Meeting the Challenges of the New Nuclear Age: U.S. and Russian Nuclear Concepts, Past and Present



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Beyond Deterrence: U.S. Nuclear Statecraft Since 1945

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Nuclear deterrence theory is widely viewed as a powerful intellectual tool, developed by a unique intellectual community whose work not only shaped how we think about war and peace, but more importantly, how policy-makers, especially in the United States, crafted their own strategies.¹ Looking back, how well did this intellectual tool capture both U.S. nuclear statecraft and the global nuclear dynamics? And how useful is this tool for understanding our contemporary and future nuclear world?

The primary concept underlying nuclear deterrence theory is simple but powerful: states possessing survivable nuclear weapons are unlikely to be conquered, because no adversary would pay the potential price of its own annihilation to attempt (or even threaten) to acquire the state's territory.² During the period of intense Soviet-U.S. rivalry, some questioned whether the benefits of nuclear deterrence were worth the terrifying risk that nuclear weapons could be launched, either intentionally or by accident. On balance, however, the recent memory of a catastrophic great power war, within an international system marked by a bitter ideological clash, deep mistrust, and intense security competition, made the possibility that nuclear deterrence could provide stability and decrease if not eliminate the prospect of total war appealing. Much of the Cold War debate surrounding nuclear deterrence was less over what it was and whether it worked, but rather how many nuclear weapons, what kinds, and

2. The most powerful statement of this view can be found in Robert Jervis, *The Meaning of the Nuclear Revolution: Statecraft and the Prospect of Armageddon* (Ithaca, N.Y.: Cornell University Press, 1989). This view can also be found in many of Kenneth Waltz's writings.

^{1.} The literature on the nuclear strategy community is large. For the best overview, see Marc Trachtenberg, "Strategic Thought in America, 1952–1966," in *History and Strategy* (Princeton, N.J.: Princeton University Press, 1991), 3–46. For more general accounts of this intellectual community, see Gregg Herken, *Counsels of War* (New York: Alfred A. Knopf, 1985) and Fred Kaplan, *The Wizards of Armageddon* (Stanford, Calif.: Stanford University Press, 1983). For a convincing critique, both of the ideas and the influence of this community, see Bruce Kuklick, *Blind Oracles: Intellectuals and War from Kennan to Kissinger* (Princeton, N.J.: Princeton University Press, 2006), especially 49–71 and 95–151. For general histories of the nuclear age, see McGeorge Bundy, *Danger and Survival: Choices about the Bomb in the First Fifty Years* (New York: Random House, 1988) and John Newhouse, *War and Peace in the Nuclear Age* (New York: Vintage Books, 1988).

within what strategies nuclear weapons should be deployed to best realize the greatest stabilizing benefits at the lowest cost and danger.³

Does this picture of nuclear deterrence, however, capture the complex motives and strategies that drove U.S. nuclear statecraft, both during the Cold War and after?

Imagine the United States unilaterally decommissioned all of its strategic nuclear forces tomorrow. Surrounded by two oceans, facing weak countries on its borders, and possessing command of the commons and overwhelming conventional, economic, and soft power superiority, would the odds of the American homeland being invaded increase at all? It is not clear whom, in this scenario, nuclear deterrence is keeping at bay. The unlikeliness of an invasion or conquest is not simply a product of the post–Cold War world. Fifty years ago, a similar decision by the United States was unlikely to make the Soviet Union or any other potential adversary more inclined to invade and conquer the United States. In fact, by removing the need to target alerted U.S. nuclear forces, a case could be made that the overall danger to the American homeland would have decreased.

This revealing if unanswerable counterfactual is not presented to make a case for or against deterrence or disarmament. Nor is it to avoid the obvious point that the United States had and has interests and ambitions that go far beyond protecting its homeland. Rather, this hypothetical presents us with a puzzle to be explored. Few countries have or have had less need for the most important benefit nuclear deterrence provides: protection from invasion and conquest. Yet no other state has been as determined to build large numbers of weapons married to the most sophisticated delivery systems, employed in comparatively aggressive strategies, while working hard to deny independent nuclear weapons capabilities to others. Furthermore, the most dangerous nuclear crises involving the United States—the Korean War, the Berlin crisis, and the Cuban Missile Crisis—engaged political issues that were far from existential, and arguably would have been handled very differently in a world without nuclear weapons, if they had happened at all.⁴ Nuclear deterrence theories struggle to explain important parts of this international history.

^{3.} The literature on these issues is enormous. For one of the classics in the field, see Bernard Brodie, *Strategy in the Missile Age* (Princeton, N.J.: Princeton University Press, 1959). For two important recent studies, see Lawrence Freedman, *Deterrence* (Cambridge: Polity Press, 2004) and Patrick M. Morgan, *Deterrence Now* (Cambridge: Cambridge University Press, 2003).

