

Thinking Through Nuclear Proliferation in an Age of Globalization

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In a world where little agreement exists on anything in international politics, most US policymakers and pundits share a deeply held belief that further nuclear proliferation would be a terrible thing. When asked during the first 2004 presidential debate to name ‘the most serious threat’ to America’s security, both John Kerry and George W. Bush gave the same answer: ‘nuclear proliferation’.¹ Most analysts agree that we are now at a critical moment, whereby further proliferation could unleash a domino effect or a chain reaction that could double or triple the membership in the nuclear club. According to one esteemed group of experts, ‘(T)he world has arrived at a nuclear tipping point.’² Finally, it is widely postulated that the dynamics of the post-Cold War era, and particularly the post 9/11 world, make nuclear proliferation more terrifying and harder to solve than ever before. According to the Bush administration’s national security doctrine, new rogue states differ from the Soviet Union in their ‘nature and motivations’, their ‘determination to obtain destructive powers hitherto available only to the world’s strongest states’, and their far greater willingness to ‘use weapons of mass destruction against us...’³ In this unquestioned view, the

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- 1 Craig Gilbert, ‘Nuclear Threat Seen as Top Issue for Nation’, 10 October 2004, Sunday Final Edition, *Milwaukee Journal Sentinel*, p. 1.
 - 2 George Perkovich, Joseph Cirincione, Rose Gottermoeeler, Jon B. Wolfsthal, and Jessica T. Mathews, draft, ‘Universal Compliance: A Strategy for Nuclear Security’, the Carnegie Endowment for International Peace, June 2004, p. 11, accessed from: <<http://wmd.ceip.matrixgroup.net/UniversalCompliance.pdf>>.
 - 3 <<http://www.whitehouse.gov/nsc/nss5.html>>.

antediluvian world of the bipolar struggle between communists and capitalists offers no lessons.

These views largely have gone unchallenged within the policy world. While wide differences of opinion exist about how to slow and even reverse nuclear proliferation, few policymakers and pundits doubt that it should be a priority, if not the main concern, of US and world policy during this age of globalization, to which other geopolitical issues should be subsumed. Most are pessimistic, both about the possibilities for retarding proliferation and the consequences for US interests and world peace if the number of nuclear weapons states increase. Robust and radical new policies have been suggested to meet these challenges. Few think the lessons of the cold war have any relevance to our current concerns.

Unlike policymakers, however, international relations scholars have debated strenuously whether further nuclear proliferation is good or bad. The so-called optimists, led by Kenneth Waltz, argue that the powerful deterrent effects of nuclear weapons actually stabilize international politics by decreasing the chance of interstate war. Because states maximize their self-interest, it makes little sense for them to risk their own destruction in pursuit of aggressive goals abroad. In this view, nuclear proliferation is not to be feared, and in some cases, it should be actively encouraged.

The so-called pessimists, on the other hand, utilize organization and bureaucratic politics theories to demonstrate that states are not always unitary and do not always pursue their best interests. It is important to point out, however, that these scholars are by no means 'pessimists' compared to the policy debate. Scholars such as Scott Sagan do not dispute the powerful deterrent effects of well thought out nuclear strategies based upon survivable second strike forces and secure, reliable command and control procedures. Rather, 'pessimists' in the IR world claim that parochial bureaucratic clashes (such as those between military and civilian sectors) and organizational imperatives can produce nuclear force structures and strategies that are vulnerable to pre-emption, accidental launches, or unauthorized use.⁴

These arguments—both within the policy and academic communities—must not simply be accepted at face value. Issues of nuclear proliferation—particularly in terms of US policy—are more complex than either the policy or scholarly discussions would allow, and some of the most basic arguments in these debates remain open to question. Policymakers often overstate the dangers to the United States when describing the current dynamics of nuclear proliferation. For

4 For these arguments, See Scott D. Sagan and Kenneth N. Waltz, *The Spread of Nuclear Weapons: A Debate Renewed*, (New York and London: W. W. Norton and Company, 2002).

their part, scholars overestimate the stabilizing influence of nuclear weapons on world politics. Yet, both debates share one basic flaw that burdens all their assessment of current and future nuclear proliferation dynamics: a misreading of the history of nuclear politics during the Cold War.

Ironically, this essay criticizes the policy debate for being *too pessimistic*, and the scholarly debate (including the so-called pessimists) for being *too optimistic*. This analysis will probably not satisfy either group. Unfortunately, no simple or parsimonious explanation of the causes for and effects of nuclear proliferation exists, nor is it always obvious how it affects US interests and what should be done about it. Even if policymakers and scholars *agreed* that slowing or halting nuclear proliferation should be a top priority, they have not come to terms with the fact that past history demonstrates the enormous difficulty of constructing a coherent, logical, non-proliferation policy that is not riddled with contradictions nor undermines key geopolitical goals.

One thing is clear. As the admittedly thin historical record reveals, confronting proliferation requires complex and often painful policy tradeoffs. Both policymakers and IR scholars have tended to look at nuclear proliferation through an a-political lens. Why nuclear weapons spread, how it affects international stability, and what options are open to the US only becomes clear when the larger political, and particularly geopolitical, context is considered.

What follows here is only suggestive, not proscriptive, and much more scholarly work needs to be done. This essay discusses the shortcomings in the policy debate, analyzes flaws in the scholarly debate, and lays out the difficulties any US administration would face in crafting a logical, effective nuclear non-proliferation policy.

The policy debate over nuclear proliferation

Have the dynamics of international security—and in particular, nuclear proliferation—been transformed by the transition from the Cold War to the so-called age of globalization, as is often contended by policymakers and pundits? The Bush doctrine flatly states that the US currently faces a security environment that is far more ‘complex and dangerous’ than it faced during the Cold War, especially after the Cuban Missile Crisis. There are three claims that are often made to prove this point. First, the types of threats we face are new. Second, we are at a key moment, or ‘tipping point’, whereby one new nuclear nation could unleash a ‘chain reaction’ of many more. And third, that the nature of the regimes actively seeking nuclear weapons—so-called rogue regimes—makes the issue of nuclear proliferation far more dangerous than it has been in the past. The history of nuclear politics, particularly during the Cold War, undermines each of these arguments.

