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The Theory of the Nuclear Revolution

[After nuclear war, the] two sides would have neither powers, nor laws, nor cities, nor cultures, nor cradles, nor tombs.

—*Charles de Gaulle, May 31, 1960*

A nuclear war cannot be won and must never be fought.

—*Joint statement of President Ronald Reagan and First Secretary Mikhail Gorbachev, November 21, 1985*

Contradictions and Puzzles

The most important points often are the simplest ones. No one can win an all-out nuclear war. While this statement is open to dispute, I maintain that it is correct and that its implications have not been fully appreciated. The odder implications are discussed in later chapters; here I want to present the underpinnings of the argument.

We need to explain a series of remarkable if familiar contradictions: the United States and the Soviet Union possess unprecedented military might, yet they cannot protect themselves; the absence of war between the great powers since 1945 coexists with unprecedented fear of total destruction; what the United States and the USSR threaten to do to one another during war would be suicidal, yet attempts to moderate these threats are often greeted as dangerous if not aggressive; the superpowers threaten each other with enormous devastation yet avoid serious provocations; levels of arms have varied greatly since 1945, and yet the basic outlines of the status quo have remained unchanged. We

I am grateful to McGeorge Bundy for the reference to and translation of de Gaulle's statement.

need understand what nuclear weapons have done to world politics, yet the attempts to maintain familiar intellectual frameworks compound rather than alleviate the dilemmas. The key to solving these puzzles is an understanding of the transformation of the nature and sources of security in the nuclear era.

First let me explain some basic concepts, sketch the difference between military victory—which is no longer possible in a war between the superpowers—and political victory, which depends on the threat of war, and explain why the superpowers' nuclear arsenals provide greater protection for allies than is often believed. Parts of this discussion will be familiar to experts in the field. I will then treat the central claim of this book—that nuclear weapons have drastically altered statecraft—as a theory. That is, I will ask what consequences should follow if it is true and see whether international behavior since 1945 has been consistent with these theoretically generated expectations.

The difficulties in coming to grips with the implications of nuclear weapons are perhaps best epitomized by our inability to answer the straightforward question of whether these weapons have made the United States—and the world—more or less secure. The common reply—that nuclear weapons have both decreased the chance of world war and increased the destruction that would result were such a war to occur—is not a direct answer, although it may well be correct. Thus it is not a contradiction for public opinion to affirm simultaneously that nuclear war would mean annihilation and that nuclear weapons have served the cause of peace.[1]

But evaluating this trade-off is so difficult that decision makers have made ambivalent if not inconsistent responses. In early 1949, five days after President Truman told a trusted adviser that "the atomic bomb was the mainstay and all he had; that the Russians would probably have taken over Europe a long time ago if it were not for that," he asked, "Wouldn't it be wonderful . . . if we could take [our atomic stockpile] and dump it into the sea?"[2] President Eisenhower displayed the same contradictory attitudes. Early in his administration, he argued

1. This position is presented as a contradiction by Daniel Yankelovich in *Voter Options on Nuclear Arms Policy* (New York: Public Agenda Foundation, and Providence, R.I.: Center for Foreign Policy Development, Brown University, 1984), p. 3.

2. Quoted in David Lilienthal, *The Journals of David E. Lilienthal* (New York: Harper & Row, 1964), 2:466-73. In NSC-68, which Truman endorsed, it was also said that "it appears that it would be to the long-term advantage of the United States if atomic weapons were to be effectively eliminated from national peacetime armaments" (John Gaddis and Thomas Etzold, eds., *Containment: Documents on American Policy and Strategy, 1945–1950* [New York: Columbia University Press, 1978], p. 417).

that nuclear weapons were not different in kind from conventional ones. When discussing disarmament proposals in 1955 he also told his press secretary that "of course, the Reds were proposing to eliminate all atomic weapons, . . . which would leave them with the preponderance of military power in Europe."[3] But when Secretary of State John Foster Dulles said that of course everyone knew that because of the vast Soviet superiority in manpower, the United States could not agree to abolish nuclear weapons, Eisenhower vigorously dissented: According to the records of the National Security Council (NSC) meeting, "the President said that if he knew any way to abolish atomic weapons which would ensure the certainty that they would be abolished, he would be the very first to endorse it, regardless of any general disarmament. He explained that he was certain that with its great resources the United States would surely be able to whip the Soviet Union in any kind of war that had been fought in the past or any other kind of war than an atomic war."[4] This was not an isolated outburst: the next day he said that "he would gladly accept nuclear disarmament [even without conventional disarmament] if he was sure he could get the genuine article. . . . He would gladly go back to the kind of warfare which was waged in 1941."[5] The 1986 Reykjavik summit meeting called up the same ambivalence.

