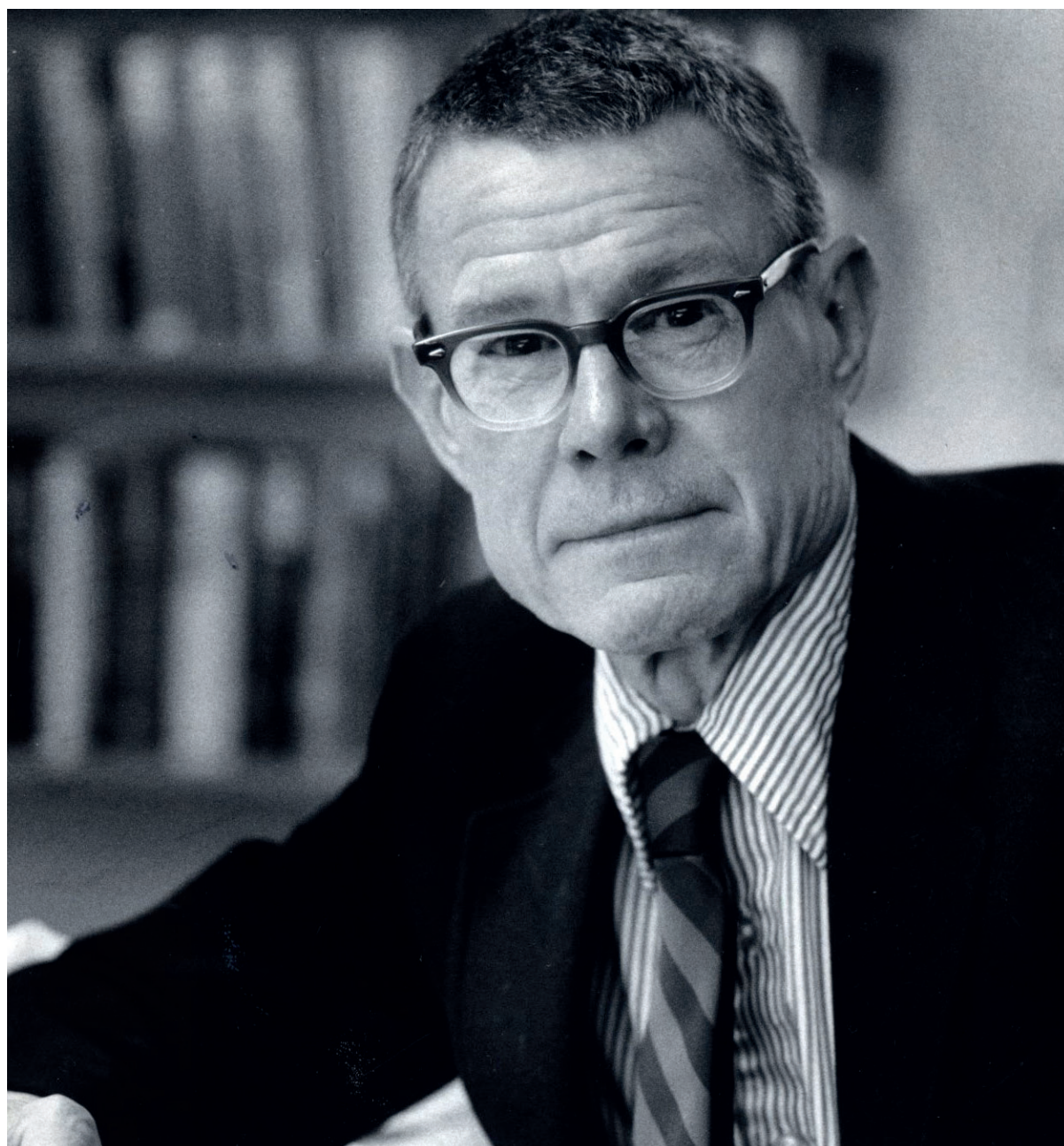


Strategic Stability and Its Limits: Reflections on Schelling

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Emerging technologies possess the potential to transform military competition and the international system in an uncertain, potentially destabilizing fashion. Are there ways to capture the benefits of these new technologies without unleashing catastrophic dangers? What insights and lessons can we glean from history—particularly from the Cold War experience the United States had with nuclear weapons—to help us navigate the challenges of today and tomorrow’s new technologies?

This essay examines the concept of strategic stability, and in particular, the important ideas from the foundational thinker of the nuclear age, Thomas Schelling. For decades, strategic stability has been offered as both the prized goal and the great accomplishment of America’s nuclear statecraft, with Schelling acknowledged as the idea’s father. Examined closely, however, questions, tensions, and even contradictions appear, both in Schelling’s work and in the use of strategic stability to describe America’s nuclear strategy and statecraft.

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This is not the first time revolutionary capabilities have upended world politics. Nuclear and thermonuclear weapons, married to increasingly sophisticated ways of delivering their destruction across the globe in hours, if not minutes, upended global affairs in the post–World War II era, generating what Robert Jervis and others termed “the nuclear revolution.”¹

What insights and lessons can we glean from this history—particularly from the Cold War experience the United States had with the bomb—to help us navigate the challenges of today and tomorrow’s new technologies? Might the story of how the Soviet Union and the United States managed to avoid a nuclear war hold lessons for how today’s technological superpowers, America and China, can minimize danger?

This essay explores these questions by examining the concept of strategic stability, and in particular, the important ideas from the foundational thinker of the nuclear age, Thomas Schelling. For decades, strategic stability has been offered as both the prized goal and the great accomplishment of America’s nuclear statecraft, with Schelling acknowledged as the idea’s father.

Why focus on Thomas Schelling? The Nobel Prize–winning economist’s connection to the concept of stability—and its centrality to nuclear strategy, arms control, and peace—has been long understood as foundational.² As the historian Benjamin Wilson contends: “Of all of Schelling’s nuclear ideas, perhaps none was more important than stability. The history of arms-control debates after 1960 could be told largely as a set of arguments over policies that were praised or criticized for their allegedly stabilizing or destabilizing effects.”³ In the foreword to a 2013 volume edited by Elbridge A. Colby and Michael S. Gerson, Schelling reflected on the idea

1 Robert Jervis, *The Meaning of the Nuclear Revolution: Statecraft and the Prospect of Armageddon* (Cornell University Press, 1989).

2 Historians disagree about who came up with the idea first—Bernard Brodie, Albert Wohlstetter, or Thomas Schelling—and how each influenced the other (as explored in email exchanges between Austin Long, Robert Jervis, Marc Trachtenberg, Benjamin Wilson, and myself, February 16–21, 2021). The connection between stability and secure strike survivability is also debated, which Wohlstetter highlighted but Schelling and Brodie, at least initially, did not.

3 Benjamin Wilson, “Keynes Goes Nuclear: Thomas Schelling and the Macroeconomic Origins of Strategic Stability,” *Modern Intellectual History* (2019): 1, <https://doi.org/10.1017/S1479244319000271>.

of strategic stability and how he came to embrace it.⁴ Recalling the findings of the 1957 Gaither Committee Report and the 1958 Geneva Conference on Surprise Attack,⁵ Schelling explained, “I was brought up on the ‘stability of mutual deterrence,’ half a century ago, and it was not all that difficult to understand.” Albert Wohlstetter’s famous paper, “The Delicate Balance of Terror,” Schelling acknowledged, profoundly influenced his own thinking.⁶

Over time, understanding how best to craft postures and policies that secured strategic stability between the superpowers became the prized goal of the security studies community, and through the work of Schelling and his colleagues, helped shape key decisions by the United States government, ranging from the “airborne alert” of strategic bombers to the notion that missile defenses undermined mutual deterrence. “All of that, despite its having taken more than a decade to become obvious, was sensible, simple, and effective. We all knew what was meant by stability. . . . We knew we did not want deterrence to be too ‘delicate’ and we knew that stability was a mutual goal.”⁷ This concept of strategic stability, based on mutual vulnerability between the superpowers, became associated with Schelling. It was also enormously consequential, arguably providing the intellectual architecture for the landmark 1972 Antiballistic Missile and Strategic Arms Limitations Treaty, as well as ensuing agreements between the United States and Russia. This history seems to provide a model for current dilemmas surrounding emerging technology.

