Strategies of Inhibition: U.S. Grand Strategy, the Nuclear Revolution, and Nonproliferation

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What roles have nuclear nonproliferation and counterproliferation played in U.S. grand strategy since 1945?[1] And what insights does this history provide into the sharp, contemporary debates over the past, present, and future trajectory of U.S. grand strategy?

Most accounts of postwar U.S. grand strategy focus on two broad but distinct missions: (1) to contain great power rivals and (2) to open the world's economy and political systems to encourage the flow of trade, resources, and capital.[2] There has been considerable debate over the origins, continuity, and effectiveness of both the containment and openness missions, and over identifying when these strategies have been at odds and where they have overlapped.[3] U.S. nuclear nonproliferation efforts, on the other hand,

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1. Inhibition includes both nonproliferation and counterproliferation policies.
2. For the history of and logic behind the United States' strategies of containment during the Cold War, see John Lewis Gaddis, *Strategies of Containment: A Critical Appraisal of American National Security Policy during the Cold War* (New York: Oxford University Press, 2005). The openness mission is also often referred to as "liberal internationalism." For the best summary of its origins and motivations, see G. John Ikenberry, *Liberal Leviathan: The Origins, Crisis, and Transformation of the American World Order* (Princeton, N.J.: Princeton University Press, 2011).
3. For a sense of these debates, see Michael E. Brown et al., eds., *America's Strategic Choices*, rev. ed. (Cambridge, Mass.: MIT Press, 2000); and Elbridge Colby, *Grand Strategy: Contending Contemporary Analyst Views and Implications for the U.S. Navy* (Arlington, Va.: Center for Naval Analyses, November 2011), http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA553735]; Michèle Flournoy and Shawn Brimley, eds., *Finding Our Way: Debating American Grand Strategy* (Washington, D.C.: Center for a New American Security, June 2008), http://www.cnas.org/files/documents/publications/FlournoyBrimley_Finding%20Our%20Way_June08.pdf. For the best version of the restraint case, see in Barry R. Posen, *Restraint: A New Foundation for U.S. Grand Strategy* (Ithaca, N.Y.: Cornell University Press, 2014). For the best critiques, see G. John Ikenberry, *Liberal Leviathan*; and Stephen G. Brooks, Ikenberry, and William C. Wohlforth, "Don't

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have been largely subsumed under other strategies and missions, underplayed, or even ignored. When it is discussed, nuclear nonproliferation is often portrayed as a post–Cold War priority, applied inconsistently and selectively, motivated more by idealistic and normative considerations than by strategic factors, and taking second billing to more important U.S. goals. Even when it has been recognized as a significant policy interest, nuclear nonproliferation has rarely been understood as a core, long-standing, and driving goal of U.S. grand strategy.[4]

This is unfortunate. What Scott Sagan has labeled the "renaissance" in nuclear studies—much of it based on declassified government documents—reveals the extraordinary lengths the United States has gone to since the beginning of the nuclear age to inhibit (i.e., slow, halt, and reverse) the spread of nuclear weapons and, when unsuccessful, to mitigate the consequences of their spread.[5] To accomplish this end, the United States has developed and implemented a wide range of tools, applied in a variety of combinations, which might be thought of as the "strategies of inhibition."

Come Home, America: The Case against Retrenchment," *International Security*, Vol. 37, No. 3 (Winter 2012/13), pp. 7–51.

4. Nuclear nonproliferation is not discussed in Gaddis's *Strategies of Containment* and only in passing in Ikenberry's *Liberal Leviathan*. U.S nonproliferation policy is overlooked in the most recent works on American grand strategy, including Hal Brands, *What Good Is Grand Strategy? Power and Purpose in American Statecraft from Harry S. Truman to George W. Bush* (Ithaca, N.Y.: Cornell University Press, 2015); Colin Dueck, *Reluctant Crusaders: Power, Culture, and Change in American Grand Strategy* (Princeton, N.J.: Princeton University Press, 2008); and William C. Martel, *Grand Strategy in Theory and Practice: The Need for an Effective American Foreign Policy* (New York: Cambridge University Press, 2015). Robert J. Art identifies preventing the spread of nuclear, biological, and chemical weapons to rogue states and terrorists as a priority after September 11, 2001, but does not believe that the United States should be overly concerned by what he calls "normal states" with nuclear weapons. See Art, *A Grand Strategy for America* (New York: Century Foundation, 2003). Barry Posen also sees nuclear nonproliferation as a post–Cold War priority, arguing that U.S. "grand strategy today is fixated on preventing nuclear proliferation." Posen thinks this unwise: the U.S. nonproliferation effort, which "assumes the risks and responsibilities of defending other capable states around the world, and fights and threatens preventive wars to deny potential adversaries nuclear capabilities, is costly and risky, and ultimately futile." See Posen, *Restraint*, pp. 72–73. Stephen M. Walt recognizes that the United States pursued nuclear nonproliferation for strategic reasons that preceded the end of the Cold War, but, other than with regard to preventing nuclear terrorism, also believes that recent U.S. nuclear nonproliferation policies have been costly and ineffective: "Earlier efforts to halt the spread of nuclear weapons were only partly successful, and they required the United States to offer considerable inducements to would-be proliferators (including security guarantees, access to nuclear technology, and a U.S. pledge . . . eventually to reduce its own nuclear arsenal)." See Walt, *The Taming of American Power: The Global Response to U.S. Primacy* (New York: W.W. Norton, 2005), pp. 139–140.

5. Scott D. Sagan, "Two Renaissances in Nuclear Security Studies," introduction to H-Diplo/ISSF Forum, No. 2, "What We Talk About When We Talk about Nuclear Weapons," *Issforum.org*, June 15, 2014, http://issforum.org/ISSF/PDF/ISSF-Forum-2.pdf. For the increased availability of previously classified documents on nuclear dynamics from capitals around the world, see Francis J. Gavin, "What We Talk about When We Talk about Nuclear Weapons: A Review Essay," in the same roundtable.

These strategies to inhibit nuclear proliferation employ different policies rarely seen as connected to one another. They include treaties; norms; diplomacy; aid; conventional arms sales; alliances and security guarantees; export, information, and technology controls; intelligence; preemptive counterforce nuclear postures; missile defense; sanctions; coercion; interdiction; sabotage; and even the threat of preventive military action. The United States has applied these measures to friend and foe alike, often regardless of political orientation, economic system, or alliance status. Although the strategies of inhibition sometimes have complemented the United States' openness and containment missions, many times they have been unrelated to or even in tension with these other strategies; in all cases, they have been motivated in large measure by inhibition's distinctive strategic logic. Collectively, these linked strategies of inhibition have been an independent and driving feature of U.S. national security policy for more than seven decades, to an extent rarely documented or fully understood in debates over grand strategy. For better or worse, absent the United States' strategies of inhibition, we might live in a world with many more nuclear weapons states.

Demonstrating the persistent and long-standing centrality of nuclear nonproliferation and counterproliferation to U.S. grand strategy is important for at least four reasons. First, the history of inhibition provides a more accurate, complex, and continuous picture of post–World War II international history than offered by standard, stylized accounts of the Cold War and post–Cold War eras. For example, inhibition often demanded that the United States cooperate with its Cold War adversary, the Soviet Union, and work against Cold War allies such as West Germany and South Korea. Second, inhibition inserts a critical and often missing variable into debates over the causes of nuclear proliferation. Scholarly treatments that focus on factors such as political leadership, regime type, norms and treaties, and the regional security environment of the potential proliferator often overlook the powerful influence of U.S. inhibition strategies on when and why states make their decisions about nuclear weapons. Third, the strategies of inhibition challenge some of the most popular international relations theories that seek to explain or predict how the United States should assess and react to nuclear proliferation. Defensive realism, for example, cannot explain and did not predict the long-standing, aggressive U.S. efforts to stem the spread of nuclear weapons. Fourth, and most important, a better understanding of the strategies of inhibition requires scholars to recast ongoing debates over whether the United States should continue to be deeply engaged in world affairs or to retrench. Inhibition helps explain many otherwise puzzling policies, such as the persistence of Cold War security alliances, that analysts often ascribe to hegemonic hubris, bureaucratic politics,

or ideology. The inhibition mission also sheds light on the motivation behind U.S. efforts to ensure that Iran does not develop a nuclear weapons capability.

This article proceeds as follows. The first section defines grand strategy, lays out the basic contours of the well-known containment and openness missions, and highlights several important U.S. policies in the nuclear age that neither mission can fully explain.[6] The second section outlines the history of the United States' strategies of inhibition by answering five questions. First, what is the inhibition mission? Second, why has the United States pursued it? Third, what tools—what strategies of inhibition—has the United States employed to achieve as ambitious a goal as nonproliferation? Fourth, how should scholars and policymakers understand historical variations in the strategies of inhibition and explain when inhibition fails? Fifth, why have the strategies of inhibition often been overlooked or misunderstood in the scholarly literature on Cold War history, grand strategy, and international relations theory? The final section explores the importance and implications of the strategies of inhibition, both for understanding the past and better assessing contemporary choices for U.S. grand strategy.

Postwar U.S. Grand Strategy: Contain, Open, and Inhibit

There are two immediate challenges to anyone trying to understand U.S. grand strategy after World War II. First, the whole concept of grand strategy, unless properly defined, can be nebulous. As Hal Brands points out, it is "one of the most slippery and widely abused terms in the foreign policy lexicon."[7] Second, the history of postwar U.S. grand strategy can be particularly difficult to explain; it is a complex and messy subject, influenced by structural considerations, domestic and international politics, and the personality and preferences of individual presidents and their administrations. Barry Posen defines grand strategy as a "nation-state's theory about how to produce security for itself." It is "not a rule book," but a "set of concepts and arguments that need to be revisited regularly."[8] Brands explains grand strategy "as the intellectual ar-

6. This effort began against Germany even before the United States had used atomic bombs against Japan. As the war in Europe ended, the "U.S. and U.K. forces moved aggressively to prevent the proliferation of this nucleus of nuclear capability. They promptly seized the scientists and materials in their own zones of occupation and snatched some from the agreed zones of France and the USSR ahead of their advancing armies. They even destroyed by air attack the Auer Company plant, in the prospective Soviet zone, that had produced the uranium metal for the German program. They interned near London the ten ranking scientists . . . and only after Hiroshima did they release them under such conditions that they would not want to go to the USSR." See Henry S. Lowenhaupt, "On the Soviet Nuclear Scent," *Studies in Intelligence*, Vol. 11, No. 4 (Fall 1969), p. 13.
7. Brands, *What Good Is Grand Strategy*? p. vii.
8. Posen, *Restraint*, p. 1.

chitecture that gives form and structure to foreign policy." Decisionmakers undertaking grand strategy "are not simply reacting to events or handling them on a case-by-case basis. Rather, a grand strategy is a purposeful and coherent set of ideas about what a nation seeks to accomplish in the world, and how it should go about doing so."[9]

While the history of U.S. foreign, foreign economic, and national security policy since 1945 contains many twists and turns, discontinuities, and anomalies, scholars have identified two broad goals that have united American grand strategists and meet Brands's definition: (1) to contain (and, if possible, defeat) great power rivals, particularly the Soviet Union, and (2) to open the international economic and political system. Analysts have vigorously debated the relationship between, the wisdom of, and the best ways to achieve and balance these goals, but both the containment and openness missions are recognized as pillars of postwar U.S. grand strategy.

The strategy of containment is most closely associated with U.S. diplomat and historian George Kennan and emerged to counter what were seen as the Soviet Union's aggressive geopolitical designs on the crucial Eurasian landmass and beyond, without sparking a third world war.[10] As John Lewis Gaddis and others have highlighted, how the United States implemented the containment mission has varied over time, depending on changes in the international environment and who was in the White House.[11] In the early 1950s and arguably the late 1970s/early 1980s, containment was more aggressive and reliant on military tools, and included policies to pressure the Soviets and their client states. In other periods, containment was strictly defensive and even at times accommodating; the emergence of détente, which flourished from the mid-1960s to the mid-1970s, witnessed occasional superpower respect and cooperation. The overall goal of containment, however, was to check and over time reduce the Soviet Union's military power and geopolitical reach. Since the end of the Cold War and the collapse of the Soviet Union, U.S. grand strategists have debated whether the containment mission is relevant in a

9. See Brands, *What Good Is Grand Strategy*? p. 3.

10. Kennan laid out his view in "X" (George Kennan), "The Sources of Soviet Conduct," *Foreign Affairs*, Vol. 25, No. 4 (July 1947), https://www.foreignaffairs.com/articles/russian-federation/1947-07-01/sources-soviet-conduct. Kennan ultimately distanced himself from how U.S. policymakers came to understand and implement containment. See John Lewis Gaddis, *George F. Kennan: An American Life* (New York: Penguin, 2011).