First, many of the nuclear threats that concern the United States in the post-9/11 world are nowhere near as new as we think. As early as 1946, a prominent US nuclear scientist warned that:

In any room where a file case can be stored, in any district of a great city, near any key building or installation, a determined effort can secrete a bomb capable of killing a hundred thousand people and laying waste every ordinary structure within a mile.⁵

The CIA began warning about the dangers of the covert introduction of nuclear weapons into the US only months after the Soviets detonated a nuclear device.⁶ Catastrophic terrorism was a concern of US policymakers since at least the Nixon administration, when even so-called ‘dirty bombs’ were a worry. As an aide to Henry Kissinger wrote, ‘Nuclear raw materials ... if captured by terrorists, can be made into crude atomic bombs or exploded to cause contamination. *This is a real threat, not science fiction.*’⁷ Two years earlier, an NSC staff wrote analyzing ‘terrorist actions against nuclear installations, or involving nuclear material’. Similar to today, the report emphasized the psychological effects of the ‘panic’ that would follow such an attack, and argued that ‘we are not in a very strong position’ to deal with these situations.⁸ Countless documents reveal that today’s fears over nuclear terrorism, dirty bombs, and covert weapons certainly existed throughout the Cold War. The fear of a war with the Soviets or the PRC was simply far greater and more important.

What about the second great concern of policymakers: the fear that if one or two pivotal nations are allowed to develop nuclear weapons, it could unleash an unstoppable wave of new proliferation. According to the former US State Department Director of Policy Planning, Mitchell Reiss, ‘in ways both fast and slow, we may very soon be approaching a nuclear “tipping point”, where many

5 Edward U. Condon, ‘The New Technique of Private War’, in Dexter Masters and Katharine Way, eds., *One World or None: A Report to the Public on the Full Meaning of the Atomic Bomb* (New York: McGraw-Hill, 1946). Quoted in Dan Stober, ‘No Experience Necessary’, *Bulletin of the Atomic Scientists* 59 (2003): 56–63.
<http://www.thebulletin.org/article.php?art_ofn=ma03stober>.

6 CIA, ‘Capabilities of the USSR to Employ Unconventional Attack Involving the Smuggling of Atomic Weapons Into the United States’, 19 January 1950. p. 1. DDRS, Document Number: CK3100165674.

7 Memo for Henry Kissinger from Richard T. Kennedy. ‘Status of USG Actions Against Terrorism’, 25 November 1972. p. 1. DDRS Document Number: CK3100525361 (emphasis not in original).

8 Will Kriegsman to Peter Flanigan, ‘Saboteur or Terrorist Actions Against Nuclear Installations’, 23 October 1970, NSC Institutional Files, NSDM, box H-180, Nixon Presidential Materials, US National Archives, College Park, MD.

countries may decide to acquire nuclear arsenals on short notice, thereby triggering a proliferation epidemic.⁹

The idea of a nuclear tipping point, chain reaction, or ‘domino’ effect, however, is by no means new. Consider the following headline: ‘Many Nations Ready to Break into Nuclear Club.’ Was this a recent newspaper article? In fact, the headline was taken from the front page of the *Washington Post* from June 1981.¹⁰ Similar articles could be found from almost any year since at least the early 1960s, as the fears of a nuclear ‘tipping point’ or domino dynamic have persisted for decades.

Consider one of the most compelling examples: in the aftermath of China’s detonation of an atomic bomb in October, 1964, there were widespread fears of a nuclear ‘domino’ effect, and that nothing could be done to stop other countries from following in China’s atomic footsteps:

A succession of Chinese tests followed by an Indian decision to ‘go nuclear’ may rapidly change Japanese attitudes. Indonesia, despite its low level of technical competency, has ambitions and would be spurred on by the Chinese and Indian examples. And evidence of serious Indonesian intent would undoubtedly lead the Australians to try to get nuclear help in some form from the UK and the US ... the effects would be felt more widely. Israel, Sweden, Germany, and other potential nuclear countries far from China and India would be affected by proliferation in Asia.¹¹

Another report predicted:

[t]hat at least eleven nations (India, Japan, Israel, Sweden, West Germany, Italy, Canada, Czechoslovakia, East Germany, Rumania and Yugoslavia) have or will soon have the capability of making nuclear weapons, given the requisite national decision. Within the foreseeable future ... the number will grow substantially. The Union

9 Mitchell B. Reiss, ‘The Nuclear Tipping Point: Prospects for a World of Many Nuclear Weapons States’, in Kurt M. Campbell, Robert J. Einhorn, and Mitchell B. Reiss, ed., *The Nuclear Tipping Point: Why States Reconsider their Nuclear Choices* (Washington, DC: Brookings Institution, 2004), p. 4.

10 Ronald Koven, ‘Many Nations Ready to Break into Nuclear Club’, 15 June 1981, *Washington Post*, p. A1.

11 Rowen, Henry. *India’s Nuclear Problem. Declassified Documents Reference System*. Document #CK3100154493. Memorandum. 24 December 1964. <<http://galenet.galegroup.com/content.lib.utexas.edu:2048/servlet/DDRS;jsessionid=F048C250E451F34C1982744940B2E3F5?locID=txshracd2598>>, p. 6.

of South Africa, the United Arab Republic, Spain, Brazil and Mexico may be included.¹²

A top-secret, blue ribbon committee established to craft the US response contended that:

[T]he recent Chinese nuclear explosion has increased the urgency and complexity of this problem by creating strong pressures to develop independent nuclear forces, which, in turn, could strongly influence the plans of other potential nuclear powers.¹³

The most alarming factor about this and other official predictions of ‘tipping points’ and ‘dominos’ is how wrong they were. Writing in 1985, the National Intelligence Council pointed out that for ‘almost thirty years the Intelligence Community has been writing about which nations might next get the bomb’. All of these estimates based their largely pessimistic and ultimately incorrect estimates on factors such as the increased ‘access to fissile materials’, improved technical capabilities in countries, the likelihood of ‘chain reactions’ or a ‘scramble’ to proliferation when ‘even one additional state demonstrates a nuclear capability’.

The most striking characteristic of the present-day nuclear proliferation scene is that that, despite the alarms rung by past Estimates, no additional overt proliferation of nuclear weapons has actually occurred since China tested its bomb in 1964.

While ‘some proliferation of nuclear explosive capabilities and other major proliferation-related developments have taken place in the past two decades’, they did not have ‘the damaging, system wide impacts that the Intelligence community generally anticipated they would.’¹⁴

In fact, there has never been a chain reaction of nuclear proliferation, nor is there compelling evidence that this will ever occur. If anything, the opposite has transpired—a dramatic shrinking of the pool of potential proliferators. Proliferation pressures were far greater during the Cold War. In the 1960s, at least twenty-one countries either had or were considering nuclear weapons research programmes. The list ranged from western democracies like Australia

12 R. Murray, Problems of Nuclear Proliferation Outside Europe, 7 December 1964, DDRS, Document #CK3100281620, p. 1.

13 *Prevention of the Proliferation of Nuclear Weapons*. Digital National Security Archives. Item # NP01103. National Security Action Memorandum. 21 January 1965, Collection: Nuclear Non-Proliferation. <<http://nsarchive.chadwyck.com/content/lib.utexas.edu:2048/>>, p. 1.