Examined more closely, however, questions, tensions, and even contradictions appear, both in Schelling’s work and in the use of strategic stability to describe America’s nuclear strategy and statecraft. Four issues in particular stand out. First, Schelling advocated for—and the United States pursued—both nuclear stability *and* coercion, despite these goals and postures often being at odds. Second, Schelling and others’ views of the history of military competition and grand strategy—and concepts such as surprise attack and arms racing—were often misguided, based on a simplistic reading of the past. Third, it was not always clear how hard or easy it is

to achieve strategic stability, or whether it is always desirable. Fourth, pursuing strategic stability could undermine proliferation-nonproliferation stability, and vice versa. Exploring these tensions should allow contemporary analysts to better assess what lessons and insights from the past might be applied to emerging technology challenges today and help determine whether strategic stability is the best ambition for American decision-makers.

Strategic Stability or Coercion?

Schelling’s foundational work on strategic stability is all the more interesting as, concurrently, he was also developing policies for what might be seen as its polar opposite: using nuclear weapons to coerce or compel an adversary. Consider a memo he sent to President John F. Kennedy at the height of the crisis over Berlin. The paper, titled “Nuclear Strategy in the Berlin Crisis,” was read by the president over the weekend of July 21, 1961, at his family’s vacation home in Hyannis Port, Massachusetts. Kennedy was weighing how to respond to the dangerous standoff with the Soviets over the status of West Berlin, as he prepared a nationwide address to steel the country for the possibility of military action, which he planned to give on his return to Washington, DC.⁸

The challenge of defending the enclave of West Berlin, located deep in East Germany and surrounded by overwhelming Warsaw Pact conventional forces, had vexed both the Eisenhower and Kennedy administrations’ military planners after Soviet Premier Nikita Khrushchev first threatened the city’s Western status in late 1958. Given the lopsided conventional military balance and the unique logistical challenges, any effort by the United States and its allies to liberate the city would require going on the offensive against vastly superior forces. How would the president respond, for example, if the Warsaw Pact destroyed an American division heading to Berlin on the autobahn? Would nuclear weapons be used, and if so, in what ways?

Schelling assumed that an early threat by the United States to launch a full-scale nuclear assault

4 Thomas C. Schelling, “Foreword,” in *Strategic Stability: Contending Interpretations*, ed. Elbridge A. Colby and Michael S. Gerson (US Army War College Press, 2013), v–vii.

5 The Gaither Report, officially titled “Deterrence & Survival in the Nuclear Age,” assessed and offered recommendations against the perceived threat of a Soviet nuclear attack. See “Deterrence & Survival in the Nuclear Age,” in *Foreign Relations of the United States, 1955–1957*, vol. XIX (United States Government Printing Office, 1957). The 1958 Geneva Conference on Surprise Attack was a Cold War conference—held in Geneva, Switzerland, and attended by France, the Soviet Union, Great Britain, and the United States—that explored technical discussions to prevent surprise attacks.

6 Albert Wohlstetter, “The Delicate Balance of Terror,” *Foreign Affairs*, January 1959, <https://www.foreignaffairs.com/articles/1959-01-01/delicate-balance-terror>.

7 Schelling, “Foreword.”

8 Thomas Schelling, “Nuclear Strategy in the Berlin Crisis,” July 5, 1961, *Foreign Relations of the United States, 1961–1963*, vol. XIV, document 56, <https://history.state.gov/historicaldocuments/frus1961-63v14/d56>.

was not sufficiently credible to deter a Soviet Bloc move against West Berlin. It was equally difficult to imagine the United States ceasing hostilities after it lost a conventional campaign. In Schelling's view, however, the regional use of nuclear weapons for tactical battlefield purposes was equally problematic. "Either it would come to a pause, or it would blow up into general war. If the latter, the regional nuclear campaign serves little purpose, if any."⁹

The point of any nuclear use, according to Schelling, was not to win the battle, but to "pose a higher level of risk to the enemy."¹⁰ Weapons, strategies, and targets should be chosen not for their military efficacy, but for their ability to signal both resolve and the risks of intentional or inadvertent escalation to general war if the enemy did not back down. The United States "should plan for a war of nerve, of demonstration, and of bargaining, not of tactical target destruction. Destroying the target is incidental to the message the detonation conveys to the Soviet leadership." In other words, "the difference between one weapon, a dozen, a hundred, or a thousand, is not in the number of targets destroyed but in the Soviet (and American) perception of risks, intent, precedent, and implied 'proposal' for the conduct or termination of war. . . . Success in the use of nuclears will be measured not by the targets destroyed but by how well we manage the level of risk."¹¹

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One wonders what President Kennedy made of Schelling's memo. Then-National Security Advisor McGeorge Bundy noted on the document that it "had made a 'deep impression' on the president."¹² The implications of Schelling's recommendations, however, were worrying. To convey seriousness

and shared risk, the United States should be prepared to launch a demonstration nuclear strike on Soviet territory—not for any military end, but to signal resolve.¹³ How would the Soviets respond to such a nuclear detonation? According to Schelling, they might pursue their own "selective use in a bargaining strategy,"¹⁴ which begs the question of how the crisis would ultimately be brought to an acceptable end. Who would relent first, and why? Given the consequences unleashed by any nuclear strike, where recognizing the purpose and the size of any adversarial attack could be difficult, the Soviets might misunderstand the intended signal of Schelling's strike and assume the Americans were launching a full-scale regional or even general war. The incentives for the Soviets to launch their own devastating response—to use nuclear weapons massively—against Western targets would be enormous.

Knowing this risk, the president of the United States might be left where he began: If he considered using nuclear weapons at all, there would be powerful incentives to employ them massively and preemptively, to limit the damage to the United States from any Soviet response. Such a horrifying possibility, however, made it unlikely he would ever actually use them, deterring itself. The many efforts to find an in-between place, somewhere between surrender and all-out nuclear war, seemed doomed to fail. US Deputy Secretary of Defense Paul Nitze identified the flaw in Schelling's proposal: The "problem at issue was if you make a demonstrative use, what do you expect the other side to do? . . . If 3 used, they might use 6; then you hit them with 12. . . . Somebody sometime is going to decide that this kind of thing isn't the point—the point is to use the advantages for a first strike. . . . This is kind of a mug's game that you're trying to play."¹⁵

This Schelling memo to President Kennedy serves as a Rorschach test for people thinking about the bomb and the strange, often confounding influence nuclear weapons have on statecraft and international politics. For some, Schelling's analysis highlights the need for nuclear strategy to focus on signaling and credibility. Others find that it reveals the importance

9 Schelling, "Nuclear Strategy in the Berlin Crisis."

10 Schelling, "Nuclear Strategy in the Berlin Crisis."

11 Schelling, "Nuclear Strategy in the Berlin Crisis."

12 The source text bears Bundy's notation: "Sent to H[yannis] P[ort] Weekend of 7/21." Bundy noted that the study had made a "deep impression" on the president. See *Foreign Relations of the United States, 1961–1963*, vol. XIV, document 56, footnote 1, <https://history.state.gov/historicaldocuments/frus1961-63v14/d56>.

13 One assumes that Schelling was recommending nuclear use only after it was clear that the United States and its allies were losing in a conventional battle with Soviet and Warsaw Pact forces, though this is not spelled out in the memo.