11. The containment strategy had a wide spectrum of supporters, from Kennan, who emphasized economic tools and lamented the militarization of the Cold War, to more hawkish advocates who believed in employing aggressive military postures. All shared the same goal—to contain and if possible eventually reverse the Soviet Union's power without a war. For an argument that efforts to undermine the Soviet Union's control in Eastern Europe went beyond containment in the early Cold War, see Gregory Mitrovich, *Undermining the Kremlin: America's Strategy to Subvert the Soviet Bloc, 1947–1956* (Ithaca, N.Y.: Cornell University Press, 2000).

world lacking peer competitors, and whether it should be applied to other emerging threats, such as Iraq, Iran, and the People's Republic of China.[12]

The openness mission in U.S. grand strategy emerged from the vigorous efforts of the United States and its allies to rebuild the world economy and encourage political liberalization after the disasters of the Great Depression and World War II. Economically, American policymakers believed that the United States had a vital interest in encouraging open trade, access to natural resources, and the easy movement of capital across borders.[13] The United States and its allies created international and regional organizations, regimes, and rules to encourage multilateral trade and investment. The founding of the International Monetary Fund, the International Bank for Reconstruction and Development, and the General Agreement on Tariffs and Trade reflects this desire, as do more recent initiatives such as the North American Free Trade Agreement, the World Trade Organization, and various regional and global trade negotiations.[14] These efforts have often required U.S. presidential administrations to resist powerful domestic political pressures encouraging protectionism. The United States often (though not always) has encouraged regimes to embrace liberal values including the rule of law, political tolerance, independence for colonial territories, and free elections. Promoting self-determination and democracy as core elements of U.S. grand strategy has its roots in the legacy of President Woodrow Wilson, but accelerated and intensified after World War II.[15]

Taken together, the openness and containment missions explain much about U.S. grand strategy since the end of World War II. Neither mission, however,

12. For a sample of discussions over the pros and cons of attempting to contain Iran, see Kenneth M. Pollack, "Containing Iran," in Robin Wright, ed., *The Iran Primer: Power, Politics, and U.S. Policy* (Washington, D.C.: United States Institute of Peace Press, 2010), pp. 209–211. For a discussion of containment in the context of Iraq, see Eric K. Graben, "Policy Brief: The Case for Containing Iraq," *Middle East Quarterly*, Vol. 1, No. 2 (June 1994), http://www.meforum.org/223/policy-brief-the-case-for-containing-iraq. For the debate over containing China, see David Shambaugh, "Containment or Engagement of China? Calculating Beijing's Responses," *International Security*, Vol. 21, No. 2 (Fall 1996), pp. 180–209.

13. The openness mission, similar to containment and inhibition, also evolved over time, as the international economy shifted to market-determined exchange rates and freer flows of capital and trade after the 1971 ending of the Bretton Woods System of fixed exchange rates, managed trade, and limitations on capital flows.

14. U.S. support for European integration was driven by both the openness and containment missions. On the security considerations behind U.S. support, see Sebastian Rosato, *Europe United: Power Politics and the Making of the European Community* (Ithaca, N.Y.: Cornell University Press, 2011).

15. The best source is Tony Smith, *America's Mission: The United States and the Worldwide Struggle for Democracy in the 20th Century* (Princeton, N.J.: Princeton University Press, 1994). See also Frank Ninkovich, *The Wilsonian Century: U.S. Foreign Policy since 1900* (Chicago: University of Chicago Press, 1999).

can fully account for the high priority the United States has placed on slowing, reversing, and mitigating the spread of nuclear weapons. Consider five puzzles about the history of U.S. grand strategy since 1945 that neither the containment nor openness mission can entirely explain.

PUZZLE ONE

Why has the United States considered preventive military action against nascent nuclear weapons states from the start of the nuclear age, even when most of these countries were far too weak to be otherwise threatening to the United States?[16] Containment, a largely defensive doctrine, is not adequate to fully illuminate debates over targeting the nuclear facilities of the Soviet Union in the late 1940s and early 1950s, the People's Republic of China in the 1960s, North Korea in the 1990s, and Iraq and potentially Iran more recently.[17] Arguments that identify hegemony or imperial ambitions as the driver fail to explain why only the adversary's nuclear programs, and not its land, markets, or economic resources, were ever the focus of the United States.

PUZZLE TWO

Neither the openness nor the containment strategy can fully explain why the United States time and again pressured even its closest allies to eschew independent nuclear forces.[18] In some cases, the United States even threatened coercive actions, including sanctions or abandonment, against ostensible Cold War allies such as West Germany, Taiwan, South Korea, and Pakistan to prevent them from developing nuclear weapons.[19] If containment was the sole driver of U.S. grand strategy during the Cold War, then one might imagine that the United States would have wanted its friends to possess these powerful weapons to help balance against the Soviet Union or, at the very least, would try to avoid alienating its allies with its vigorous nonproliferation policies. The

16. Marc Trachtenberg, "Preventive War and U.S. Foreign Policy," *Security Studies*, Vol. 16, No. 1 (January/March 2007), pp. 1–31; and Francis J. Gavin and Mira Rapp-Hooper, "The Copenhagen Temptation: Rethinking Prevention and Proliferation in the Age of Deterrence Dominance," Working Paper (Cambridge, Mass.: Tobin Project, 2011), http://www.tobinproject.org/sites/tobinproject.org/files/assets/Gavin%26Rapp-Hooper_US_Preventive_War_Thinking.pdf.

17. Such attacks might generate economic instability and uncertainty, which would not be good for the goals of the openness mission.

18. Nicholas L. Miller, "The Secret Success of Nonproliferation Sanctions," *International Organization*, Vol. 68, No. 4 (Fall 2014), pp. 913–944.

19. Gene Gerzhoy, "Coercive Nonproliferation: Security, Leverage, and Nuclear Reversals," Ph.D. dissertation, University of Chicago, 2014; Gene Gerzhoy, "Alliance Coercion and Nuclear Restraint: How the United States Thwarted West Germany's Nuclear Ambitions," *International Security*, Vol. 39, No. 4 (Spring 2015), pp. 91–129; and Alexander Lanoszka, "Protection States Trust: Major Power Patronage, Nuclear Behavior, and Alliance Dynamics," Ph.D. dissertation, Princeton University, 2014.

United States regularly made economic concessions to its allies—including agreements permitting trade and monetary discrimination against the United States—to achieve inhibition, in ways often at odds with the openness mission.[20]

PUZZLE THREE

Why did the United States create a vast set of alliances and security guarantees backed by implicit or explicit protection under its nuclear umbrella?[21] And why, after the Cold War ended and the Soviet Union disappeared, did it not only maintain but expand its nuclear umbrella? The containment mission vis-à-vis the Soviet Union had been completed successfully by 1989–91. Many efforts to explain continuing and expanding alliances in the post–Cold War period are unconvincing.[22]

PUZZLE FOUR

Why has the United States aggressively sought strategic nuclear primacy since 1945? One of the core assumptions of the scholarly literature on the nuclear revolution is that once mutual vulnerability between rivals emerges, it makes little sense to try to escape this condition by building more or better nuclear weapons systems. According to Kenneth Waltz, "[N]uclear weapons eliminate strategy. . . . [N]uclear weapons make strategy obsolete."[23] Yet the United States has poured enormous sums of money into strategic systems geared toward counterforce (i.e., damage limitation strategies to establish nuclear primacy against any potential adversary), often with little regard for the potential effects on stability.[24] Over the next decade, the United States plans to spend

20. For example, the United States made economic concessions to West Germany while privileging inhibition over containment and openness because of "the explosive set of issues surrounding the German and nuclear question." See Francis J. Gavin, *Gold, Dollars, and Power: The Politics of International Monetary Relations, 1958–1971* (Chapel Hill: University of North Carolina Press, 2004), p. 12; see also pp. 89–116, 135–164. Similar logic infused U.S. calculations on trade and international monetary relations with Japan.

21. Jeffrey W. Knopf, ed., *Security Assurances and Nuclear Nonproliferation* (Stanford, Calif.: Stanford University Press, 2012); and Makreeta Lahti, "Security Cooperation as a Way to Stop the Spread of Nuclear Weapons? Nuclear Nonproliferation Policies of the United States towards the Federal Republic of Germany and Israel, 1945–1968," Ph.D. dissertation, University of Potsdam, 2008.

22. One might argue that these are not, in fact, alliances. Historically, alliances have been temporary, threat specific, and additive. These relationships appear to be permanent, to persist regardless of threat, and are suppressive.

23. Kenneth N. Waltz, "Nuclear Myths and Political Realities," *American Political Science Review*, Vol. 84, No. 5 (September 1990), p. 738.

24. Austin Long and Brendan Rittenhouse Green, "Stalking the Secure Second Strike: Intelligence, Counterforce, and Nuclear Strategy," *Journal of Strategic Studies*, Vol. 38, Nos. 1–2 (2015), pp. 38–73; and Keir A. Lieber and Daryl Press, "The End of MAD? The Nuclear Dimension of U.S. Primacy," *International Security*, Vol. 30, No. 4 (Spring 2006), pp. 7–44.

$350 billion upgrading its nuclear forces, despite possessing vast quantitative and qualitative advantages over every other current nuclear weapons state.[25]

PUZZLE FIVE

Why did the United States cooperate during the Cold War with its sworn enemy and the target of its alliances and strategic nuclear forces, the Soviet Union, to stanch nuclear proliferation? The most famous example of the superpower rivals working to inhibit proliferation is the negotiations that led to the 1968 Nuclear Nonproliferation Treaty (NPT).[26] It turns out, however, that this was not an isolated example. Even during the bitterest periods of the Cold War, the United States was willing to work with the Soviet Union to achieve its inhibition goals.[27]

These and other puzzles, which at first blush seem unrelated, can only be fully explained by understanding the crucial role the inhibition mission has played in U.S. grand strategy since 1945. The United States has been willing to

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25. The sums of $160 billion will be spent on strategic nuclear delivery systems and weapons and $52 billion on nuclear-related command, control, communications, and early-warning systems. See Congressional Budget Office (CBO), "Projected Costs of U.S. Nuclear Forces, 2015 to 2024," (Washington, D.C., CBO, January 2015). https://www.cbo.gov/sites/default/files/cbofiles/attachments/49870-NuclearForces.pdf.

26. Hal Brands, "Non-Proliferation and the Dynamics of the Middle Cold War: The Superpowers, the MLF, and the NPT," *Cold War History*, Vol. 7, No. 3 (August 2007), pp. 389–423; Andrew J. Coe and Jane Vaynman, "Collusion and the Nuclear Nonproliferation Regime," *Journal of Politics* (forthcoming); Vladimir Orlov, Roland Timerbaev, and Anton Khlopkov, *Nuclear Nonproliferation in U.S.-Russian Relations: Challenges and Opportunities Report, Center for Policy Studies in Russia* (Moscow: Raduga, 2002); William C. Potter, "The Soviet Union and Nuclear Proliferation," *Slavic Review*, Vol. 44, No. 3 (Fall 1985), pp. 468–488; Dane Swango, "The Nuclear Nonproliferation Treaty: Constrainer, Screener, or Enabler?" University of California, Los Angeles, 2009; Joseph S. Nye Jr., "U.S.-Soviet Cooperation in a Nonproliferation Regime," in Alexander L. George, Philip J. Farley, and Alexander Dallin, eds., *U.S.-Soviet Security Cooperation: Achievements, Failures, Lessons* (New York: Oxford University Press, 1988), pp. 336–352; and Peter R. Lavoy, "Learning and the Evolution of Cooperation in U.S. and Soviet Nuclear Nonproliferation Activities," in George W. Breslauer and Philip E. Tetlock, eds., *Learning in U.S. and Soviet Foreign Policy* (Boulder, Colo.: Westview, 1991), pp. 735–783. Elisabeth Röhrlich demonstrates that the two superpowers acknowledged a shared interest in nuclear nonproliferation at the time of the negotiations to create the International Atomic Energy Agency during the Eisenhower administration. See Röhrlich, "Cold War Dynamics and North-South Divisions in the Creation of the IAEA, 1953–1957," paper presented at the Nuclear Studies Research Initiative, University of Texas, Austin, October 16, 2013.

27. The Test Ban Treaty—discussed by the superpower rivals both before and immediately after the Cuban missile crisis—was understood as an inhibition tool: "A test ban, the Soviets would be told, would mean that 'there would be no additional nuclear powers in our camp.' The Russians, for their part, would prevent their allies from building nuclear forces. And these commitments would be linked: the United States would 'take responsibility in respect to nondissemination with relation to those powers associated with it, if the Soviet Union is willing to take a corresponding obligation for the powers with which it is associated.'" See Marc Trachtenberg, *A Constructed Peace: The Making of the European Settlement, 1945–1963* (Princeton, N.J.: Princeton University Press, 1999), p. 385.

pressure, coerce, and threaten nascent nuclear states, including friends, to keep them nonnuclear. It has also been willing to provide assurances of protection and make them more credible with potentially destabilizing counterforce/damage-limitation nuclear strategies and missile defense. To inhibit nuclear proliferation, the United States was even willing to work with its most threatening adversary, the Soviet Union.

The literature on U.S. grand strategy has not ignored the question of nuclear proliferation altogether.[28] When it has discussed proliferation, however, it has generally made three problematic assumptions.[29] First, some analysts claim that nuclear nonproliferation emerged as an important U.S. goal only after the Cold War ended and that it focuses only on weak or so-called rogue states.[30] Second, the primary driver of U.S. nuclear proliferation policies is often identified as norms and ideals, not strategic considerations.[31] Third, nuclear nonproliferation is frequently subsumed under other strategic goals, such as multilateralism, or is considered only one among many new global challenges.[32] These assumptions fail to acknowledge the deep historical roots, the

28. No scholar has identified nuclear nonproliferation as an independent driver of U.S. grand strategy with its own strategic logic.