14 See National Intelligence Council, ‘The Dynamics of Nuclear Proliferation: Balance of Incentives and Constraints’, September 1985, accessed at: <http://www.foia.cia.gov/docs/DOC_0000453458/0000453458_0001.gif>.

and Sweden to communist countries such as Yugoslavia and China to regional powers such as Brazil, South Africa, and India. By 2004, only eight countries were known to have nuclear weapons. It is essential to note that even those 'rogue' states who are/were a great concern to policymakers—Iran, Iraq, Libya, and North Korea—began their nuclear weapons programmes during the 1970s and 1980s, *before the Cold War ended*.¹⁵ As far as we know, no nation has started a new nuclear weapons programme since the demise of the Soviet Union in 1991.

Another important argument made by today's policymakers is that the nature of today's nuclear aspirants is different fundamentally from previous threats and requires special consideration. Their malevolence, despotic rule, and aggressive international designs of these states, it is often claimed, make the concept of nuclear deterrence irrelevant or obsolete. Once again, it is far-fetched to claim this is a new concern. Consider the analysis by Fred Ikle in 1965:

If the spread of nuclear weapons continues beyond the middle powers, it will probably lead someday to owners of nuclear weapons who cannot be deterred because they feel they have nothing to lose—a 'nuclear proletariat' which has nothing to lose but its nuclear weapons. People fanatically dedicated to some revolutionary cause may have no concern for the survival of their country... To carry out such 'nuclear anarchism' or acts of personal revenge, modern delivery systems would not be needed; it would suffice if the weapons could be sneaked close enough to a target clandestinely.¹⁶

Such concerns are not new. The United States dreaded the Soviet Union's acquisition of the bomb. Stalin's Russia was a murderous regime, and the Soviets had been aggressive *before* they tested an atomic bomb. Their behaviour after the 1949 test seemed to realize the Truman administration's worst fears, as their puppet, North Korea, attacked the South without any apparent worry over the US response. During the winter of 1950–51—arguably the most dangerous period of the Cold War—the United States was convinced that nuclear weapons had so emboldened the Soviet Union that a third world war was inevitable.¹⁷ Within a few years, however, the relationship stabilized. As will be discussed below, nuclear weapons had a contradictory effect on the US-Soviet relationship:

15 Figures taken from Perkovich, draft, 'Universal Compliance: A Strategy for Nuclear Security', p. 11.

16 Fred C. Ikle, 'Possible Consequences of a Further Spread of Nuclear Weapons', 2 January 1965, LBJ Library: National Security File, Committee File, Committee on Nuclear Proliferation, Box 7.

17 See Marc Trachtenberg, 'A "Wasting Asset": American Strategy and the Shifting Nuclear Balance, 1949–1954', in *History and Strategy* (Princeton: Princeton University Press, 1991), pp. 100–152.

while inducing caution at times, nuclear weapons both created their own crises and often made them more unpredictable and risky. There is no evidence, however, that possessing nuclear weapons made the Soviets more aggressive than they would have been otherwise.

An even more instructive case is the People's Republic of China, who in 1964 was may have been the most 'rogue' state in modern history. Mao pursued bizarre and despotic domestic policies that led to the death of tens of millions of China's citizens. The PRC had been pursuing an aggressive foreign policy *before* they tested atomic weapons, including attacking India, fighting the United States directly in Korea and by proxy in Vietnam, and nearly going to war over the Taiwan straights. Mao made a series of highly irresponsible statements about the PRC surviving and even thriving in a nuclear war. No country in modern history—not Iraq, Iran or even North Korea—gave US policymakers more reason to fear their nuclearization than China.¹⁸

What happened? Within five years, the United States and China began a covert dialogue, and in less than a decade, began an anti-Soviet alliance that put great pressure on Russia and helped bring the Cold War to an end favourable to the United States. China had and continues to have a robust foreign policy. Despite its 'rogue' nature, however, China did not become reckless or expansionist. If anything, China's foreign policy became calmer and geopolitics in East Asia stabilized after it acquired these weapons.

Which raises an interesting thought: could it be those states that are the most despotic and 'roguish'—those states whose very legitimacy is questioned by the international community—that have the highest motivation to acquire nuclear weapons? While always unwise to extrapolate from a single case, the behaviour of the PRC would seem to indicate that once 'rogues' acquire the international legitimacy and security that comes with nuclear weapons, perhaps they will be more inclined to forgo aggressive international behaviour. Several members of the nuclear club are countries who live in regions or came to statehood in ways that make them feel particularly vulnerable to claims against their legitimacy: the PRC, an India and Pakistan created out of civil war, Israel, and of course, an artificially divided Korea. Is it possible that the 'legitimacy' conferred by nuclear weapons acquisition could lead to a 'maturing' effect, moderating a rouge's international behaviour? Furthermore, the security provided by the nuclear deterrent may allow nervous states to rest easy.

18 'Blasts from the Past: Nuclear Proliferation and Rogue States Before the Bush Doctrine', *International Security*, Winter 2004/2005, pp. 100–135.

It is unclear what effect, if any, regime type has on a state's behaviour with nuclear weapons.¹⁹ And it could be argued that nuclearization by Germany, Japan, and especially Taiwan—all open, tolerant, market-oriented liberal democracies—would be far more destabilizing to world politics, and more threatening to US interests, than Iran or North Korea's nuclear weapons programmes.

What about the argument that rogues are more likely to use nuclear weapons, as is demonstrated by Iraq's willingness to use chemical weapons on both Iranian soldiers and its own Kurdish citizens? This is certainly a worry, yet it is hard to know whether using other WMDs would lead to nuclear use. The United States is the only state that has actually *used* nuclear weapons against another country. Furthermore, unlike countries like China and Israel, the United States does not have a no-first use strategy (as will be discussed below). The two other states that are suspected of using chemical weapons on the battlefield in the nuclear age—Egypt in its war in Yemen and the Soviets in Afghanistan—have not used nuclear weapons, nor were they cast out of the international community.²⁰

The key point is that policymakers have both overestimated and oversimplified the dangers presented to both world politics and US interests by nuclear proliferation. None of these threats are new, tipping points, dominos, or 'epidemics' are non-existent, and most regimes, no matter how odious, want nuclear weapons primarily for security.²¹ If anything, by focusing on the threat of 'rogue' states, policymakers have underestimated the potentially far more destabilizing effect of proliferation in non-rogue states like Germany, Japan, South Korea, Saudi Arabia, and especially Taiwan. Does this mean we should feel sanguine about the prospects of nuclear proliferation, as is often implied by many scholars? As we will see below, the answer is no.

