? Alternatively, if India, Pakistan and Israel are to be disarmed of nuclear weapons, then why not the other five NWS? The conceptual fudge is evident in the report of the high-level panel asking Middle Eastern and South Asian countries to ratify the CTBT and negotiate regional NWFZ. Should India, Pakistan and Israel do so as NWS? If so, does this not formalise their nuclear status outside the NPT, and also, why not make the same call to the other five nuclear powers? If not, w(h)ither realism?
Anomaly 2: Nonstate Actors in States System

Because only states take part in the formal negotiations under multilateral frameworks, one of the most critical failings of treaties resulting from such negotiations is that they are limited to states parties. The threat from nonstate actors has grown frighteningly real, but the multilateral treaties can regulate and monitor the activities only of states. In its annual report to Congress for 2004, the US Central Intelligence Agency (CIA) warned that Al-Qaeda is fully capable of building a radiological 'dirty' bomb targeting the US and others, and has 'crude procedures' for producing chemical weapons using mustard, sarin, VX and cyanide. This could be deduced from Al-Qaeda documents recovered in Afghanistan in 2002. Recalling Al-Qaeda's stated willingness to use unconventional weapons, and its demonstrated willingness and capacity to launch deadly attacks on a mass scale, the CIA concluded, the danger of terrorists using chemical, biological, radiological and nuclear materials 'remained high'.

Nevertheless, while the devastation of a terrorist strike with nuclear weapons would be very high, the probability of such a successful strike is still considered to be low.

The margins of tolerance by the international community of non-compliance with WMD nonproliferation and disarmament norms and obligations narrowed dramatically after the terrorist attacks of 11 September 2001. Security Council Resolution 1540 (2004) crossed a conceptual Rubicon in directing sovereign states to enact nonproliferation legislation. Affirming WMD proliferation as a threat to international peace and security (and thereby conferring both the competence and the responsibility on the UNSC to act on the threat), and expressing concern over the threat of WMD terrorism and of illicit trafficking in WMD material, weapons and delivery systems, the resolution called on all states to enact and enforce laws to prohibit non-state actors to develop, acquire, transfer or use WMD; to take and enforce effective domestic control, physical protection, accounting and border control measures to prevent proliferation; and to set up a committee of the whole to oversee implementation of the resolution. It also called on states to take cooperative action to prevent illicit trafficking in WMD, including assistance to those states that lacked legal and regulatory infrastructure and resources to implement the resolution. This unprecedented intrusion into national law-making authority, although controversial, can be read as the toughened new determination of the international community to take effective action.

Anomaly 3: Fast Paced Threats, Slow Institutional Response

The cases of Israel, India and Pakistan show that decades after the problem arose, the international community is still unable to agree on an appropriate response within the existing NPT framework. In conducting eleven nuclear tests in May 1998, India and Pakistan confronted the world with a dilemma. A moderate response would have been self-negating. The nuclear hawks would have felt vindicated, saying that their country was being treated with respect because it had nuclear weapons. To accept India and Pakistan as NWS would reverse three decades of nonproliferation policy and victimise many countries that signed the NPT and CTBT on the understanding that the number of NWS would be limited to five. On the other hand, a harsh response would have been self-fulfilling. The hawks would have argued that a friendless India that is the target of hostile
international attention needs an arsenal of nuclear weapons to defend its interests. Seven years later, trying to revert to the status quo ante in South Asia is as realistic as demanding an immediate timetabled framework for the elimination of all nuclear weapons. For India, Israel and Pakistan the question is no longer if, but what kind of nuclear powers they are going to be.

On Iraq, Washington did not help its case for war against Saddam Hussein by issuing a confused mix of motives and explanations. In the resulting ‘noise’ of diplomatic traffic, answers were not forthcoming to two crucial questions: Why Iraq, and why now? Any single answer to the first - such as known/suspected links to terrorism or to weapons of mass destruction - would always complicate attempts to answer the second, since people could instantly counter with more compelling cases of the same pathology.