29. For a sample of writings on grand strategy that share one or more of these assumptions, see Robert J. Art, "Defensible Defense: America's Grand Strategy after the Cold War," *International Security*, Vol. 15, No. 4 (Spring 1991), pp. 5–53; Shawn Brimley, "Finding Our Way," in Flournoy and Brimley, *Finding Our Way*, pp. 9–22; Ashton B. Carter, William J. Perry, and John D. Steinbruner, *A New Concept of Cooperative Security* (Washington, D.C.: Brookings Institution Press, 1992); G. John Ikenberry, "An Agenda for Liberal International Renewal," in Flournoy and Brimley, *Finding Our Way,* pp. 43–60; G. John Ikenberry and Anne-Marie Slaughter, "Final Paper of the Princeton Project on National Security" (Princeton, N.J.: Princeton Project on National Security, 2006); Charles Krauthammer, "The Unipolar Moment," *Foreign Affairs*, Vol. 70, No. 1 (1991), pp. 23–33; and Sarah Sewall, "A Strategy of Conservation: American Power in the International System," in Flournoy and Brimley, *Finding Our Way*, pp. 103–122.

30. Sarah Sewall writes, "The end of the Cold War offered an opportunity to reduce the incentives for acquiring nuclear weapons. Instead, a new class of weak and insecure states that are either seeking or expanding their nascent nuclear capability has emerged. . . . These states' internal weakness, however, poses a new problem because of the uncertainties associated with the state implosion of a nuclear power." See Sewall, "A Strategy of Conservation," p. 109.

31. According to Ashton Carter, William Perry, and John Steinbruner, "Proliferation of destructive technology casts a shadow over future U.S. security in a way that cannot be directly addressed through superior force readiness. . . . And even when U.S. interests are not directly at risk, the United States bears an unavoidable responsibility for the world order." See Carter, Perry, and Steinbruner, *A New Concept of Cooperative Security*, p. 4. Walter Russell Mead makes the interesting argument that "Jeffersonian logic on disarmament was widely accepted; every president from Kennedy through Reagan engaged in serious efforts to limit the development and spread of nuclear weapons." See Mead, *Special Providence: American Foreign Policy and How It Changed the World* (New York: Routledge, 2002), p. 212.

32. John Ikenberry notes, "What is most striking [in the post–Cold War era] is not the preeminence of one threat but the scope and variety of threats. Global warming, health pandemics, nuclear proliferation, jihadist terrorism, energy scarcity. . . . The point is that none of these threats is, in itself, so singularly preeminent that it deserves to be the centerpiece of American grand strategy in the

prevalence, the wide array of tools, or the driving strategic logic of the United States' strategies of inhibition.

Obviously, inhibition is not the only explanation for these and other important U.S. policies; often, the inhibition mission has intertwined with the openness and especially the containment mission. Furthermore, given the profound and unprecedented challenge presented to U.S. grand strategy by nuclear weapons, the strategy of inhibition took time to coalesce into a coherent, consistent, and effective set of strategies. Policies that were originally motivated by inhibition instincts—such as President Dwight Eisenhower's "Atoms for Peace" program or the controversial Multilateral Force proposal—were ultimately seen as counterproductive and abandoned. The historical record makes clear, however, that inhibition has been one of the driving motivations behind U.S. grand strategy since the start of the nuclear age, pursued across presidential administrations despite important changes in the international system.

The Strategies of Inhibition

What is the goal of the strategies of inhibition and why have they been a core feature of U.S. grand strategy since 1945? What tools does the United States use to implement these strategies? How should the variations in these strategies over time be understood? And why have scholars underemphasized or even ignored them?

THE STRATEGIC LOGIC OF INHIBITION

The objective of the United States' strategies of inhibition was and remains simple: to prevent other states—regardless of their political affiliation or orientation—from developing or acquiring independent nuclear forces, and when this effort fails, to reverse or mitigate the consequences of proliferation. Across different administrations and changing international circumstances, the United States has shown itself willing to pay a very high price to achieve these ends. When it is unable to stop proliferation, it works hard to prevent the proliferator from undertaking policies—weaponization, pursuit of a missile capability, and especially nuclear testing—that would increase the pressure on other states to acquire nuclear weapons. The United States is also more willing to countenance nuclear weapons programs, such as Great

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way that anti-fascism and anti-communism did in an earlier era." See Ikenberry, "An Agenda for Liberal International Renewal," p. 49.

Britain's, that become dependent on and are coordinated with U.S. nuclear systems.[33]

Why has the United States been so interested in preventing states from possessing independent nuclear forces? Many international relations scholars argue that the spread of nuclear weapons can stabilize world politics.[34] Nuclear weapons, they contend, have little effectiveness for anything but deterrence.[35] These analysts are often perplexed by or critical of U.S. efforts to halt nuclear proliferation, and wonder if policymakers understand how nuclear deterrence works. Even those analysts who do not support nuclear proliferation are puzzled by the high price of strategies the United States has employed to prevent it.

These scholars miss a fundamental point: historically, U.S. policymakers have demonstrated less enthusiasm than the conventional wisdom suggests for the supposedly stabilizing aspects of nuclear weapons for international relations. Of far greater concern has been the worry over how other countries might use nuclear weapons against the United States. The strategies of inhibition were developed to stem the power-equalizing effects of nuclear weapons and have been motivated by the desire of the United States to safeguard its security and preserve its dominant power. As U.S. Secretary of State Dean Rusk pointed out, "It was almost in the nature of nuclear weapons that if someone had them, he did not want others to have them."[36]

There are seven interrelated elements driving the United States' strategies of inhibition. They are motivated by the goal to protect the United States from nuclear attack and/or the desire to maintain U.S. freedom of action to pursue other strategic goals.

First, the United States has feared nuclear weapons being used against it, either through a deliberate nuclear attack or an accidental launch. The higher the number of states that possess nuclear weapons, the greater the risk the United States might be hit. Given the horrific consequences of an attack, American decisionmakers have considered it their responsibility to decrease this danger by limiting proliferation and its consequences. As U.S. Secretary of

33. One of the reasons that the United States viewed collective nuclear-sharing arrangements such as the Multilateral Force as nonproliferation tools was that they were far preferable to independent nuclear programs.
34. Kenneth N. Waltz, "The Spread of Nuclear Weapons: More May Better," Adelphi Papers, No. 171 (London: International Institute for Strategic Studies, 1981).
35. Robert Jervis, *The Illogic of American Nuclear Strategy* (Ithaca, N.J.: Cornell University Press, 1984).
36. Rusk to State Department, August 7, 1963, John F. Kennedy Presidential Library (JFKL), Presidential Papers (PP), National Security Files, box 187, folder "USSR—Gromyko Talks—Rusk."

State John Foster Dulles told his Soviet counterpart, Andrei Gromyko, it was "frightening to think of a world where anybody could have a bomb."[37]

Second, given the difficulty of identifying where a nuclear attack may have originated, U.S. policymakers worry about the catalytic or "detonator" consequences of proliferation; in other words, they fear that an independent nuclear state might threaten to use or actually employ a nuclear weapon to draw the United States into a conflict in which it did not want to become involved.[38] There is evidence that Pakistan, South Africa, Israel, and possibly France pursued nuclear strategies aimed at pulling an otherwise unwilling United States into crises on their behalf.[39] A 1962 top-secret study explained this fear: the "Nth country problem" might generate "the danger of major war being 'catalyzed,' deliberately or inadvertently, by the possessors of nuclear weapons outside the control of the major alliances."[40]

Third, the United States has worried about the emergence of nuclear tipping points or nuclear dominoes, whereby one key state acquiring a nuclear capability might lead four or five other states to do the same.[41] After the People's Republic of China tested a nuclear device in 1964, for example, President Lyndon Johnson's Committee on Nuclear Proliferation (also known as the Gilpatric Committee) warned: "The world is fast approaching a point of no return in the prospects of controlling the spread of nuclear weapons."[42] Not only would "proliferation cascades" increase the number of nuclear states in the world, with all the dangers that this could bring; it could also increase tensions

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37. Memorandum of Conversation, "Subject: Disarmament," October 5, 1957, *Foreign Relations of the United States (FRUS), 1955–1957*, Vol. 20: *Regulation of Armaments; Atomic Energy* (Washington, D.C.: Government Printing Office [GPO], 1990), pp. 731–734.

38. For an excellent treatment of catalytic strategies, see Vipin Narang, *Nuclear Strategy in the Modern Era: Regional Powers and International Conflict* (Princeton, N.J.: Princeton University Press, 2014).

39. On Israel, Pakistan, and South Africa, see ibid. On France, see Trachtenberg, *A Constructed Peace*, p. 338, n 192. He writes, "One measure of how bad relations had become is that Rusk at one point even threatened the French with an American nuclear attack if they dared to act independently in a crisis."

40. "Report on Strategic Developments over the Next Decade for the Interagency Panel," October 12, 1962, JFKL, PP, National Security Files, box 376, item no. 27, p. 52.

41. For a compelling argument that the United States was very worried about nuclear tipping points, see Nicholas L. Miller, "Hegemony and Nuclear Proliferation," Ph.D. dissertation, Massachusetts Institute of Technology, 2014.

42. Report by the Committee on Nuclear Proliferation, January 21, 1965, *FRUS, 1964–1968*, Vol. 11: *Arms Control and Disarmament* (Washington, D.C.: GPO, 1997), pp. 173–182. For an early National Intelligence Estimate dealing with the likelihood and consequences of new nuclear states, see National Intelligence Estimate 100-6-57, "Nuclear Weapons Production in Fourth Countries—Likelihood and Consequences," June 18, 1957, in William Burr, ed., *National Intelligence Estimates of the Nuclear Proliferation Problem: The First Ten Years, 1957–1967*, National Security Archive Electronic Brief Book (NSA EBB) 155, doc. 2, http://nsarchive.gwu.edu/NSAEBB/NSAEBB155/prolif-2.pdf.

and dangers in parts of the world the United States has considered important. Furthermore, it could drive U.S. allies—for example, Japan and South Korea—to target each other in ways inimical to the United States' interests.[43]

Fourth, U.S. policymakers have fully appreciated the power of nuclear deterrence, but have feared that nuclear weapons could be used to deter the United States and limit its freedom of action, both regionally and in the world at large.[44] From the beginning of the nuclear age, the United States recognized the potential for nuclear weapons to become the great equalizer, "weapons of the weak," allowing states with far inferior conventional, economic, and other forms of power to prevent it from doing what it wants. In the words of the Gilpatric Committee report, "As additional nations obtained nuclear weapons, our diplomatic and military influence would wane, and strong pressures would arise to retreat to isolation to avoid the risk of involvement in nuclear war."[45] And as Michael Horowitz explains, a feeble state "possessing even a single nuclear weapon influences America's strategic calculations and seems to make coercive success harder."[46]

Fifth, it is easier to control allies that do not have their own nuclear weapons and that depend on the United States for their security. The United States has bristled at the independent policies that nuclear-armed allies such as France and Israel have pursued, often against its wishes. A Germany, Taiwan, Japan, or South Korea with nuclear weapons might be more likely to challenge the regional or international status quo with threats or the use of force in ways inimical to U.S. interests. President John F. Kennedy, for example, warned that if

43. "Mr. Gilpatric stated his preference for a world with a limited number of nuclear powers, finding it implausible that additional proliferation could be compartmentalized, quarantined, or regionalized and comparing the consequences for the world of the Sarajevo incident. He found it all the more unlikely that a nuclear conflict involving 1.5 billion Chinese, Indians and Japanese could not affect our own security." See "Minutes of Discussion," January 7–8, 1965, Lyndon B. Johnson Presidential Library (LBJL), National Security file, Committee file, Committee on Nuclear Proliferation, Minutes of Meetings, box 9.

44. Matthew Kroenig notes, "Power-projecting states, states with the ability to project conventional military power over a particular target, have a lot to lose when that target state acquires nuclear weapons," which is why "power-projecting states fear nuclear proliferation to both allied and enemy states." See Kroenig, *Exporting the Bomb: Technology Transfer and the Spread of Nuclear Weapons* (Ithaca, N.Y.: Cornell University Press, 2010), p. 3.

45. Report by the Committee on Nuclear Proliferation, January 21, 1965, *FRUS, 1964–1968*, Vol. 11.

46. Michael C. Horowitz, *The Diffusion of Military Power: Causes and Consequences for International Politics* (Princeton, N.J.: Princeton University Press), p. 106. As Richard K. Betts has pointed out, what may be good for the "system"—stability—may not be what the United States prefers: "If nuclear spread enhances stability, this is not entirely good news for the United States, since it has been accustomed to attacking small countries with impunity when it felt justified and provoked." See Betts, "Universal Deterrence or Conceptual Collapse? Liberal Pessimism and Utopian Realism," in Victor A. Utgoff, ed., *The Coming Crisis: Nuclear Proliferation, U.S. Interests, and World Order* (Cambridge, Mass.: MIT Press, 2000), p. 65

U.S. allies acquired nuclear weapons, "they would be in a position to be entirely independent and we might be on the outside looking in."[47]

Sixth, U.S. policymakers have feared that otherwise weak adversaries might become emboldened to act aggressively if they acquired nuclear weapons.[48] And given the nature of nuclear weapons—where the absolute number a state possesses may be less important than its willingness to use them—small nuclear-armed states might even try to coerce the United States during a crisis.[49] As Secretary of State Dulles lamented to his Soviet counterpart, "A dictator could use the bombs to blackmail the rest of the world."[50] And in 1962, a government report suggested that "[c]oping with the possessors of a small, extortionate deterrent force will require the mastery of some new political-military techniques."[51] Finally, containing nuclear states is far more expensive than containing nonnuclear states.[52]

Seventh, although dozens of states could potentially build a nuclear weapon, U.S. policymakers remain concerned that only great powers possess the economic, technological, and bureaucratic capacities to build robust command, control, communications, and intelligence capabilities and to keep their weapons safe and secure.[53] This concern matters for two reasons. First, small

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47. Trachtenberg, *A Constructed Peace*, p. 321.

