Chapter 2

Why U.S. Policymakers Who Love the Bomb Don't Think "More is Better"[1]

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Disconnects between the academic and the policy worlds are not unusual. Nevertheless, it still is striking when an academic debate, supposedly about a topic of vital national security concern, rages for decades but is totally ignored by those responsible for policymaking in that arena. This is certainly true for the argument offered by some academics that nuclear proliferation contributes to the stability of the international system, arguing that "more is better." Yet, it would be difficult, perhaps impossible, to find any Washington policymaker accepting such a position. Indeed, during the past 50 years there has been a widespread consensus amongst U.S. policymakers, across the political and ideological spectrum, that "more is NOT better" and that nonproliferation efforts are an essential element of U.S. national security policy.

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1. The views expressed in this article are those of the author and not necessarily those of the National Defense University or the Department of Defense. The author would like to thank his NDU colleagues, Dr. Thomas Blau, Dr. Susan Koch, and Dr. Mark Mattox, as well as the participants in the May 21, 2012 Nonproliferation Policy Education Center workshop on "Reassessing the Assumptions Driving Our Current Nuclear Nonproliferation Policies," for comments on an earlier draft of this chapter. In addition, Read Hanmer, Greg Koblentz, Clark Murdoch, Keith Payne, and Greg Schulte all offered constructive criticisms, although not all of their useful and insightful comments made it into the final version of the chapter. The author takes full responsibility for any remaining errors.

The pages that follow will start by first examining the views of the academics who espouse the "more is better" argument, followed by a review of some of the perspectives that explain why almost all U.S. national security policymakers have ignored it. Who are the policymakers in question? They include executive branch officials, starting with the last 12 presidents and continuing with their immediate advisors—national security advisors, secretaries of defense and state, and other senior officials (deputy secretaries, undersecretaries, and assistant secretaries of various departments), as well as many members of Congress. This discussion is focused exclusively on Washington and the men and women responsible for creating and executing U.S. national security policies. It does not address the potentially different perspectives of officials in other countries, who may operate using different rules and perceive the world in different ways.

Proliferation Optimists and Pessimists

In academic circles, nuclear proliferation "optimists" and "pessimists" argue over the dangers posed by the risks of the further spread of nuclear weapons. The proliferation optimists, represented articulately and starkly by Kenneth Waltz, argue that nuclear arsenals reduce the chances of armed conflict, and that the benefit from this reduction in conventional warfare means that "more is better" when it comes to nuclear proliferation.[2] Waltz's influence in this arena resulted in part from his towering status as a scholar of inter-

2. Waltz presented his views in Kenneth N. Waltz, "The Spread of Nuclear Weapons: More May Be Better," *Adelphi Paper* 171, London: International Institute for Strategic Studies, (1981); Idem., "Toward Nuclear Peace," in *Strategies for Managing Nuclear Proliferation: Economic and Political Issues*, ed. Dagobert L. Brito, Michael D. Intriligator, and Adele E. Wick (Lexington, MA: Lexington Books, 1983), 117–134; and Idem., "Why Iran Should Get the Bomb: Nuclear Balancing Would Mean Stability," *Foreign Affairs* 91, No. 4 (August 2012): 2–5.

national relations.[3] Indeed, he remains, according to a biographical account, "one of the most cited, and controversial, authors in the field of international relations."[4] He served as a President of the American Political Science Association (1987–1988). As a teacher Waltz influenced generations of students of international studies.[5]

In contrast to the proliferation optimists, proliferation pessimists contend that the dangers of nuclear proliferation are substantial and that growth in the number of countries with nuclear arsenals poses real risks to international peace and stability. Scott Sagan has taken a lead in representing this perspective, arguing that "more will be worse,"[6] although most other academic students of nuclear proliferation agree with him on this issue even if not accepting any or all of his arguments.

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3. Waltz's best known works are *Man, the State, and War: a Theoretical Analysis* (New York: Columbia University Press, 1959), and *Theory of International Politics* (Reading, MA: Addison-Wesley Pub. Co., 1979). He is most closely associated with what has come to be called the neorealist view of international relations, as formally presented in *Theory of International Politics*. For a discussion of the importance of his work, see Robert O. Keohane, *Neorealism and Its Critics* (New York: Columbia University Press, 1986), 15–16.

4. Robert H. Lieshout, "Waltz, Kenneth (1924–)," in *Encyclopedia of Power*, ed. Keith Dowling (Thousand Oaks, California: Sage Publications, 2011), 701–702.

5. He was the Ford Professor of Political Science Emeritus at the University of California, Berkeley, but also taught at Columbia University and elsewhere during his long academic career. For a short biographical sketch, see *gsas.columbia.edu/news/kenneth-waltz,-theorist-of-international-relations,-dies-at-88/full*.

6. Dr. Scott Sagan is the Caroline S.G. Munro Professor of Political Science at Stanford University and a Senior Fellow at both the Center for International Security and Cooperation and the Freeman Spogli Institute. See cisac.fsi.stanford.edu/people/scott_d_sagan. He is a prominent scholar of nuclear issues, and has published *Moving Targets: Nuclear Strategy and National Security* (Princeton University Press, 1989) and *The Limits of Safety: Organizations, Accidents, and Nuclear Weapons* (Princeton University Press, 1993). The first articulation of his critique of Waltz's views was in Scott Douglas Sagan, "The Perils of Proliferation: Organization Theory, Deterrence Theory, and the Spread of Nuclear Weapons," *International Security* 18, No. 4, (Spring 1994): 66–107.

Waltz and Sagan have honed their disagreement in a short book, The Spread of Nuclear Weapons, widely used in the classroom to teach nuclear proliferation issues. First appearing in 1995, the two authors released revised versions in 2002 and 2013.[7]

The Nuclear Peace Hypothesis

At the center of the debate between the proliferation optimists and pessimists is what is sometimes called the nuclear peace hypothesis.[8] The thesis, first articulated in the months after the bombing of Hiroshima and Nagasaki, is an argument that the destructiveness of atomic weapons fundamentally alters international society by making warfare intolerable. In essence, the atomic bomb created a situation in which the means of warfare were incommensurate with the ends, such that it no longer made sense to contemplate general wars as a tool of policy. Bernard Brodie offered a stark statement of the concept in one of the seminal works of nuclear strategy.

> Thus far the chief purpose of our military establishment has been to win wars. From now on its chief purpose must be to avert them. It can have almost no other useful purpose.[9]

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7. The version used to support this chapter is the 2002 edition, *The Spread of Nuclear Weapons: A Debate Renewed: With New Sections on India and Pakistan, Terrorism, and Missile Defense*, 2nd ed., (New York: W.W. Norton & Co., 2002). For critiques, see, Peter R. Lavoy, "The Strategic Consequences of Nuclear Proliferation: A Review Essay," *Security Studies* 4, No. 4, (1995): 695–753; David J. Karl, "Proliferation Pessimism and Emerging Nuclear Powers," *International Security* 21, No. 3 (1996): 87–119.

8. Some use different language to name the hypothesis. Robert Jervis, for example, called it the "nuclear revolution," in *The Meaning of the Nuclear Revolution: Statecraft and the Prospect of Armageddon* (Ithaca, NY: Cornell University Press, 1989).

9. Bernard Brodie, "Implications for Military Policy," in *The Absolute Weapon: Atomic Power and World Order* (New York: Harcourt, Brace and Company, 1946), 76.

Although Brodie came to modify his views, especially in his subsequent work on limited warfare, this 1946 statement is at the core of the argument offered by proliferation optimists.