14 Schelling, "Nuclear Strategy in the Berlin Crisis."

15 From the Gregg Herken interview of Paul Nitze, May 11, 1983, Library of Congress, Paul Nitze Papers, box II: 2, folder 4, General Correspondence, He-Hy, 2-3: "All this business of sending messages was perverse. I thought it a way not to think, promoted by academics. The Harvard academics' Schelling confirmed in particular. 'A very bright fellow. . . . The whole essence of academia is novel ideas, not wisdom.'"

of limited, flexible nuclear options. For others still, it demonstrates why so-called “damage-limitation,” even preemptive strategies, is called for. And yet, for even others, the document proves how bonkers the whole idea of nuclear “strategy” is. Looked at decades later, it is hard not to find Schelling’s memo unsettling. There was little in Schelling’s proposal that was stabilizing. How might the Berlin Crisis of 1961 have played out if President Kennedy had pursued Schelling’s recommendations?

Making this even stranger is the tension between Schelling’s memo and his book *Strategy and Arms Control*, a slight volume coauthored with Morton Halperin and written around the same time as the memo. The book built upon papers and discussions held by the Harvard-MIT Summer Study on Arms Control and was workshopped in a Harvard-MIT faculty meeting the previous year. At the height of the Cold War competition between the Soviet Union and the United States, Schelling and Halperin contended that the core issue in international politics was that the very nature of nuclear weapons might produce a war neither superpower wanted: “An important premise underlying the point of view of this study is that a main determinant of the likelihood of war is the nature of present military technology and present military expectations. We and the Soviets are to some extent trapped by our military technology.”¹⁶ The book was widely distributed to members of the incoming Kennedy administration—many of whom had been scholars from Cambridge, Massachusetts, and the RAND Corporation—within weeks of the inauguration.¹⁷

This new world of mutual vulnerability that Schelling both sought and praised in *Strategy and Arms Control*, however, confronted statesmen with a dilemma. If launching a fully mobilized, great-power war was no longer a meaningful instrument of strategy, and if even threatening to intentionally unleash such a war was not credible, what tools were left to a state to achieve its ambitions in the world? And were America’s geopolitical goals, which went far beyond protecting the homeland of the United States to include deterring a Soviet attack on far-flung global allies, including West Berlin—a city deep in enemy territory—compatible with strategic stability?

Interestingly, Schelling provided his answer in yet another book written at almost the same time, *The Strategy of Conflict*, and expanded on these ideas in

his 1966 book, *Arms and Influence*.¹⁸ Policymakers, he argued, had to embrace new kinds of strategies to achieve political ambitions in the world. In a nuclear environment, “military power is not so much exercised as threatened” to generate “bargaining power” or what he also called “the diplomacy of violence.” Concepts such as “the threat that leaves something to chance,” “the art of commitment,” and “the manipulation of risk” provided policymakers with a different way of thinking about employing both the threat and the use of force.¹⁹ The purpose of military power thus shifted from defeating an enemy’s armies and navies to conveying signals by imposing or withholding pain.

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There is a remarkable but often overlooked tension between *Strategy and Arms Control*—which sought to minimize the danger of nuclear war by enshrining mutual vulnerability and pursuing arms control—and Schelling’s other two important works on nuclear strategy, which suggested employing strategies to create and exploit uncertainty, manipulate risk, and use targeted, graduated violence to signal credible commitments. Each of the books seeks to escape the condition of being “trapped by our military technology,” but for different ends: *Strategy and Arms Control* states that war could be avoided by embracing mutual vulnerability and pursuing arms control, whereas *The Strategy of Conflict* and *Arms and Influence* recommend exploiting uncertainty and risk to coerce. One goal is stabilizing, the other is not.

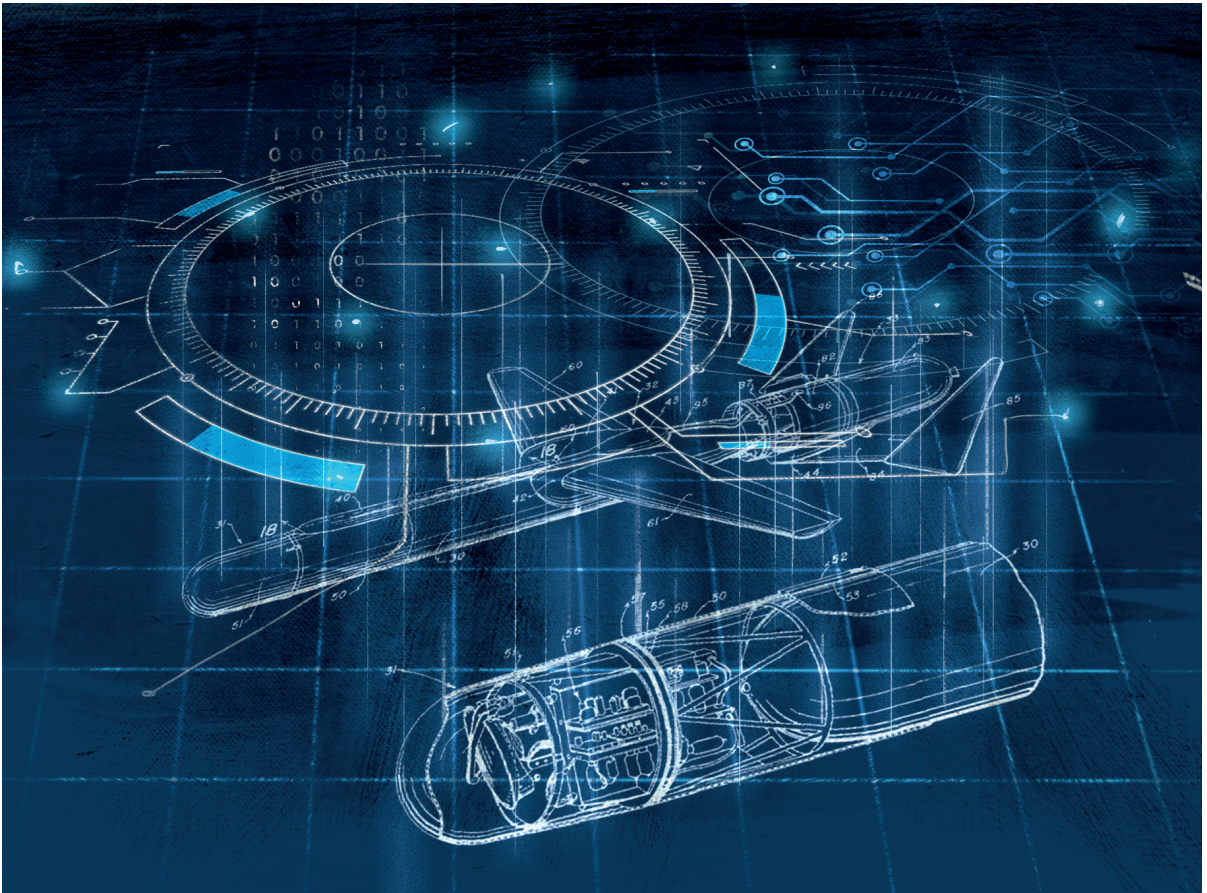
Both ideas shaped America’s nuclear statecraft. The concepts of strategic stability and superpower arms control laid the groundwork for the Antiballistic Missile Treaty and Strategic Arms Limitation treaties, which many believe reduced the risk of thermonu-

16 Thomas C. Schelling and Morton H. Halperin, *Strategy and Arms Control* (Twentieth Century Fund, 1961), 3.

17 David C. Atkinson, “The Power of Restraint in the ‘Golden Age’ of Arms Control: A Tribute to Thomas C. Schelling,” Epicenter: Weatherford Center for International Affairs, January 25, 2017, <https://epicenter.wcfia.harvard.edu/blog/power-of-restraint-in-golden-age-of-arms-control>.

18 Thomas C. Schelling, *The Strategy of Conflict* (Harvard University Press, 1960); Thomas C. Schelling, *Arms and Influence* (Yale University Press, 1966).