48. For the argument that nuclear weapons embolden states, see Mark S. Bell, "Beyond Emboldenment: How Acquiring Nuclear Weapons Can Change Foreign Policy," *International Security*, Vol. 40, No. 1 (Summer 2015), pp. 87–119; S. Paul Kapur, "India and Pakistan's Unstable Peace: Why Nuclear South Asia Is Not Like Cold War Europe," *International Security*, Vol. 30, No. 2 (Fall 2005), pp. 127–152; S. Paul Kapur, *Dangerous Deterrent: Nuclear Weapons Proliferation and Conflict in South Asia* (Stanford, Calif.: Stanford University Press, 2007); and S. Paul Kapur, "Ten Years of Instability in a Nuclear South Asia," *International Security*, Vol. 33, No. 2 (Fall 2008), pp. 71–94. New nuclear states may act more aggressively in the immediate aftermath of acquiring nuclear weapons. See Michael Horowitz, "The Spread of Nuclear Weapons and International Conflict: Does Experience Matter?" *Journal of Conflict Resolution*, Vol. 53, No. 2 (April 2009), pp. 234–257.

49. For the argument that nuclear weapons place a great premium on resolve, on risk-taking, and perhaps ultimately on recklessness, see Marc Trachtenberg, "Walzing to Armageddon," *National Interest*, Fall 2002, http://nationalinterest.org/article/waltzing-to-armageddon-281.

50. Memcon, October 5, 1957, in *FRUS, 1955–1957*, Vol. 20, p. 732. For fears of how the People's Republic of China would be emboldened by acquiring nuclear weapons, see Francis J. Gavin, "Blasts from the Past: Proliferation Lessons from the 1960s," *International Security*, Vol. 29, No. 3 (Winter 2004/05), pp. 100–135.

51. "Report on Strategic Developments over the Next Decade for the Interagency Panel," October 12, 1962, JFKL, p. 54.

52. For suggestions regarding expensive measures to contain a nuclear Iran, see Colin H. Kahl, Raj Pattani, and Jacob Stokes, "If All Else Fails: The Challenges of Containing a Nuclear-Armed Iran" (Washington, D.C.: Center for a New American Security, May 2013), http://www.cnas.org/sites/default/files/publications-pdf/CNAS_IfAllElseFails.pdf.

53. For an excellent assessment of this concern, see Peter D. Feaver, "Command and Control in Emerging Nuclear Nations," *International Security*, Vol. 17, No. 3 (Winter 1992/93), pp. 160–187. The United States, which spent far more than any other nuclear state on nuclear safety and command and control, was plagued by accidents and near misses. The classic work on this is Scott D. Sagan, *The Limits of Safety: Organizations, Accidents, and Nuclear Safety* (Princeton, N.J.: Princeton

and weak nuclear states could disintegrate and lose control of their weapons, including to substate actors and terrorists.[54] As Chairman of the U.S. Joint Chiefs of Staff Adm. Michael Mullen revealed about Pakistan's nuclear program, "I worry a great deal about those weapons falling into the hands of terrorists and either being proliferated or potentially used. And so, control of those, stability, stable control of those weapons is a key concern."[55] Second, the United States might be forced to politically support—against its other interests—otherwise problematic, weak nuclear states to forestall the dangers their instability might bring. When the Cold War ended, for example, the United States decided not to encourage the breakup of the Soviet Union—the preferred geostrategic choice of the George H.W. Bush administration—because of fears over nuclear security, safety, and proliferation. As President Bush and his national security adviser, Brent Scowcroft, lamented, administration officials "decided they would prefer to see weapons in the hands of just one entity, which had the stability and experience to secure them."[56]

As the greatest power in the international system seeking to maintain its security and pursue its freedom of action in the world, the United States found these challenges intolerable. The strategies of inhibition were natural, if difficult, costly, and often destabilizing, responses. For all of these reasons, the purportedly peace-inducing qualities of nuclear weapons typically took a back seat to American policymakers' fears about the effect of nuclear proliferation on U.S. national interests. The United States worked hard to inhibit the spread of independent nuclear weapons programs and mitigate the consequences of proliferation when it could not be stopped.

University Press, 1993). See also Eric Schlosser, *Command and Control: Nuclear Weapons, the Damascus Accident, and the Illusion of Safety* (New York: Penguin, 2013).

54. Joshua R. Itzkowitz Shifrinson, "Managing the Collapse of a Nuclear State: Problems and Prospects," paper presented at the American Political Science Association annual meeting, Washington, D.C., August 2014; and Joshua R. Itzkowitz Shifrinson, "The Second Face of Existential Deterrence: Nuclear Collapse and Regime Survival," Texas A&M University, 2014.

55. Paul K. Kerr and Mary Beth Nikitin, "Pakistan's Nuclear Weapons: Proliferation and Security Issues," Congressional Research Service (CRS) Report for Congress, (Washington, D.C.: CRS, March 19, 2013), p. 1, https://www.fas.org/sgp/crs/nuke/RL34248.pdf.

56. George H.W. Bush and Brent Scowcroft, *A World Transformed* (New York: Alfred A. Knopf, 1998), pp. 543–544. The U.S. intelligence community worried that South African Prime Minister John Vorster pursued nuclear weapons to induce the United States to provide more political support to the apartheid regime: "[W]e believe his price for formally agreeing to relinquish the nuclear option would come high. . . . [H]e is aware that the US government attaches great importance to halting the spread of nuclear weapons. . . . What he wants most is a general softening of US policy towards South Africa. His position may well be put something like this: if you want us to renounce the acquisition of nuclear weapons, you must make it easier for us (white South Africans) to survive as a nation." See Director of Central Intelligence, Interagency Intelligence Memorandum, South Africa's Nuclear Options and Decisionmaking Structures, (circa July 1978), in William Burr and Jeffrey T. Richelson, eds., *Proliferation Watch: U.S. Intelligence Assessments of Potential Nuclear Powers, 1977–2001*, NSA EBB 451, doc. 2, http://nsarchive.gwu.edu/nukevault/ebb451/docs/2.pdf.

THE SPECTRUM OF INHIBITION

How would such an ambitious and historically unheard of strategy—preventing sovereign states from having independent control of the most powerful weapons the world has ever seen—be carried out? Since the birth of the nuclear age, the United States has employed different strategic tools in various ways and mixes to achieve the inhibition mission. An array of factors have driven these variations, particularly shifting international circumstances, trade-offs with the openness and containment missions, and the changing preferences of new presidential administrations.

Looked at broadly, the strategies of inhibition fall into three categories along a broad spectrum: legal/normative, coercive, and assurance.[57] At one end, legal/normative policies involve U.S. policymakers pursuing arms control treaties, establishing norms, and using rhetoric to dissuade states from acquiring independent nuclear capabilities. Coercive polices are at the other end of the spectrum and include technology and export controls, interdiction, abandonment, sabotage, sanctions, and even the threat of preventive strikes against nascent nuclear states. Assurance policies have been the most prevalent and arguably the most successful tools in achieving inhibition: especially consequential has been the use of security guarantees and alliances, often backed by aggressive strategic nuclear postures, military deployments, and conventional arms sales, to extend the United States' nuclear umbrella to limit the nuclear ambitions of potential proliferants. Taken together, these policies, which are often seen as unrelated, reflect a powerful and consistent U.S. desire to limit the number of independent nuclear weapons states in the world, a mission that began in the earliest days of the nuclear age and continues today.

LEGAL/NORMATIVE STRATEGIES. Since 1945 the United States has often employed legal/normative measures—lofty rhetoric, treaties, and regimes—to highlight the dangers of nuclear weapons and to encourage a norm against their possession and a taboo against their use.[58] Every U.S. president since 1945 has spoken eloquently about the horrors of nuclear war, lamented the nuclear arms race, and called for international efforts to limit the spread of nuclear weapons.[59] Despite controversy, the United States demonstrated a willingness in the 1946 Acheson-Lilienthal Report and subsequent Baruch Plan

57. Some tools—such as the George W. Bush administration's Proliferation Security Initiative—have elements of all three categories of the strategies of inhibition.

58. Or even earlier, as the 1943 Quebec agreement with Great Britain contained nonproliferation clauses and was a U.S. attempt to gain control over global supplies of fissile materials. See Susanna Schrafstetter and Stephen Twigge, *Avoiding Armageddon: Europe, the United States, and the Struggle for Nuclear Nonproliferation, 1945–1970* (Westport, Conn.: Praeger, 2004).

59. Even in a world of total disarmament, the United States has the knowledge, infrastructure, and resources to reconstitute its nuclear weapons quicker than any other state, while possessing superiority in most forms of nonnuclear state power.

to surrender nuclear weapons to international control. In 1954 it proposed the creation of an international agency to control fissile materials. Although the Soviet Union rejected the proposal, it cooperated with the United States to create the International Atomic Energy Agency in 1957, the key global institution now responsible for monitoring and regulating nuclear activities around the world. In 1963, again in cooperation with the Soviet Union, President Kennedy established the Partial Test Ban Treaty.[60] Most significantly, the United States again partnered with the Soviet Union to negotiate the 1968 Nuclear Nonproliferation Treaty. In the years that followed, it led numerous efforts to strengthen the treaty and broaden the global nonproliferation regime, including supporting the Zangger Committee and the Nuclear Suppliers Group to better regulate civilian nuclear exports, enhancing safeguards, and backing the permanent extension of the NPT and the approval of the 1997 Additional Protocol.

Encouraging norms against the possession of nuclear weapons and traditions or even taboos against their use provides strategic benefits to the United States. As Maria Rost Rublee has argued, "U.S. policymakers can take advantage of situations that increase the potency of norms and, in some cases, can help create those conditions."[61] Nina Tannenwald points out that the taboo against nuclear use is in the United States' interest because, with its "overwhelming conventional superiority, only an adversary armed with nuclear weapons could truly threaten US forces on the battlefield."[62] T.V. Paul concurs, suggesting that "the preservation of the tradition" of nonuse of nuclear weapons prevents weak states from using nuclear weapons to "thwart U.S. intervention."[63]

The United States' legal/normative inhibition policies, however, have been open to charges of hypocrisy. Rhetorically, the United States has supported arms control and even disarmament despite continuing to spend enormous sums of money not just on building more nuclear forces, but on building nuclear systems oriented toward counterforce and damage limitation.[64] Politically, it expended large sums of capital to negotiate nonproliferation treaties that often required it to work against its allies and in tandem with the Soviet

60. For the explicit nonproliferation focus of the 1963 Partial Test Ban Treaty, see Marc Trachtenberg, *A Constructed Peace*.
61. Maria Rost Rublee, *Nonproliferation Norms: Why States Choose Nuclear Restraint* (Athens: University of Georgia, 2009), p. 217.
62. Nina Tannenwald, *The Nuclear Taboo: The United States and the Non-Use of Nuclear Weapons since 1945* (Cambridge: Cambridge University Press, 2007), p. 390.
63. T.V. Paul, *The Tradition of the Non-Use of Nuclear Weapons* (Stanford, Calif.: Stanford University Press, 2009), p. 190.
64. For an excellent analysis of the debates regarding the links between nuclear nonproliferation and disarmament, see Jeffrey W. Knopf, "Nuclear Disarmament and Nonproliferation: Examining the Linkage Argument," *International Security*, Vol. 37, No. 3 (Winter 2012/13), pp. 92–132.

Union. The United States' extensive efforts to limit the spread of nuclear knowledge, materials, and technology contradict its openness mission (and, in the case of allies, its containment mission).[65] Despite the obvious double standard, if not outright hypocrisy of these policies, U.S.-led efforts to stigmatize the possession of nuclear weapons through treaties, international laws, and encouragement of norms and taboos have been a critical aspect of the U.S inhibition strategy. As Shane Maddock has argued, U.S. policymakers believe that "the arguments used to dissuade other countries from acquiring nuclear arms" did not apply to the United States.[66]

COERCIVE STRATEGIES. The United States has employed various coercive measures to inhibit proliferation. These include sanctions, sabotage, threats of abandonment, and even preventive military strikes against nascent nuclear programs. Such measures have been considered from the very beginning of the nuclear age. As the Joint Chiefs of Staff declared in 1946, "If we were ruthlessly realistic, we would not permit any foreign power with which we are not firmly allied, and in which we do not have absolute confidence, to make or possess atomic weapons. If such a country started to make atomic weapons we would destroy its capacity to make them before it had progressed far enough to threaten us."[67]

Although preventive military action to inhibit proliferation is rarely carried out, that it is even considered is remarkable.[68] Preventive strikes are among the most aggressive actions a state can undertake, because they are typically both dangerous and deeply destabilizing to the international system.[69] Yet

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65. For an excellent overview of such controls (and the difficulty of enforcing them), see R. Scott Kemp, "The Nonproliferation Emperor Has No Clothes: The Gas Centrifuge, Supply-Side Controls, and the Future of Nuclear Proliferation." *International Security*, Vol. 38, No. 4 (Spring 2014), pp. 39–78. For examples of the Eisenhower administration's efforts to limit the spread of gas centrifuge technology, see William Burr, "The Gas Centrifuge Secret: Origins of a U.S. Policy of Nuclear Denial, 1954–1960," Electronic Briefing Book No. 518 (Washington, D.C.: National Security Archive, June 2015), http://nsarchive.gwu.edu/nukevault/ebb518-the-gas-centrifuge-secret-origins-of-US-policy-of-nuclear-denial-1954-1960/index.html. For the history of nuclear secrecy, see Alex Wellerstein, "Knowledge and the Bomb," Ph.D. dissertation, Harvard University, 2010. For the earlier and extensive attempts by the U.S. government to secure global supplies of nuclear materials, located largely in the colonies of European states, see *FRUS, 1947: General—The United Nations* (Washington, D.C.: GPO, 1947), pp. 803–906, http://digicoll.library.wisc.edu/cgi-bin/FRUS/FRUS-idx?type=header&id=FRUS.FRUS1947v01.