Proponents of the nuclear peace hypothesis argue that the destructiveness of nuclear weapons makes national leaders reluctant to pursue military actions that might escalate into a nuclear exchange. From this perspective, there are few war objectives that could justify risking the death and destruction associated with a war fought using nuclear weapons. Some have argued that nuclear arsenals played a central role in creating the so-called "Long Peace" during the Cold War, a reference to the absence of significant armed conflict between the Soviet Union and the United States despite bitter enmity and mass arms build-ups.[10] Others also argue that nuclear weapons are responsible in part for the absence of major power wars in the past six decades.[11] While the nuclear peace hypothesis is contested by many, that debate will not be reviewed here.[12]

The focus of this paper is on a different issue, closely connected, that helps explain the indifference of policymakers to the Waltz argument: Why do U.S. policymakers—meaning government officials who have had positions of responsibility for such matters—overwhelmingly support nuclear nonproliferation efforts, irrespective of party or ideology or attitude towards nuclear weapons, even those who accept the tenets of the nuclear peace hypothesis? Or, to

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10. John Lewis Gaddis, "The Long Peace: Elements of Stability in the Postwar International System," *International Security* 10, No. 4, (Spring 1986): 99–142.

11. Robert Rauchhaus, "Evaluating the Nuclear Peace Hypothesis," *Journal of Conflict Resolution* 53, No. 2, (April 2009): 258–277.

12. The criticisms come from multiple perspectives, as reflected in the essays found in Charles W. Kegley, editor, *The Long Postwar Peace: Contending Explanations and Projections* (New York: HarperCollins Publishers, 1991). Another version was offered by John Mueller, who contended that changing views of war, not the development and deployment of nuclear weapons, was responsible for the absence of major power wars. See, John E. Mueller, *Retreat from Doomsday: The Obsolescence of Major War* (New York: Basic Books, 1989).

reframe the question in the context of the academic debate: why are policymakers overwhelmingly inclined towards proliferation pessimism?

Nuclear Optimism, Proliferation Optimism, and Proliferation Relativism

As a starting point, there are important differences between "nuclear optimism," the concept that nuclear weapons can prevent wars with limited danger of nuclear use, and "proliferation optimism," the decidedly different argument that the spread of nuclear weapons is not accompanied by an increase in the dangers that they pose. Sagan, for example, implicitly assumes that those who accept the nuclear peace hypothesis also favor proliferation, meaning that "nuclear optimists" are the same as "proliferation optimists."[13] That is a doubtful conclusion. A "proliferation optimist" inevitably will be a "nuclear optimist," believing that the spread of nuclear weapons will favor international peace, but a "nuclear optimist" need not be a "proliferation optimist." Indeed, as will become evident, many "nuclear optimists" are "proliferation pessimists," and even those sometimes classified as "proliferation optimists" often are highly selective in their optimism.

Distinguishing the "proliferation optimist" from what Peter Lavoy has called the "proliferation relativist" is critically important to understanding different views regarding the merits of nuclear proliferation.[14] Some academics considered "proliferation optimists" hold positions radically different from the one advanced by Waltz, perhaps accepting the "nuclear peace hypothesis" but not necessarily considering all nuclear proliferation beneficial.

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13. Sagan, "The Perils of Proliferation: Organization Theory, Deterrence Theory, and the Spread of Nuclear Weapons."

14. Lavoy, "The Strategic Consequences of Nuclear Proliferation: A Review Essay."

John Mearsheimer, often identified as a "proliferation optimist,"[15] is better characterized as a "proliferation relativist." Rather than advocating "more is better," he has supported selective proliferation. Thus, in the early 1990s he argued that Ukraine should retain the nuclear weapons that it acquired with the disintegration of the Soviet Union. In his view, international stability was enhanced when the major European powers had nuclear weapons.[16] He also made clear that smaller countries should not get them at all. According to Mearsheimer, "Nuclear proliferation does not axiomatically promote peace and can in some cases even cause war."[17] While it is beyond the scope of this paper to assess the theoretical foundations of their world views, it is perhaps worth noting that Waltz and Mearsheimer share fundamentally similar conceptions of the international system, but still seem to have rather different views on the role of nuclear weapons. While Waltz is a strong advocate of the nuclear peace hypothesis, Mearsheimer appears less convinced that a nuclear revolution has changed the fundamentals of international relations.[18]

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15. Joel Marks, "Nuclear Prudence or Nuclear Psychosis? Structural Realism and the Proliferation of Nuclear Weapons," *Global Change, Peace & Security* 21, No. 3 (2009): 325–340; and Sagan, "The Perils of Proliferation: Organization Theory, Deterrence Theory, and the Spread of Nuclear Weapons," 66–67.

16. John J. Mearsheimer, "The Case for a Ukrainian Nuclear Deterrent," *Foreign Affairs* 72, No. 3, (Summer 1993): 50–66; and Idem., "Back to the Future: Instability in Europe after the Cold War," *International Security* 15, No. 1, (Summer 1990): 5–56.

17. Idem., "The Case for a Ukrainian Nuclear Deterrent," 51.

18. An overview that distinguishes Waltz and Mearsheimer is John J. Mearsheimer, "Structural Realism," in *International Relations Theories: Discipline and Diversity,* ed. Tim Dunne, Milja Kurki, and Steve Smith (Oxford: Oxford University Press, 2006), 71–88. For attempts to understand their contrasting views of nuclear weapons, see, Marks, "Nuclear Prudence or Nuclear Psychosis?"; and Zanvyl Krieger and Ariel Ilan Roth, "Nuclear Weapons in Neo-Realist Theory," International Studies Review, Vol. 9, No. 3 (Autumn 2007: 369–384.

Indeed, what is striking is that most so-called "proliferation optimists" are actually "proliferation relativists." Bruce Bueno de Mesquita wrote about the benefits of "selective" proliferation, arguing that in some instances nuclear proliferation was beneficial even as he accepted that it could have profoundly negative consequences in other cases.[19] Similarly, Dagobert L. Brito and Michael D. Intriligator, also often considered "proliferation optimists," actually make a rather different argument. While they contend that increasing the number of nuclear weapons states may or may not increase the risks of deliberate nuclear war, more proliferation does increase the prospects for "nuclear war due to accidents, irrationality, or political instability."[20] While more sanguine than many others, it would be a stretch to identify such views as optimistic.

The distinction between "proliferation optimism" and "proliferation relativism" is critical to understanding how Waltz's views of proliferation fit within the broader spectrum of alternative perspectives of the challenges posed by the spread of nuclear weapons. Similarly, as will become clear, support for the nuclear peace hypothesis, what might be termed "nuclear optimism," does not necessarily lead to "proliferation optimism." It is these distinctions that help explain why policymakers, even those who may accept the "nuclear peace hypothesis," dismiss Waltz and his optimistic views on nuclear proliferation.

Proliferation Optimism

What are the arguments justifying proliferation optimism? The following paragraphs summarize the key elements of Waltz's argu-

19. Bruce Bueno de Mesquita and William H. Riker, "An Assessment of the Merits of Selective Nuclear Proliferation," *Journal of Conflict Resolution* 26, No. 2, (June 1982): 283–306.

20. Dagobert L. Brito and Michael D. Intriligator, "Proliferation and the Probability of War: A Cardinality Theorem," *Journal of Conflict Resolution* 40, No. 1, (March 1996): 212.

ment, ignoring some important points he makes for purposes of completeness but are relatively tangential to his core argument.