19 These are chapter headings and well-known concepts developed in Schelling, *The Strategy of Conflict*, and Schelling, *Arms and Influence*.



clear war and, if nothing else, limited arms racing in ways that made international politics more stable and predictable. Strategies of coercion, on the other hand, shaped American and NATO nuclear strategy,²⁰ including by providing inspiration for one of the worst, most tragic military operations in American history—the “strategic” bombing of North Vietnam.

Through the plans of Schelling’s friend and protégé, John McNaughton (who was assistant secretary of defense for international security affairs at the time), the Johnson administration employed Schelling’s belief that measured, graduated bombing could coerce the North Vietnamese into changing their behavior—in this case, ending their support for the Viet Cong insurgency. The goal was not to *defeat* North Vietnam’s armies, but rather to send signals and alter incentives.²¹ Schelling, it should be

noted, imagined that such “compellence” (a word he coined) might eventually be needed against a larger enemy—China—though with targeted tactical nuclear weapons instead of conventional ordnance to convey the message: “For translating the North Vietnamese campaign to China, though, nuclear weapons are sure to be considered, not only because their greater efficiency may be more decisive but because the issues involved in a coercive attack on China itself would be correspondingly greater and more likely to equal or to exceed in seriousness the rupturing of our antinuclear traditions.”²²

To an extent rarely emphasized within the security studies and arms control communities, the goals of achieving strategic stability and compelling an adversary through certain destabilizing military behaviors—both recommended by Schelling—were at

20 Herman Kahn also analyzed the manipulation of risk. See Kahn, *One Escalation: Metaphors and Scenarios* (Praeger, 1965).

21 Lawrence Freedman, “Vietnam and the Disillusioned Strategist,” *International Affairs* 72, no. 1 (January 1996): 133–51, <https://doi.org/10.2307/2624753>; Fred Kaplan, “All Pain, No Gain: Nobel Laureate Thomas Schelling’s Little-Known Role in the Vietnam War,” *Slate*, Oct. 11, 2005, <https://slate.com/news-and-politics/2005/10/nobel-winner-tom-schelling-s-roll-in-the-vietnam-war.html>; Richard Ned Lebow, “Thomas Schelling and Strategic Bargaining,” *International Journal* 51, no. 3 (Summer 1996): 555–76, <https://doi.org/10.1177%2F002070209605100308>.

22 Schelling, *Arms and Influence*, 188. See also page 186: “It might indeed take nuclear weapons to shock the Chinese into an appreciation that we were serious. . . . What the United States was doing in North Vietnam in 1965 against a third-rate adversary, with conventional explosives carried by airplanes that were not designed for the purpose, it would probably attempt to do in China with low-yield nuclear weapons in airplanes that have not yet been designed for it.”

odds.²³ This tension is best explained by the fact that America's *geopolitical* goals—defending Western Europe in the face of Warsaw Pact conventional military superiority, extending its nuclear umbrella over allies, and inhibiting nuclear proliferation—were far harder to achieve if America simply accepted mutual vulnerability with the Soviet Union. Even scholars sympathetic to Schelling's approach noted a deep tension:

*Thus, when Schelling writes on arms control, he talks of the danger of inadvertent war and the necessity for reassurances that show the adversary that the state will refrain from attacking if the adversary will. When he writes on deterrence, he argues that war can occur if the state appears weak, and that it must show that it will not back down in the face of threats.*²⁴

Schelling's views were not anomalous; they reflected contradictions within the discussion of stability in the strategy community.²⁵ As Marc Trachtenberg has pointed out, this "basic tension" affected all the key strategists at the time. They acknowledged that the United States and the Soviet Union developing survivable thermonuclear weapons meant that "all-out war became an absurdity." At the same time, this same community became obsessed with the idea that "the threat of nuclear war could be used for political purposes that went well beyond deterring the use of nuclear weapons by an adversary." Remarkably, "the same people were attracted to both approaches, often at the same time," despite the clear fact that these two approaches to nuclear strategy were "in obvious conflict with each other."²⁶ To this day, this tension—that threatening nuclear use has political utility, yet to ever use these weapons is inconceivable—has not been resolved.

Strategic Stability, Grand Strategy, and Misuse of History?

This brings up an important question: Should strategic stability, based on the balance of military

technology, be the goal of American policy, and is it the right conceptual lens to understand, evaluate, and make recommendations about America's military posture, strategy, and larger grand strategy? Despite the obvious tensions and contradictions that lay at the origins and center of the stability concept, it remains to this day, in many ways, the intellectual organizing principle held by many people for understanding nuclear behavior and nuclear policy, especially by the United States.

Stability is also the foundational concept for most in the arms control community. Analysts often assess any nuclear policy—be it weapons procurement, strategy and posture, or arms control—against the standard of whether it aids or undermines certain ideas of stability. This way of assessing military factors is increasingly applied to new technologies with military uses, such as cyber capabilities and artificial intelligence. This standard is appealing in many ways, and it remains an illuminating lens.

What do we mean by the term "strategic stability"? In the nuclear realm, it turns out that it can mean different things to different people. As James Acton has suggested, "From almost as soon as the term 'strategic stability' first entered the nuclear lexicon, there have been calls to redefine it." This effort, however, has rarely succeeded: "For all the talk of redefining strategic stability, the reality is that its proponents have never actually been able to coalesce around a single definition (where, that is, they have chosen to define it at all)."²⁷ Wilson's pathbreaking historical work also revealed the different origins and meaning of the word "stability" among early strategists, based on their disciplinary backgrounds; from the very beginning, the term meant different things to different people.²⁸ No clear definition has ever emerged, and over time and with little explanation, the term "stability" morphed into "strategic stability," supplemented by "crisis stability."

That said, the general outlines of stability were connected to the notion of "mutual vulnerability." The idea was a simple one: The characteristics of

23 For an excellent recent treatment of Schelling's insights on coercion and their applicability, see Tami Davis Biddle, "Coercion Theory: A Basic Introduction for Practitioners," *Texas National Security Review* 3, no. 2 (Spring 2020): 94–109, <https://tnsr.org/2020/02/coercion-theory-a-basic-introduction-for-practitioners/>.

24 Robert Jervis, "Arms Control, Stability, and the Causes of War," *Political Science Quarterly* 108, no. 2 (1993): 173.

25 "Jockeying in traffic was something millions of people did every day, and the penalty for failure was a smashed fender. In 1960 the one 'limited war' that had concerned America had driven the Truman administration from office. To compare child-rearing—common, after all—and the conflict with the Soviets—its nuclear dimension unique in human history—was arresting." For his extended, trenchant critique, see Bruce Kuklick, *Blind Oracles: Intellectuals and War from Kennan to Kissinger* (Princeton University Press, 2006), 136–42.

26 Marc Trachtenberg, "Strategic Thought in America, 1952–1966," *Political Science Quarterly* 104, no. 2 (1989): 301–2.

27 James M. Acton, "Reclaiming Strategic Stability," in Colby and Gerson, *Strategic Stability*, 117, <https://carnegieendowment.org/2013/02/05/reclaiming-strategic-stability-pub-51032>, <https://ssi.armywarcollege.edu/SSI-Media/Recent-Publications/Article/3949435/strategic-stability-contending-interpretations/>.

28 See especially the difference between Jerome Wiesner, whose idea of stability emerged from engineering and cybernetics, and Schelling, who derived the concept from organizational economics. See Benjamin Wilson, "Insiders and Outsiders: Nuclear Arms Control Experts in Cold War America" (PhD diss., MIT, 2014), <https://dspace.mit.edu/handle/1721.1/93810>.

nuclear weapons and their means of rapid delivery meant in certain numbers and postures that there might be incentives for one or both states to use nuclear weapons early or indeed first, creating instability. In other words, the military environment might generate powerful pressures for a war to take place that no one really desired, either through fear-driven accident or miscalculation, an escalation from conventional to nuclear weapons, or the launch of a surprise, preemptive attack. Therefore, in the rivalry between two states possessing nuclear weapons, the ideal circumstance was one where neither side could eliminate the other's nuclear capability by attacking first. The most stabilizing situation was one where the attacked state could unleash a response on the aggressor that inflicted such a high cost that it would never rationally make sense for either side to launch—or even *risk*—a nuclear war. Innumerable debates took place about how easy it was to achieve mutual vulnerability, how delicate the balance was, and how different weapons systems and strategies affected it, but the core concept was easily understood.