For instance, with respect to nuclear weapons, while evidence of such remained elusive in Iraq, North Korea did almost everything but actually conduct a nuclear test. The glib conclusion drawn by the antiwar lobby, therefore, was that Washington's inconsistent response to the simultaneous crises showed two things: that Iraq did not possess usable nuclear weapons, and North Korea does not have oil. Yet, glibness aside, Washington could have constructed a powerful case for its action on Iraq precisely by linking the two crises. We know that Saddam had pursued the nuclear option in the past, possessed and used biochemical weapons against his own people as well as Iran, and played a dangerous game of hide and seek with UN weapons inspectors for over a decade. Assuming that North Korea has crossed the nuclear threshold, what options are available to the international community for dealing with Pyongyang without causing grave damage to ourselves? The UN Security Council seems barely able to table the North Korean threat for discussion and resolution. Similarly, it would have been impossible to defang Saddam of nuclear weapons the day after he acquired and used them; the UN is incapable of doing so the day before; hence the American determination to do so instead. Thus the two questions - why Iraq and why now - can be answered simultaneously and symbiotically.

The reality of contemporary threats - a virtual nuclear-weapons capability that can exist inside nonproliferation regimes and be crossed at too short a notice for international organizations to be able to react defensively in time, and nonstate actors who are outside the jurisdiction and control of multilateral agreements whose signatories are states - means that significant gaps exist in the legal and institutional framework to combat them. If international institutions cannot cope with today’s real threats, states will try to do so themselves, either unilaterally or in company with like-minded allies. Prevention is not permitted under the UN Charter as it is not considered within the acknowledged right of self-defence. But if prevention is strategically necessary and morally justified (why should an American president wait for another mass murder and be prohibited from taking prophylactic action?) but not legally permitted, then the existing framework of laws and rules - not the anticipatory military action - is defective.

Recognizing this, a group of like-minded countries has launched a Proliferation Security Initiative (PSI) to interdict illicit air, sea and land cargo linked to WMD. Its premise is that the proliferation of such weapons deserves to be criminalized by the civilized community of nations. The PSI signals a new determination to overcome an unsatisfactory state of affairs through a broad partnership of countries that, using their own national laws and
resources, will coordinate actions to halt shipments of dangerous technologies and materiel. While the High-Level Panel encouraged all states to join the PSI,11 the Secretary-General simply welcomes the voluntary initiative.12

Anomaly 4: WMD
Nuclear nonproliferation efforts must be viewed within the context of the broader proliferation environment which in addition to nuclear weapons includes biological, chemical and conventional weapons and their delivery systems. The clandestine nature of all biological and chemical weapon programs suggests that no prestige value attaches to them. They have been so successfully stigmatized and evoke such universal revulsion that they are not a source of national pride.

Language is not always neutral, and often contains powerful codes of permissible and impermissible behaviour. It is not clear that biological, chemical and nuclear weapons belong in one conceptual category. They differ in their technical features, in the ease with they can be acquired and developed and in their capacity to cause mass destruction. Treating them as one category of weaponry can distort analysis and produce flawed institutional responses. In the long-lasting and particularly traumatic conflicts in Africa and Asia, the real weapons of mass destruction are small arms and landmines. There is also the danger of mission creep for nuclear weapons. The taboo against nuclear weapons use is so strong that it is difficult to imagine their use other than against enemy nuclear weapons.

The creeping tendency to redefine their mission to counter WMD has three consequences: it lumps together biological, chemical and nuclear weapons in one conceptually fuzzy category; it weakens the nuclear taboo; and it permits the nuclear powers to obfuscate the reality that they are the possessors of the most potent WMD. If nuclear weapons are accepted as having a role to counter biological-chemical warfare, then by what right or logic can we deny a nuclear-weapons capability to a country like Iran which has actually suffered chemical weapons attacks? In other words, mission creep carries the attendant danger of cross-category horizontal proliferation. It also raises a further interesting question: why should there not be a universal nuclear weapons convention banning such weapons, comparable to the biological and chemical weapons conventions?

Anomaly 5: Enforcers as Exemplars
It defies history, common sense and logic to believe that a self-selecting group of countries can keep a permanent monopoly on any class of weaponry. The N5 (the five nuclear powers recognised as such by the NPT) preach nuclear abstinence but do not practice it. Not a single country that had nuclear weapons when the NPT was signed in 1968(!) has given them up.13 Their stockpiles are in defiance of the International Court of Justice's Advisory Opinion of July 1996 of a legal obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament. India and Pakistan breached no international treaty, convention or law by testing. For the five NWS to impose sanctions on the nuclear gatecrashers is akin on this issue to outlaws sitting in judgment, passing sentence and imposing punishment on the law abiding. Such behaviour fuels the politics of grievance and resentment.
The question of the still elusive WMD - whether the mistaken belief about the size, sophistication and imminence of Saddam’s WMD arsenal was a genuine conviction based on faulty intelligence, or the result of a deliberately politicized process of intelligence analysis - is not relevant to the present argument. Independently of that consideration, there is profound scepticism about the country with the world’s most powerful nuclear weapons using military force to prevent their acquisition by others. In the words of a former American president:

The United States is the major culprit in this erosion of the NPT. While claiming to be protecting the world from proliferation threats in Iraq, Libya, Iran and North Korea, American leaders not only have abandoned existing treaty restraints but also have asserted plans to test and develop new weapons, including antiballistic missiles, the earth-penetrating ‘bunker buster’ and perhaps some new ‘small’ bombs. They also have abandoned past pledges and now threaten first use of nuclear weapons against non-nuclear states.14

By attacking Iraq in defiance of world opinion without UN authorization, Washington exempted itself from the existing normative restraints on the use of military force. Many prudent national security planners around the world will be more attracted than before the Iraq war to nuclear weapons for deterring possible attack on their countries in the suddenly harsher jungle of international relations. They may begin to edge away from existing nonproliferation commitments and become interested in nuclear warheads and missiles as leveraging weapons in order to affect the calculus of US decision-making on wars.

The NWS are trapped in the fundamental paradox that while they justify their own nuclear weapons in national security terms, they seek to deny such weapons to anyone else for reasons of global security. According to Robert McNamara, the former Secretary of Defense (1961-68), ‘The Bush administration’s nuclear program, alongside its refusal to ratify the CTBT, will be viewed, with reason, by many nations as equivalent to a U.S. break from the treaty. It says to the nonnuclear weapons nations, “We, with the strongest conventional military force in the world, require nuclear weapons in perpetuity, but you, facing potentially well-armed opponents, are never to be allowed even one nuclear weapon”’. This is why he argues that the current US nuclear policy is ‘immoral, illegal, militarily unnecessary, and dreadfully dangerous’.15

In the final analysis, the logic of nuclear nonproliferation is inseparable from the logic of nuclear disarmament. 16 Hence the axiom of nonproliferation: as long as any one country has them, others, including terrorist groups, will try their best (or worst) to get them.

For arms control regimes - the infrastructure of sustainable disarmament - to be vested with legitimacy, they must incorporate a balance of obligations between the present nuclear haves and have-nots. The progress to date in nuclear arms control and disarmament is more in the nature of correcting the excesses of the Cold War. The urgent requirement now is to emplace an increasing number of verifiable constraints on the policies, practices and arsenals of NWS. The lack of compliance and enforcement of NPT obligations on the NWS delegitimises its normative claims in the eyes of others. The historic and favourable changes in the world
strategic situation must be embedded in structures that consolidate, deepen and reinforce the nonproliferation, arms control and disarmament regimes in their normative, technical-denial and compliance-cum-enforcement attributes. All the regimes must be invested with the requisite political will, fiscal means and intelligence support.

Anomaly 6: Utility vs Futility of Nuclear Weapons
The dismissive US attitude towards global regimes in general is echoed in unilateral changes in US doctrines with respect to the utility and usability of special-purpose nuclear weapons. During the Cold War, large numbers of US nuclear warheads were aimed at fixed enemy targets. Under the targeting system called ‘adaptive planning’ based on ‘offensive deterrence,’ Washington would have the option of launching a preemptive strike with precision-guided conventional bombs or ‘special-purpose nuclear weapons’ against hostile countries that posed a threat of WMD attack on the US. Does contemplating and preparing for the use of nuclear weapons with lower yield and reduced fallout constitute a preparatory step too far?

The Nuclear Posture Review has the great merit of trying to reconcile the reality of nuclear weapons with operational military doctrines. The unique properties of nuclear weapons means that they will continue to play critical roles. Their military-political utility ranges from assurance of allies and friends to dissuasion of competitors, deterrence of aggressors and defeat of enemies. But in the process nuclear weapons have advanced up the ladder of escalation from the weapon of last resort to a weapon of choice, and the underlying defence doctrine has changed from the Cold War’s mutual assured destruction to the post-Cold War’s unilateral assured destruction. Such doctrinal spread may have unhappy consequences for proliferation. For the calculus of potential proliferators is bound to change in response to the new US doctrine. It is not possible to convince others of the futility of nuclear weapons when the facts of possession and doctrines of use prove their utility for a self-selected few. Lowering the threshold of their use weakens the taboo against them, and thus inevitably lowers the normative barriers to nuclear proliferation.