Underlying Waltz's argument are several assumptions that derived from his views of how the international system operates and his adherence to the nuclear peace hypothesis. First, he argued, "Deterrent balances are inherently stable."[21] He contended that nuclear deterrence did not depend on the size of nuclear arsenals, because there was little incentive to acquire more weapons once a country "securely established" its deterrent.[22] Second, he argued that the resulting deterrence stability is insensitive to the character of regimes, essentially arguing that all states and all possible national leaders can be trusted to use their nuclear forces with prudence. For that reason, he argued that Libya under Muammar Qaddafi, Uganda under Idi Amin, or Iraq under Saddam Hussein would behave similarly to a United States under Dwight Eisenhower or a Soviet Union under Mikhail Gorbachev. Indeed, he even argued that a nuclear-armed Europe would have moderated the behavior of Adolf Hitler.[23] Third, Waltz believed that extremely small nuclear arsenals, perhaps consisting of only a handful of weapons, can establish a credible deterrent. Based on this belief, he argued that Israel could deter Libya with only two weapons, one for Benghazi and one for Tripoli, while Libya need only possess enough weapons to destroy Tel Aviv and Haifa in return.[24]

Waltz believed that establishing the conditions for stable deterrence relationships was not difficult, although he did recognize that it was not necessarily automatic. First, he accepted that a slow pace of

21. Sagan and Waltz, 30.

22. Ibid., 31. Thus, Waltz notes that the United Kingdom and France built small arsenals to deter the Soviet Union, compared with the massive—and to Waltz totally unnecessary—U.S. nuclear force.

23. Ibid., 13–14, 28–29.

24. Ibid., 21–22. This assumes, of course, that the appropriate target is a city, which has been a source of contention in U.S. nuclear strategy since the 1950s.

proliferation was essential, because "rapid changes in international conditions can be unsettling."[25] However, he rejected the concept of proliferation cascades, and so did not see this as a significant concern. From his perspective, only a few non-nuclear states will be an interest in acquiring a nuclear arsenal at any given point in time.

Second, Waltz also recognized that countries must create nuclear capabilities that could reliably mount retaliatory attacks. Waltz specified several requirements for such a force. It must be able to survive attack and have the means to deliver the surviving weapons. He saw these requirements as important primarily because they obviated the need for a launch-on-warning or under attack capability. Also essential was a robust command and control system, primarily to prevent unauthorized use.[26] Waltz was convinced that it was not hard to satisfy these requirements, even for a small country with a limited nuclear arsenal. Hiding weapons and protecting them (and their delivery systems) from attack was simple to achieve in his view and the rudimentary command and control systems required were within the reach of even the smallest of powers.[27]

He applied similar thinking to both the U.S.-Soviet nuclear balance and the U.S. nuclear arsenal. As a result, he rejected the core precepts that guided U.S. nuclear policy during the Cold War, whether it was the complicated interactions between deterrence and nuclear warfighting in Department of Defense nuclear planning or the force structure that he saw as grossly oversized.[28] Thus, Waltz adopted theoretical constructs that are in specific opposition to past and

25. Ibid., 3, 42–43. If deterrence is inherently stable, Waltz does not explain why the speed of the spread of nuclear weapons should make a difference.

26. Ibid., 20.

27. Ibid., 21; and Kenneth Neal Waltz, "A Reply," *Security Studies* 4, No. 4, (Summer 1995): 802–805.

28. Kenneth Neal Waltz, "Nuclear Myths and Political Realities," *American Political Science Review* 84, No. 3, (September 1990): 731–745.

present U.S. nuclear policy, strategy, and operations.[29] It is that divergence that lies at the core of the disagreement between the perspectives of Washington policymakers and the academic theoretician.

Policymakers and Nuclear Nonproliferation

During the past seven decades, U.S. policymakers worried about the prospects for the proliferation of nuclear weapons, even if ultimately other considerations took precedence. This perspective is reflected in the observation of the Congressional Commission on the Strategic Posture of the United States that, since the beginning, U.S. nuclear policy has had two "imperatives": the requirement for a strong nuclear deterrent and reliance on arms control and nonproliferation measures.[30] This juxtaposition is significant, given that this commission was comprised of men and women selected to represent the views of Washington's political elite, including amongst its members former U.S. government policymakers in the U.S. government who had been involved in the development or implementation of strategic nuclear policy.

Every U.S. president since the detonation of the first atomic bomb has articulated policies consistent with this dual vision, although some had little confidence in nonproliferation and can be justifiably criticized for that. Official policy from the dawn of the atomic age called for constraints on nuclear weapons, starting in the months after Hiroshima, when the leaders of the Western countries

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29. Here I refer not to former policymakers, who often adopt positions rather different than the ones they propounded while in office, but only to the views of those in positions of responsibility, except when their positions out of government seem to comport with the positions they held while in government.

30. Congressional Commission on the Strategic Posture of the United States, A*merica's Strategic Posture: The Final Report of the Congressional Commission on the Strategic Posture of the United States* (Washington, DC: United States Institute of Peace Press, 2009), 5.

announced what became the Baruch Plan, which called for international, not national, control of nuclear materials. Consistent with this vision, the Atomic Energy Act prohibited transfers of nuclear materials and weapons information even to our British and Canadian allies, who had contributed so substantially to the Manhattan Project. As former U.S. Secretary of State Dean Acheson asserted in 1966, perhaps with some overstatement, "The United States believed—and this is something that it is easy for everyone in the world to forget—that even one nuclear power was too many, and immediately after World War II we sought to remove nuclear energy from the military field."[31]

In the subsequent two decades, until negotiation of the 1969 Nuclear Nonproliferation Treaty, most policymakers at best tolerated nuclear proliferation and only a few actively thought it a good thing.[32] Even U.S. President Dwight Eisenhower, often criticized by the nonproliferation community for his role in spreading nuclear technology through the Atoms for Peace program, opposed nuclear proliferation and apparently thought that his policies were consistent with that objective.[33]

In some respects, this consensus in policymaking circles is surprising. On other nuclear matters there often was widespread disagree-

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31. Statement by Secretary of State Rusk to the Joint Committee on Atomic Energy: Nonproliferation of Nuclear Weapons, February 23, 1966, *Documents on Disarmament, 1966*, (Washington, D.C.: Arms Control and Disarmament Agency, 1967), 41-49.

32. For a discussion of views during the Kennedy, Johnson, and early Nixon administrations, see Francis J. Gavin, "Blasts from the Past: Proliferation Lessons from the 1960s," *International Security* 29, No. 3, (Winter 2004-05): 100–135.

33. Eisenhower advocated an International Atomic Energy Agency and a Comprehensive Nuclear-Test-Ban Treaty in part to develop barriers against proliferation, according to George Bunn, "U.S. Non-Proliferation Policy," in *Arms Control for the Late Sixties* (Princeton, N.J.: Van Nostrand, 1967), 151. For a not unsympathetic critique of Eisenhower's nonproliferation record, see Shane Maddock, "The Fourth Country Problem: Eisenhower's Nuclear Nonproliferation Policy," *Presidential Studies Quarterly* 28, No. 3, (Summer 1998): 553–572.

ment. Yet, it is evident that many people who firmly believed in the strength of deterrence, and probably believed that nuclear weapons played an important, perhaps even decisive role, in maintaining global peace during the Cold War, also fought to prevent the further proliferation of nuclear weapons. Amongst the primary intellectual figures of U.S. nuclear deterrence strategy were individuals closely associated with nuclear nonproliferation policies, such as Albert Wohlstetter.[34]

How do we know what they think? While there are no opinion surveys to prove the point, there is little doubt that the overwhelming majority of U.S. senior national security executives during the nuclear age opposed the proliferation of nuclear weapons, even when friendly countries were involved. We know this in several ways. First, we know what they have said and written. Few have adopted a position consistent with the proliferation optimists,[35] while most have viewed proliferation as a serious national security challenge.[36]

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34. Wohlstetter is best known for his seminal study, Albert Wohlstetter, "The Delicate Balance of Terror," *Foreign Affairs* 37, No. 2, (January 1959): 211–234. Others who expressed concern about nuclear proliferation were such prominent figures as Bernard Brodie, Fred Iklé, Arnold Kramish, and James Schlesinger, albeit in differing degrees. Consider the following observations in Bernard Brodie, Charles J. Hitch, and Andrew W. Marshall, *The Next Ten Years* (Santa Monica, California: RAND, 1954), 16–17.