In truth, these early notions of stability were reactions to other concepts and views of how the world worked, based on a certain understanding of the past. The primary factors driving this kind of unwanted war, according to this view, were the balance and nature of military technology along with the postures in which they were deployed. Certain types of weapons, in certain postures and strategies, made war more likely, even if neither side truly wanted war. Schelling and his colleagues were obsessed with four interrelated phenomena that they believed had generated the devastating world wars that plagued the first half of the twentieth century: surprise attack, accidental war, inadvertent escalation, and arms races. Surprise attack, or the “bolt from the blue,” was when one state attacked another without warning. Accidental war took place when a conflict that neither wanted occurred between two states.²⁹ Inadvertent escalation was when a limited or localized conflict spun out of control into a larger war. Arms racing took place when rivals competed for superiority in the development and accumulation of weapons, sometimes less out of a rational belief that they needed them for their security and more out of fear that they had to keep pace with a rival. An arms race could generate unneeded expenses, and worse, generate powerful pressures for these

weapons to be used. These phenomena could also intertwine to cause war. Or, as Schelling said in another report for the CIA during his very busy year of 1961: “Surprise attack, accidental war, and war by miscalculation are closely related concepts; for the most part, we have treated them together. Together they comprise *the* problem of general war.”³⁰

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Were these notions the right way to think about the possible causes of—and solutions to—the outbreak of a nuclear war? In this view, war was caused less by the outcome of a deliberate political process than by deep instabilities and uncertainties generated largely by the characteristics of certain military technologies employed in particular postures and strategies. If this were the case, the solution was clear: If states could control the technological features creating the possibilities for accidents, miscalculations, arms races, and surprise attacks, they could eliminate the problem of general war.

The problem with this way of viewing US-Soviet relations was that there is little historical evidence that accidents, surprise attacks, or inadvertent escalation, driven primarily by military considerations, have been the primary causes of war in the modern age. In the 1950s and early 1960s, for example, the idea of a “bolt from the blue” was based on a certain understanding of the Japanese attack on Pearl Harbor. In a simplistic reading, it suggested that the United States was caught completely by surprise by Japan's aggression, with an attack that aimed to decapitate America's military capabilities in the Pacific before they could be used.

A more sophisticated understanding of US-Japanese relations before the December 7, 1941, attack, however, reveals a far different set of circumstances. American statesmen had seen Japan's aggression in the Pacific as a problem for years. Since at least the previous summer, the Roosevelt administration

29 For two excellent pieces demonstrating the mythology behind accidental war, also dealing with aspects of surprise attack and inadvertent escalation, see Kori Schake, “Exculpating Myth of Accidental War,” *The Kissinger Center Papers*, July 2023, <https://mediahost.sais-jhu.edu/saismedia/media/web/files/kissinger/The-Exculpating-Myth-of-Accidental-War-Schake.pdf>; Marc Trachtenberg, “The Accidental War Question,” unpublished paper, February 14, 2000, <https://www.sscnet.ucla.edu/polisci/faculty/trachtenberg/cv/inadvertent.pdf>. For a contrasting view, focusing on US wars against Native Americans, see Andrew A. Szarejko, “Do Accidental Wars Happen? Evidence from America's Indian Wars,” *Journal of Global Security Studies* 6, no. 4 (December 2021): 1–7.

30 Consultive Group on War by Accident, Miscalculation, or Surprise Attack, to McCloy, “Schelling Panel Report,” May 2, 1961, 1, <https://web.archive.org/web/20170123052923/https://www.cia.gov/library/readingroom/docs/1961-05-02a.pdf> (emphasis in the original).

had taken a diplomatic position with Japan's government—demanding that they renounce the Triple Axis, liquidate their gains in Southeast Asia, and abandon their holdings in China—that all sides understood made war very likely, if not inevitable.³¹ A *political* equivalent would have been if the United States, in the late 1950s, demanded that the Soviet Union abandon Eastern Europe while denying it access to material resources necessary for its survival. Japan's decision to target the American naval base at Pearl Harbor certainly caught the United States by surprise *from a tactical perspective*; the attack on the Philippines (which did occur, hours after the attack in Hawaii) had been seen as far more likely. Even so, a war with Japan was hardly a “bolt from the blue,” and the so-called surprise could have been avoided by different diplomatic and political positions, a fact that was well understood at the time and is accepted by scholars today. Policymakers in the 1950s also evidenced a similar misreading of Nazi Germany's June 1941 attack on the Soviet Union, Operation Barbarossa, as signs that the massive attack was impending had been clear for months. True surprise attacks—where a state launches a military strike without warning or provocation, or unconnected to an unfolding political process—are extremely rare.

The question of whether arms races cause war has been the subject of voluminous academic debate. The idea that the production and deployment of certain types of weapons have their own causal dynamic, unconnected to underlying political considerations, is, to say the least, not universally accepted among scholars. The most intense arms race of the mid-nineteenth century, for example, was the naval competition between Great Britain and France, which did not lead to war or anything close to it (though France and Great Britain did fight other powers with whom they were not in arms races).³² There is no consensus, but many scholars believe that arms races reflect and are responses to underlying *political* circumstances, and are often a way to signal an adversary. The most thorough, comprehensive examination of the nuclear arms competition between the United States and the Soviet Union, based on still-classified documents, largely ruled out arms racing as an explanation for decisions about each side's posture and deployments.³³

Schelling and his colleagues' fear of accidental war—along with its cousin, inadvertent escalation—relied heavily on a certain distorted reading of the July 1914 crisis and the start of World War I.³⁴ In this telling, political tensions in Europe were exacerbated by military plans that put a premium on speed and rapid mobilization as tensions arose; any delay in initiating mobilization risked putting a country at a great disadvantage if attacked. In the most extreme interpretation, World War I began despite no side actually wanting it, simply because preparatory moves made for military reasons set off corresponding military moves by other states that spiraled into conflict.³⁵ A less extreme version held that the war could have been localized or limited, but military pressures made horizontal escalation unavoidable.

Again, this stylized version of the July 1914 crisis—which was commonplace both in the original discussions of stability theory and in popular imagination today—has been challenged by historians. Most historians today understand the war as the result of a deliberate political process, not determined solely by mobilization schedules or military technology. As Trachtenberg has argued, strategists including Schelling drew the wrong “lessons about how the military system created a situation where the political process was overwhelmed, about how generals had to be kept on a short leash, about the great risk of things spinning out of control for military reasons, about miscalculation and ignorance and all their horrifying consequences” in 1914. It would be much more profitable, both in examining the July crisis and the nuclear era, to focus attention on “what should have been done politically, both during the crisis itself and during the period that led up to it.”³⁶ Schelling not only misunderstood the causes of the conflict while developing his views on stability; he also, startlingly, sought to exploit or manipulate those very risks—fears of miscalculation, accident, and inadvertent escalation—in his work on coercion.

Early notions of stability and how to achieve it were based on fears and an understanding of phenomena that either had shaky foundations in the historical record or were caricatures of how international politics actually worked. This understanding is not to discount the real worry, common in the 1950s,

31 John Schuessler, “The Deception Dividend: FDR's Undeclared War,” *International Security* 34, no. 4 (Spring 2010); Marc Trachtenberg, *The Craft of International History: A Guide to Method* (Princeton University Press, 2006), chap. 4.