66. Shane J. Maddock, *Nuclear Apartheid: The Quest for American Atomic Supremacy from World War II to the Present* (Chapel Hill: University of North Carolina Press, 2014), p. 2.

67. Joint Chiefs of Staff, "Statement of Effect of Atomic Weapons on National Security and Military Organization," January 21, 1946, doc. NP00018, Nuclear Non-Proliferation collection, Digital National Security Archive (DNSA), http://gateway.proquest.com/openurl?url_ver=Z39.88-2004&res_dat=xri:dnsa&rft_dat=xri:dnsa:article:CNP00018.

68. There is obviously a controversy over whether and to what extent the 2003 U.S. attack on Iraq was driven by a desire to destroy its nuclear program and other weapons of mass destruction.

69. For preventive military action against nascent nuclear programs, see Trachtenberg, "Preventive War and U.S. Foreign Policy"; and Gavin and Rapp-Hooper, "The Copenhagen Temptation." See also Alexandre Debs and Nuno P. Monteiro, "Known Unknowns: Power Shifts, Uncertainty,

preventive thinking is not an isolated or a recent phenomenon, having been displayed by both Democratic and Republic administrations and despite dramatic changes in the international system. U.S. policymakers considered preventive military action against the nascent nuclear programs of the Soviet Union in the late 1940s and early 1950s, the People's Republic of China in the 1960s, North Korea in the 1990s, and Iraq and Iran more recently.[70] There is also evidence that the United States may have considered military action against Pakistan in the late 1970s, and that similar action was mentioned by some U.S. advisers vis-à-vis France and India during the 1960s.[71] As smaller and "less responsible" states explored the possibility of acquiring nuclear weapons, military action appeared more palatable. According to a government report, this suggested that "[a] potentially important means of coping with the problem of the nuclear-armed ruffian or racketeer may be preventive sabotage."[72] One argument made on behalf of preventive action was that it might influence the calculations of other potential proliferant states. These plans and discussions typically focused only on the target's nuclear capabilities; there were rarely plans to conquer or destroy the state in question. Even in the case of the Soviet Union, the focus of preventive thinking was largely on its nuclear assets and not its other forms of power.

Neither the United States' openness mission nor its containment mission is able to fully account for this interest in preventive military action. Consider debate within the U.S. government over preventive military action against China. By the early 1960s, U.S. national security officials clearly understood that China was not an ally of the Soviet Union, and that it was quickly becoming an adversary.[73] There is no doubt the United States had concerns about China's geopolitical and ideological orientation. If containment had been the

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and War," *International Organization*, Vol. 68, No. 1 (January 2014), pp. 1 –31; Matthew Fuhrmann and Sarah E. Kreps, "Targeting Nuclear Programs in War and Peace: A Quantitative Empirical Analysis, 1941–2000," *Journal of Conflict Resolution*, Vol. 54, No. 6 (December 2010), pp. 831–859; and Lyle J. Goldstein, *Preventive Attack and Weapons of Mass Destruction: A Comparative Historical Analysis* (Stanford, Calif.: Stanford University Press, 2006). For an excellent overview of the large literature on preventive war, see Jack S. Levy, "Preventive War: Concept and Propositions," *International Interactions*, Vol. 37, No 1 (March 2011), pp. 87–96.

70. Gavin and Rapp-Hooper, "The Copenhagen Temptation"; and Sarah E. Kreps and Matthew Fuhrmann, "Attacking the Atom: Does Bombing Nuclear Facilities Affect Proliferation?" *Journal of Strategic Studies*, Vol. 34, No. 2 (April 2011), pp. 161–187.

71. Gavin and Rapp-Hooper, "The Copenhagen Tradition."

72. "Report on Strategic Developments over the Next Decade for the Interagency Panel," p. 54.

73. Lorenz M. Luthi, *The Sino-Soviet Split: Cold War in the Communist World* (Princeton, N.J.: Princeton University Press, 2008); Sergy Radchenko, *Two Suns in the Heavens: The Sino-Soviet Struggle for Supremacy, 1962–1967* (Washington, D.C.: Woodrow Wilson Center Press, 2009); and Odd Arne Westad, ed., *Brothers in Arms: The Rise and Fall of the Sino-Soviet Alliance* (Washington, D.C.: Woodrow Wilson Center Press, 1998).

only factor shaping U.S. grand strategy, however, one might have expected the United States to accept or even exploit China's independent nuclear capability vis-à-vis the Soviet Union. Viewed solely through the containment lens, it is surprising that the United States asked Soviet leaders if they wanted to join it in a preventive strike against China, less than a year after the Cuban missile crisis.[74]

Perhaps even more surprising, the United States brought pressure to bear on allies that were thinking about acquiring their own nuclear weapons. The Federal Republic of Germany, perhaps the United States' key European ally, was often treated harshly regarding its nuclear ambitions during the 1960s. Italy, Australia, and Japan were discouraged from acquiring independent nuclear weapons. Other allies, such as Israel, Taiwan, and South Korea, were threatened with sanctions and abandonment, as was Pakistan.[75] There were even high-level discussions in the 1960s about pressuring the United States' closest ally, Great Britain, to give up its nuclear weapons or at least to decrease its reliance on independent nuclear forces.[76]

If containment alone drove U.S. grand strategy, it made very little sense to anger close friends that were part of the anti-Soviet alliance. If close Cold War allies were treated this way as part of the U.S. inhibition mission, one can imagine the calculations that took place within countries that were neutral or even adversaries of the United States. Any state weighing a nuclear weapons program had to consider very seriously possible reactions of the United States before moving forward.[77]

ASSURANCE STRATEGIES. Coercive inhibition policies, such as sanctions and threats of preventive strikes, and legal/normative inhibition policies, such as norms and treaties, often garner the most attention from scholars. It is assurance strategies, however, including intelligence activities, conventional arms

74. For U.S. efforts to convince the Soviet Union to join in a preventive strike, see William Burr and Jeffrey T. Richelson, "Whether to 'Strangle the Baby in the Cradle': The United States and the Chinese Nuclear Program, 1960–64," *International Security*, Vol. 25, No. 3 (Winter 2000/01), pp. 54–99.

75. See Gerzhoy, "Coercive Nonproliferation"; and Miller, "The Secret Success of Nonproliferation Sanctions."

76. David James Gill, *Britain and the Bomb: Nuclear Diplomacy, 1964–1970* (Stanford, Calif.: Stanford University Press, 2014).

77. It also explains why most potential proliferators developed their nuclear programs secretly. See Jeffrey T. Richelson, *Spying on the Bomb: American Nuclear Intelligence from Nazi Germany to Iran and North Korea* (New York: W.W. Norton, 2006). This was true even for countries that were not adversaries of the United States, such as Israel and India. See Avner Cohen, *Israel and the Bomb* (New York: Columbia University, 1999); and Gaurav Kampani, "New Delhi's Long Nuclear Journey: How Secrecy and Institutional Roadblocks Delayed India's Weaponization," *International Security*, Vol. 38, No. 4, (Spring 2014), pp. 79–114.

sales, and especially security agreements and alliances, that have been arguably the most important and consequential of the strategies of inhibition.[78]

Two features of U.S. grand strategy in the postwar period stand out. First is the United States' deep set of sprawling military alliances and security guarantees. Second is the extraordinarily forward-leaning and, at times, preemptive nature of its military strategy. Neither policy has antecedents in U.S. pre-nuclear history. Before 1950 the United States had always gone to great lengths to avoid entangling alliances, deploying forces abroad, or maintaining large military forces during peacetime.[79] Nor can the containment mission, which has often been defensive, fully explain these policies.[80] Both, however, have been key elements of the strategies of inhibition.

As the Cold War confrontation with the Soviet Union emerged, the United States entered into a series of alliances and provided explicit and implicit security guarantees to a range of countries. The most famous was the North Atlantic Treaty, signed in 1949, which later developed into a full-scale, integrated military alliance.[81] There were also regional treaties, such as the 1951 ANZUS agreements with Australia and New Zealand; bilateral treaties with Japan, South Korea, and Taiwan; and implicit, secret arrangements with Sweden. As time went on, a key element of these arrangements was to connect the military capabilities of the United States, particularly its nuclear forces,

78. For an excellent account of the United States' extraordinary global intelligence effort to assess which states were interested in and/or capable of developing nuclear weapons, see Richelson, *Spying on the Bomb*. For the U.S. effort to use conventional arms sales to inhibit proliferation, see Bonny Yang Lin, "Arms, Alliances, and the Bomb: Using Conventional Arms Transfers to Prevent Nuclear Proliferation," Ph.D. dissertation, Yale University, 2012. Lin demonstrates that conventional arms sales may have caused Israel and Pakistan to delay their nuclear programs and helped induce South Korea to forgo its program.

79. Before the nuclear age, the United States fought wars by exploiting its geographical isolation, mobilizing slowly and massively, and fighting grinding wars of attrition, postures that allowed for strong civilian control of the military and tight legislative oversight. See Russell F. Weigley, *The American Way of War: A History of United States Military Strategy and Policy* (Bloomington: Indiana University Press, 1960). Inhibition upended all of these traditions.

80. The earliest versions of containment, in the 1945 to 1950 period, focused on economic aid, not forward military deployments and deep, entangling alliances; the United States rapidly demobilized its military and massively decreased its defense expenditures after World War II. The Soviet detonation of an atomic device in August 1949, combined with the communist ascension to power in the People's Republic of China in October 1949, inspired a rethinking of U.S. strategy, laid out in the document penned largely by Paul Nitze, "A Report to the National Security Council—NSC 68," April 12, 1950, Harry S. Truman Presidential Library, President's Secretary's file, Truman Papers, https://www.trumanlibrary.org/whistlestop/study_collections/coldwar/documents/pdf/10-1.pdf.

81. For details of how this alliance was constructed to deal with the interlocking issues of the defense of Western Europe, the German question, and nuclear weapons, see Trachtenberg, *A Constructed Peace*, especially pp. 95–145. Although the United States was reluctant to forwardly deploy large forces in Europe, there was no other way to both contain the Soviet Union and prevent Germany from becoming "too strong and too independent" and acquiring its own independent nuclear capabilities. See ibid., p. 119.

to the defense of these countries. This "nuclear umbrella" was designed to help deter and defend against the Soviet Union, and was a key element of the containment strategy.

These security arrangements also served another purpose: to inhibit the protected state from seeking its own nuclear weapons. As Bruno Tetrais demonstrates, security guarantees "have proven to be a very effective instrument in preventing States from going nuclear."[82] Or as Jeffrey Knopf has argued, "[S]ecurity assurances are an integral part of the nuclear nonproliferation regime."[83] Countries that had the capabilities and occasionally the interest in acquiring independent nuclear forces—including Australia, Sweden, Japan, and West Germany—might feel reassured by the U.S. nuclear umbrella and eschew their own weapons (and they might be reminded from time to time how reassured they should feel).[84] These security arrangements have continued and even expanded since the end of the Cold War.[85] And although they are no longer needed to contain an adversary such as the Soviet Union, they still serve to inhibit nuclear proliferation.

Writ large, these security arrangements in the nuclear age are unlike traditional, pre-nuclear age alliances, which tended to be threat specific, additive, and temporary. With some exceptions, they have been suppressive and vague, and have lasted for decades, even after the original threat that spawned the alliance had disappeared. In some cases, where the inhibition aspect looms larger, it might be better to think of the United States and its clients as "frenemies" rather than as traditional allies.[86]

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82. Bruno Tertrais, "Security Guarantees and Nuclear Nonproliferation," Note No. 14 (Paris: Fondation pour la Recherche Stratégique, 2011), https://www.frstrategie.org/barreFRS/publications/notes/2011/201114.pdf.

83. Jeffrey W. Knopf, "Security Assurances: Initial Hypotheses," in Knopf, *Security Assurances and Nuclear Nonproliferation*, p. 13. See also Stephen Palley, "Analyzing U.S. Extended Nuclear Deterrence as a Non-Proliferation Tool," master's thesis, University of Chicago, 2007.

84. On security assurance provided by the United States to Sweden, see Thomas Jonter, "The United States and Swedish Plans to Build the Bomb, 1945–68," in Knopf, *Security Assurances and Nuclear Nonproliferation*, pp. 219–245. On U.S. security assurances to keep Japan nonnuclear, see Yuki Tatsumi, "Maintaining Japan's Non-Nuclear Identity: The Role of U.S. Security Assurances," in Knopf, *Security Assurances and Nuclear Nonproliferation*, pp. 137–161. For Australia, see Christine M. Leah, *Australia and the Bomb* (London: Palgrave Macmillan, 2014). On the role of the United States in keeping West Germany nonnuclear, see Francis J. Gavin, *Nuclear Statecraft: History and Strategy in America's Atomic Age* (Ithaca, N.Y.: Cornell University Press, 2012); and Lahti, "Security Cooperation as a Way to Stop the Spread of Nuclear Weapons?"