> This is likely to restore greater importance to other nations vis-à-vis the U.S. and U.S.S.R. and might significantly alter the present bi-polar distribution of power. Whether wider distribution of power will be in the U.S. interest or will enhance the chances of world peace is disputable. Certainly the problems of national security in a multi-polar world with asymptotic weapons would be very different in character.

35. A rare example of a nuclear proliferation proponent was General Curtis LeMay, who lambasted nonproliferation policies after he retired from the military. Curtis E. LeMay and Dale O. Smith, *America Is in Danger* (New York: Funk & Wagnalls, 1968), 186–221.

36. James Schlesinger, "The Impact of Nuclear Weapons on History," *Washington Quarterly* 16, No. 4, (August 1993): 5–12; Harold Brown, "New Nuclear

Perhaps more significantly, we also can review what policies they have advocated and implemented.

What are some of the considerations that make most U.S. policymakers nuclear proliferation pessimists? This paper explores five such considerations: (1) widespread ambivalence about nuclear weapons; (2) concerns about the stability of nuclear deterrence; (3) the challenges that nuclear proliferation pose to the U.S. global position; (4) the risks of nuclear terrorism resulting from loss of control of nuclear arsenals in failed states; and, (5) the complexity of crisis management. Other considerations could be added to this list, such as worries about the quality of intelligence concerning foreign nuclear programs or the ability of any country to ensure the safe operation of nuclear arsenals.[37]

U.S. Ambivalence Towards Nuclear Weapons

In contrast to Waltz's comfort with a nuclear-armed world, U.S. government officials, especially at the more senior levels, often are more ambivalent. They recognize the strategic value of nuclear weapons, but also worry about their destructiveness and the dangers associated with their possession and potential use. This view is aptly summarized in another of Brodie's writings.

> All civilized people share in greater or less degree the desire to put the "nuclear genie back in the bottle" (though, like the classical genie, it has also done some useful service—such as critically reducing the probability of war between the United States and

Realities," *Washington Quarterly* 31, No. 1, (Winter 2007): 7–22; and Carl Kaysen, Robert S. McNamara, and George W. Rathjens, "Nuclear Weapons After the Cold War," *Foreign Affairs* 70, No. 4, (Fall 1991): 95–110.

37. This is a particular concern of Sagan's, as summarized in Sagan and Waltz, *The Spread of Nuclear Weapons: A Debate Renewed: With New Sections on India and Pakistan, Terrorism, and Missile Defense*, 72–82.

the Soviet Union).[38]

More important, most U.S. presidents have had such conflicted views. Almost none have been completely comfortable with nuclear weapons; many sought to limit or eliminate them. The views of U.S. President Barack Obama on the ultimate need to create a world without nuclear weapons, sometimes articulated as a new departure, also reflect the publicly and privately expressed opinions of most of his predecessors. Famously, U.S. President Ronald Reagan was willing to discuss complete elimination of nuclear weapons during the October 1986 Reykjavik Summit, declaring, "It would be fine with me if we eliminated all nuclear weapons."[39] He justified his support for the Strategic Defense Initiative by talking of "rendering these nuclear weapons impotent and obsolete."[40] Even President Eisenhower, who of all the presidents was most attracted to the benefits provided by nuclear deterrence, often expressed both his fears of their destructive powers and the ultimate need to eliminate them.[41]

Striving for the ultimate elimination of nuclear weapons has never been seen as necessarily incompatible with acceptance of nuclear deterrence in the shorter term. Indeed, since the dawn of the nuclear

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38. Bernard Brodie, "The McNamara Phenomenon," *World Politics* 17, No. 4, (July 1965): 680.

39. The passage is on page 11 of the official U.S. Memorandum of Conversation, October 11, 1986, in Svetlana Savranskaya and Thomas Blanton, eds., "The Reykjavik File: Previously Secret U.S. and Soviet Documents on the 1986 Reagan-Gorbachev Summit," Electronic Briefing Book 203, Document 11, National Security Archive, October 13, 2006, available from *www2.gwu.edu/~nsarchiv/NSAEBB/NSAEBB203/Document11.pdf*.

40. Ronald Reagan, "Address to the Nation on Defense and National Security," March 23, 1983. Online by Gerhard Peters and John T. Woolley, eds., The American Presidency Project, available from *www.presidency.ucsb.edu/ws/?pid=41093*.

41. David S. Patterson, "President Eisenhower and Arms Control," *Peace & Change* 11, No. 3, (Summer 1986): 3–24.

age official U.S. policy has been the ultimate elimination of nuclear weapons, even if only in the context of general and complete disarmament. This incongruity is well demonstrated with the varying views of nuclear weapons evident among the so-called "Gang of Four," the four former U.S. senior statesmen (Henry Kissinger, Sam Nunn, William Perry, and George Shultz) who called for the revitalization of efforts to eliminate nuclear weapons.[42] While often viewed as a radical break from the past, the differences are actually less obvious. All support maintaining a reliable nuclear deterrent.[43]

Such skepticism does not comport well with "more is better." Why actively promote the spread of a weapon that you believe ultimately should be banned? At the very least, this helps explain the ambivalence that often attended thinking about such matters when the issue of nuclear assistance arose.

Many in the United States argue that nuclear weapons are essential only to deter other nuclear weapons.[44] This is not official U.S. national policy, although the 2010 Nuclear Posture Review noted a trend to move in that direction.

> The United States will continue to strengthen conventional capabilities and reduce the role of nuclear

42. George P. Shultz, et al., "A World Free of Nuclear Weapons," *Wall Street Journal*, January 4, 2007.

43. All four authors of the original editorial have supported the recommendations of the Congressional Commission on the Strategic Posture of the United States, which was co-chaired by Perry. See, George P. Shultz, et al., "How to Protect Our Nuclear Deterrent," *Wall Street Journal*, January 20, 2010, A17; and also see, America's Strategic Posture: The Final Report of the Congressional Commission on the Strategic Posture of the United States. Kissinger clearly articulates the need for a robust deterrent in Henry A. Kissinger and Brent Scowcroft, "Strategic Stability in Today's Nuclear World," *Washington Post*, April 23, 2012, A13.

44. McGeorge Bundy, "The Bishops and the Bomb," *New York Review of Books*, June 16, 1983; and Robert S. McNamara, "The Military Role of Nuclear Weapons: Perceptions and Misperceptions," *Foreign Affairs* 62, No. 1, (Fall 1983): 59–80.

> weapons in deterring non-nuclear attacks, with the objective of making deterrence of nuclear attack on the United States or our allies and partners the sole purpose of U.S. nuclear weapons.[45]

This reflected a long standing effort to reduce the role of nuclear weapons by providing the president with conventional options. The United States has developed formidable advanced conventional military capabilities, involving precision strike munitions, sophisticated intelligence, surveillance, and reconnaissance (ISR) systems, and complex command and control systems. Part of the impetus for the development of these systems was a desire to raise the threshold for use of nuclear weapons.[46] The United States currently can employ conventional forces to accomplish military objectives requiring nuclear weapons in an earlier era. For this reason, the United States does not rely on nuclear weapons to the same extent as other powers (and certainly not as much as Russia, which requires them even for defense against large-scale conventional attacks). From this perspective, so argues Harold Brown, the former Secretary of Defense who did much to encourage the development of such capabilities, the United States would benefit more than any other power should nuclear weapons totally disappear today.[47] While many of his peers would disagree with his ultimate conclusion, few would disagree that during the past four decades the United States systematically worked to acquire conventional weapons capabilities motivated in part by a desire to reduce requirements for nuclear weapons.[48]

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45. Department of Defense, *Nuclear Posture Review Report* (Washington, D.C., April 2010), ix.

46. Commission on Integrated Long-Term Strategy, *Discriminate Deterrence* (Washington, D.C.: Department of Defense, 1987), 8.

47. Brown, "New Nuclear Realities," 16–17.

48. This trend is reviewed in Barry D. Watts, *Nuclear-Conventional Firebreaks and the Nuclear Taboo* (Washington, D.C.: Center for Strategic and Budgetary Assessments, 2013).