32 C. I. Hamilton, *Anglo-French Naval Rivalry, 1840–1870* (Oxford University Press, 1993).

33 Thomas W. Wolfe, John D. Steinbruner, and Ernest M. May, *History of the Strategic Arms Competition, 1945–1972*, United States Department of Defense, Historical Office, Office of the Secretary of Defense, 1981.

34 Francis J. Gavin, “History, Security Studies, and the July Crisis,” *Journal of Strategic Studies* 37, no. 2 (2014): 319–31.

35 This subject is obviously an enormous one, but for a sense of my views, see Francis J. Gavin, “History, Security Studies, and the July Crisis,” *Journal of Strategic Studies* 37, no. 2 (2014), 319–31, <https://francisjgavin.files.wordpress.com/2020/06/history-security-studies-and-the-july-crisis.pdf>.

36 Marc Trachtenberg, “The ‘Accidental War’ Question.”

among strategists and policymakers, of a massive “bolt from the blue” nuclear attack from the Soviet Union. Less than a generation removed from the attack on Pearl Harbor and the atrocities of Hitler and Stalin, in a world where the satellite and reconnaissance revolution had not taken hold, embracing these historical examples was understandable, if ultimately misplaced.³⁷ Similarly, as strategists and policymakers came to terms with how nuclear weapons and intercontinental delivery systems massively compressed military timetables, it made sense that they might look to the July crisis for guidance, no matter how misguided the historical interpretation. When considering if and how to apply the lens of stability to international politics today, however, it is important to recognize and interrogate the role these foundational myths played in generating the stability doctrine we use today. The historical record supporting the idea that strategic stability is needed to avoid accidental war, surprise attack, inadvertent escalation, or a war caused by arms racing is thin.

The nuclear revolution was too profound, too all-encompassing, for any state to escape it by seeking some sort of nuclear primacy.

Further questions emerge around the idea of stability that are worth investigating. Again, tensions arose in how strategists viewed this issue. Bernard Brodie, a colleague of Schelling’s and a fellow participant in the stability debates, argued that the creation of nuclear weapons had revolutionized international politics. “Thus far the chief purpose of our military establishment has been to win wars,” Brodie famously concluded in the aftermath of Hiroshima and Nagasaki. “From now on its chief purpose must be to avert them. It can have almost no other useful purpose.”³⁸ Deterrence and stability would therefore be the aims of policy. But could deterrence and stability be at odds? And how hard would the condition of mutual vulnerability, the cornerstone of stability,

be to achieve and maintain? For some, like Albert Wohlstetter, achieving this stability was difficult and the strategic balance was delicate. To others, the revolutionary effects of these weapons emerged easily and early and were obvious. Possessing only a few survivable weapons, given their potential for devastation, was all that was needed. Even if the requirements of survivability and deterrence were raised—as they were in the 1960s with the concept of mutually assured destruction—then once this threshold was reached, some believed that it was almost impossible to dislodge and that no new nuclear forces would be needed. The nuclear revolution was too profound, too all-encompassing, for any state to escape it by seeking some sort of nuclear primacy.

Achieving Stability—Easy or Hard? Good or Bad?

If this conclusion were true, however—if stability emerged naturally from mutual vulnerability and was relatively easy to achieve and maintain—why would dramatic efforts at arms control be necessary at all? If the nature of nuclear weapons rendered them unusable, in easily obtained configurations and numbers, then why would states ever need to intervene to halt the arms-building process? If the United States believed in the nuclear revolution and sought strategic stability, then it should have been nonplussed if the Soviet Union built more weapons than were required. As John Mauer suggests, if “nuclear weapons automatically eliminate the possibility of war, then negotiations to tailor the specific makeup of armaments may not matter much in reducing the chances of war.”³⁹ Indeed, perhaps the United States should have been pleased that a rival would waste money on forces with little utility—resources that might otherwise have been devoted to, for example, conventional forces.⁴⁰

This issue comes up most clearly in the debate over ballistic missile defenses during the 1960s and early 1970s. The Soviet Union was pouring immense resources into its anti-ballistic missile system, Galosh. On the one hand, stability doctrine argued that defensive forces aimed at limiting the effectiveness of a nuclear strike were destabilizing

37 The satellite revolution, which dramatically reduced the danger of an adversary launching a massive attack without warning, was emerging just as Schelling and others were writing about surprise attack. See John Lewis Gaddis’s chapter, “Learning to Live with Transparency: The Emergence of a Reconnaissance Satellite Regime,” in Gaddis, *The Long Peace: Inquiries into the History of the Cold War* (Oxford University Press, 1989), 195–214.

38 Bernard Brodie, ed., *The Absolute Weapon: Atomic Power and World Order* (Harcourt, Brace, 1946), 76.

39 John Mauer, “The Purposes of Arms Control,” *Texas National Security Review* 2, no. 1 (November 2018), <https://tnsr.org/2018/11/the-purposes-of-arms-control/>.

40 For an exploration of how nuclear revolution scholars explained why policymakers’ choices diverged from the predictions of the nuclear revolution school, see Brendan Rittenhouse Green, *The Revolution That Failed: Nuclear Competition, Arms Control, and the Cold War* (Cambridge University Press, 2020).

(an argument the Soviets found bizarre). On the other hand, few experts in the United States thought the Soviet system would be effective. In other words, Galosh was unlikely to affect strategic stability one way or another. A more effective grand strategy might have been for the United States to *encourage* the Soviet Union to waste valuable resources on a militarily ineffective system. And even if Galosh did affect mutual vulnerability at the margins, there were far cheaper, more effective measures the United States could take to negate those effects. Was stability a natural and easily achieved condition brought on by the power of the nuclear revolution, or was it “delicate” and sensitive? In other words, was negotiating strategic arms control *necessary* to achieve stability?

This question matters because the decision to pursue strategic arms control between the superpowers had important consequences, not all of them positive. Consider the complex, politically costly negotiations to design, sign, and implement the Anti-Ballistic Missile (ABM) and Strategic Arms Limitation Talks (SALT) treaties in 1972. Heralded as the cornerstone of *détente* between the Soviet Union and the United States, in retrospect they now appear to mark the start of its demise. Declassified records reveal that President Richard Nixon desired nuclear superiority, believed that there were political advantages to the United States playing it “recklessly” in a crisis, and did not buy the core principles of the stability argument. As his national security advisor, Henry Kissinger, said in a meeting on nuclear weapons: “Our reading of history indicates that all crises have been caused by political conditions, not by the arms race as such.”⁴¹

Both sides, while accepting the quantitative limits imposed by the treaty, embarked on a far more expensive, and arguably more destabilizing, qualitative arms race. After the SALT and ABM treaties were signed, the United States invested enormous sums on counterforce systems—the MX missile, the Trident D-5 sub-launched missile, Pershing II and cruise missiles, and the B-1 bomber—focusing on characteristics such as stealth, accuracy, mobility, and speed that arguably worked against the goal of strategic stability. Domestically, critics in both countries emerged. In the United States, the SALT/ABM movement reenergized the so-called neoconservative movement. In the Soviet Union, military chiefs disturbed by the treaty pressured

Soviet Premier Leonid Brezhnev into deploying the medium-range missile, the SS-20, targeted at Western Europe. This deployment, which generated fears of “decoupling” in NATO, created the Euromissile crisis of the 1970s and early 1980s. In fact, as Susan Colbourn suggests, both the SS-20s and Pershing IIs possessed the qualities many had argued enhanced stability. “During the negotiations, the United States had suggested criteria for strategic stability, such as mobility, reduced vulnerability, and reductions in overall throw-weight. Accordingly, Soviet officials could easily point to those discussions as evidence that the deployment of the SS-20 fit squarely within the superpowers’ arms control process.”⁴² Regardless of their technical characteristics, there was little that was *politically* stabilizing about the Euromissile deployments, which ushered in the last great superpower crisis of the Cold War.