^{4.} Deep in enemy territory, both President Eisenhower and President Kennedy recognized that West Berlin could not be defended by conventional forces alone, and that the threat of nuclear use by the United States was its primary tool to keep the Soviet Union and Soviet Premier Khrushchev from implementing his threats to the city. Furthermore, losing West Berlin would not alter the conventional military balance of power, but would damage U.S. credibility, the latter recognized as far more important in a nuclear than nonnuclear world. Given the limited options and their own views of the Berlin situation, it is hard to imagine either Eisenhower or Kennedy going to great lengths—like fighting a massive conventional war—to protect West Berlin in a nonnuclear world. See Francis J. Gavin, *Nuclear Statecraft: History and Strategy in America's Atomic Age* (Ithaca, N.Y.: Cornell University Press, 2012), especially 57–74.

How are we to explain these apparent puzzles and this tension between theories of nuclear deterrence and the history of American nuclear statecraft? If the United States has little fear of invasion, to what purpose does it put its nuclear weapons? Why does the United States threaten to use nuclear weapons, or to unleash a process that might lead to catastrophic nuclear use, over conflicts that are not remotely existential—such as the political status of a city deep in enemy territory fifty-five years ago, or the defense of a Baltic country or man-made islands in the South China Sea today?⁵ And what do these strategies tell us about the power and limitations of nuclear weapons? Are these insights applicable to other countries? There is very little in the classic literature on nuclear deterrence that provides satisfactory answers to these questions.

This paper will examine the concept of nuclear deterrence through the lens of the history and the grand strategic goals of the United States. I suggest strategists may have missed important elements of U.S. nuclear statecraft, both its history and the theoretical underpinnings, and underplayed deep continuities between the Cold War and the post–Cold War worlds. My point will not be to criticize earlier strategists, who built impressive deductive tools and developed keen insights into nuclear deterrence; but rather to emphasize how complex and often obscure nuclear dynamics can be, and how difficult it is to correctly identify those elements of international relations that are shaped by nuclear weapons and those that are not. There are immense challenges to making sense of nuclear politics and statecraft since 1945, some of which I will highlight below.

Finally, I will offer an admittedly basic framework to better understand American nuclear statecraft in order to capture its complex and often crosscutting strategies and goals. This framework-labeled multiple and interactive deterrence, assurance, and reassurance (MIDAR)-attempts to capture the complex, wide-ranging missions that the United States tries to implement through its nuclear weapons strategy. As will become clear, the strategy of MIDAR is aimed at allies, adversaries, and neutrals alike, often involving basic and extended deterrence, at other times assurances, and sometimes even compulsion and coercion. Various parts of the mission have been emphasized at different times, based both on geopolitical realities and the preferences of shifting presidential administrations. Some of the missions-simultaneously deterring and assuring allies, while deterring and assuring adversaries-find themselves in deep tension. The main point of the framework is to reveal that what the United States incorporates into its overall grand nuclear weapons strategy goes well beyond the basic ideas of deterrence against invasion and conquest highlighted by early strategists and embraced by most nuclear weapons states. If nothing else, I hope to convey how much work there is still left to be done on

^{5.} For the dangers of nuclear escalation in a conflict with China, see Joshua Rovner, "Two Kinds of Catastrophe: Nuclear Escalation and Protracted War in Asia," *Journal of Strategic Studies* 40 (2017): 696–730; and Caitlin Talmadge, "Would China Go Nuclear? Assessing the Risk of Chinese Nuclear Escalation in a Conventional War with the United States," *International Security* 4 (4) (Spring 2017): 50–92.

topics once long thought settled: how and why the United States uses nuclear weapons, and what influence these decisions have on international relations.

CHALLENGES

There is a consensus on the core ideas surrounding nuclear deterrence and what has been called the "nuclear revolution." A full-scale nuclear war is not winnable, especially after a state achieves what is called "second-strike survivability," or the ability to unleash unacceptable destruction on an adversary even after absorbing a nuclear first strike.⁶ Under such circumstances, deterrence by denial is unobtainable. In other words, developing nuclear weapons, delivery systems, and strategies aimed toward prevailing in a nuclear conflict is pointless, expensive, and dangerous.⁷ Furthermore, according to nuclear revolution advocates, nuclear deterrence—including extended deterrence—is relatively robust. Since there is both uncertainty and risk in any nuclear crisis, and the consequences of getting it wrong are so horrific, both sides have powerful incentives to act responsibly. Conquest and invasion are too costly in such a world to even contemplate.