The Difficulties of Maintaining a Deterrent

Policymakers and analysts intimately involved with U.S. nuclear weapons policy were not sanguine about the ease of maintaining deterrence relationships. Indeed, most clearly accepted the view articulated by Albert Wohlstetter in the late 1950s when writing about the initial efforts to create a stable deterrent in a world populated both by thermonuclear weapons and intercontinental ballistic missiles: "Deterrence in the 1960's is neither assured nor impossible but will be the product of sustained intelligent effort and hard choices."[49] As Wohlstetter argued in his seminal article, "The Delicate Balance of Terror," ensuring the survivability of a nuclear deterrent is complex and costly.[50]

From the perspective of practitioners of nuclear strategy, Waltz ignored the harsh realities of nuclear strategy development and implementation. Consider the comments of David Rosenberg about his seminal article on early U.S. nuclear strategy.

> [This article] addresses nuclear strategy not as an exercise in conceptualization, but rather as a complex endeavor, partly intellectual and partly bureaucratic. It focuses specifically on the strategic and operational planning process for nuclear war—where concepts were translated into damage criteria, tactics, targets, and weapons—and how that process related to dynamics such as high policy guidance, strategic theory, and technological development which should have served to control and regulate it.[51]

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49. Charles J. Hitch and Roland N. McKean, *The Economics of Defense in the Nuclear Age, Vol. R-346 (*Santa Monica, California: RAND, 1960), 334.

50. Wohlstetter, "The Delicate Balance of Terror."

51. David Alan Rosenberg, "The Origins of Overkill: Nuclear Weapons and American Strategy, 1945-1960," *International Security* 7, No. 4 (Spring 1983): 8.

In contrast, Waltz views deterrence "as an exercise in conceptualization." Consider the difference between Waltz's views and those of practitioners on two issues: ensuring the survivability of nuclear forces and evaluating the utility of small nuclear forces.

Waltz contended that any state possessing nuclear weapons will take effective steps to ensure the survivability of its arsenal. That was not the sense of Wohlstetter and his RAND colleagues, who believed that the U.S. Strategic Air Command, focused largely on its own retaliatory capabilities, largely ignored its own vulnerability to a surprise attack.[52] Waltz discounted such concerns by arguing that they were misguided, claiming that during the Cuban Missile Crisis the United States was deterred by a relatively small Soviet nuclear force (perhaps limited to 60-70 weapons capable of reaching the United States, contrasting with 2,000 weapons that we had that could strike the Soviet Union).[53] However, Waltz also apparently was quite comfortable retaliating against cities in response to counterforce attacks, a position that many American nuclear strategists found unpalatable.[54]

We also have some evidence to suggest that small nuclear powers have difficulty in maintaining the survivability of their nuclear arsenal. The South Africans stored their entire arsenal of six bombs in a single building vulnerable even to conventional air strikes, protected only by their ability to keep its location a secret.[55] While one presumes that these weapons would have been dispersed in the event of a crisis, we are told that the Soviet Union considered preemptive attacks against the nascent South African program.[56]

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52. Bernard Brodie, *War and Politics* (New York: Macmillan, 1973), 380.

53. Waltz, "Nuclear Myths and Political Realities," 734.

54. Rosenberg, 35–36, 58–60.

55. David Albright, "South Africa and the Affordable Bomb," *Bulletin of the Atomic Scientists* 50, No. 4 (July/August 1994), 43–44.

56. Ibid., 42.

Admittedly, we do not know if the Soviets knew the location of those weapons, but given known penetrations of the South African military establishment, it is possible that they did.[57]

The Pakistanis certainly seem to worry about the survivability of their nuclear arsenal, concerned both that the United States might attempt to seize control of it and that India might preemptively neutralize their deterrent forces by destroying the weapons still in their storage bunkers. Indeed, experts on Pakistan's nuclear forces appear to believe that its arsenal will be dispersed in the event of a crisis due to concerns about its survivability.[58] Clearly, the Pakistanis are not confident about the survivability of their arsenal under routine circumstances.

It is surprising that Waltz is so confident about the survivability of small nuclear arsenals. The argument rests largely on the confidence that any country can have that its greatest secrets have not been compromised. In the case of South Africa, knowledge of one location would have permitted a decisive disarming attack. Even in the case of Pakistan, with its larger and more sophisticated force structure, weapons apparently are stored at only six to 12 sites, according to at least one account.[59] Much can be done to reduce the vulnerability of such a force by relying on hardened bunkers or underground facilities, but that transforms the arsenal into something

57. Ibid., mentions the role of Dieter Gerhardt, a South African naval officer who spied for the Soviets. The available evidence suggests that Gerhardt had access to details of the South African nuclear program, and it appears he gave that information to the Soviet Union. According to Gerhardt, the Soviets considered a strike against the South African enrichment facility in 1976. None of the available accounts indicates whether Gerhardt also knew of the location of the South African nuclear arsenal before his arrest in 1983. However, the storage facility was operational in 1981, so it is at least possible that he might have provided that information to the Soviets as well.

58. Vipin Narang, "Posturing for Peace? Pakistan's Nuclear Postures and South Asian Stability," *International Security* 34, No. 3 (Winter 2009-10): 38–78.

59, Vipin Narang, "Posturing for Peace? Pakistan's Nuclear Postures and South Asian Stability," *International Security* 34, No. 3 (Winter 2009-10) 38–78.

that begins to look like a small version of a major power nuclear infrastructure.

As has been noted, Waltz argues that small nuclear forces can satisfy the requirements for a secure deterrent, contrasting the small arsenals of France and the United Kingdom with the vastly larger U.S. force structure. He seems to imply that the leaders of those two European countries believed that their arsenals comprised a self-sufficient deterrent to Soviet nuclear threats. Yet, the reality is that both countries saw their nuclear deterrent only in the U.S. context, not as totally isolated and independent forces. The British integrated their nuclear forces into a North Atlantic Treaty Organization (NATO) theater and a U.S. strategic response, while the French strategy focused heavily on manipulation of U.S. responses.[60]

Clearly, those who had to take responsibility for sustaining the U.S. deterrent were far less confident than Waltz about strategic stability. Indeed, during the decades that followed publication of Wohlstetter's article, concerns about strategic stability were a constant, irrespective of administration. Whether addressing the central strategic balance between the Soviet Union and the United States, or the NATO-Warsaw Pact regional balance in Europe, U.S. policymakers found nothing simple or easy about the process of generating and sustaining a credible deterrent.

Ultimately, Waltz's views matter rather less than the perspectives of several generations of practitioners who had rather different views

60. French nuclear strategy and its ties to the American nuclear arsenal are reviewed in Bruno Tertrais, "Destruction Assurée: The Origins and Development of French Nuclear Strategy, 1945-81," in Henry Sokoloski, ed., *Getting MAD: Nuclear Mutual Assured Destruction, Its Origins and Practice* (Carlisle, PA: Strategic Studies Institute, 2004), 51–122, available from www.npolicy.org/books/Getting_MAD/Ch2_Tertrais.pdf; and R. H. Ullman, "The Covert French Connection," *Foreign Policy*, No. 75 (Summer 1989): 3–33. The earliest British nuclear strategy documents tied their deterrent to the United States, according to John Simpson, "British Nuclear Weapon Stockpiles, 1953–78: A Commentary on Technical and Political Drivers," *The RUSI Journal* 156, no. 5 (2011): 74–83.

on deterrence. For those responsible for the lives of tens, perhaps hundreds, of millions of people, it is perhaps not surprising that they would be less inclined to take for granted the inherent stability of deterrence or that they might be less than comfortable with the argument that we should view with complacence the nuclear postures of other countries.