Was the concept of strategic stability simply the product of a certain time and place—the ideological, geopolitical, and military competition between the Soviet Union and the United States in the late 1950s and early 1960s? Strategists like Schelling certainly expected that the concept would explain nuclear relationships between other states and at other times. It is unclear, however, whether states outside of the US-Soviet rivalry, involved in regional and multiplayer competitions, found concepts like stability applicable to their circumstances.⁴³ Even a potential great power like China seemed, until quite recently, relatively relaxed, at least compared to the concerns registered by thinkers like Schelling and Wohlstetter, in the face of two rivals with considerable nuclear superiority.⁴⁴

Strategic stability also generates more questions than answers for other important issues. How do stability advocates assess the goal of nuclear disarmament? One argument they offer is that the deterrence provided by strategic stability is critical to peace and not worth sacrificing. Others see the risk generated by accidents (and Schelling-like “manipulation of risk” strategies) and believe a world without nuclear weapons would be more stable. This debate is another area where the view of American statesmen may have been at odds with the strategists, as most US presidents in the nuclear age would have, arguably, preferred a non-nuclear world if it was achievable, if only because it would provide the United States with more freedom of action. Others suggest that nuclear disarmament

41 Frances J. Gavin, *Nuclear Statecraft: History and Strategy in America's Atomic Age* (Cornell University Press, 2012), 108.

42 Susan Colbourn, *Euromissiles: A Transatlantic History*, unpublished book manuscript, 66–67.

43 The best study of how regional powers view nuclear strategy is Vipin Narang, *Nuclear Strategy in the Modern Era* (Princeton University Press, 2014).

44 Fiona S. Cunningham and M. Taylor Fravel, “Assuring Assured Retaliation: China’s Nuclear Posture and US-China Strategic Stability,” *Quarterly Journal of International Security* 40, no. 2 (Fall 2015): 7–50.

is unrealistic, or that the process to accomplish it would be potentially destabilizing.

What is the relationship between “strategic” stability and “crisis” stability—concepts that are often intermingled? One could imagine, logically, two effects that strategic stability might have on crises. In the ideal case, strategic stability might lead to a general easing of tensions, because neither side possesses the ability to change its geopolitical situation or circumstances. Strategic stability and crisis stability would be almost the same thing; the condition of stability would guarantee fewer crises, which would be more easily resolved in the rare case one appeared. In that case, the very existence of a crisis would indicate the absence of strategic stability.

According to the stability-instability paradox, stability at the strategic nuclear level would lead to more conflict and crises at the sub-strategic level.

There is another way to think of it, however. According to the stability-instability paradox, stability at the strategic nuclear level would lead to more conflict and crises at the sub-strategic level.⁴⁵ Thus, strategic stability would generate *more* crises. Would these crises be more stable or less? The answer depends on your prior beliefs about the likelihood of inadvertent escalation, and crucially, on whether you pursued Schelling-esque strategies, such as signaling through force and manipulating risk. Either way, a strategist would do well to clarify, first, the relationship between strategic and crisis stability, and second, to assess whether crises were more or less likely under the condition of strategic stability.

Strategic stability did not necessarily lead to better political relations, either. Advocates of stability often contend that political détente *followed* from and was a result of efforts toward strategic stability. In this telling, strategic stability was the *prerequisite* for détente, and the 1972 ABM and SALT treaties enshrined détente. This conclusion is a misreading of the political record. The superpowers achieved at least a mutual understanding of their interests in Europe in 1963, when a series of interconnected

and implicit bargains were struck. The United States committed to preventing West Germany from acquiring an independent nuclear capability, while the Soviet Union agreed to cease its demands on West Berlin. What Trachtenberg called a “constructed peace” stabilized relations between the two rivals, at least for a time.⁴⁶ This arrangement emerged at a time when there was strategic *instability*—in other words, an overwhelming and potentially militarily meaningful American superiority in strategic nuclear firepower. Détente actually became frayed and completely unraveled *after* strategic stability was achieved through the SALT process in the 1970s. This is not to say that strategic stability was the cause of the unraveling; rather, it is to make clear that stability did not lead to détente and that the relationship between the superpowers was shaped far more by underlying political considerations than the strategic balance.

Strategic Stability or Nuclear Nonproliferation?

Perhaps most importantly, strategic stability also cut against one of the core strategic objectives of American grand strategy—to defend its allies, most notably Western Europe, from an attack, while inhibiting the development of independent nuclear weapons systems. The truth is, the requirements for deterring a Soviet attack on the continental United States were not particularly high, and perhaps more importantly, it would be hard to imagine a scenario where Russia or anyone else would invade American territory absent a dispute elsewhere (even if the United States had no nuclear weapons). The United States, however, sought to do far more with its nuclear capability than protect its homeland from invasion or attack: Its strategic nuclear forces were the foundation of efforts to “extend deterrence” to its allies in Europe and Asia. To do this credibly meant pursuing weapons, postures, and strategies that cut against the grain of strategic stability. America’s efforts to deter an attack by a Soviet Union that was both closer to and possessed conventional superiority over Western Europe could be undone by a complete embrace of mutual vulnerability. Schelling’s colleague, Wohlstetter, understood this point clearly and wrote that America’s “strategic force was not designed to deter an attack on the United States. It was designed to deter or fight a war in Europe—to compensate for the disadvantages, the

45 Glenn Snyder, “The Balance of Power and the Balance of Terror,” in Paul Seabury, *The Balance of Power* (Seabury, 1965).

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

geographical disadvantages we had in not being close to [our European allies].”⁴⁷

The decision to protect Western Europe with US nuclear forces was neither inevitable, nor from the standpoint of the strategic nuclear balance with the Soviet Union, stabilizing. America could have let Western Europe defend themselves. Under these circumstances, needing only to deter an attack on the American homeland, the United States could have embraced mutual vulnerability. Given Soviet conventional superiority and no American nuclear guarantee, however, Western European states beyond Great Britain and France—including the newly formed Federal Republic of Germany (FRG)—might have sought their own nuclear weapons, with destabilizing consequences. Strategic nuclear stability, in the end, was not compatible with proliferation stability or geopolitical stability.

America’s strategy to inhibit the spread of independent nuclear weapons programs was driven by at least two concerns. First, as far and away the most powerful country in the international system, the United States had great reason to resist other states getting nuclear weapons. The United States had overwhelming economic strength and latent conventional advantages. The extraordinary deterrent power of nuclear weapons, however, had a leveling effect: States with far less economic, soft, or conventional power could, if they possessed nuclear weapons, limit the freedom of action of the United States. A proliferated world would prevent the United States, a relatively unconstrained hegemon in other circumstances, from acting as it wanted. America could also be pulled “catalytically” into conflicts by nuclear-armed states, a risk it preferred to avoid.⁴⁸ The United States could employ various tactics to limit proliferation—from norms to threats of coercion to providing a nuclear umbrella over states that went without the bomb⁴⁹—each of which was, in its own way, at odds with stability. Interestingly, the strategies of inhibition sometimes viewed the Soviet Union as a partner to work with, rather than an adversary to be deterred, given that the superpowers shared an interest in stemming proliferation.⁵⁰

A second, very specific set of issues involved America’s allies in Western Europe. To defend Western

Europe against superior Warsaw Pact conventional forces, the Western alliance needed the economic and military capabilities of the Federal Republic of Germany. The remilitarization of West Germany was incredibly controversial, and it was clear that any move toward an independent German nuclear capability would cause the most severe geopolitical crisis, one that could lead to war. But being on the front line of any potential clash with the Soviets, the West Germans had understandably high requirements to assure them that they would be defended—and that such a defense would not lead to the immediate incineration of their country. This perspective required not only an American extended deterrent; it drove a nuclear strategy that was highly preemptive and based on counterforce. In order to keep a non-nuclear West Germany fully contributing to the defense of NATO Europe, German leaders had to be convinced that the United States would use its nuclear weapons in the face of superior Warsaw Pact conventional capabilities, and use them *in* Warsaw Pact countries, not on German soil. Strategic stability risked undermining this goal.