A dramatic deterioration of the security environment hardens the determination of the ‘rogues’ to acquire the most lethal weapons in order to check armed attacks they fear will be launched by the US. Just as Iraq as a hotbed of terrorism became a consequence more than a cause of war, so proliferation of nuclear weapons may result from that war: some countries will have concluded that only nuclear weapons can deter Washington from unilateral wars of choice. Thus as Washington throws off the fetters on the unilateral use of force and the universal taboo on nuclear weapons, it strengthens the attraction of nuclear weapons for others while simultaneously weakening the restraining force of global norms and treaties.

Anomaly 7: From Universal to Differentiated Nonproliferation
But this in itself is now less worrying to Washington. For yet another effect of 9/11 was to change dramatically the focus of concern from universal to differentiated nuclear proliferation. Previously, the NPT was the centrepiece and embodiment of the nonproliferation norm. Now the US concern may be not so much in relation to the NPT, as to the relations of the proliferators with Washington. This is why the US president warns of the world’s most destructive weapons falling into the hands of the world’s worst regimes: it is the conjunction of the two that is especially dangerous. And US policies reflect this in practice. Washington has
never been seriously troubled by nuclear weapons under Israeli control. The failure to confront Israel's nuclear weapons increasingly complicates efforts to address nuclear concerns by others in the region. Relations with India are being deepened and broadened. Even Pakistan has been designated a major non-NATO ally, although one might question just how easy we should be at the thought of nuclear weapons passing into the hands of Islamist hardliners. The five NPT-licit nuclear powers do not seem to believe that their continued possession of nuclear weapons is detrimental to international security. And of course the concern is no longer limited to state proliferators, but extends much more broadly to non-state groups and individuals, especially those who might some day contemplate acts of nuclear terrorism.

In turn this changes the basis of world order as we know it. And that might be the most profound and long-lasting significance of 9/11. It may indeed have changed the world and tipped us into a post-Westphalian world. US policy is full of contradictions within the Westphalian paradigm. How can the most prominent dissident in many global norms and regimes claim to be the world's most powerful enforcer of global norms and regimes, including nonproliferation? How can the most vocal critic of the very notion of an international community anoint itself the international community's sheriff?

The answer may lie in a conception of world order rooted outside the framework of Westphalian sovereign equality. This also explains why some of today's most potent threats come not from the conquering states within the Westphalian paradigm, but from failing states outside it. In effect Bush is saying that the gap between the fiction of legal equality and the reality of power preponderance has stretched to beyond breaking point. Washington is no longer bound by such fiction. The Bush administration insists that the US will remain as fundamentally trustworthy, balanced and responsible a custodian of world order as before - but of a post-Westphalian order centred on the United States. Other countries and leaders must either pay their respects to Washington as the new imperial centre or else Washington will make them pay for their disrespect.

The central doctrine underpinning the contemporary Westphalian system holds that sovereign states are equal in effectiveness, status and legitimacy. In reality, states are not of equal worth and significance, neither militarily, economically, politically nor morally. An important recent lesson, learnt at great cost and human suffering in the 1990s, is that impartial peacekeeping should not automatically translate into moral equivalence among the conflict parties on the ground. The Brahimi Panel noted that in some cases local parties consist not of moral equals but aggressors and victims, and consequently 'peacekeepers may not only be operationally justified in using force but morally compelled to do so'.

Can this insight be applied to the nuclear dilemma? It seems counter-intuitive to postulate that in the eyes of most people and countries, nuclear weapons in the hands of Britain and North Korea would pose equal risks to international peace and security. The UN, resting on the principle of sovereign equality of member states, is compelled to assert the danger of nuclear weapons per se arising from their uniquely destructive properties. But if the UN is not capable or willing to distinguish between regimes with respect to the risks they pose and the threats they constitute, then it must either be reformed and reconfigured to enable such determination,
or else we must accept the reality that concerned countries will make these tough decisions and act on them outside the UN framework. They are not going to imperil their national security in an idealistic faith in the UN system of collective security resting on demonstrably false assumptions.