The difficulties stem in part from the fact that the trade-off between the chance of war and the consequence of war is an extremely painful one, the kind that people try to avoid facing.[6] The ambivalence also may represent an instinctive recognition of the fact that nuclear weapons are very powerful in one sense but not in another. John Thibaut and Harold Kelley draw the general distinction between fate-control and behavior-control.[7] As the terms indicate, the former is the ability to determine what happens to others, the latter is the ability to control their behavior. Both we and the Soviets have fate-control over the other, but it is far from clear how much this can translate into behavior-control. Indeed, the possession of nuclear weapons can decrease the state's freedom of action by increasing the suspicion with which it is viewed.

3. Quoted in Stephen Ambrose, *Eisenhower the President* (New York: Simon & Schuster, 1984), p. 246; for similar statements see pp. 153, 491.

4. *Foreign Relations of the United States, 1952–1954*, vol. 2, *National Security Affairs* (Washington, D.C.: Government Printing Office, 1984), pt. 2, p. 1469 (hereafter cited as *FRUS*).

5. Ibid., pt. 1, p. 688.

6. Robert Jervis, *Perception and Misperception in International Politics* (Princeton: Princeton University Press, 1976), pp. 128–42.

7. John Thibaut and Harold Kelley, *The Social Psychology of Groups* (New York: Wiley, 1959), pp. 101–11.

India, China, and Israel may have decreased the chance of direct attack by developing nuclear weapons, but they have not increased their general political prestige or influence.

The Impossibility of Military Victory

President Reagan and First Secretary Gorbachev formally ratified what has long been understood: both sides (not to mention bystanders) would suffer so much in a total war that they both would lose. President Eisenhower recognized this reality, often giving vent to his exasperation with those who thought that military victory was possible. Even before the Soviet Union was capable of doing overwhelming damage to the United States, he noted the problems of postwar reconstruction. As he put it to the Joint Chiefs of Staff when they talked of a world war: "I want you to carry this question home with you: Gain such a victory [as would follow from a nuclear attack], and what do you do with it? Here would be a great area from the Elbe to Vladivostok . . . torn up and destroyed, without government, without its communications, just an area of starvation and disaster. I ask you what would the civilized world do about it? I repeat that there is no victory except through our imaginations."[8] Later, when he considered Soviet retaliation, his concern was not with who would come out ahead. He told the critic of his disarmament policy that "even assuming that we could emerge from a global war today as the acknowledged victor, there would be a destruction in the country [such] that there would be no possibility of our exercising a representative free government for, I would say, two decades at the minimum."[9] At an NSC meeting he asked, "What would we do with Russia, if we should win in a global war?" Indeed, "the only thing worse than losing a global war was winning one; . . . there would be no individual freedom after the next global war."[10]

As he continued to contemplate the growing Soviet arsenal, Eisenhower wrote to a friend: "We are rapidly getting to the point that no

8. Ambrose, *Eisenhower the President*, p. 206. Similarly, at an NSC meeting Eisenhower mused about the difficulties of occupying Russia, which "would be far beyond the resources of the United States. . . . A totalitarian system was the only imaginable instrument by which Russia could be ruled for a considerable interval after the war" (*FRUS, 1952–1954*, vol. 2, pt. 1, p. 636; also see ibid., pp. 639–41, 804).

9. Quoted in Fred Greenstein, *The Hidden-Hand Presidency* (New York: Basic Books, 1982), p. 47.

10. This is the paraphrase of Robert Cutler, Eisenhower's Special Assistant for National Security Affairs, in *FRUS, 1952–1954*, vol. 2, pt. 1, p. 397. In public, however, Eisenhower reversed this formulation: he told a press conference on September 30, 1953, that "the only possible tragedy greater than winning a war would be losing it."

war can be *won*. War implies a contest; when you get to the point that contest is no longer involved and the outlook comes close to destruction of the enemy and suicide for ourselves—an outlook that neither side can ignore—then arguments as to the exact amount of available strength as compared to somebody else's are no longer the vital issues."[11] Eisenhower's views were not unusual: others asked similar questions about what American war aims might be and the policy statements that tried to answer these questions are both few and inadequate.[12] Eisenhower was not completely consistent. Indeed, in the course of one NSC meeting he said: "After the first exchange of thermonuclear blows . . . the United States would have to pick itself up from the floor and try to win through to a successful end." But later in the same meeting he declared that, "one thing he was dead sure: No one was going to be the winner in such a nuclear war. The destruction might be such that we might have ultimately to go back to bows and arrows."[13]

What is new about this world with nuclear weapons (or, to be more precise, mutual second-strike capability, where neither side can launch a first strike that is successful enough to prevent retaliation from the other) is not overkill, but mutual kill—the side that is "losing" the war as judged by various measures of military capability can inflict as much destruction on the side that is "winning" as the "winner" can on the "loser."[14] Furthermore, the level of destruction would far surpass that accompanying previous wars. Even a decision maker who was willing to risk a crushing defeat for his own country might be restrained by the unimaginable loss of worldwide life and civilization.[15]

11. Dwight D. Eisenhower to Richard Simon, April 4, 1956, Ann Whitman File, DDE Diary, box 8, "Apr. 56 Misc (5)," Dwight D. Eisenhower Library, Abilene, Kans.