85. Mark Kramer suggests that Poland, Hungary, and Czechoslovakia eschewed developing or acquiring their own nuclear weapons, in contrast to what neorealism would have predicted, and focused instead on entering the North Atlantic Treaty Organization. The United States actively supported their entry. See Kramer, "Neorealism, Nuclear Proliferation, and East-Central European Strategies," in Ethan B. Kapstein and Michael Mastanduno, eds., *Unipolar Politics: Realism and State Strategies after the Cold War* (New York: Columbia University Press, 1998), pp. 385–463, at p. 429.

86. For excellent analyses of the more suppressive aspects, see Gerzhoy, "Coercive Nonprolifera-

How does the United States' nuclear strategy play into its inhibition mission? The efforts of the United States to achieve and maintain nuclear primacy during the early Cold War are well known.[87] Many nuclear strategists claimed that when the United States and the Soviet Union approached numerical parity in the middle of the 1960s, it would have been unwise for the United States to spend extraordinary sums on counterforce nuclear capabilities that made sense only as part of a so-called damage limitation strategy. Robert Jervis asserted that the United States' damage limitation nuclear strategies "did not come to grips with fundamental characteristics of nuclear politics," were "incoherent," and "conjured up unrealistic dangers" while "ignoring real problems."[88] Once mutual nuclear vulnerability between adversaries was achieved, Jervis, Waltz, and others have argued, fighting and winning a nuclear war would be illogical: therefore, efforts to achieve "nuclear superiority" would be pointless.

Despite the claims of advocates of the nuclear revolution, the United States spent tremendous sums on missile accuracy and speed, tracking Soviet nuclear submarines while improving the acoustic quieting capabilities of U.S. submarines, hardening American nuclear targets, and increasing U.S. intelligence and defensive capabilities against nuclear weapons. Keir Lieber and Daryl Press have described how the United States vigorously pursued a "counterforce revolution" that produced far more accurate missiles and the potential for a first-strike capability.[89] Austin Long and Brendan Green have dem-

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tion"; and Alexander Lanoszka, "Protection States Trust." For an incisive exploration of the unique characteristics of nuclear security guarantees, see Mira Rapp-Hooper, "Absolute Alliances: Signaling Security Guarantees in International Politics," paper presented at the Nuclear Studies Research Initiative, University of Texas, Austin, October 16, 2013. For alliances constructed for reasons other than capabilities aggregation, see Christopher Gelpi, "Alliances as Instruments of Intra-Allied Control," in Helga Haftendorn, Robert O. Keohane, and Celeste A. Wallander eds., *Imperfect Unions: Security Institutions over Time and Space* (Oxford: Oxford University Press, 1999), pp. 107–139.

87. For early efforts to achieve nuclear primacy, see David Alan Rosenberg, "The Origins of Overkill: Nuclear Weapons and American Strategy, 1945–1960," *International Security*, Vol. 7, No. 4 (Spring 1983), pp. 3–71, at pp. 20–21. Marc Trachtenberg argues that U.S. nuclear primacy, defined as the situation in which a preemptive nuclear strike against the Soviets might be "the least worst option," lasted until 1963. See Trachtenberg, *A Constructed Peace*, pp. 293–297. For the first-strike plan developed by the Kennedy administration during the Berlin crisis, see Fred Kaplan, "JFK's First Strike Plan," *Atlantic*, October 2001, http://www.theatlantic.com/magazine/archive/2001/10/jfks-first-strike-plan/376432/. See also William Burr, ed., *First Strike Options and the Berlin Crisis, September 1961*, NSA EBB 56, http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB56/. Of course, even after the United States lost nuclear primacy over the Soviet Union, it still retained it vis-à-vis every other nuclear weapons state.

88. Robert Jervis, *The Meaning of the Nuclear Revolution: Statecraft and the Prospect of Armageddon* (Ithaca, N.Y.: Cornell University Press, 1989), p. 8. See also Jervis, *The Illogic of American Nuclear Strategy*.

89. Keir A. Lieber and Daryl G. Press, "The New Era of Nuclear Weapons, Deterrence, and Conflict," *Strategic Studies Quarterly*, Vol. 7, No. 1 (Spring 2013), pp. 3–14.

onstrated that the United States strove to meet the two greatest challenges to threatening the survivability of Soviet strategic nuclear forces—being able to locate and track both Soviet mobile missiles and Soviet nuclear submarines. The United States never accepted the notion of mutual vulnerability with the Soviets and worked hard to overcome it.[90] There were times in the late 1970s and 1980s that the Soviets appeared to fear that the United States was interested in and could someday reach meaningful nuclear superiority.[91] Some analysts believe it has achieved nuclear primacy vis-à-vis China and Russia today.[92]

The U.S. drive for nuclear primacy likely had many causes, the most important of which was a desire to achieve coercive leverage vis-à-vis the Soviets in the past and perhaps over Russia and China today. Pursuing nuclear primacy, however, has two important consequences for the inhibition mission. First, accurate counterforce combined with better intelligence and defense could nullify the effect of small, less sophisticated nuclear forces. By making the bar for building a meaningful nuclear force so high, the United States might also be able to dissuade potential proliferants from building forces it could easily make obsolete. If states did build these forces, their vulnerability to a U.S. first strike removed at least some of their deterrent power vis-à-vis the United States and its allies under the U.S. nuclear umbrella. Second, by not embracing mutual vulnerability, by pursuing a counterforce (and even a preemptive) strategy, the United States has made its commitment to defend its nonnuclear allies more credible. If the United States had accepted nuclear parity with the Soviet Union, few patron states would have believed its promise to defend them while risking their own nuclear annihilation. In such a case, the pressure on the nuclear state to acquire an independent deterrent would have been strong.

Which of the strategies of inhibition discussed above has been the most effective? All three come at a cost. Earlier strategies that seemed wise, such as civilian nuclear assistance to potential proliferators, backfired and were soon

90. Long and Green, "Stalking the Secure Second Strike." For evidence that the Warsaw Pact countries viewed U.S. counterforce acquisitions and strategies in these terms, see Benjamin B. Fischer, "CANOPY WING: The U.S. War Plan That Gave the East Germans Goose Bumps," *International Journal of Intelligence and Counter-Intelligence* Vol. 27, No. 3 (2014), pp. 431–464. For the best analysis of U.S. anti-submarine warfare capabilities, see Owen R. Coté Jr., *The Third Battle: Innovation in the Navy's Silent Cold War Struggle with Soviet Submarines*, Newport Paper No. 16 (Newport, R.I.: U.S. Naval War College Press, 2003).

91. Brendan Rittenhouse Green and Austin Long, "Striving for Checkmate without War: Soviet Reactions to U.S. Counterforce Capabilities 1969–1989," paper presented to the Nuclear Studies Research Initiative, Warrenton, Virginia, May 1, 2015.

92. Lieber and Press, "The End of MAD?"

abandoned.[93] When the United States employs legal/normative strategies, it is open to the obvious charge of hypocrisy. Coercive policies are a double-edged sword: threats of military action may not be credible. On the other hand, if the coercive threats are credible, they could spur the potential proliferant to work harder, faster, and/or in secret to achieve a nuclear status that might protect them against future coercion or prevention from the United States. Assurance policies have their own difficulties. Extended deterrent commitments are plagued by credibility problems, expose the United States to significant costs and risks (including entrapment), are not always popular with the American public, and allow protected states to free ride. Thus far, U.S. policymakers have discovered no a priori optimal path to achieve the inhibition mission, and they continue to work diligently to develop the right combination of strategies.

Changing expectations, adaptation, and mitigation

As with the openness and containment missions, the United States has not always pursued the inhibition mission consistently. More important, the strategies of inhibition have not always been successful. Although there are far fewer nuclear weapons states in the world today than anyone would have predicted in 1960, 1975, or 1990, eight countries besides the United States possess nuclear weapons.[94] What explains these inconsistencies and lack of complete success?

Enthusiasm for the inhibition mission has varied across presidential administrations, at least initially. Presidents Harry Truman, John Kennedy, Lyndon Johnson, Jimmy Carter, and arguably Ronald Reagan were enthusiastic, as has been every administration since the end of the Cold War.[95] Presidents Dwight Eisenhower and Richard Nixon, on the other hand, often questioned the feasibility of achieving nuclear nonproliferation. Eisenhower supported nuclear sharing with the United States' NATO allies.[96] Nixon told his administration to

93. With Atoms for Peace, the Eisenhower administration offered the economic and technological promise of civilian nuclear energy to states that eschewed nuclear weapons. With the Multilateral Force, it was hoped that Western European states that might otherwise acquire their own, independent, nuclear weapons, would have those needs satiated by participating in a shared, multilateral nuclear endeavor. Both policies, originally motivated by the inhibition mission, were dropped in part because of fears they encouraged proliferation.

94. For an excellent analysis of how both experts and intelligence officials consistently overpredicted the number of states that would develop nuclear weapons, see Moeed Yusuf, "Predicting Proliferation: The History of the Future of Nuclear Weapons," Brookings Foreign Policy Paper No. 11 (Washington, D.C.: Brookings Institution, January 2009), http://www.brookings.edu/~/media/Research/Files/Papers/2009/1/nuclear-proliferation-yusuf/01_nuclear_proliferation_yusuf.PDF.

95. On Reagan, see Paul Lettow, *Ronald Reagan and His Quest to Abolish Nuclear Weapons* (New York: Random House, 2005).

96. The path-breaking work on Eisenhower and nuclear sharing can be found in Trachtenberg,

downplay the importance of the Nuclear Nonproliferation Treaty when he sent it to the U.S. Senate for ratification.[97] Caveats are in order in both cases, however. Nuclear sharing was understood by many in the Eisenhower administration (if not by the president himself) as an alternative to independent national nuclear forces.[98] A state that decides to share its nuclear weapons is not the same as one allowing others to develop independent national nuclear forces. And although Nixon may not have liked the Nuclear Nonproliferation Treaty it inherited from the Johnson administration, it was not interested in seeing a proliferated world.[99] By 1974 the administration's policy was unambiguous: "The non-proliferation of nuclear weapons has been a consistent and important element of U.S. policy for the entire nuclear era. Simply put, our strong, repeated, resolve in support of this objective has been predicated on our belief that the instability of the world, and the danger of nuclear war, as well as the problems of arms control would significantly increase with an unrestrained spread of nuclear weapons."[100]

In line with this thinking, Nixon and especially his national security adviser, Henry Kissinger, redoubled their efforts to prevent the spread of nuclear weapons after India's "peaceful" nuclear test in 1974, focusing especially on tightening supplier controls on civilian nuclear assistance, including creating the Nuclear Suppliers Group.[101]

Despite Eisenhower's and Nixon's misgivings, powerful support for the inhibition mission emerged from other sources, either from within a presi-

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A Constructed Peace, especially pp. 146–200. There is no doubt that Eisenhower was the least enthusiastic president when it came to inhibition. Even Eisenhower, however, was loath to see independent national nuclear forces. For him, a "whole series of independent and uncoordinated national programs would be unconscionably wasteful," see ibid., p. 155.

97. Gavin, *Nuclear Statecraft*, p. 117.

98. Consider the issues surrounding the Eisenhower administration's proposal for an atomic nuclear stockpile for NATO: "We feel that a prompt U.S. initiative is required because of threat of national nuclear weapons production in Europe. . . . the primary purpose of action proposed below is to try to head off these pressures and prevent emergence of national programs which would certainly be contrary to basic U.S. interests." See telegram from Perkins to U.S. Secretary of State, "Threat of National Nuclear Weapon Production Programs in Europe," May 21, 1957, U.S. Nuclear History collection, doc. NH01056, DNSA, http://gateway.proquest.com/openurl?url_ver=Z39.88-2004&res _dat=xri:dnsa&rft_dat=xri:dnsa:article:CNH01056. The author thanks Nicholas Miller for alerting him to this document.

99. This assessment reflects a shift from my earlier views of Nixon; see Gavin, *Nuclear Statecraft*, pp. 117–118.

100. National Security Study Memorandum 202: U.S. Non-Proliferation Policy, May 23, 1974, Richard Nixon Presidential Library, National Security Council Institutional files, Study Memorandum (1969–1974), box H-205.

101. William Burr, "A Scheme of 'Control': The United States and the Origins of the Nuclear Suppliers' Group, 1974–1976," *International History Review*, Vol. 36, No. 2 (2014), pp. 252–276. See also Or Rabinowitz and Nicholas Miller, "Keeping the Bombs in the Basement: U.S. Nonproliferation Policy toward Israel, South, Africa, and Pakistan," *International Security*, Vol. 40, No. 1 (Summer 2015), pp. 47–86.

dent's own administration or from the legislative branch.[102] Remarkably, the Congress, which often deferred to the executive branch on crucial issues such as U.S. grand strategy during the postwar years, took a keen, active interest in inhibition, even when the president in question did not.[103] Since the start of the nuclear age, Congress has passed increasingly stringent laws dealing with nonproliferation. These include the Atomic Energy Act of 1946; the Arms Control and Disarmament Act of 1961; the Symington and Glenn amendments; the Nuclear Nonproliferation Act of 1978; the Pressler and Solarz amendments; the Nuclear Proliferation Prevention Act of 1994; and a variety of laws and sanctions against Iran, Iraq, and North Korea. All were meant to prevent the president from being either encouraging or passive about proliferation, and they represent rare but powerful examples of intervention in U.S. national security policy by the legislative branch.