Deterrence theorists developed other concepts as well, including the framework for strategic arms control. If mutual vulnerability was the goal between nuclear pairs, then negotiated treaties might prevent other external factors from undermining the desired goal of strategic stability. Arms control would stem the action-reaction cycle of the arms race and restrain the domestic and organizational forces keen on building more nuclear weapons. Deterrence theory and the nuclear revolution also had consequences for thinking about the spread of independent nuclear weapons programs. If nuclear weapons prevent conquest and guarantee security, then one would have expected every economically and technologically advanced state to seek them. Nor should other states, especially self-proclaimed status quo powers like the United States, be unduly alarmed by nuclear proliferation, since by limiting interstate war they increased global stability.⁸

How well did deterrence theory and its natural offshoots do in predicting nuclear statecraft? It certainly got its major claim or prediction correct—great power wars of conquest have largely disappeared from the global landscape. There were dangerous crises and the risk of war between the Soviet Union and the United States, but the Cold War ended peacefully. While dangers abound, interstate relations are certainly more stable today than they were in, for example, 1930, 1870, or 1790. It is, of course, hard to prove that the nuclear revolution is responsible for decreasing large-scale interstate war; a variety of other alternative explanations, from increased globalization to norms to the increased

6. Jervis, The Meaning of the Nuclear Revolution.

8. Various writings of Kenneth Waltz, Stephen Van Evera, and Robert Jervis.

^{7.} Robert Jervis, The Illogic of American Nuclear Strategy (Ithaca, N.Y.: Cornell University Press, 1984).

costs of conventional war and conquest have been offered.⁹ It is hard to imagine, however, that nuclear deterrence hasn't played the central role.

On other aspects of nuclear history, deterrence theory's expectations were not met, especially in the case of the United States. While American leaders did pursue strategic arms control, they simultaneously sought expensive and potentially destabilizing counterforce nuclear systems that went well beyond what was required for strategic stability.¹⁰ American leaders often appeared to act like nuclear primacy may have conveyed important and worthwhile political leverage in international relations. Relatedly, the United States was quite or fairly active in its extensive efforts to prevent other countries from acquiring independent nuclear weapons. It applied a variety of measures, from alliances to norms to threats, addressing friend and foe alike, in its nonproliferation efforts.¹¹ This unexpectedly aggressive nonproliferation effort by the United States helps explain another aspect of nuclear dynamics—the existence of fewer than ten nuclear weapons states in the world—despite its powerful appeal and being within the technological and economic reach of scores of countries.

How do we reconcile the clear, powerful, and parsimonious predictions of nuclear deterrence theory with the complex, messy, and often obscure history of nuclear statecraft? There are at least two challenges. First, there are the meth-odological challenges to fully understanding nuclear dynamics and statecraft. Second, and the issue I will focus on, is recognizing and attempting to integrate the competing, parallel, and at times contradictory narratives and perspectives of the nuclear age. This is a massive and multifaceted undertaking, and the most one can do here is to highlight profitable paths for future scholarship.

METHODOLOGICAL CHALLENGES

I have written elsewhere about the methodological challenges to generating a clear and comprehensive understanding of nuclear dynamics and statecraft.¹² The obstacles are many. First, nuclear decision-making is one of any government's most secret activities. While accessing declassified documents from around the world has become easier, it is still a monumental task to piece together the various national and international histories of nuclear statecraft. Even when nuclear weapons are discussed, the language employed often is sanitized and drained of meaning, the horrors of thermonuclear use replaced by colorless euphemisms through a process Reid Pauley has aptly described as "rhetorical evaporation."

9. See, for example, John Mueller, *Retreat from Doomsday: The Obsolescence of Major War* (New York: Basic Books, 1989).

10. Austin Long and Brendan Rittenhouse Green, "Stalking the Secure Second Strike: Intelligence, Counterforce, and Nuclear Strategy," *Journal of Strategic Studies* 38 (1–2) (2015).

11. Francis J. Gavin, "Strategies of Inhibition: U.S. Grand Strategy, the Nuclear Revolution, and Nonproliferation," *International Security* 40 (1) (Summer 2015): 9–46.

12. Gavin, Nuclear Statecraft, 17-19.

Second, what is it we are actually studying when assessing and analyzing nuclear deterrence? Nuclear statecraft is primarily concerned with what has not happened since 1945—namely, a nuclear war. Nuclear deterrence is a nonoccurrence; it is when something is prevented from happening that would have otherwise occurred in the absence of the deterrent. What this means is that it is not observable and hard to generalize upon. Scholars have often tried analyzing a variety of "proxy" phenomena, from signaling to crises to deployments, to understand the underlying causal mechanisms behind deterrence—but it is unclear whether these proxies actually tell us much about how deterrence does or does not work.