19 For the best case that regime type matters, and for one of the most perceptive analyses of nuclear proliferation, see Philip Bobbitt, *The Shield of Achilles: War, Peace, and the Course of History* (New York: Anchor Books, 2002), pp. 681–687.

20 For information on Egypt and the Soviet Union's suspected use of chemical weapons on the battlefield, see Monterey Institute of International Studies, 'Chronology of State Use and Biological and Chemical Weapons Control', accessed at: <<http://cns.miis.edu/research/cbw/pastuse.htm>>.

21 I have not brought up perhaps the most worrisome fear—the spectre of terrorists using nuclear weapons. This is a very important issue that is beyond the scope of this paper. I will only point out that it is by no means evident that such groups can acquire and maintain such weapons, and that even if they did, they would use them in a indiscriminate, suicidal manner. Even if nuclear non-state actors is a pressing concern, it is intellectually dishonest to conflate this issue with concern over how rogue regimes would act with these weapons.

The scholarly debate over nuclear proliferation

Has the scholarly debate done a better job of capturing the complexities of nuclear proliferation dynamics? In particular, has the debate in the international relations field done a better job of characterizing the past, and in particular, the lessons from the Cold War?

There are two initial points to make about the scholarly argument, which, like many arguments about proliferation, are somewhat contradictory. Optimists often claim that US policymakers *always* thought nuclear proliferation was a bad thing that had to be stopped is simply not true. Up until the mid-1960s, there were top US policymakers who thought, at worst, proliferation was unstoppable and it was pointless to alienate potential friends by trying to prevent it. Others went further, suggesting we actively support proliferation. This is clear in individual cases. President Dwight D. Eisenhower even went so far as to consider a West Germany with nuclear weapons an inevitability, a fact that played a large part in the Khrushchev's decisions to initiate the Berlin and Cuba crises between 1958 and 1962.²² The Kennedy administration, supposedly the first truly anti-proliferation administration, debated whether to help France with its nuclear programme on three different occasions.²³ Policymakers debated whether to help India, and did less to halt the Israeli programme than is often contended.²⁴

It was only when the People's Republic of China detonated an atomic device that official policy positions swung towards a more robust and proactive anti-proliferation stance, although even then there were those who did not think it was worth paying serious political capital to attempt the impossible.²⁵

The second, somewhat contradictory point is that the optimists' position are somewhat naive, given how widespread fears of nuclear proliferation is among the US public and top US policymakers. This does not mean that scholars should subsume their analysis to popular thinking. It is important to recognize, however, that no credible top US policymaker has or will advocate the optimist

22 See Marc Trachtenberg, *A Constructed Peace: The Making of the European Settlement, 1945–1963* (Princeton: Princeton University Press, 1999), pp. 209–210.

23 'The Myth of Flexible Response: American Strategy in Europe during the 1960s', *International History Review*, December 2001: 847–875.

24 On India, see George Perkovich, *India's Nuclear Bomb: The Impact on Global Proliferation* (Berkeley: University of California Press, 1999), pp. 52–53; Trachtenberg, *A Constructed Peace*, internet supplement, Appendix Eight (Chapter Nine, Note 134), 'Kennedy and the Israeli Nuclear Program', at: <http://www.polisci.ucla.edu/faculty/trachtenberg/appendices/appendixVIII.html>.

25 'Blasts from the Past: Nuclear Proliferation and Rogue States Before the Bush Doctrine', *International Security*, Winter 2004/2005, pp. 100–135.

position anytime soon. This highlights a key difference between the concerns of policymakers and international relations theorists that helps explain why their respective debates have been so disconnected. Consider Richard Betts comment on Kenneth Waltz's neo-realist argument that nuclear proliferation could stabilize international politics by inducing caution among states.

High quality theory is not necessarily a direct guide to good policy. In the scientifically rickety world of social science, any theory that predicts, say, 90 percent of outcomes on some important matter is an amazingly good theory. The Waltz argument may be in that category in the overwhelming majority of cases, new nuclear states may be more cautious and remain deterred by each other. In the world of policy, on the other hand, people do not marvel at all the cases where nuclear weapons will make the world safer, but worry about the exceptions where things will go wrong.²⁶

There is a more fundamental problem, however, with the scholarly debate about nuclear proliferation: its characterization of nuclear weapons dynamics during the Cold War. Much of the recent IR scholarship on international stability, and the effects proliferation might have, are connected to the notion of the Cold War as the 'Long Peace'. This idea—first laid out by John Lewis Gaddis and expanded upon by John Mearsheimer—tries to answer an important puzzle: why didn't the intense ideological and geopolitical rivalry between the Soviet Union and the United States lead to war? Or, what factors led to the longest period of great power peace in modern history?²⁷

According the Long Peace view, two factors created stability and prevented direct great power war. The first was the bipolar structure of power between the Soviets and the US, which should have dampened nuclear proliferation pressures. More important, at least for this discussion, was the cautionary effect of nuclear weapons. Absent nuclear weapons, it was argued that the political conflicts between the United States and Soviets during the Cold War most likely would have mushroomed into armed clashes and perhaps even world war at some point. The devastating effect of nuclear weapons, however, gave both sides pause, as few (if any) political goals were worth the risk of mutual annihilation. There was some disagreement as to when this 'deterrent' effect kicked in: for

26 Richard K. Betts, 'Universal Deterrence or Conceptual Collapse? Liberal Pessimism and Utopian Realism', in Victor A. Utgoff, ed., *The Coming Crisis: Nuclear Proliferation, US Interests, and World Order* (Cambridge, MA: MIT Press, 2000), p. 65.