Challenging U.S. Dominance

Many in Washington opposed nuclear weapons programs because the proliferation of nuclear weapons would undermine U.S. political and military power. President Eisenhower apparently believed that the United States would benefit more from the elimination of nuclear weapons than the Soviet Union, given his confidence in U.S. economic and industrial strength.[61] As a future Secretary of Defense, James Schlesinger, would note in the late 1960s, "Further nuclear spread would lead to a reduction of the relative influence of the United States on the world scene."[62] Secretary of State Dean Rusk made it a generalized principle when he told a Soviet diplomat in 1963, "It was almost axiomatic that no nuclear power has any interest in seeing others become nuclear powers."[63]

The most obvious point about nuclear proliferation is that it may strengthen adversaries and weaken U.S. responses to their aggressive moves. Once it became clear in the 1950s that nuclear weapons, even when possessed in overwhelming numbers, could

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61. Patterson, "President Eisenhower and Arms Control."

62. James Schlesinger, "The Strategic Consequences of Nuclear Proliferation," in *Arms Control for the Late Sixties* (Princeton, N.J.: Van Nostrand, 1967), 175. Schlesinger attributed the thought to William C. Foster, Arms Control and Disarmament Agency Director.

63. Memorandum of Conversation, January 10, 1963, U.S. Department of State, *Foreign Relations of the United States, 1961-1963: Arms Control and Disarmament, Volume 7* (Washington, D.C.: U.S. Government Printing Office, 1995), 630-631.

not prevent uses of conventional weapons peripheral to the core interests of the United States, U.S. policymakers had to worry that a nuclear umbrella could shield destabilizing actions by hostile countries, even if we did not fear use of nuclear weapons. This was one of the concerns that arose from consideration of China's acquisition of nuclear weapons,[64] and it has been a recurring theme in connection with lesser powers, such as Iran, Iraq, Libya, and North Korea, openly hostile to U.S. interests, who might strive to use a nuclear arsenal to undermine U.S. influence and interests.

Even more intriguing is the ambivalence or hostility of the United States towards the acquisition of nuclear weapons by close allies. U.S. theater nuclear weapons policy in Europe was calibrated to reduce incentives for NATO and even non-NATO countries to acquire their own independent nuclear deterrent. Although the British had been closely involved with the original Manhattan Project, it took time for the U.S. political establishment to accept Britain's nuclear status and even longer to develop the close ties that eventually emerged between the two country's nuclear programs.[65]

During the late 1950s and early 1960s, some U.S. government officials thought that the United States benefited from acquisition of nuclear weapons by allies. Thus, in 1955 President Eisenhower asked Harold Stassen to undertake arms control negotiations with the Soviet Union. Initially, Stassen was skeptical about the prospects for nuclear nonproliferation, but changed his views after concluding it was a possible area of diplomatic collaboration with the Soviet Union. However, some Defense Department officials strongly opposed his efforts in part because they thought it would be to the U.S. advantage if France and Japan had nuclear weap-

64. 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* 25, No. 3 (Winter 2000-01): 54–99.

65. Simpson, "British Nuclear Weapon Stockpiles, 1953–78."

ons.[66]

Days after the first Chinese nuclear test in 1964, U.S. President Lyndon Johnson established the Gilpatric Committee to review nuclear nonproliferation policy. The Committee discovered that the Defense Department no longer opposed nuclear nonproliferation, but that the State Department was strongly opposed to any policy that would overtly prevent certain U.S. allies from retaining the right to acquire nuclear weapons. In particular, some senior State Department officials at the time believed that U.S. alliance relations depended on creation of the Multi-Lateral Force (MLF), which would have given NATO allies direct access to nuclear weapons. Moreover, some senior State Department officials believed that we would undermine alliance relationships if we tried to deny Germany and Japan the right to acquire nuclear weapons.[67] However, the MLF never became a reality, and the president never accepted the State Department's hostility towards nuclear nonproliferation.

Over time, U.S. officials came to worry that allied nuclear weapons capabilities posed dangers to the U.S.-Soviet deterrence relationship. And, although it may be true that the United States provided assistance to the French nuclear weapons program,[68] it is equally clear that from the French perspective the United States was a huge obstacle in its development of an independent nuclear capability in the 1950s and 1960s.[69] Indeed, one rationale for the French nuclear program was to deny the United States independence of action in responding to the Soviet Union. Paris wanted to ensure that the United States took into account French security interests. Unfortunately, it also complicated NATO nuclear weapons planning. For example, the United States worried that efforts to keep a conflict

66. See, Maddock, 557–558.

67. Gavin, "Blasts from the Past: Proliferation Lessons from the 1960s."

68. Ullman, "The Covert French Connection."

69. Tertrais, "Destruction Assurée: The Origins and Development of French Nuclear Strategy, 1945-81."

limited might be derailed by French nuclear attacks against attacking Soviet ground forces in Central Europe.[70]

Ultimately the United States exerted considerable pressure on other friendly countries during the Cold War, such as South Korea and Taiwan, to constrain their nuclear ambitions, and worked during the 1950s and 1960s—admittedly not always pursued consistently— to limit the spread of nuclear weapons in Europe.[71]

Interestingly, Waltz at one point concedes such worries about the negative impact of nuclear proliferation by accepting that "limitation of America's policy choices has been one of the costs" of proliferation, but finds the benefits he sees in limiting adversary choices well worth that price.[72] It is perhaps unsurprising that those in Washington responsible for U.S. policy are less sanguine about the costs of permitting reductions in U.S. relative power.

Failed States and Nuclear Terrorism

A major concern for U.S. policymakers, especially since 9/11, has been the danger that nuclear weapons may fall into the hands of terrorists. While some analysts believe that the threat of nuclear terrorism is overstated, and others that it is irrelevant, the concern is not new.[73] The national security community in the United States

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70. Ullman, "The Covert French Connection."

71. The list of NATO countries and European neutrals that abandoned nuclear weapons programs—albeit, many nascent at best—is long: Germany, Italy, Netherlands, Norway, Sweden, Switzerland, and Yugoslavia. See, Ariel Levite, "Never Say Never Again: Nuclear Reversal Revisited," *International Security* 27, No. 3 (Winter 2002-03): 62.

72. Waltz, "A Reply," 805. However, he also asserted that focusing on nuclear nonproliferation required the United States to pay an unnecessary diplomatic price using resources better devoted to other, more important concerns. See Sagan and Waltz, *The Spread of Nuclear Weapons: A Debate Renewed*, 42.

73.. Brian Michael Jenkins, *Will Terrorists Go Nuclear?* (Amherst, N.Y.: Pro-

has discussed the issue since at least the early 1970s, and worries about nuclear terrorism have motivated much activity intended to control fissile material.[74]

For many, the most likely way in which this could happen is as a result of political instability in a nuclear-armed country. This problem first emerged as a concern in the early 1990s with the collapse of the Soviet Union at the end of the Cold War. At that time, the Soviet nuclear arsenal was divided between four countries, and security for protecting weapons and fissile material was uncertain at best. In addition to taking steps to ensure consolidation of the weapons under the sole control of Russia, the United States funded a variety of programs intended to prevent loss of weapons, fissile material, or critical technology.[75]

Today the primary concern is that the political collapse of North Korea or Pakistan could lead to a loss of control and the subsequent acquisition of nuclear weapons by a terrorist group. This is particularly worrying in the case of Pakistan, given the presence and strength of terrorist groups in that country that might be inclined to use such weapons.[76] President Obama has made the risks of terrorist acquisition of nuclear weapons a central concern of his administration. As he argued in his 2009 Prague speech, "This is the

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metheus Books, 2008); and John E. Mueller, O*verblown: How Politicians and the Terrorism Industry Inflate National Security Threats, and Why We Believe Them* (New York: Free Press, 2006).

74. Mason Willrich and Theodore B. Taylor, *Nuclear Theft: Risks and Safeguards; a Report to the Energy Policy Project of the Ford Foundation* (Cambridge, MA: Ballinger Pub. Co., 1974), 114–116, provides an early discussion.