Third, it is very hard to disentangle the development of nuclear weapons and arms races from the Cold War rivalry between the superpowers and other important historical drivers of the post-1945 world. That difficulty will be discussed below. The fourth challenge, which also will be discussed below, involves separating the history of how knowledge and thought about nuclear weapons was developed—i.e., the intellectual history of the deterrence theorists—from the actual history of how states made decisions about nuclear weapons. In the past, the powerful allure of these deductive theories, which were meant to describe what scholars thought *should* happen, were inserted as explanations for what *did* happen.

There are other challenges as well. More than many areas of inquiry, nuclear studies are often marked by gaps, or distinct, often stove-piped communities that rarely interact. The think-tankers often do not engage with nuclear engineers, who rarely talk with nuclear historians, who often have few interactions with policy-makers. Within the field of international relations, divisions exist between those who use qualitative, formal, and quantitative methods, as well as with those who take constructivist approaches. Genuine and productive interactions among fields and disciplines do not happen nearly enough. Given the complexity and importance of the subject, these disconnects between scholarly communities are inefficient and disconcerting.

Finally, nuclear weapons engage deep moral considerations. Being prepared to use such weapons—even under extreme circumstances—is at the heart of deterrence. The use of these horrific weapons against people, however, is unthinkable. While the goal of guaranteeing these weapons are never used is universally shared, there is great disagreement on how to achieve that goal. Advocates of disarmament contend these are immoral weapons, and the overriding goal of policy-makers should be to permanently rid the planet of them. Deterrence advocates, while acknowledging the catastrophic prospects of use, point out that nuclear deterrence, by preventing great power war, may have saved countless millions of lives since 1945. To their minds, the disarmament position is naïve: Even if it could be accomplished, how could you prevent states from cheating? Hard as scholars try, it is close to impossible to avoid engaging normative and value judgment, which is in a way at odds with how most scientific analysis works. This can make conversations and policy debates about nuclear deterrence difficult.

COMPETING HISTORIES

To better understand U.S. policy and nuclear deterrence, we need to explore at least three distinct histories: the history of nuclear weapons development and nuclear weapons policies, the intellectual history of thinking about nuclear weapons and nuclear strategy, and the geopolitical history of international relations since 1945. These distinct histories are often mistakenly conflated, and while they are interwoven and interconnected, it is important to disentangle them as much as possible. In other words, the history of nuclear thought, which includes deterrence theory, is not the same as the history of nuclear policy and strategy. Nor is the history of the nuclear age the same as the history of the Cold War, and the history of the Cold War does not comprise all or even most of the history of international politics since 1945.

These histories are often told as the same history, however. A simplified version might go like this: for more than forty years, postwar international relations were shaped by the geopolitical and ideological struggle between the Soviet Union and the United States. This conflict was, in large measure, driven and defined by an intense nuclear arms race. These political and military dynamics were interlocked, and it was sometimes unclear whether geopolitical and ideological competition drove the arms race, whether the nuclear arms race drove the rivalry, or whether some toxic yet inseparable mix of the two were to blame. The Cold War was viewed through a nuclear lens, and nuclear weapons were framed by the Cold War, including such key events as the development of thermonuclear weapons, the Soviet launch of the Sputnik satellite, the development of intercontinental missiles, and the Berlin and Cuban Missile crises. According to this stylized narrative, strategic arms control-namely, the 1972 Anti-Ballistic Missile (ABM) Treaty and Strategic Arms Limitation Treaty (SALT) I-arrested the vicious arms race that fueled the rivalry and laid the foundation for détente, or mutual understanding, between the superpowers. Since arms control was the intellectual product of the nuclear strategists, three histories-of nuclear weapons, nuclear thinking and analysis, and international politics-merged nicely into one seamless narrative.

Except, of course, that they didn't. The Cold War rivalry was always driven by underlying geopolitical issues (sharpened, of course, by ideology), and the conflict heightened when these issues were contested and lessened when they were resolved.¹³ Détente had deeper roots than and preceded arms control. Nor could arms control prevent the reemergence of superpower hostility in the late 1970s and early 1980s. As both states continued their arms buildups, neither conformed precisely to the theories laid out by the strategists of the nuclear revolution. And the most interesting developments in nuclear statecraft in the 1960s, 1970s, and 1980s were the decisions of various states to develop nuclear

^{13.} For the best account of the causes and relative reconciliation of the underlying geopolitical issues in Europe between the Soviet Union and the United States—namely, resolving Germany's political and military status—see Marc Trachtenberg, *A Constructed Peace: The Making of the European Settlement*, 1945–1963 (Princeton, N.J.: Princeton University Press, 1999).

weapons while others eschewed such efforts. Few of those cases were motivated solely by Cold War dynamics, except in that their decisions were shaped by the unusual and unexpected efforts by the two superpower rivals to work together to staunch nuclear proliferation. The twin thrusts of decolonization and globalization, for example, were as important in shaping the global political and nuclear environments as the Cold War in the decades following World War II.