27 See John Lewis Gaddis, 'The Long Peace: Elements of Stability in the Postwar International System', in *The Long Peace: Inquiries Into the History of the Cold War* (New York: Oxford University Press, 1987), pp. 215–246; and John Mearsheimer, 'Back to the Future: Instability in Europe after the Cold War', *International Security*, vol. 15, no. 1, Summer 1990, pp. 5–56.

some, the mere existence of nuclear weapons, or a minimal deterrent by both countries, was enough to prevent war; for others, a survivable second strike forces with secure command and control capabilities were required; as analysts considered America's extended deterrent commitments, a minority believed that some measure of US nuclear superiority was required. All these views, however, were rooted in a shared notion: the possession of nuclear weapons by both the United States and the Soviets stabilized the international system and 'deterred' great power war.

These widely held view of nuclear dynamics during the Cold War are critical because they inform so much scholarly discussion of proliferation in the 21st century. In fact, most pessimists do not challenge these assumptions and base their critique on organizational and bureaucratic factors. Both assertions, however—that bipolarity will stifle proliferation, and that nuclear weapons stabilized the international system during the Cold War, are open to question.

Nuclear weapons and the long peace

According to the realist scholar Ben Frankel, 'bipolarity inhibits the spread of nuclear weapons while multipolarity induces their proliferation.' Writing in 1993, Frankel predicted that end of the bipolar Cold War meant that 'nuclear arms proliferation will likely intensify in the 1990s and beyond, and that the owners of these weapons will likely brandish them more openly to advance their political objectives.' Why? According to Frankel, the 'inherent complexity of multipolar architecture dooms multipolar systems to instability, making them susceptible to crisis and war.' Frankel claims that the 'end of bipolarity means that superpower guarantees—the most effective instrument to moderate the effects of systemic characteristics—will be reduced and weakened.'²⁸

There are reasons to question whether the system was, in fact, bipolar, as recent scholarship has shown that the neither the Western nor Eastern alliance were as monolithic as they appeared. France and Great Britain often balanced against West Germany, and France and West Germany often tried to balance against the United States.²⁹ Furthermore, there were times when the

28 Benjamin Frankel, 'The Brooding Shadow: Systemic Incentives and Nuclear Weapons Proliferation', from Zachary S. Davis and Benjamin Frankel, eds., *The Proliferation Puzzle: Why Nuclear Weapons Spread and What Results* (London: Franc Cass and Co., 1993), p. 36.

29 The balancing within the Western Alliance, both against West Germany and the United States, is persistent theme throughout Trachtenberg's *A Constructed Peace*. See also Francis J. Gavin, *Gold, Dollars, and Power: The Politics of International Monetary Relations, 1958–1971* (Chapel Hill: University of North Carolina Press, 2004). See also Paul Kennedy, *The Rise and Fall of the Great Powers* (New York: Random House, 1987), pp. 395–413.

superpowers went above the heads of their allies because of shared interests, such as limiting German military power. Furthermore, bipolar dynamics did not prevent China, India, South Africa or Israel from developing nuclear weapons for reasons that went beyond the Cold war. Nor is it clear that bipolarity did anything to lessen the possibilities of acute crises in Korea, the Taiwan Straights, Berlin, or Cuba during the Cold War.

The most important point, however, is that the majority of nuclear proliferation occurred within the bipolar system, as mentioned earlier. The multipolar or unipolar system that has emerged since the end of the Cold War has actually witnessed a significant retrenchment of nuclear weapons programmes.

The so-called 'nuclear revolution' argument to describe nuclear dynamics during the Cold War is more compelling. The costs of a nuclear war to both the United States and the Soviet Union were so great that each side should have showed great caution in pursuing their geopolitical ends. Without war or a believable threat of war, neither power had much leverage to change the status quo. The risks were too great to threaten the other's vital interests. This meant that in the regions that mattered—Europe in particular—power politics were essentially stable. The nuclear revolution forced the United States and the Soviet Union to carry out their battles with means—propaganda, proxy wars, limited conflicts—which did not threaten the world with extinction.

This way of seeing the Cold War has a certain effect on the way we understand nuclear politics today. If nuclear weapons stabilized international politics in the past, then American policymakers can be relatively sanguine about the prospects of nuclear proliferation in the future. The United States should permit advanced industrial states like Germany and Japan—who could deploy a survivable second-strike force rather quickly—to go nuclear. And it should not be overly concerned if less advanced states successfully deploy nuclear forces.

There is no doubt that the nuclear revolution had a sobering affect on the leadership of both sides. But at the same time, it is now clear that the nuclear revolution often encouraged crises and made them less stable than they might have been in a non-nuclear world.

The nuclear revolution destabilized international politics in several important ways. First, nuclear weapons nullified other, more traditional forms of power, such as conventional forces and economic strength. The nuclear revolution gave the Soviet Union the ability to cancel out America's enormous economic, technological, and even moral advantages. For forty years, a backward state with a GNP one-third of the US's competed on an equal plane in the world. This would have been unthinkable before 1945. The nuclear revolution provided great power status on the cheap, which upended the rules of balance of power politics. The same is true today—the United States would never worry about such geopolitically minor states such as Iraq, Iran, and North Korea if not for

their nuclear weapons. Is international politics stabilized when such small, economically weak states can play on an almost level playing field with advanced, wealthy democracies?

The nuclear revolution also changed military calculations in potentially dangerous ways. It has long been understood that in a nuclear environment, the side that went first would gain an overwhelming *military* advantage. This meant that strategies of pre-emption, and even preventive war, were enormously tempting in a crisis. New scholarship reveals that both the United States and the Soviet Union considered attacking China's nuclear weapons programme before the PRC deployed a strategic nuclear force.³⁰ Furthermore, NATO's strategy throughout the 1950s was explicitly based on the advantages of pre-emption.³¹ A military strategy based on attacking hard, fast, and most importantly, first, does not give diplomats much time or leeway to end a crisis. Even into the 1970s and 1980s, long after strategic parity had been established, analysts in both the United States and Soviet Union supported nuclear force structures and strategies that only made sense for a first strike.

In theory, these types of instability—the delicate balance of terror—should have disappeared between the Soviets and Americans during the late 1950s, when it was clear that strategic parity was around the corner. But in fact, this was the most dangerous period of the cold war. Despite being seriously outgunned in the strategic nuclear arena, Khrushchev threatened Western interests in Berlin and Cuba with bold threats of war. And despite its overwhelming military and economic superiority, the Western Alliance took these threats seriously.³² Why were the Soviets so brazen and NATO so cautious?