If this analysis is correct, then one could argue that the High-Level Panel failed to grapple with the triple implicit basis of America's growing disenchantment with the UN. The Westphalian order may have passed its use-by date. All states are not equal in status, capacity, legitimacy and morality. Why should a concert of democracies willingly submit its actions to the restraining discipline of the judgment of self-serving regimes? And the structure of global governance must bear some relationship to the underlying distribution of power.

Conclusion: The Three Pillars of Arms Control

In the words of a former US deputy secretary of defence, 'America is sleepwalking through history, armed with nuclear weapons. The Cold War left us with a massive inventory of weapons we no longer need, an infrastructure we can no longer use or maintain, and no thought of where our future lies'.18 The three policy imperatives are to encourage the reduction of nuclear inventories among the NWS, to strengthen controls over nuclear stocks and material among them and to minimise the attraction of the nuclear option to those who do not have these weapons. The goal of containing the genie of nuclear weapons was unexpectedly successful for three decades from 1968 to 1998, but has suffered serious setbacks since then. The success rested on three pillars, each of which has been crumbling in the last few years: norms, treaties, and coercion.

Some of these problems could be taken care of by accepting the suggestion that the fruitless search for universal membership in arms control treaty regimes should be replaced by 'universal compliance' with the terms of those regimes. The Carnegie Endowment for International Peace lists a set of six obligations to make this a reality: making nonproliferation irreversible; devaluing the political and military currency of nuclear weapons, which would have to include the steady, verified dismantlement of nuclear arsenals; securing all nuclear materials through robust standards for monitoring and accounting for fissile materials in any form; enforceable prohibitions against efforts by individuals, corporations, and states to assist others in secretly acquiring the technology, material, and know-how for nuclear weapons; a commitment to conflict resolution; and persuading India, Israel and Pakistan to accept the same nonproliferation obligations as the NWS signatories to the NPT.19

Norms are socially efficient mechanisms for regulating human behaviour from the family and village to the global setting. In conducting eleven nuclear tests in 1998, India and Pakistan did not violate any treaty they had signed. But they breached the global anti-nuclear norm and were roundly criticized for doing so. By now they are increasingly being accepted back into the fold as de facto nuclear powers, which weakens the anti-nuclear norm still further.

Non-fulfilment of treaty obligations by the nuclear powers weakens the efficacy of the anti-nuclear norm in controlling the threat of proliferation. The five permanent but unelected members of the UN Security Council - the N5 - then have to resort to measures of coercion ranging from diplomatic and economic to military. But relying solely on coercion with little basis any longer on norms (morality) and treaties (legality) usually turns out to be counter-productive.
A norm cannot control the behaviour of those who reject its moral status. India had argued for decades that the most serious breaches of the anti-nuclear norm were being committed by the five nuclear powers who simply disregarded their disarmament obligations under the NPT. Of late Washington has engaged in a systematic belittling, denigrating and hollowing out of a series of arms control and disarmament agreements. Arguably, it has also been engaged in a similar frontal assault on the principle of global norms - from arms control, climate change and international criminal justice to conventions against torture and for the rights of children and planned parenthood. In doing so, Washington contributes to a worsening of the proliferation challenge by weakening the behaviour-regulating force of global norms.

Precisely because multilateral agreements are negotiated outcomes, they are typically imperfect bargains, reflecting the compromises that all sides had to make in the interests of getting an agreement that meets the minimum concerns of all parties while falling short of their maximum ambitions. Australia helped to broker the CTBT in the belief that technical improvements through continued nuclear testing were subordinate to the risks of nuclear proliferation if testing was not terminated. Canada was the catalyst for the ban on antipersonnel land mines because their marginal military utility is outweighed by their anti-humanitarian carnage. While the CTBT and NPT, along with the chemical and biological weapons convention, the Ottawa Treaty and other international instruments, raise the threshold of proliferation and use, they simultaneously lower the bar to collective international responses for ensuring regime compliance. They thus lower the threat, reduce the need for counter-proliferation preparation and strategies, and promote norms of acceptable international behaviour. In signing international arms control treaties, states accept binding obligations. If an NPT country should seek to acquire nuclear weapons, NPT obligations give us significant leverage first to hold it to a legal contract, and second, if that is ignored, to fashion a collective response to non-compliance. It is far easier to form coalitions of the willing from those angered by non-compliance with international treaties and global norms - which is a good working definition of a rogue state.