Decades later, according to standard accounts, the stylized narrative shifts again. The Cold War ends, and with it, presumably, the superpower arms race. According to most analysts, we move to a "second nuclear age" after 1989–1991.¹⁴ For some, this post–Cold War nuclear environment is far more unpredictable and unstable, if not more dangerous. So-called rogue states, with little regard for international law or norms, together with non-state actors such as terrorist groups, cannot be counted on to understand or follow the logic of deterrence, at least in the way the superpowers did. Long submerged regional rivalries are expected to emerge and develop a nuclear dynamic. Both the policy and intellectual efforts shift away from the dyadic superpower arms race to the fears of horizontal proliferation or of new actors getting nuclear weapons. Many argue for disarmament, either because of these dangers or because of the decreasing utility or relevance of nuclear deterrence or both.

Most historians recognize this stylized, monocausal history as deeply misleading. Several powerful trends and currents marked postwar international relations. Although these histories were intertwined and interconnected, the processes of decolonization, civil war, and state building in the aftermath of the collapse of the great European empires affected far more people, for both good and bad, than the rivalry between the Soviet Union and the United States. Even the process of European integration, with clear Cold War connections, had its own powerful non-Cold War drivers.¹⁵ The intensifying period of globalization that marks our own contemporary world, with massive movements of trade, money, ideas, technology, culture, and people, had its beginnings long before the Cold War ended.¹⁶ Each of these histories has a nuclear component: Does the Cold War really provide a better lens into the nuclear statecraft of Great Britain, France, Israel, or India than seismic shifts in the international system unleashed by decolonization? Did countries ranging from Brazil to Sweden to South Korea turn away from their earlier nuclear weapons programs to participate better in the globalized, open order that was emerging well before the Cold

^{14.} Paul Bracken, *The Second Nuclear Age: Strategy, Danger, and the New Power Politics* (New York: Henry Holt and Co., 2012).

^{15.} Etel Solingen, "The Political Economy of Nuclear Restraint," *International Security* 19 (2) (Fall 1994); Tony Judt, *Postwar: A History of Europe since 1945* (New York: Penguin Press, 2005).

^{16.} For a sample of these perspectives, see Niall Ferguson, Charles S. Maier, Erez Manela, and Daniel J. Sargent, eds., *The Shock of the Global: The 1970s in Perspective* (Cambridge, Mass.: Harvard University Press, 2010); Francis J. Gavin and Mark Atwood Lawrence, eds., *Beyond the Cold War: Lyndon Johnson and the New Global Challenges of the 1960s* (New York: Oxford University Press, 2014); and Daniel J. Sargent, *A Superpower Transformed: The Remaking of American Foreign Relations in the 1970s* (New York: Oxford University Press, 2015).

War ended? This is not to dismiss the centrality of Soviet-U.S. rivalry to the postwar nuclear story, but to suggest that the politics of nuclear weapons often went well beyond a simplified and stylized narrative of the Cold War.

And what of the history of the nuclear weapons themselves and how they shaped international relations? In the past, nuclear history often has consisted of two simple stories: first, the Cold War nuclear statecraft of the superpowers, and second (and very secondary in conventional histories), the decision-making of the other seven nuclear weapons states. Because of the extraordinary increase in declassified documents available to scholars, we have a better sense of how many other states made decisions to acquire or not to acquire nuclear weapons, and how they used their nuclear status in their statecraft. For example, we now understand that the simple binary distinction between states being "nuclear" or "nonnuclear" fails to capture key elements of the story. States can pursue a range of postures, such as nuclear latency or hedging, that may generate beneficial political outcomes while still being far short of fully deployed weapons. Countries like Brazil and Japan, for example, are key parts of this nuclear history, yet we have often overlooked or misunderstood their nuclear statecraft. What is clear is that all this history, unlike nuclear deterrence theory, is messy. It blurs received historical narratives, both in terms of causes (Cold War? globalization? nationalism?) and chronology. There is but one nuclear age, which persists today, and it both drives and is shaped by the larger international forces that mark our complex world.

Finally, part of the challenge of understanding nuclear statecraft is recognizing that the same history can look different from two distinct perspectives. This is true of all political subjects, but nuclear dynamics present at least two challenges that are somewhat unique. History allows us to see things through different lenses. Let me provide two examples.

First, deterrence theory often assumes a static world in which there is a recognized status quo and a potential challenger. In any two- or multiplayer interaction, however, does everyone agree on who and what are being deterred and why? We have long associated the deterrer with the state that seeks to prevent an adversary from compelling a change to the status quo. Strategists have spent much time assessing whether nuclear weapons can or cannot be used to compel or bring about change, or whether they are only good for deterrence. But consider the most perilous period of nuclear danger in world history, the four-year period from Soviet Premier Nikita Khrushchev's November 1958 ultimatum to the West to pull out of West Berlin until the end of the Cuban Missile Crisis in October 1962.