75. Graham T. Allison, et al., *Avoiding Nuclear Anarchy: Containing the Threat of Loose Russian Nuclear Weapons and Fissile Material, Vol. 12* (Cambridge, MA: MIT Press, 1996).

76. Thomas Donnelly, "Bad Options: Or How I Stopped Worrying and Learned to Live with Loose Nukes," in Henry D. Sokolski, ed., *Pakistan's Nuclear Future: Worries Beyond War* (Carlisle, PA: Strategic Studies Institute, 2008) 347–368.

most immediate and extreme threat to global security."[77] While the rationale differed, U.S. President George W. Bush also considered nuclear terrorism as one of his top national security challenges.[78]

Recent developments in Syria also illustrate this point. The Syrians amassed a militarily significant quantity of chemical weapons, and there were widespread fears in the United States and elsewhere that terrorists might gain control of some of this arsenal. The concern was sufficiently great that the Western countries were willing to work with the Assad regime, previously considered a pariah, in order to dispose of these weapons.[79] Significantly, the dangers could have included a nuclear dimension, given Syria's abortive effort to build nuclear infrastructure, terminated in 2007 when Israel destroyed a nuclear reactor about to become operational. As one former U.S. government official notes, "Think of how much more dangerous to the entire region the Syrian civil war would be today if Assad had a nuclear reactor, and even perhaps nuclear weapons, in hand."[80] There are certainly other countries on the list of potential proliferators that might raise similar concerns.[81]

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77. White House Press Office, "Remarks by President Barack Obama, Hradcany Square, Prague, Czech Republic, April 5, 2009," April 5, 2009, available from *www.whitehouse.gov/the_press_office/Remarks-By-President-Barack-Obama-In-Prague-As-Delivered*.

78. *National Security Strategy of the United States* (Washington, D.C.: The White House, 2006).

79. Patrick J. McDonnell, "Push to Eliminate Syria's Chemical Weapons May Extend Assad's Rule," *Los Angeles Times*, October 15, 2013, available from *articles.latimes.com/2013/oct/15/world/la-fg-syria-assad-20131015*.

80. Elliott Abrams, "Bombing the Syrian Reactor: The Untold Story," *Commentary* 135, No. 2 (February 2013): 24; and Bruce Riedel, "Lessons of the Syrian Reactor," National Interest, No. 125 (May 2013): 39-46, expresses similar views.

81. Certainly, it is likely that many in Washington would have concerns should Saudi Arabia decide to pursue a nuclear weapon, as some senior Saudi officials have intimated. While the Saudi kingdom has been remarkably stable, it also was the home of Osama bin Laden and has been an important recruiting ground

In his original writings, Waltz argued that unstable states were "unlikely to initiate nuclear projects," but in any case discounted the concern because he doubted nuclear weapons would be employed during internal strife. He did not address the dangers of nuclear terrorism (nor did he address the risk that loss of control might result in nuclear proliferation if another country gained access to weapons).[82] Waltz addressed the problem in his more recent writings, but dismissed the concerns as either overblown or not made worse by the spread of nuclear weapons to more countries.[83] He did not address the problem of failed states at all.

In this sense, Waltz had a far more simplistic view of the terrorism problem than either those who worry about it or even those who are more dismissive. He is far more complacent than others sometimes identified as "proliferation optimists." For example, Bueno de Mesquita, another so-called "proliferation optimist," saw terrorism as a significant risk associated with additional nuclear proliferation.[84]

The Complexity of Crisis Management

For U.S. policymakers, a nuclear crisis between third parties is a nightmare scenario. It is easy to assert that nuclear deterrence is inherently stable. It is more difficult to demonstrate in practice. U.S.

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for al Qaida and other Salafist terrorist groups. On Saudi nuclear ambitions, see Brandon Friedman, "Alternatives to U.S. Hard Power: The Saudi Response to U.S. Tactics in the Middle East," *Foreign Policy Research Institute E-Notes*, accessed January 27, 2014, available from www.fpri.org/articles/2014/01/alternatives-us-hard-power-saudi-response-us-tactics-middle-east; and Mark Urban, "Saudi Nuclear Weapons 'On Order' from Pakistan," *BBC News*, November 6, 2013, available from www.bbc.co.uk/news/world-middle-east-24823846.

82. Waltz, *The Spread of Nuclear Weapons: More May Be Better*, 12.

83. The book has appeared in several editions, originally in Sagan and Waltz, *The Spread of Nuclear Weapons: A Debate Renewed: With New Sections on India and Pakistan, Terrorism, and Missile Defense*, 126–130.

84. Bueno de Mesquita and Riker, 304.

policymakers knew, either from personal experience or from studies of nuclear history, that managing nuclear crises with the Soviet Union were fraught with danger. While many came to trust in the experience and wisdom of their colleagues and Soviet adversaries, they also realized that there was a learning curve. No one comes born into the world understanding the manifest complexities of policymaking in the context of a nuclear crisis. Hence, it is perhaps not surprising that U.S. policymakers have worried about the dangers confronting the world as policymakers in other countries climb the learning curve of nuclear strategy.[85]

Why should policymakers in Washington care about what happens elsewhere, especially when the U.S. national interest may not be at risk? One reason is that in the era of globalization, the United States has interests in most countries vulnerable to the negative consequences of a nuclear war. A nuclear exchange between India and Pakistan, for example, could lead to tens of millions of deaths, potentially including many U.S. citizens, even if one does not accept recent theories about the prospects for climatic impacts induced by a regional war involving tens of nuclear weapons.[86] Such a conflict also would cause negative economic and political repercussions, including some specifically related to the role of nuclear

85. Michael Horowitz, "The Spread of Nuclear Weapons and International Conflict: Does Experience Matter?," *Journal of Conflict Resolution* 53, No. 2 (April 2009): 234–257, argues that new nuclear weapons states are "significantly more likely to reciprocate militarized challenges and have their challenges reciprocated," compared with states that have possessed the weapons for longer periods of time.

86. Some policymakers are likely to take seriously the environmental risks of a regional nuclear conflict, while others may discount the concern, given their views on climate change. There is now a small literature claiming that there will be global environmental impacts. Owen B. Toon et al., "Consequences of Regional-Scale Nuclear Conflicts," *Science* 315, No. 5816 (March 2007): 1224–1225; O. B. Toon, et al., "Atmospheric Effects and Societal Consequences of Regional Scale Nuclear Conflicts and Acts of Individual Nuclear Terrorism," *Atmospheric Chemistry and Physics* 7, No. 8 (April 2007): 1973–2002; and A. Robock, et al., "Climatic Consequences of Regional Nuclear Conflicts," *Atmospheric Chemistry and Physics* 7, No. 8 (April 2007): 2003–2012.

weapons in international relations, such as potentially undermining the taboo against operational employment of nuclear weapons.[87]

Hence, it is not surprising that U.S. policymakers moved into high gear when there was a threat that a conflict between India and Pakistan had the potential to escalate. While such crises have been rare, there were two of them in a short period of time during the Clinton and George W. Bush administrations.

In many ways, this is an intensely personal concern for policymakers. There were two occasions, 1999 and 2001-2002, during which U.S. policymakers worried that a war might erupt between the two countries. The 1999 Kargil crisis started when Pakistan infiltrated forces into parts of Kashmir that the Indians thought belonged to them and thereby threatened Indian lines of supply. The Indians attacked the Pakistani positions, and, when it proved impossible to overcome the Pakistanis in the difficult mountain terrain, escalated the conflict by launching air strikes. All of this occurred under a nuclear shadow, the two countries having tested nuclear weapons the year before.[88]

U.S. policymakers clearly took this crisis seriously, and viewed it in a nuclear context from the very beginning. After all, the consequences of a nuclear exchange were frightening. Estimates put the death toll from an attack on Bombay at between 150,000 and 850,000.[89] It is thus not surprising that U.S. President Bill Clinton

87. For a discussion of the range of impacts on U.S. interests resulting from a nuclear exchange between India and Pakistan, based on a wargame played at the Naval War College in 1999, see Paul D. Taylor, "India and Pakistan," Naval War College Review, Vol. 54, No. 3, Summer 2001, 40–51.