The nuclear revolution produced a dangerous dilemma—in a nuclear crisis, how likely you are to *risk* the use of nuclear weapons may be more important than the *number* or *types* of weapons you possess. In other words, the balance of objective military power may be a less important factor in a crisis than the more subjective *balance of resolve*. One side, or both sides, might decide to—as Thomas Schelling put it—manipulate the risk inherent in nuclear confrontations in order to accomplish important political goals.³³

30 See William Burr and Jeffrey T. Richelson's excellent account, 'Whether to "Strangle the Baby in the Cradle": The United States and the Chinese Nuclear Program, 1960–64', *International Security*, Winter 2000/01, vol. 25, no. 3 pp. 54–99.

31 Marc Trachtenberg, 'The Nuclearization of NATO', in *History and Strategy*, p. 162.

32 For idea that the balance of resolve was 'crucial' to the outcome of the Cuban Missile Crisis, see Marc Trachtenberg, 'The Cuban Missile Crisis', in *History and Strategy*, p. 258.

33 See Thomas C. Schelling, 'The Manipulation of Risk', in *Arms and Influence* (New Haven: Yale University Press, 1966), pp. 92–125.

In pre-nuclear crises, the most important issue was your adversary's *capabilities*. If two countries—A and B—had clashing political interests, each side would size up the balance of power and calculate its chances of prevailing in a war if diplomacy broke down. If country A assessed country B's military strength and found itself hopelessly outgunned, it would usually back down before a crisis got out of control. Of course, country A could always miscalculate—comparing relative military strength is difficult, and intelligence can be bad. Furthermore, a novel new technology or strategy might make the risk seem worthwhile or change the balance in a sudden fashion. Or a country might feel like it had little choice—consider Japan before the Second World War. But under normal circumstances, if country A only had only 50 tanks, and country B has 500 tanks, and tanks were what really mattered on the battlefield, then it should be obvious to both sides that country B has the upper hand in any dispute. Country A would have a hard time bluffing in such an environment, because if its bluff were called Country B would clean its clock. The dangers of war through miscalculation, though present, should have been limited.

Consider the same political crisis between country A and B in the nuclear world, except now country A has 50 deliverable thermonuclear weapons while B has 500. What does this numerical advantage mean in a crisis? Even if 10 or 5 or just one of country A's weapons hit country B, it would be a catastrophe that must be avoided at all costs. Naturally, this makes country B cautious, sober, and reluctant to engage in any type of dispute that could lead to war with country A. Perhaps country A can exploit this type of caution. In a conflict, if country A could show itself more likely to use its nuclear weapons—to have greater resolve—then country B might back down, despite its numerical superiority. In such an environment, winning the balance of resolve—taking risks and acting irresponsibly—is rewarded, where in the pre-nuclear world it was punished. Resolve is far more *subjective* than capabilities. As Thomas Schelling spelled out four decades ago, this can lead to both sides engaging competitions in risk taking. Obviously, it is far easier to miscalculate in a world where resolve, and not the balance of power, is the key factor.³⁴

The Berlin and Cuban Missile Crises are instructive. In 1962 the United States had a high degree of certainty that it could carry out a devastating first strike against the Soviets with little damage to itself. Yet President Kennedy was extremely cautious throughout these crises, despite the fact that Soviet's were aggressively challenging core American interests. For example, the President

34 For an excellent analysis of how this would work, see Marc Trachtenberg's review essay, 'Waltzing to Armageddon: Scott Sagan and Kenneth Waltz', *The Spread of Nuclear Weapons: A Debate Renewed*, in *The National Interest*, Fall 2002.

came very close to publicly agreeing to remove American missiles from Turkey, an outcome that might have shaken the Western Alliance to its core. Khrushchev's gambits, conceivable only in the nuclear age, nearly forced the stronger and *more responsible* power to choose between initiating military actions that could lead to a nuclear war or accepting an overwhelming geopolitical defeat. There is new evidence that the Nixon administration attempted something similar, initiating a nuclear alert to demonstrate his resolve over Vietnam.³⁵

The nuclear revolution had another destabilizing affect on world politics. Since a nuclear world put a premium on resolve and credibility of commitment, geopolitical calculations were often distorted in strange ways. Think of how different American policy would have been in a wide range of situations in a non-nuclear world. Based on simple calculations of the balance of power, losing South Korea, Vietnam, or even Berlin may not have been considered disastrous. None of these entities really added to America's material strength, nor would they have added to the strength of the Soviet bloc. In a non-nuclear world, the United States would have down little to defend these territories. But in each of these crises, American policymakers were obsessed with demonstrating resolve in order to prove that American commitments to geopolitically more important regions were credible. A struggle dominated by resolve rather than capabilities is far more prone to blackmail, miscalculations, and over commitments. In essence, these destabilizing crises *were caused* by the dynamics of nuclear weapons.

Crafting a successful nuclear non-proliferation policy

There is great disagreement about the motivations behind nuclear proliferation and its consequences for US security and international stability. If, however, a consensus was reached that halting nuclear proliferation should be a high priority, what policies should the United States adopt? It turns out that crafting a coherent, successful non-proliferation strategy is extraordinarily difficult. The history of America's efforts to limit the worldwide spread of atomic weapons is replete with painful tradeoffs and contradictions.

The first point to make is the obvious one—what right does the United States have to interfere in the most important issue faced by any state: how to provide for its own security? For the most part, states that have acquired nuclear weapons all live in extremely dangerous neighbourhoods. As much as we loathe Iran's nuclear programme, it is important to remember that it was started in the

35 See Scott D. Sagan and Jeremi Suri, 'The Madman Alert: Secrecy, Signaling, and Safety in October, 1969', *International Security*, Vol. 27, no. 4, Spring 2003, pp. 150–183.

1970s when the Shah was in power. Iran is situated in the most unstable and dangerous region in the world. It bordered a nuclear-armed Soviet Union and an erratic Pakistan, fought a murderous war with Iraq, had hostile relations with Saudi Arabia, has been threatened by a nuclear-armed Israel, and is within striking distance of a nuclear India and China. The United States, the most powerful country in the world has threatened 'regime' change, policies it has successfully implemented on both its eastern and western neighbours. This is not to justify Iran's programmes or policies. It would be shocking (and even irresponsible), however, if Iran had not considered doing whatever it could to protect itself from such threats, even if it included acquiring weapons of mass destruction. How credible is the US demand that Iran halt these efforts?

US policy has been more sensitive to this issue in the past. It was understood that India—facing an aggressive, nuclear-armed China—and Israel, surrounded by hostile countries—had good reason to acquire nuclear weapons. This did not mean we supported these efforts—we did not. Though our policy towards neither country was always consistent, it was eventually recognized, however, that there was little point in wasting lots of political capital and needlessly alienating nations who were probably going to construct nuclear weapons programmes, regardless of what we said or did.