12. See the papers associated with NSC-20/4, "U.S. Objectives with Respect to the USSR to Counter Soviet Threats to U.S. Security," in *FRUS, 1948*, vol. 1, *General: The United Nations* (Washington, D.C.: Government Printing Office, 1976), pt. 2, pp. 589–669; NSC-79, "United States and Allied War Objectives in the Event of Global War," *FRUS, 1950*, vol. 1, *National Security Affairs; Foreign Economic Policy* (Washington, D.C.: Government Printing Office, 1977), pp. 390–99. (also see the discussion on pp. 94–100, 197–200, 390–93). For the Eisenhower administration's attempt to deal with this problem, see *FRUS, 1952–1954*, vol. 2, pt. 1, pp. 379–434, 635–46. Also see David Rosenberg, "The Origins of Overkill: Nuclear Weapons and American Strategy, 1945–1960," *International Security*, 7, (Spring 1983), 13–14.

13. Minutes of the 272d Meeting of the National Security Council, January 12, 1956, Ann Whitman File, NSC series, box 7, pp. 6, 13 (also see p. 3), Eisenhower Library.

14. Thomas Schelling, *Arms and Influence* (New Haven: Yale University Press, 1960), chapter 1.

15. The most recent and careful studies indicate that the environmental effects of nuclear war would be enormous, although not as cataclysmic as had been portrayed a

Nuclear weapons are different not only in the scale of destruction they can bring, but also in their speed. This is not to say that destruction would *have* to be carried out quickly. As I will discuss in later chapters, protracted or slow-motion wars of punishment are logical possibilities. But in the past, punishment *had* to be slow. Conventional bombing, blockades, and even poison gas simply could not extinguish all cities overnight. Both sides then knew that there would be time for bargaining during the war: momentary impulse or inadvertent escalation could not lead to mutual suicide. The possibility that all cities could be destroyed within a period of hours, without any room for negotiations or second thoughts, can deter where the danger of total destruction would not if it had to be carried out a little bit at a time. In the latter case a state might be confident that its greater willingness to bear pain, its advantageous bargaining position, or its greater skill would permit it to prevail. But these assets could not prevent an all-out nuclear attack arising out of the adversary's planned strategy, the overwhelming emotion of its leaders, or its strategic forces escaping central control.[16]

In the past, mutual vulnerability did not dominate and so conflict could be total. There could be wars without bargaining in which each side simply tried to reduce the other's military capabilities because the stronger side could win by destroying its adversary if need be. The former would pay some price for doing so, but it would not be prohibitive. Of course, few situations reached this extreme. As Paul Kecskemeti has shown, even World War II did not end in "unconditional surrender."[17] The losers had some bargaining power, in part because it was understood that the defeated countries could not be ruled without at least a modicum of cooperation on their part. But the main stages of the conflict involved military battles in which each side tried to gain the upper hand. The side that surrendered or accepted unfavorable peace terms did so because it realized that if the conflict continued, it would fall further and further behind, eventually facing complete defeat.

Wars, even large-scale wars, often paid off for the winner. Sometimes

few years earlier. See Starley Thompson and Stephen Schneider, "Nuclear Winter Reappraised," *Foreign Affairs*, 64 (Summer 1986), 981–1005.

16. As Schelling notes, "if cities could be destroyed indefinitely, but at a rate not exceeding one per week or one per day, or even one per hour, nobody could responsibly ignore the possibility that the war might be stopped before both sides ran out of ammunition or cities" (*Arms and Influence*, p. 163). For a comparison of nuclear bargaining with wars of attrition in which pain is inflicted only slowly, see George Quester, "Crises and the Unexpected," *Journal of Interdisciplinary History*, 18 (Spring 1988), 701–19.

17. Paul Kescskemeti, *Strategic Surrender* (New York: Atheneum, 1964).

the winner was simply better off militarily and politically after the war than before it. But even when this was not the case, as it was not for the European states in 1918 and 1945, the winners still were better off in having fought the war than they would have been had they made the concessions necessary to avoid it. (This was not true for czarist Russia because World War I destroyed the regime, although not the country.)