88. Neil Joeck, "The Indo-Pakistani Nuclear Confrontation: Lessons from the Past, Contingencies for the Future," in Henry D. Sokolski, ed., *Pakistan's Nuclear Future: Reining in the Risk* (Carlisle, PA: Strategic Studies Institute, 2009), 19–23, available from www.npolicy.org/books/Pakistan_Nuclear_Future/Ch1_Joeck.pdf.

89. Bruce Riedel, A*merican Diplomacy and the 1999 Kargil Summit at Blair House* (Philadelphia: Center for the Advanced Study of India, University of

took a personal role in trying to convince the Pakistanis to withdraw from the territory that they had occupied, and that diplomacy involved the most senior officials in the United States government with responsibility for South Asian affairs, including from both the military and State Department.[90]

The same level of involvement emerged at the time of the 2001-2002 Twin Peaks crisis. In December 2001, terrorists subsequently linked to the Pakistani intelligence services attacked the Indian Parliament. The Indians responded by mobilizing their military and prepared to mount retaliatory attacks, leading the Pakistanis to mobilize their own military. The following May, terrorists attacked Indian military encampments near the border between the two countries, killing both soldiers and family members.[91]

On-going military operations in Afghanistan in the wake of our intervention following the 9/11 attacks by al Qaeda made these events even more worrying to U.S. policymakers. In essence, a war between India and Pakistan, not to mention a nuclear exchange, would put at risk the U.S. military forces operating in Afghanistan. As happened in the previous crisis, the diplomacy involved senior

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Pennsylvania, 2002), 3–4.

90. The intensity of the engagement is reflected in one statistic offered by Strobe Talbott, Deputy Secretary of State: between 1998 (after the Indian nuclear test) and the end of 2000, he met 14 times with his Indian counterpart. See, Strobe Talbott, *Engaging India: Diplomacy, Democracy, and the Bomb* (Washington, DC: Brookings Institution Press, 2004), 3–4. At the time of the Kargil crisis, the diplomacy also involved the Commander, U.S. Central Command, and other State Department and National Security Council officials in addition to President Clinton and Talbott, according to Riedel, A*merican Diplomacy and the 1999 Kargil Summit at Blair House*, 4–5.

91. Joeck, "The Indo-Pakistani Nuclear Confrontation: Lessons from the Past, Contingencies for the Future," 29–31; and Moeed Yusuf, "U.S. as Interlocutor in Nuclear Crises: Deriving Future Policy Implications from a Study of the 2001-2002 India-Pakistan Standoff," in *A Collection of Papers from the 2009 Nuclear Scholars Initiative* (Washington, DC: Center for Strategic and International Studies, 2009), 49–50.

level U.S. government officials, and reflected the same degree of concern as the earlier crisis.

Thus, even in a situation where the United States had no intention of providing extended deterrence, nuclear weapons created a complex problem for international diplomacy. Indeed, some argue that one of the intended roles for Pakistan's nuclear arsenal was to force U.S. diplomatic interventions in crises with India.[92]

An Argument for All Persuasions

The arguments supporting pessimism about the consequences of nuclear proliferation cover such a wide range of issues that almost any U.S. policymaker can find one sufficiently compelling to guide his or her actions. A Democratic advocate of nuclear zero and a Republican opponent of the Comprehensive Nuclear-Test-Ban Treaty can find common ground in the arena of nuclear nonproliferation, even if the arguments that they find most compelling differ fundamentally.[93] Such policymakers, while convinced that nuclear deterrence works and perhaps even believing that nuclear weapons make the world unsafe for the prosecution of large scale conventional wars, also tend to believe that the workings of nuclear deterrence are potentially problematic and certainly have no faith that its sometimes Byzantine logic will work in every situation.

This is not to say that all policymakers are devotees of nonproliferation; quite the contrary. Many policymakers found and find nonproliferation efforts in tension with other policies, and it is often evident that those other policies take precedence. Policymak-

92. Yusuf, 47; and Narang, 49–50; S. P. Kapur, "Ten Years of Instability in a Nuclear South Asia," *International Security* 33, No. 2 (Fall 2008): 76, doi:10.1162/isec.2008.33.2.71.

93. Evident from the agreement shown in Congressional Commission on the Strategic Posture of the United States, *America's Strategic Posture: The Final Report of the Congressional Commission on the Strategic Posture of the United States.*

ers tend towards proliferation relativism, viewing the problem in a broader context that takes account of other issues as well.[94]

Yet, to find nonproliferation an obstacle to other policy objectives is rather different from arguing its reverse. Most officials who tolerated or condoned specific instances of nuclear proliferation apparently did not do so because they thought the spread of nuclear weapons was a positive thing but because they believed the available policy alternatives were even worse. While perhaps not provable, it seems clear that no senior U.S. government official ever actively promoted nuclear proliferation as a general principle, although admittedly some did on occasion actively support proliferation in specific cases.

In this sense, Waltz has done the field a profound disservice, because a whole debate has been defined by his writings. His views are widely cited in the academic literature to present the case for nuclear optimism, even though his arguments are more appropriately referred to as proliferation optimism. Waltz offers a straw man that presents grossly simplified versions of the complex and rich strategic thinking that has characterized the practice of nuclear strategy. While Sagan and other critics appropriately take Waltz to task, they are less concerned about the practice of nuclear strategy then they are about highlighting the very real risks from nuclear proliferation. The result is that the perspectives of those who have conceptualized, developed, or implemented nuclear policy, strategy, and operations are lost, and academic students refer to Waltz as though his work represents the depths of the subject.

In contrast to the rich complexity and nuance of writings on U.S. nuclear strategy, which take into account the vagaries of the world confronting national leaders, Waltz offered a simple, straightforward assessment. While John Gaddis views nuclear weapons as one of many factors accounting for the "long peace," Waltz fixated on their role. While two generations of nuclear policymakers wor-

94. Lavoy, "The Strategic Consequences of Nuclear Proliferation: A Review Essay," 753.

ried about the limitations of nuclear deterrence, articulated since the mid-1950s in theories of limited war, Waltz adopted an absolutist position that makes former Secretary of State John Foster Dulles and the doctrine of Massive Retaliation appear subtle by comparison.

U.S. policymakers have a range of reasons for seeing Waltz's arguments as irrelevant to the world they face.[95] For them, Panglossian world views are no substitute for the potentially deadly realities of armed strife in the real world. Ultimately, the academic debate between proliferation optimists and pessimists is exactly that, academic. Thus, it is not surprising that few, if any, officials responsible for national security responsibilities will find the perspectives of the proliferation optimists attractive, while many will work actively to prevent proliferation. The only surprising thing is that some people seem to think that there is something to debate.[96]

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95. The reaction of some former and current policymakers shown this chapter is perhaps telling. They found the discussion of "more is better" so totally irrelevant to their own experience and world view that they could not understand why anyone would waste their time looking at the subject. Many have read Waltz, only to dismiss his work as an intellectual curiosity, perhaps interesting as a pedagogic tool but not of value for someone engaged in shaping the world.

96. Academic students of international relations worry about perceived and real disconnects between their efforts to develop theory and the activity of practitioners. See Stephen M. Walt, "The Relationship Between Theory and Policy in International Relations," Annual Review of Political Science, Vol. 8, No. 1, June, 2005: 23–48. Unfortunately, the work of nuclear proliferation optimists and the debate between academic optimists and pessimists only confirms the suspicion of policymakers that there is little to be learned from those trying to build credible theory.