We now have a good sense that this four-year crisis centered upon a complex set of issues surrounding the political status of Germany and the role of nuclear weapons in its defense. The Soviets feared the United States was changing the status quo by allowing West Germany access to nuclear weapons and launched a crisis over West Berlin's status to deter this from happening. Relatedly few observers—including Presidents Eisenhower and Kennedy—believed the "status quo" Khrushchev was challenging in West Berlin was sustainable or wise over the long term. Putting missiles in Cuba also was a way of highlighting Soviet concerns about West Germany, in addition to deterring a possible American attack on Cuba and emphasizing what the Russians saw as dangerous nuclear missiles in Turkey. Throughout the period, identifying who was attempting to change the status quo—the compeller—and who was trying to maintain the status quo—the deterrer—was open to interpretation. Furthermore, the deterrence perspective lends an implicit moral superiority to those keeping the status quo, a position at odds with the ebb and flow of international relations before 1945.¹⁷

Equally important, however, is trying to identify the appropriate frame or lens through which to analyze nuclear statecraft and dynamics. This is the question of perspective: Are nuclear weapons and their consequences a structural, global variable that shapes state behavior, or are they best understood as tools of national state decision-making? To put it in the language of political science and the great international relations theorist Kenneth Waltz: Are nuclear weapons best understood as a second or third image factor in conflict? From which vantage point or "level of analysis" are they best studied?

The answer is, of course, that nuclear weapons must be viewed as both a national and global issue, a factor decided by particular states that shape the structure of the international environment (and vice versa). Nuclear weapons transformed international politics in profound, if at times obscure, ways. Most international behavior is shaped, sometimes explicitly but more often implicitly, by the long shadow cast by the nuclear revolution. Great power wars of conquest, which dominated modern political history until 1945, no longer make sense. The specter of nuclear use concerns the whole world: like epidemics, financial contagion, or climate change, the consequences of nuclear war cannot be limited to the adversaries in conflict. On the other hand, nuclear weapons are a tool of national strategy. Their development, deployment, and possible use are best viewed through the decision-making of the nuclear states in question. States vary dramatically in their interests and vulnerabilities, technological and economic capabilities, and political institutions and cultures. Understanding the global effects of nuclear weapons only tells us so much about why France or India developed nuclear weapons, while Sweden and Egypt did not. Nor can it tell us why the United States exploits nuclear weapons within its grand strategies in ways that are quite at odds with any other nuclear power.

^{17.} Francis J. Gavin, "What We Talk about When We Talk about Nuclear Weapons," *International Security Studies Forum* (2) (June 15, 2014): 11–36, https://issforum.org/ISSF/PDF/ ISSF-Forum-2.pdf.

AMERICAN NUCLEAR STRATEGY AND STATECRAFT: MULTIPLE AND INTERACTIVE DETERRENCE, ASSURANCE, AND REASSURANCE (MIDAR)

Is there any way to overcome these obstacles and challenges and have a better understanding of nuclear statecraft? For example, can we generate better frameworks to understand how and why the United States has made policies about nuclear weapons and incorporated them into its grand strategies since 1945?

We know the deductive models from nuclear strategists explain some things but not others. Traditional nuclear deterrence theory identifies the power to prevent another state from invading and conquering your homeland as the most powerful and appealing characteristic of possessing nuclear weapons, especially if these weapons are designed and deployed in such a way as to avoid being eliminated in a preemptive attack. Avoiding invasion and conquest, however, has not been a real fear of the United States since at least the American Civil War, if not before. Why then has the United States made nuclear weapons such an integral part of its grand strategy? And why has it pursued nuclear weapons in numbers and delivery configurations, and often employed in aggressive strategies, that go well beyond what is needed to deter any potential adversary crazy enough to threaten the American homeland?

Ironically, what is often missed in the strategic studies literature dominated by American thinkers is that the United States has sought to achieve far more ambitious goals than simply deterrence with its nuclear weapons. These vast goals include a complex mix of often cross-cutting objectives oriented at deterring, assuring, reassuring, and competing with adversaries, allies, and neutral countries. Eight missions in particular are crucial drivers of what might be thought of as multiple and interactive deterrence, assurance, and reassurance missions (MIDAR):

1. Deter adversary(s) from attacks on the homeland, but also deter attacks by adversary(s) against an ally, even in geographically distant regions.