Furthermore, over time the United States has become more committed to the strategies of inhibition. Three factors have driven this change. First, U.S. policymakers have changed their calculations about the likelihood and pace of nuclear proliferation. Early in the nuclear age, U.S. analysts often overestimated the amount of time needed to develop independent nuclear forces while underestimating the ease with which this goal could be accomplished. In addition, U.S. concern has increased as states developed the means—through long-range bombers and intercontinental missiles—to strike the United States quickly. Second, U.S. policymakers became increasingly convinced of both the importance and the plausibility of the inhibition mission over time. Although the United States wanted to prevent proliferation from the start of the nuclear age, uncertainty existed among some policymakers about whether inhibition was feasible, given the high cost and often painful policy trade-offs required of the mission. Third, the inhibition mission often competed with other U.S. grand strategic priorities. Sometimes U.S. policies were able to accommodate all three missions—containment, openness, and inhibition. At other times, these missions clashed and choices had to be made among them. All three of these factors coalesced in the early to mid-1960s to raise inhibition's importance in U.S. grand strategy: the fear of the ease, pace, and likelihood of nuclear proliferation rose; the belief that something could and should be done to halt it increased; and the period of intense containment gave way to, if not

102. This appears particularly true in the Nixon administration, where despite Nixon's fulminations against the NPT, the U.S. government continued to emphasize nuclear nonproliferation in its foreign relations.

103. As Trachtenberg highlights, Eisenhower loathed the restrictions placed on him by the McMahon Act. See Trachtenberg, *A Constructed Peace*, pp. 178, 197. See also Steve Weber, "Shaping the Postwar Balance of Power: Multilateralism in NATO," in John Gerald Ruggie, *Multilateralism Matters: The Theory and Praxis of an Institutional Form* (New York: Columbia University Press, 1993), especially pp. 225–262.

full-fledged détente, a less aggressive Cold War competition with the Soviet Union. After 1991, inhibition trumped containment as a leading mission of U.S. grand strategy.

How does one explain cases where the United States failed to prevent states from acquiring nuclear weapons? It is important to remember that inhibition is a difficult goal; preventing sovereign states from acquiring weapons that might guarantee their security is beyond ambitious. That this mission would be difficult was well understood by U.S. policymakers. As George Kistiakowsky, who served as President Eisenhower's science adviser, remarked: "We must wage a campaign to keep proliferation at a minimum and be prepared to lose individual battles, but not the overall war. First, we should be prepared to impose pressures and present inducements to others."[104]

Finally, the inhibition mission does not end when a targeted state acquires nuclear weapons. Instead, the United States employs mitigation strategies, or efforts to lessen the impact of nuclearization. In the most extreme case, mitigation might include efforts at nuclear rollback.[105] Typically, however, mitigation forces the United States to go to great lengths to convince the newly nuclearized state to act in ways that would not increase the likelihood of other states following suit. As Or Rabinowitz has demonstrated, when it became clear that the United States could not stop Israel, South Africa, and Pakistan from developing nuclear weapons programs, it adopted a second-best approach—pressuring them not to test a nuclear device. Failing to achieve "the primary goal" of "stop[ping] or roll[ing] back existing capabilities," the United States pursued the "next best thing in the hierarchy of non-proliferation goals"—preventing nuclear tests.[106] This is a crucial and often misunderstood feature of the inhibition mission: the United States does not give up on inhibition when a state acquires nuclear weapons. Instead, it works to lessen the consequences and even reverse the undesired outcome, preventing the testing, further proliferation, or development of sophisticated delivery vehicles. Historical examples where the United States has been seen as unperturbed or even supportive of proliferation—such as Nixon's treatment of Israel or Reagan's of Pakistan—should be viewed in light of the efforts of U.S. decision-makers to mitigate the damage.[107]

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104. "Minutes of Discussion," January 7–8, 1965, LBJL, box 9.
105. For U.S. policies, see James Edward Doyle, "Nuclear Rollback: A New Direction for United States Nonproliferation Policy?" Ph.D. dissertation, University of Virginia, 1997; and Ariel E. Levite, "Never Say Never Again: Nuclear Reversal Revisited," *International Security*, Vol. 27, No. 3 (Winter 2002/03), pp. 59–88.
106. Or Rabinowitz, *Bargaining on Nuclear Tests: Washington and Its Cold War Deals* (Oxford: Oxford University Press, 2014), p. 207.
107. By the time Nixon met with Golda Meir in September 1969, Israel had already developed nuclear weapons, and the inhibition strategies pursued by the Kennedy and Johnson administrations

Writ large, U.S. inhibition policies have varied less by administration and more by period. In the earliest years of the nuclear age, U.S. policymakers hoped that limited access to nuclear materials and technology would make inhibition easy. As the Soviet Union, Great Britain, and France achieved nuclear status—and states ranging from Israel to Sweden demonstrated an active interest in nuclear weapons—many U.S. policymakers worried that inhibition was either too difficult or too costly to achieve. A dramatic shift took place in the mid-1960s, as several issues—including the fears over China's nuclearization and West Germany's interest in nuclear weapons—elevated the importance of inhibition in U.S. grand strategy and convinced American policymakers to pay a high price to achieve it.[108] Inhibition became even more central to U.S. grand strategy when the objective of containing the Soviet Union collapsed and the Cold War ended.

AN OFTEN OBSCURE STRATEGY

There remains one final question: Why, despite the enormous attention paid to both U.S. grand strategy and the nuclear revolution, have scholars and even policymakers underemphasized the strategy of inhibition since 1945? There are many reasons, but six stand out.

First, the better known containment and openness missions have deep and easily recognized roots in U.S. history and patterns in great power politics. Grand strategists in the early post–World II years were able to mine the past for lessons and examples of effective strategies to employ and policies to avoid. The containment mission, for example, has its roots in theories and practice of the balance of power and geopolitics. The openness mission has been tried, off and on, by the United States since the late nineteenth century, and was pursued by Great Britain even earlier. The nuclear revolution, on the other hand, presented completely new and profound challenges for U.S. policymakers. Nuclear weapons, capable of delivering unprecedented destruction in hours and without warning by bombers and eventually in minutes by long-range missiles, have no historical precedent and removed the United States' long-standing geopolitical invulnerability. The past provided few lessons, not only on how to inhibit proliferation but on whether it was even

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had failed. The Nixon administration moved to the next best option—mitigating the consequences. Rabinowitz argues that the conventional wisdom on U.S. policy toward Israel's nuclear program—that Israel was "an exception" to U.S. nonproliferation policies—is untrue. See Rabinowitz, *Bargaining on Nuclear Tests*, pp. 1–2. Furthermore, she demonstrates that the deal with Israel was mirrored in similar arrangements with Pakistan and South Africa.

108. For this shift, see Brands, "Non-Proliferation and the Dynamics of the Middle Cold War"; and Gavin, "Blasts from the Past."

possible or wise.[109] National security officials stumbled to articulate the inhibition mission, let alone devise effective policies to implement it, even as they acknowledged the profound threats that a nuclearized world presented to the United States.

Second, unlike traditional strategies, the inhibition mission has been aimed at a particular technology—as opposed to a particular state or regime—regardless of who possesses it. There were few usable examples from the past where a general capability, as opposed to a specific state adversary, was targeted. Traditional tools of statecraft, such as propaganda targeted against an enemy and its population, were less useful in efforts to inhibit proliferation in countries such as West Germany, Sweden, and Pakistan.

Third, many of the tools that U.S. policymakers have used to inhibit nuclear proliferation, including arms control treaties, aggressive nuclear strategies, and wide-ranging alliances, have also served the containment mission and vice versa, often obscuring the divergent sources and ends of each.[110] Meanwhile, alliances and institution building have been important components of the openness mission. Thus, despite being independent from and even at odds with other U.S. missions, the strategies of inhibition have frequently complemented the openness and especially the containment missions.

Fourth, unlike the containment and openness missions, accurately measuring the success or failures of the inhibition mission can be difficult: Would countries such as Italy, South Korea, or Brazil, for example, be nuclear weapons states today in the absence of U.S. inhibition policies? Would more effective U.S. inhibition strategies have kept Israel or India nonnuclear? Did the threats of coercion and preventive strikes, and/or the promise of security guarantees and the United States' nuclear umbrella cause otherwise nuclear-capable states to give up their pursuit of weapons? Given how many fewer nuclear states there are than either policymakers or scholars predicted, it seems

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109. As Melvyn P. Leffler pointed out in an important article about postwar military planning, U.S. officials recognized that, regardless of which state presented the threat, the United States' national security circumstances had changed. He wrote, "Defense in depth was especially important in light of the Pearl Harbor experience, the advance of technology, and the development of the atomic bomb." See Leffler, "The American Conception of National Security and the Beginnings of the Cold War, 1945–48," *American Historical Review*, Vol. 89, No. 2 (April 1984), p. 350.

110. For example, the most dangerous crisis of the Cold War—the 1958–62 standoff between the Soviet Union and the United States—saw a conflation of the containment and inhibition missions. The Soviet Union initiated the crisis in 1958 largely over concerns about West Germany's nuclear ambitions, and the crisis was resolved by 1963, when the United States agreed that West Germany had to remain nonnuclear. This paved the way toward the superpowers working to further their inhibition goals, first through the Partial Test Ban Treaty and ultimately through the NPT. See Trachtenberg, *A Constructed Peace*, especially pp. 251–256, 352–406; and Gavin, *Nuclear Statecraft*, pp. 57–74.

the strategies of inhibition have been very effective. Yet this claim remains difficult to prove.

Fifth, because inhibition policies are often aimed as much against allies and unaligned countries as adversaries, American policymakers have been more discreet and secretive about this critical aspect of U.S. grand strategy. The United States' strategies of inhibition lack a clear, explicit founding document, such as Kennan's "long telegram." The best wordsmith would have trouble converting into soaring rhetoric inhibition's goals of working with even the bitterest of enemies and threatening the closest of friends to prevent sovereign states from obtaining weapons deemed crucial to their security.

Sixth, academics often misunderstand how policymakers arrive at national security decisions, especially when the subject is nuclear weapons.[111] International relations scholars often argue that global stability is the foremost policy goal, when policymakers are often willing to countenance international instability to achieve national interests.[112] At the same time, policymakers are far more sensitive to low-probability, high-consequence events such as a nuclear attack.[113] These factors led U.S. decisionmakers to embrace the inhibition mission and pay higher prices to achieve it.[114]

For all these reasons, scholars must often dig deeper to make the connections that demonstrate that the inhibition mission has been as pervasive a component of U.S. grand strategy since the middle of the twentieth century as

111. Francis J. Gavin and James B. Steinberg, "Mind the Gap: Why Policymakers and Scholars Ignore Each Other, and What Can Be Done about It?" *Carnegie Reporter*, Vol. 6, No. 4 (Spring 2012), http://carnegie.org/publications/carnegie-reporter/single/view/article/item/308/.

112. Matthew Kroenig, "The History of Proliferation Optimism: Does It Have a Future?" *Journal of Strategic Studies*, Vol. 38, Nos. 1–2 (2015), pp. 98–125.

113. Peter D. Feaver, "Nuclear Command and Control in Crisis: Old Lessons from New History," in Henry D. Sokolski and Bruno Tertrais, eds., *Nuclear Weapons in Security Crises: What Does History Teach*? (Carlisle, Pa.: Strategic Studies Institute and U.S. Army War College Press, 2013), pp. 205–225, www.strategicstudiesinstitute.army.mil/pdffiles/PUB1156.pdf; and Peter Feaver, "What Do Policymakers Want from Academic Experts on Nuclear Proliferation?" *Monkey Cage* blog, *Washington Post*, July 8, 2014, http://www.washingtonpost.com/blogs/monkey-cage/wp/2014/07/08/what-do-policymakers-want-from-academic-experts-on-nuclear-proliferation/.

114. As Colin Kahl notes, "But, when it comes to catastrophic threats, policymakers are simply not comforted by claims that proliferation will not lead to nuclear terrorism or nuclear cascades or nuclear escalation *the vast majority of the time*. Instead, they tend to see even miniscule risks of extraordinarily bad outcomes as compelling reasons to prevent additional nuclear proliferation. . . . Because Iran is a second- or third-tier power, Realists tend to not take the Islamic Republic very seriously. They do not see a nuclear-armed Iran as a game changer in the Middle East or a direct threat to the United States. Waltz even suggests that a nuclear-armed Iran would be a net positive for international stability by serving as a check against Israeli and American militarism and intervention. Yet it is precisely because of the potential constraint on American (and Israeli) 'freedom of action' in the Middle East that U.S. policymakers so heavily weight some of the ills associated with a nuclear-armed Iran." See Colin Kahl, "Proliferation Optimism versus Proliferation Pessimism: The Case of Iran," paper presented at the Nuclear Studies Research Initiative, University of Texas, Austin, October 16, 2013, p. 28.

the containment of great power rivals and the opening of the global economic and political system.

Conclusion

Imagine that a cataclysmic, global war has ended. In the course of the conflict, one of the victors—the country that emerged most powerful—has developed a weapon that can unleash unimaginable destruction. This country decides that a key element of its postwar grand strategy will be to undertake enormous efforts to prevent or make it as difficult as possible for other sovereign states to independently control this weapon.