It is clear that American leaders always possessed an ambivalent attitude toward strategic stability, and never fully eschewed escaping vulnerability, even at the risk of increasing instability. The United States actually increased its investment in nuclear capabilities arguably at odds with strategic stability *after* the SALT and ABM treaties, investing extraordinary resources in a range of systems and technologies that only made sense for counterforce or damage limitation or preemptive strategies.⁵¹ The United States was, understandably, ambivalent about stabilizing its relations with the Soviet Union, which it saw as a geopolitical and ideological adversary, never an equal. Furthermore, strategic stability was at odds with the American strategy of inhibition. In the specific case of West Germany, strategic stability could have led to deeply *destabilizing* consequences, ranging from West Germany leaving NATO to acquiring its own nuclear capability to inciting the Soviet Union to war. These very complex and dangerous issues, in fact, were what President Kennedy was working through in the Berlin Crisis. Nothing in Schelling’s memo, or indeed, the whole

47 “The Development of Strategic Thinking at RAND, 1948–1963: A Mathematical Logician’s View—An Interview with Albert Wohlstetter,” conducted by Jim Digby and Joan Goldhamer, July 5, 1985, RAND, 1997.

48 An argument Narang makes in *Nuclear Strategy in the Modern Era*.

49 Francis J. Gavin, “Strategies of Inhibition: US Grand Strategy, the Nuclear Revolution, and Nonproliferation,” *International Security* 40, no. 1 (July 2015): 9–46.

50 Andrew Coe and Jane Vaynman, “Collusion and the Nuclear Nonproliferation Regime,” *The Journal of Politics* 77, no. 4 (August 6, 2015), <http://dx.doi.org/10.1086/682080>.

51 Austin Long and Brendan Rittenhouse Green, “Stalking the Secure Second Strike: Intelligence, Counterforce, and Nuclear Strategy,” *Journal of Strategic Studies* 38, nos. 1–2 (2015): 38–73, <https://doi.org/10.1080/01402390.2014.958150>; Brendan R. Green and Austin Long, “The MAD Who Wasn’t There: Soviet Reactions to the Late Cold War Nuclear Balance,” *Security Studies* 26, no. 4 (2017): 606–641, <https://doi.org/10.1080/09636412.2017.1331639>.

rich literature on stability, could provide much guidance to JFK as he worked through them to find a solution that protected American interests and avoided war. What Schelling and other strategists failed to fully appreciate was that regardless of the profound consequences of these new technologies, their characteristics and qualities were not more important than the complex, at times conflicting, political objectives they were deployed to produce.

Conclusion

It is easy to forget that these debates over stability, as well as Schelling's foundational writings, took place at the same time that the United States navigated the most complex, dangerous crisis of the nuclear age—the clash with the Soviet Union over the status of Berlin. The debates over stability and the crisis over Berlin were not unrelated. West Berlin's position was anomalous, insecure, and frankly bizarre—located one hundred miles within East Germany, making it impossible for the United States and NATO to defend without employing nuclear weapons, a fact Premier Khrushchev fully recognized when he initiated the standoff in November 1958. Any attempt to relieve pressure or rescue the city would involve the United States or NATO moving first and likely being overwhelmed or destroyed by a Soviet conventional attack, forcing the United States and its allies to decide whether or not to escalate to nuclear use.

It is clear that American leaders always possessed an ambivalent attitude toward strategic stability, and never fully eschewed escaping vulnerability, even at the risk of increasing instability.

The Berlin situation—and America's policy toward it—was the very definition of instability.⁵² Yet the United States believed that it could not simply back down in the face of Soviet pressure. Abandoning West Berlin would not only be a huge blow to the prestige and reputation of the alliance; it could shake

the FRG's faith that NATO and the United States would come to their defense if attacked. As mutual vulnerability between the superpowers approached, West Germans were understandably concerned about the credibility of America's commitment to defend them and expose US cities to nuclear attack. Many in West Germany wanted greater access to nuclear decision-making, if not their own nuclear weapons. Yet it was West Germany's desire for nuclear autonomy that arguably caused the Soviets to initiate the crisis in the first place.

Early strategists tried to view this issue through the lens of military technology. Schelling and others sought two irreconcilable goals—to stabilize the strategic nuclear relationship between the superpowers to avoid surprise attack, accidental war, arms races, or inadvertent escalation, while also trying to leverage America's nuclear weapons strategy (either through nuclear superiority or a willingness to manipulate risk) to keep West Berlin safe. These two goals were in tension, if not outright contradiction.

In the end, the solution to West Berlin had nothing to do with strategic stability, and instead emerged from a *political* accommodation. At heart, this accommodation involved an American promise to keep West Germany non-nuclear. But to make that pledge credible—to assure the FRG that they could trust the Americans to come to their rescue—the United States could never fully embrace the mutual vulnerability that stability doctrine demanded. And over time, this pledge went beyond West Germany to include others under the American nuclear umbrella. As nuclear historian James Cameron explains, reinforcing America's nuclear credibility “ran counter to the strategic stability prescribed by Schelling.” This “commitment to some form of nuclear edge over the Soviets” mollified both domestic critics and nervous allies, reassuring them that “Washington still had the capability and the will to come to their defense.”⁵³

To draw out the tensions within Schelling's writing is not to downplay his intellectual prowess or dismiss the importance or influence of strategic stability as a doctrine. Instead, it is to encourage those who see stability as an important goal today—either for nuclear statecraft or emerging technologies—to better understand the historical origins of (and tensions within) the concept, and to be more precise when they use the term.

Several points are clear. First, Schelling and his colleagues wrestled mightily and largely unsuccessfully to reconcile two different goals—strategic

52 For my summary of how difficult the Berlin situation was, and how nuclear weapons made it even more complex, see Gavin, *Nuclear Statecraft*, 57–74.

53 James Cameron, “What History Can Teach,” *Daedalus* 149, no. 2 (Spring 2020): 116–17.

stability and the desire to squeeze political utility from nuclear weapons for coercive ends. This was because of a second point: strategic stability among the superpowers cut against nuclear proliferation-nonproliferation stability. To inhibit the spread of nuclear weapons, the United States had to extend its nuclear umbrella, and in order to assure its allies that America would fulfill the incredible promise to use nuclear weapons on their behalf, it had to embrace potentially destabilizing nuclear strategies, such as seeking nuclear advantage, being willing to use nuclear weapons first and preemptively, or manipulating the risk of nuclear danger to compel the Soviets to back down in a crisis. Mutual vulnerability threatened this task.

In the end, this goal of stabilizing great-power relations while limiting the destabilizing effects of nuclear proliferation—a goal shared by both superpowers—could only be achieved through a *political* accommodation, *before* focusing on limiting military technology. As revolutionary a military technology as nuclear weapons were, they were still subordinate to overriding political goals pursued by states. In the aftermath of World War II in a divided Europe with a divided Germany, these were difficult endeavors.

These lessons are especially important to remember as emerging military technologies—such as artificial intelligence, machine learning, and autonomous weapons capabilities—generate new fears of strategic instability. It is wise to reflect on how these weapons affect stability, both vertically (between the great powers) and horizontally (as they diffuse to other states and even non-state actors). Today, both China and the United States may share an interest in controlling both. No matter how extraordinary emerging technologies may seem, strategists must remember that all military technologies are, in the end, instruments of statecraft. It may matter less what

new technologies states possess than what they want to do with them. Stability and peace do not arise solely from limits on technology, but emerge instead from the political arrangements and understandings that diplomacy creates. ●

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54 For image, see https://commons.wikimedia.org/wiki/File:Thomas_Schelling_.png.