The United States provides a security guarantee and/or extended deterrence to dozens of countries. This policy promises that the United States will protect those states under its "nuclear umbrella" by responding with force if the state in question is attacked, even if it means the United States has to use its own nuclear weapons and expose itself to nuclear attack from another state.

2. Deter allies from acquiring their own independent nuclear forces.

The United States has threatened allies with a number of measures, from abandonment to sanctions, if they develop their own independent nuclear capability. This mission is rarely discussed in public, given the sensitivity involved in suppressing the ambitions of otherwise allied countries. 3. Deter neutral and independent countries from acquiring their own nuclear forces.

The United States would greatly prefer that no other state than itself have nuclear weapons, as ambitious or perhaps unrealistic as that goal may be. It has far less leverage over states that are neither adversaries, whom it can target, or allies, whom it can coerce and/ or assure, than independent states. Still, the United States makes it clear that it will impose costs on any state that seeks nuclear weapons.

4. Assure allies you will neither abandon them *nor* pull them into a conflict they don't want.

Many U.S. allies, especially in Western Europe and East Asia, faced grave dangers during the Cold War; new dangers have arisen in both regions in recent years. The United States deploys its nuclear weapons to assure its allies that it will protect them against threats, but not act so belligerently or aggressively as to provoke a conflict in which they would be on the front lines.

5. Assure independent and neutral countries that the United States will strive to create an international environment that decreases the perceived need and appeal of independent nuclear weapons.

Nuclear weapons can provide extraordinary benefits to states that acquire them. How do you best assure a state that, either by its own or U.S. preference, is not protected by the United States to forgo nuclear weapons? Assurance is guaranteed by both avoiding threatening that state with conquest or invasion, and by supporting international norms, practices, and institutions that discourage interstate war.

6. Reassure adversary(s) you will deter and/or restrain your allies.

The United States, alone or at times in collusion with its adversary, has sought to keep its allies nonnuclear. Some of these allies had been aggressors in earlier wars or had reason to challenge the territorial status quo; the United States, through its security guarantees, seeks to implicitly signal to the adversary that it would restrain these countries.

7. Reassure adversary(s) and neutrals that the capabilities you seek to deter adversaries and assure allies are not oriented toward first-strike capabilities, even as you seek nuclear primacy.

The United States could not accomplish the ambitious goals of extended deterrence, inhibition, and assurance by simply accepting parity with its adversary. It would not be credible to assure allies they were secure and deter them from acquiring their own nuclear weapons if the United States blithely accepted vulnerability to a nuclear attack from the adversary. On the other hand, the United States wants to avoid the destabilizing conditions of a full-out effort to achieve a meaningful first-strike capability and strategy, even as it seeks some form of nuclear primacy.

8. Compete with and potentially defeat an adversary without recourse to war.

The United States wants to avoid a nuclear exchange or a conventional conflict that could escalate into a nuclear war with its adversary(s). It also recognizes the costs and potential dangers of the nuclear arms race. At various times, however, it believed it possessed technological and economic advantages that allowed it to pursue sophisticated nuclear weapons and delivery systems to pressure its adversary, even when they threatened strategic stability. The United States also appeared to believe there were meaningful coercive benefits to conditions of nuclear superiority short of a firststrike capability.

A few important observations about this complex mission are in order. First, this proposed framework for multiple and interactive deterrence, assurance, and reassurance should be understood as a heuristic framework. It is a rough and incomplete cut at how we might think about why and how the United States pursued the nuclear statecraft that it did. Like any heuristic, it does not fully capture the nuance and context of the history of U.S. nuclear statecraft. It is easy to think of many U.S. behaviors or policies that are not explained by or even contradict this analysis. Nor does it capture the fundamental importance of various bureaucratic, organizational, and domestic political forces that shaped nuclear decision-making over the past eight decades. Finally, this framework is not especially sensitive to the shifting preferences of different presidential administrations or changes in the international system. It may, however, provide insight into why U.S. nuclear statecraft seems at odds with the predictions of much of nuclear deterrence theory.

Second, many of the goals enumerated above are in tension if not at outright odds with each other. This means that American nuclear statecraft required and continues to require careful and constant calibration to achieve what might be thought of as a complex deterrence/assurance/reassurance equilibrium. Putting too great an emphasis on reassurance to an adversary, for example, can weaken deterrence toward that adversary and undermine assurance to allies. But assuring allies too much might undermine reassurance of the adversary and fail to deter the ally. There are, obviously, many combinations and policy strands that have to be delicately balanced. One of the advantages of this framework, however, is that it captures the deep but often hidden connection between U.S. nuclear strategy and American nuclear nonproliferation goals. Much of the writing on nuclear strategy focused on U.S. competition with its adversary, the Soviet Union. Containing, deterring, and, for some, bankrupting the Soviet Union was, of course, a most important goal of America's nuclear strategy. The United States also employed nuclear statecraft as part of its grand strategic goal of limiting the proliferation of independent nuclear weapons states, a goal that was missed by many early nuclear strategists. It is also a goal that continued and was even elevated when the Cold War ended, explaining why there was far more continuity in U.S. nuclear statecraft after the demise of the Soviet Union than most scholars anticipated.