At first blush, this grand strategic goal was considered audacious, for at least two reasons. Historically, states went to great lengths to develop or acquire whatever military capabilities were necessary to protect and advance their interests in a dangerous world. Nuclear weapons offer extraordinary benefits to those that acquire them: they can deter attacks on their homeland, even from far larger and more powerful states, including those with nuclear weapons. This transformational technology allows smaller and medium-size states to massively increase their security and power in ways unthinkable in the pre-nuclear age, where military capabilities were directly linked to the size of a nation's economy and its population. Why would a state eschew such a powerful weapon? Joining an alliance could not substitute for this capability, because, historically, it was rare for a state to place its security so deeply in the hands of another if it could be avoided. Second, efforts to contain the spread of military technology in the past almost inevitably failed. From the armed chariot to early cannons to the Gatling gun and the Dreadnought battleship, transformative military technologies are almost always adopted quickly and widely by states that can afford them.[115]

Next imagine that the state pursuing this unprecedented strategy possesses powerful isolationist instincts, has no history of permanent alliances, and traditionally maintained a military far less powerful than it could afford. It is a state that throughout its history preferred to remain lightly engaged in world affairs, cushioned by two weak states on its borders and protected by two vast oceans.[116] Furthermore, its domestic practices emphasized a weak executive

115. The classic work on military technology, its diffusion, and its influence on power is William H. McNeil, *The Pursuit of Power: Technology, Armed Force, and Society since* A.D. *1000* (Chicago: University of Chicago Press, 1982). Note Michael Horowitz's important insight that many factors contribute to whether and how well a state exploits and adapts military technology into its strategy. See Horowitz, *The Diffusion of Military Power*.

116. International relations scholars have long been puzzled by why the United States failed to

and strong legislative oversight of national security and decisionmaking about war and peace, as well as strong civilian control over the military. Few states were less likely than the United States to undertake an open-ended mission that would demand sprawling global alliances, preemptive military strategies and pre-delegated authority to use force, concentrated executive power, secrecy, nonstop diplomacy, and international treaties, as well as working with adversaries and coercing friends.

The nuclear revolution has been with us for so long and has become so enmeshed in world politics that one sometimes forgets the profound and unprecedented challenge it presented to the safety of the United States and its freedom of action. Successive presidential administrations have responded by employing new, untested, and often bold strategies to inhibit nuclear proliferation. These strategies of inhibition are among the most underappreciated, misunderstood, and consequential aspects of postwar U.S. grand strategy.

Recognizing the central role of the strategies of inhibition since 1945 has important consequences for scholars and policymakers seeking to understand history, theory, and policy. The history of these strategies supplements the stylized picture of the Cold War period as a simple bipolar standoff. In this conventional telling, international politics was driven almost entirely by the ideological and geopolitical competition between the Soviet Union and the United States; the concerns of small and medium-size powers were not of great importance; alliances were solely additive; and the end of the Cold War completely transformed U.S. national security interests. As is now known, while postwar nuclear history and Cold War history overlap and are interconnected, they are not the same thing.[117] As a recent study points out, "[I]n the afterglow of Hiroshima and Nagasaki, halting the spread of nuclear weapons became central to postwar international politics."[118]

Recognizing the importance of the strategies of inhibition does not displace the centrality of the Cold War struggle between the Soviet Union and the United States. It does, however, highlight how inhibition was a distinct mission, producing even occasional cooperation with the target of containment, Soviet Russia. It also makes clear that many U.S. alliances were oriented toward both suppressing client states' nuclear ambitions and balancing against

translate its enormous economic power into peacetime military power before 1950. See Fareed Zakaria, *From Wealth to Power: The Unusual Origins of America's World Role* (Princeton, N.J.: Princeton University Press, 1999). For an excellent historical account, see Walter McDougall, *Promised Land, Crusader State: The American Encounter with the World since 1776* (New York: Houghton Mifflin, 1997).

117. This is a major theme in Gavin, *Nuclear Statecraft*.

118. Schrafstetter and Twigge, *Avoiding Armageddon*.

the Soviets. At times, the strategies of inhibition complemented the openness and containment missions, but often they were independent drivers of U.S. grand strategy. The strategies of inhibition help explain why there has been so much continuity in key U.S. national security policies despite a profound change in the international political system: the end of the Cold War.

Furthermore, the strategies of inhibition provide a more convincing explanation for many contested questions surrounding nuclear dynamics. The question of why there has been less nuclear proliferation than expected, for example, has focused almost exclusively on the calculations of the potential proliferants. What are their capabilities to build a nuclear weapon? What are their motivations to either develop nuclear weapons or eschew the bomb? The literature on nuclear proliferation has impressively analyzed the technological, normative, security, and domestic political incentives and barriers to building a bomb.[119] Understanding the strategies of inhibition, however, reveals that a key—if not the key—variable in determining many proliferation outcomes since 1945 may have been the grand strategy of the United States. Inhibition also bridges the divide between "supply-side" and "demand-side" explanations for the rate of nuclear proliferation, given that the United States' strategies of inhibition have targeted both. The history of the nuclear age is incomplete unless scholars and policymakers better understand the lengths to which the United States has gone to inhibit nuclearization and how its strategies have influenced decisionmaking about nuclear weapons in capitals around the world.

Kenneth Waltz claimed that "in the past half-century, no country has been able to prevent other countries from going nuclear if they were determined to do so."[120] Jacques Hymans posits that "the overwhelming majority of scholarly work on nuclear proliferation argues that states do not directly respond to the international environment in making their nuclear weapons choices."[121] It seems difficult to argue, however, that nuclear decisionmaking in any number

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119. For an excellent summary of the academic literature on proliferation and nonproliferation, see Jacques E.C. Hymans, "Nuclear Proliferation and Non-Proliferation," in Robert A. Denemark, ed., *The International Studies Encyclopedia* (London: Blackwell, 2010), pp. 5447–5466. For a recent article on security considerations, see Nuno P. Monteiro and Alexandre Debs, "The Strategic Logic of Nuclear Proliferation," *International Security*, Vol. 39, No. 2 (Fall 2014), pp. 7–51. For the best supply side explanations, see Matthew Furhmann, *Atomic Assistance: How "Atoms for Peace" Programs Cause Nuclear Insecurity* (Ithaca, N.Y.: Cornell University Press, 2012); and Kroenig, *Exporting the Bomb*.

120. Kenneth N. Waltz, in Scott D. Sagan and Waltz, eds., *The Spread of Nuclear Weapons: A Debate Renewed*, 2nd ed. (New York: W.W. Norton, 2003), p. 38.

121. Jacques E.C. Hymans, "Veto Players, Nuclear Energy, and Nonproliferation: Domestic Institutional Barriers to a Japanese Bomb," *International Security*, Vol. 36, No. 2 (Fall 2011), pp. 154–189, at p. 154.

of states—whether it be West Germany, Japan, South Korea, Taiwan, Sweden, or Iraq—was not profoundly influenced by U.S. strategies of inhibition. By arresting or mitigating proliferation among key states, these strategies affected the international environment, increasing the likely costs to proliferation while decreasing the risks for states to remain nonnuclear.

The strategies of inhibition also challenge how defensive realism has sought to explain the influence of nuclear weapons on world politics. Building on the work of strategists such as Bernard Brodie, scholars including Robert Jervis, Stephen Van Evera, and Kenneth Waltz have emphasized the peace-inducing effects of nuclear weapons and have suggested that nuclear proliferation is neither a disaster nor a cause for dramatic policy interventions. This perspective has focused on the powerful stabilizing effects of mutual vulnerability that arise when nuclear states achieve secure second-strike capabilities. Defensive realism further predicts that the United States should have been content with its own security and the security nuclear weapons offer to other states. The inhibition mission, however, explains why a variety of U.S. nuclear strategies and nuclear nonproliferation policies have deviated so dramatically from defensive realism's predictions.

Although offensive realists have sometimes been fuzzy in explaining the impact of nuclear weapons, their theory may better explain certain aspects of U.S. strategies of inhibition.[122] The seven drivers of the inhibition strategy all relate to the power-equalizing effects of nuclear weapons and are guided by efforts of the United States to safeguard its security, preserve its power, and maintain its freedom of action. Regardless of the stabilizing qualities that nuclear weapons may have possessed, U.S. policymakers have never accepted being deterred by other states and have aggressively sought to prevent the spread of nuclear weapons.

Is the inhibition mission simply an element of a larger grand strategic goal of U.S. primacy or even hegemony? It is true that the strategies of inhibition focus solely on weapons, not on territories, markets, or resources (i.e., the typical targets of imperial or hegemonic power).[123] And unlike containment, which focused historically on adversaries, and openness, which applied largely to

122. Mearsheimer wrote, "The best way for a state to achieve nuclear superiority is by arming itself with nuclear weapons while making sure no other state has them. A state with a nuclear monopoly, by definition, does not have to worry about retaliation in kind if it unleashes its nuclear weapons." See John J. Mearsheimer, *The Tragedy of Great Power Politics* (New York: W.W. Norton, 2001), p. 129.

123. The nuclear revolution may have decreased the value of imperial territory to great powers. Although it may be a coincidence, France and Great Britain put great efforts into developing nuclear weapons at the same time they were losing their colonies. The author is grateful to Alexander Lanoska for this observation.

allies, the inhibition mission has applied to all states, with little regard for their economic or political orientation, geographic location, or power-political status. Furthermore, the inhibition mission has required the United States to construct policies—such as semi-permanent alliances backed by a highly mobilized military—that clearly break from its long-standing history and traditions.[124] As the nuclear age unfolded, however, policymakers recognized that the "stopping power of water" no longer guaranteed either the safety of the United States or its freedom of action.[125] The strategies of inhibition, and the dramatic changes that came with them, were a response to the unprecedented constraints placed on U.S. freedom of action and the potentially devastating destruction of weapons that could be delivered to the United States by long-range bombers or missiles in hours if not minutes.[126]

Finally, inhibition provides insight into the debates about U.S. grand strategy since the end of the Cold War. Although there are a variety of schools and positions, the sharpest debate is between scholars who argue that the United States is dangerously overcommitted abroad and those who believe that U.S. engagement in the world provides tangible benefits, especially economic ones. In fact, the United States' forward-leading, deep engagement is driven, at least in part, by the inhibition mission. Therefore, assessing the costs and effectiveness of U.S. grand strategy must take the strategies of inhibition into account. Furthermore, inhibition helps explain U.S. national security policies that have long puzzled students of U.S. grand strategy, including interest in preventive strikes and coercion vis-à-vis emerging nuclear states; the continuation and broadening of Cold War alliances after the disappearance of the Soviet Union; and the persistent and expensive interest in ballistic missile de-

124. During the years 1945–49, when the United States possessed a nuclear monopoly, it demobilized its military and demonstrated little interest in projecting its military power abroad. It was only after the Soviet Union detonated an atomic device—far earlier than expected—combined with the communist victory in China and what was seen as Soviet-supported aggression on the Korean Peninsula, that the United States began a massive military buildup that ultimately included deploying its forces abroad and developing a forward-leaning, damage limitation nuclear strategy.

125. Mearsheimer, *The Tragedy of Great Power Politics*, p. 44. The author is grateful to Alexander Lanoska for this insight.

126. Is inhibition a product of U.S. exceptionalism or instead a leading power phenomenon that would be embraced by any country possessing the United States' geopolitical position? One obvious test would be to examine more closely the attitudes of the Soviet Union when it was a superpower. Although we know that the Soviets often cooperated with the United States during the Cold War on nuclear nonproliferation, we know far less about their motives or whether they would have pursued inhibition without U.S. encouragement. For an intriguing look into the Soviet case, see Eliza Gheorghe, "Frenemies, Nuclear Sharing, and Proliferation: The Eastern Bloc, 1965–1969," paper prepared for the Nuclear Studies Research Initiative workshop, Warrenton, Virginia, April 30 to May 2, 2015.

fense, hard-target counterforce, and command, control, communications, and intelligence capabilities.

This inhibition logic is at work in U.S. grand strategy today. The strategies of inhibition help explain not only the persistence of the United States' efforts to keep Iran from acquiring a bomb but also its motivation. Neither the geopolitical goals nor the ideological orientation of the regime in Tehran—no matter how troublesome to U.S. policymakers—is the primary driver of U.S. nonproliferation efforts vis-à-vis Iran. Nor are interest-driven U.S. inhibition strategies propelled by a desire to provide public goods and global security, though these may be welcome by-products.

There is still much to learn about the strategies of inhibition. Which of the drivers and responses has the United States prioritized and why, and which strategies of inhibition have policymakers found most suitable for each case of potential proliferation? Even more importantly, how have policymakers made trade-offs among the containment, openness, and inhibition missions, and have these calculations changed over time? Despite the powerful and consistent desire to inhibit nuclear proliferation, U.S. grand strategy has been implemented in a dynamic, ever-changing political and technological environment, and has faced challenges it never had to deal with before 1945.

What is the future of inhibition? The United States is at a point where its power and ability to shape world politics are widely seen as waning, and where calls for a more restrained U.S. grand strategy are growing in popularity. Yet the potential for increases in the number of states with independent nuclear forces is ever present. The inhibition mission has been both more successful and more expensive and dangerous than has been recognized. Has the high price been worth it, and should the United States continue to pay it going forward? What happens when it is no longer willing or able to be the main force for nonproliferation in the world? The debates over the future of U.S. grand strategy will be woefully incomplete until scholars and policymakers address these questions.