This brings up a related point. By the 1970s, most US policymakers had realized that nuclear weapons were unusable, and therefore of little or no military or political value. An effective strategy would have been to tell prospective proliferators not to waste their time and money and earn the world's opprobrium by building something of such limited value. Instead, by focusing so much attention on the horrors of nuclear weapons, we are sending the message that the threat of nuclear proliferation *guarantees* American attention. The more political capital that is spent preventing proliferation, the more attractive these weapons could become to smaller powers. If a state as backwards and dysfunctional as North Korea can scare and transfix the foreign policy elite of the most powerful country on the globe with a handful of rudimentary weapons, it will be almost impossible for the United States to convince the rest of the world that these weapons have no use or value.

Would the United States be better off appeasing or punishing potential proliferators? Despite the wide gap between these politics, the United States has and continues to implement both, seemingly contradictory philosophies in its non-proliferation policies.

If you still decide non-proliferation should be a priority, you face two immediate decisions. Do you construct a blanket, no-exceptions non-proliferation strategy, or work each country case by case? And second, do you pursue appeasement and conciliation, or do you punish proliferators? US policy has pursued different versions of each, with mixed results.

Both debates emerged in the 1960s in the aftermath of China's 1964 atomic detonation. Many US officials felt that countries like India and Japan had good reasons to go nuclear, and could allow such programmes while being against proliferation in general. If regime type was the standard used to decide who could be allowed to go nuclear, there was little point in trying to stop Sweden, a neutral, peaceful democracy, from developing its weapons system. Arms control professionals, on the other hand, advocated a blanket approach, arguing that granting any exceptions would undermine an effective non-proliferation regime.

The Bush administration appears to have taken a country specific policy, based upon the domestic orientation and international behaviour of the regime.³⁶ There are dangers to this approach, however. First, tolerating Pakistan's nuclear programme appears hypocritical. Second, would there be any more disturbing nuclear proliferation threat than if Taiwan acquired or developed its own atomic weapons? Taiwan has a healthy democracy, a thriving open market economy, and a dangerous security environment. Yet a nuclear Taiwan could incite a war with the PRC that would pull the United States into the conflict. Japan and South Korea's nuclearization would also be destabilizing. But under the current 'anti-rogue' doctrine, how could we justify any effort to reverse a decision by any of these East Asian countries to go nuclear? And what if democratic Germany decided to go nuclear?

The second policy decision that has to be made is whether to pursue carrots—or to put it less kindly, appeasement—or sticks, i.e. punishment, when trying to prevent a country from acquiring nuclear weapons. Both the United States and the Soviets considered pre-empting the PRC's nuclear facilities during the 1960s. The United States also considered a policy of carrots, including admitting the PRC into the UN. The United States tugged back and forth between negotiations and punishment in our policies towards both India and Pakistan, with little effect. The current administration also struggles with this, using negotiations for Libya, punishment against Iraq, and an uncertain mixture of both towards North Korea.

Neither policy is fool proof. Negotiations can make the United States appear weak. Threatening a state that is considering going nuclear, however provides a great incentive to acquire the bomb, if only to protect itself from American pressure. Short of war, neither policy is likely to work with a state determined to develop atomic weapons. A final difficulty comes after a state has ignored US wishes and developed nuclear weapons. Should the United States pursue a

36 See 'National Strategy to Combat Weapons of Mass Destruction', December 2002, p. 9, available at: <<http://www.whitehouse.gov/news/releases/2002/12/WMDStrategy.pdf>>.

punitive policy, if only to deter future proliferators, or move on and normalize relations, as we have with India and Pakistan?

If a nuclear non-proliferation policy has any hopes of being successful, the United States must confront complex strategic questions. The most important decision involves US security commitments. If the United States asks a nation to forgo nuclear weapons, we may be asked to provide protection to them. If they face a potentially hostile, nuclear enemy, they may need to be included under our nuclear umbrella. We were able to squelch West German ambitions for nuclear weapons during the 1960s because of our commitment to defend them against the Soviets, backed up by hundreds of thousands of conventional troops, short, medium, and long-range nuclear weapons, and a strategy that allowed for using atomic weapons quickly and massively if necessary. In areas where we with similar military commitments—Japan, South Korea, and more ambiguously, Taiwan—our leverage over nuclear aspirations is strong.

This is a double-edged sword, however. First, there are countries where we thought it was not in our security interests to offer guarantees and/or the state in question was uninterested in our protection. India was the perfect case in point: as much as we tried to keep India out of the nuclear game, we were not willing to make the kind of commitments necessary for India's security, for fear that we would be dragged into a war involving China and/or Pakistan. For a state to give up its nuclear weapons programme, it must see real evidence that we will protect them. This can lead to endless commitments, which might involve us in unwanted conflicts, force us to choose sides, and/or water down our most important security commitments.

Many of the security commitments—in central Europe, Korea, Japan, Taiwan—we currently have are anachronistic relics of the Cold War. Why have these military relationships persisted, long after the major threat has subsided? After all, the Soviet Union has disappeared, and most of these countries have the economic wherewithal to provide for their own protection. Protecting these allies from expansive totalitarian states was only one aspect of the American Cold War commitment to these countries. The United States also sought, in varying degrees in each case, to *restrain* the protected state from unilateral action that could destabilize international politics, and as time went on, prevent it from developing nuclear weapons. As part of the bargain, these states were protected by the American nuclear umbrella, a commitment that was strengthened by large deployments of US conventional (or in Taiwan's case, naval) forces.

We are required to maintain these military commitments indefinitely, even if the United States has an interest in reducing or even eliminating them. This dynamic comes into play in East Asia every time we think about altering our military arrangements. Taiwan, South Korea, and even Japan have made noises about going nuclear on several occasions from the 1960s through the current

period whenever the strategic landscape changes: For obvious reasons, this aspect of America's cold war alliances was vastly underplayed in public rhetoric. Each of these countries—particularly Japan and West Germany—sacrificed a large measure of their ability to pursue an independent foreign policy, and most importantly, promised not to develop weapons of mass destruction. This made the nature of the American 'alliance' with these countries far more complicated than we had once thought. There was often an adversarial component to these relationships. West Germany and Japan (and South Korea and Taiwan) both exploited the implied threat of pursuing independent policies in order to pressure the United States to protect their interests.