Third, this appears to be a uniquely American story. Every other nuclear weapons state save one appears to have acquired nuclear weapons largely if not solely because of its ability to prevent invasion and conquest. Even the Soviet Union, with nuclear forces at times as large, sophisticated, and within equally destabilizing postures, seemed primarily concerned with avoiding invasion and more often than not appeared to mimic U.S. decisions rather than develop unique strategies. Ironically, the main insights of nuclear deterrence theory, which were developed by American strategists, explain the nuclear statecraft of other states far better than the United States.

Fourth, this framework captures some of the more puzzling aspects of the history of U.S. nuclear statecraft. For example, MIDAR helps explain why the United States worked at various times during the Cold War with its greatest adversary, the target of its nuclear forces, to limit the spread of nuclear weapons to other countries, even America's allies.¹⁸ It also provides insight into the puzzling question of why the United States began a massive investment in counterforce weapons soon after signing SALT I and the ABM Treaty. Through SALT and ABM, American policy-makers seemed to accept mutual vulnerability with the Soviet Union and that seeking nuclear primacy was wasteful and potentially destabilizing. The United States spent hundreds of billions of dollars on nuclear weapons, delivery systems, and auxiliary capabilities that focused on speed, accuracy, and stealth—qualities unlikely to be prioritized if the goal was to possess enough nuclear firepower to cause unacceptable damage to an adversary even after it had launched a nuclear attack.

CONCLUSION

In the 1950s and 1960s, American strategists created a powerful intellectual architecture to explain how nuclear weapons influence international relations and what strategies and policies could be enacted to take full advantage of the benefits of nuclear deterrence while minimizing the risks. Scholars in the decades since built upon this legacy to understand nuclear strategy, proliferation, and nonproliferation.

This framework, based largely on deductive reasoning, offered important insights into how to think about nuclear weapons. But it also missed many of the complexities of nuclear statecraft. This is not surprising—as we have seen, understanding nuclear policy is challenging. But as we think about future

^{18.} Andrew J. Coe and Jane Vaynman, "Collusion and the Nuclear Nonproliferation Regime," *Journal of Politics* 77 (4) (October 2015).

research, it is important to highlight some of the shortcomings of the original deterrence framework.

First, disentangling nuclear history from other important drivers of world politics, while difficult, is crucial. One implication is to disconnect the idea that there was a distinct nuclear age that coincided with the Cold War and disappeared when the Soviet Union collapsed, giving birth to a second nuclear age. There have been continuities and discontinuities in nuclear history since 1945, but it may be more useful to talk about one nuclear age, which we are still in.

Second, analysts have separated the study of nuclear strategy (what states do with their nuclear weapons) from issues of nuclear proliferation (why states do or do not acquire nuclear weapons) and nuclear nonproliferation (how and by whom states are constrained in their nuclear ambitions). The history of nuclear statecraft clearly demonstrates these three separate issues are interrelated and cannot be fully understood in isolation from each other.

Third, there is the question of perspective, or the lens we use to understand nuclear dynamics. Nuclear weapons are primarily one of the tools states use to accomplish their goals in the world. In other words, nuclear weapons policy can only be understood as a part of a particular state's grand strategy: what a state wants to achieve in the world and how. On the other hand, nuclear weapons and their consequences cast a shadow that spills over national borders. The use of these weapons, or even their threatened use, has global consequences, and the whole structure of international relations since 1945 has been transformed by the nuclear revolution. When studying nuclear statecraft, how do we reconcile profoundly different national perspectives with the universal experience of living under a nuclear sword of Damocles?

Finally, we need to reassess how the United States has thought about and deployed nuclear weapons. On one level, this is problematic—an overly American perspective in nuclear studies and deterrence may have obscured much of the complexity behind the nuclear statecraft of other countries. American scholars have also dominated our discussions of nuclear dynamics, often generalizing from U.S. experiences that are hardly applicable to other countries. That said, the United States has been and will remain the proverbial "eight-hundred-pound gorilla" on nuclear issues. And, as we have seen, its own behavior and policies are puzzling, at least from the perspective of the (American) school of deterrence. From the earliest days of the nuclear age, the United States, unlike others, sought to do far more with nuclear weapons than merely exploit their power to deter invasion and conquest. Over time, it developed a complex mix of deterrence and assurance toward allies, adversaries, and neutrals. More research needs to be done to better understand this mix, and to what grand strategic purpose.