Of course, no arms control regime can provide foolproof assurance against cheating. But the key issue, as in all aspects of life, is risk management. We don't stop driving or flying because of the risks of accidents. Rather, we take reasonable precautions, institute safety procedures, ensure minimum skills through approved testing procedures and set in place mechanisms and people for catching and punishing the violators of the collective norms of driving and flying. There is no country in which people do not violate traffic laws and seek to evade detection. Some even succeed. It would be as irresponsible as it would be irrational to conclude that driving license requirements and traffic codes should therefore be thrown out in favour of a free-for-all on the nation's roads.

Some states and groups will surely try to cheat on their international obligations. But the verification and monitoring mechanisms built into arms control regimes gives us a higher chance of catching them in efforts to cheat. The risk of detection acts as a deterrent against cheating, and the risk of being branded a cheat adds an element of compliance. The US can leverage its hard and soft power assets - its military might, economic muscle, diplomatic clout, voting weight in international financial institutions, etc. - to hold signatories to their international treaty obligations. If these
are violated, the US can leverage the same set of assets to forge coalitions of the willing, as in the Persian Gulf, Kosovo and Afghanistan wars over the past decade. The world needs American muscle and leadership on the side of the law-abiding.

In sum, there was great merit in relying on an integrated strategy of norms, treaties and coercion to keep the threat of nuclear proliferation in check. The NPT is tied to a frozen international power structure decades out of date. It has become dangerously fragile. The road towards the nuclear-free destination includes deep reductions in nuclear arsenals; further constraints on the extra-territorial deployment of nuclear weapons; the entry into force of the CTBT; ban on missile test flights and the production of fissile materials; preemptive ban on nuclear militarization of outer space; and de-alerting and de-mating of nuclear forces, warheads and missiles.

If this analysis of accumulating anomalies for the NPT-centred regime is correct, then, following Kuhn, a possible replacement paradigm might be to imagine and construct a world free of nuclear weapons. Confronted with a world that cannot be changed, reasonable people adapt and accommodate. The turning points of history and progress in human civilization have come from those who set out to change the world instead. The only guarantee against the threat of nuclear war is the complete elimination of nuclear weapons. In most contexts, a step-by-step approach is the best policy. Such caution can be fatal if the need is to cross a chasm. In the case of nuclear weapons, the chasm over which we must leap is the belief that world security can rest on weapons of total insecurity.

Such scenarios provoke dismissive comments from so-called ‘realists.’ Realistically speaking, what other option is there? Rollback to pre-1998 status quo, in the name of realism? Unchecked proliferation? Rearmament? As with Winston Churchill’s famous aphorism on democracy, the abolitionist option may well be unrealistic; all other conceivable options are even less realistic as strategies for our common security and survival. That which does not exist, cannot proliferate.

2 Ibid, par. 110.
3 This is developed more fully in Ramesh Thakur, ‘Arms Control, Disarmament, and Non-Proliferation: A Political Perspective,’ in Jeffrey A. Larsen and Thomas D. Miller, eds, Arms Control in the Asia-Pacific Region (Colorado Springs: USAF Institute for National Security Studies, US Air Force Academy, 1999), pp. 39*61.
4 Many of the newer proliferating materials and processes are ‘leveraging’ technologies that allow poorer countries to offset high-technology advantages. By demonstrating the acquisition of just a few key capabilities, developing countries can affect
the perceptions and alter the decision calculus of diplomacy and war of the advanced military powers.

5 Hans Blix (then Director General of the IAEA), 'Strengthening the NPT and the Nuclear Non-Proliferation Regime,' Disarmament: A Periodic Review by the United Nations 16:2 (1993), p. 5.


8 The official UN formulation is that India and Pakistan are 'non-NPT States that have conducted tests of nuclear devices.'

India describes itself as a declared possessor of nuclear weapons.

9 A more secure world, par. 124.


11 Ibid., par. 132.


13 The renunciations by Belarus, Kazakhstan and Ukraine after the breakup of the former Soviet Union does not alter the substantive claim, insofar as, for this purpose, the successor state is Russia..


16 See Ramesh Thakur, 'Sustainable Disarmament,' in Carl Ungerer and Marianne Hanson, eds., The Politics of Nuclear Non-Proliferation (St. Leonards: Allen & Unwin Australia, 2001), pp. 11*30.


20 Celso Amorim, et al. (foreign ministers of the New Agenda Coalition), 'What does not exist cannot proliferate,' International Herald Tribune, 2 May 2005.