To make these military commitments meaningful, to give US promises to protect 'teeth', US strategy dictates that it will use its nuclear weapons, even if it must go first. It also needs to maintain a nuclear force posture that is large enough to satisfy the demands of these commitments; in other words, it must go beyond the demands of a simple 'existential' deterrent to an 'extended' deterrents. This creates another obvious dilemma. In order to prevent nuclear proliferation, the United States must be willing to maintain large nuclear forces and to use them.

Yet arms control advocates insist that reducing (and eventually eliminating) the US nuclear stockpile is absolutely essential to our non-proliferation policy. Furthermore, non-proliferation advocates have called on the United States for years to embrace a 'no-first use' pledge. These arguments are compelling. If the United States reduced its stockpile, and promised never to use nuclear weapons first, it would send a powerful signal to the international community and dampen pressures on others to acquire these weapons. It might further deligitimize the political and military utility of these weapons, demonstrating that the US considered them unusable and thereby worthless.

As US policymakers discovered in the 1960s, however, a smaller US strategic force would not only weaken the extended deterrent; it would 'make it easier' for small countries to become a 'first rank nuclear power'.³⁷ When devising policies to prevent Japan from acquiring nuclear weapons, it was considered critical to 'maintain a clearly superior US nuclear capability in Asia'.³⁸ The same applies to the NFU doctrine. During the Cold War, it was the state *willingness* of the US to use their nuclear weapons against superior conventional forces that made their security commitments so valuable to their allies. Embracing an NFU might

37 'Problems Concerning Alternative Courses of Action', NSF, Committee on Nuclear Proliferation, box 1, p. 3, LBJL.

38 'Japan's Prospects in the Nuclear Weapons Field: Proposed US Courses of Action', 24 June 1965, box 24, Lot 67D2, RG 59, USNA. p. 12.

weaken these commitments and make non-nuclear allies more apt to acquire their own weapons.

National missile defence carries similar contradictions. On one hand, a light ABM system might be effective against small and mid-power states, raising the bar to becoming an effective nuclear state too high for all but the greatest powers to reach. This argument was made in the wake of the PRC's nuclear test in 1964, when it was contended that a US ABM deployment would 'decrease US vulnerabilities to possible Chinese threats of attack and thereby enhance the credibility of our [US] commitments to Japan and other friendly nations.'³⁹ An ABM system would be an 'alternative to expensive' security 'guarantees to discourage Nth country' proliferation.⁴⁰ It could also enhance a strategy of nuclear superiority needed to extend deterrence to non-nuclear powers.

A National Missile defence however, could encourage proliferation by protecting the United States while exposing non-nuclear powers not protected by the system. It could also inspire offensive counter-measures by current nuclear powers, reigniting an offensive nuclear arms race. Finally, the message that nuclear weapons were 'useless' would be undermined if the United States responded to proliferation by 'minor powers' by deploying a technologically sophisticated, multi-billion dollar defence system.

Perhaps the most important conundrum, however, is how to balance geopolitical interests with the goal of preventing nuclear spread. We were aware that Pakistan was developing nuclear weapons during the 1980s, yet looked away as this unstable, erratic regime in the heart of the Islamic world moved forward on their atomic programme. Pakistan also served as the base for arming rebels who successfully fought the Russians in Afghanistan and helped hasten the demise of the Soviet Union. This was a complex, difficult tradeoff. In order to eliminate proliferation pressures in West Germany and Japan during the 1960s, the United States had to cooperate with a bitter enemy—the Soviet Union—to restrain close friends. There is little in either the current policy or scholarly debate that captures the subtle and often painful calculations that emerge when confronting the spread of nuclear weapons.

39 Contingency Paper on the Arms Control Considerations of a US ABM Deployment Decision, 25 August 1967, NSF, Country File: USSR, Box 231, Folder: USSR-ABM Negotiations (II) 1/67-9/68, LBJ Library.

40 Committee on Nuclear Proliferation, Minutes of Discussion, 13–14 December 1965, NSF, Committee on Nuclear Proliferation, p. 7, LBJL.

Conclusion

This essay has been critical of both the policy and scholarly debate over the how nuclear proliferation affects world politics and US interests. The policymakers are too pessimistic. There has never been a chain reaction of nuclear proliferation, nor is their compelling evidence that this will ever occur. Most regimes—even odious ones—want nuclear weapons for purely deterrent or defensive purposes. Once they acquired these weapons, none of these regimes have become markedly more belligerent, than they had in the past; in fact, there is evidence they have calmed down.

The scholarly debate, on the other hand, is too optimistic—even among so-called pessimists. While nuclear weapons *can* stabilize international politics by promoting caution, they can also change the dynamic of a crisis in dangerous ways. Furthermore, the unique nature of these weapons, and the requirement that states demonstrate resolve and commitment, can create crises that never would have emerged in a non-nuclear world.

Both debates share two flaws. First, both misunderstand or misrepresent the history of nuclear politics, particularly the Cold War. Despite the claims of both camps, the Cold War provides many lessons that could make for better policy today. It is important that we get this history right. Second, neither debate captures the complex and at times contradictory trade-offs—including fundamental geopolitical calculations—that must go into any assessment of how to confront the spread of nuclear weapons.

Unfortunately, this essay provides little in the way of conclusions or advice. As we have seen, the dynamics of nuclear proliferation—and its affect on world politics and US interests—pull in different directions. There is no single, parsimonious explanation. All is not lost, however. The question of nuclear proliferation policy provides an important opportunity—the chance to combine historical work with social science theory and pressing policy concerns. The world of the historian, the international relations theorist, and the policymaker are often separated by yawning gaps of methodology, institutional culture, and contrasting professional interests. Policy professionals, however, desperately need the framework provided by theorists to make sense of nuclear proliferation. Abstract theories, whose goal is parsimony, need to account for how the world actually works. Historical work, I would suggest, can help bridge

this gap.⁴¹ These difficult and important issues provide a real opportunity for these different fields to cooperate, to produce better, more relevant scholarship, and guide more effective policy.

41 Historians, better than most, understand the extraordinarily difficult circumstances policymakers find themselves in. Historians understand how difficult prediction and generalization are that they may have a particular sympathy for the complex and at times overwhelming difficulties government officials face forecasting future events. As John Lewis Gaddis recently wrote, the historian's task is 'to interpret the past for the purpose of the present with a view to managing the future but to do so without suspending the capacity to assess the particular circumstances in which one might have to act, or the relevance of past actions to them... Part of historical consciousness is the ability to see differences as well as similarities, to understand that generalizations do not always hold in particular circumstances.' John Lewis Gaddis, *The Landscape of History: How Historians Map the Past* (New York: Oxford University Press, 2002).