Mutual vulnerability has made a crucial difference in how we view war, but not everything has changed. In earlier eras waging war could be very costly even to the side that was winning; that victory was possible did not mean it was possible at an acceptable price. In addition, states did not have to believe that they could win in order rationally to decide to fight. If the gains of victory were high and the difference between losing a war and making the concessions necessary to avoid it were slight, even a small chance of victory could justify the decision to go to war. Futhermore, in many cases states fought even though they lacked any clear idea of how a conflict might be brought to a favorable conclusion. This situation was perhaps true for Germany and certainly for Great Britain in September 1939 and even more so for Great Britain in the period between the fall of France and the German invasion of Russia and for the Japanese when they attacked Pearl Harbor.[18]

What is new, however, is that the other side must cooperate if the state is not to be destroyed. Neither the United States nor the Soviet Union can impose its will on the other by superior military power. Thus Bernard Brodie's famous sentences: "The writer . . . is not for the moment concerned about who will *win* the next war in which atomic bombs are used. 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."[19] It might

18. See, for example, David Reynolds, "Churchill and the British 'Decision' to Fight On in 1940: Right Policy, Wrong Reasons," in Richard Langhorne, ed., *Diplomacy and Intelligence during the Second World War* (Cambridge: Cambridge University Press, 1985), pp. 147–67.

19. Bernard Brodie et al., *The Absolute Weapon* (New York: Harcourt, Brace, 1946), p. 76. As Brodie and others later noted, it was really the development of much larger bombs, especially thermonuclear ones, that brought about the situation he foresaw in 1945. Winston Churchill put it eloquently in 1955: "There is an immense gulf between the atomic and the hydrogen bomb. The atomic bomb, with all its terrors, did not carry us outside the scope of human control or manageable events in thought or action, in peace or war. But [with the development of the H-bomb], the entire foundation of human affairs was revolutionized, and mankind placed in a situation both measureless and laden with doom." Interestingly enough, it was in this speech that Churchill voiced the

seem that this assessment would not apply to limited wars. After all, the Warsaw Pact forces might defeat NATO in a conventional war in Europe (or vice versa), and the situation could look like the prenuclear era. But that view would be misleading. The victory would not only be one of arms but also of bargaining, because it would require the maintenance of limits on the weapons that would be used and the targets that would be attacked.

To conclude that military victory is impossible may seem to be a commonplace, but that should not lead us to overlook what a revolutionary change it represents. Throughout recorded history, all-out war has been a useful tool of statecraft; the ability of states to resort to the highest level of violence has been a major engine of international change. Because military victory is impossible, the many patterns that rested on the utility of superior force have also been altered. Even great military success cannot limit the damage that the other superpower can inflict. As a result, force and the threat of it cannot support foreign policy in the same way that it did in the past. But while most of the history of American doctrine and war planning has been the attempt to design substitutes for damage limitation, these attempts have not come to grips with the fundamental characteristics of nuclear politics. U.S. policy has been incoherent, it has conjured up unrealistic dangers, and it has ignored real problems.

Deterrence by Denial and Deterrence by Punishment

Mutual second-strike capability has drastically altered the ways in which states can use force to reach their goals. In the past, successful armies could simultaneously seize desired territory, punish the other side, limit or diminish the effectiveness of the other side's arms, and, most important in this context, keep the adversary from doing these things to the state. Strategic nuclear weapons can inflict punishment; they can also decrease the other side's military capability; they can even facilitate the taking of territory. But as long as the other side has a sufficient number of well-protected nuclear weapons, they cannot prevent the adversary from destroying what the state values. As we will see, this does not mean that weapons are less important than they

hope that safety might be "the sturdy child of terror" (*Hansard*, March 1, 1955, vol. 537, 5th ser., cols. 1894–95. I am grateful to McGeorge Bundy for calling my attention to the less-well-known portion of this speech).

were in the past or even that states cannot benefit by increasing their nuclear arsenals. But the weapons produce their influence by processes that are very different from those operating in the past.

Previously, strong states were able to discourage others from attacking them by being able to repel such an attack—what Glenn Snyder calls "deterrence by denial."[20] Military superiority was meaningful in a direct and straightforward sense. Defense now being impossible, the superpowers deter their adversaries not by threatening to defeat them, but by raising the cost of the conflict to unacceptably high levels—what is called "deterrence by punishment." It is the prospect of fighting the war rather than the possibility of losing it that induces restraint.

The exact ways a nuclear war might be fought have been much discussed and debated. But whatever the method, the destruction would be enormous. Thus deterrence by punishment is not a matter of subtleties; the influence of the fear of war on political leaders is not sensitive to the details of doctrine and war planning that preoccupy the specialists.[21] Thus it is not surprising that variations in American nuclear strategy have not produced variations in Soviet or American international behavior.

Although neither side can deny the other the ability to destroy it, perhaps denial can work at lower levels of violence. That is, the United States might be able to beat back conventional attacks in Europe or deny the Soviets the ability to gain other war aims. But even such capabilities would not permit escape from the powerful shadow of punishment. Soviet war aims must include absorbing no more punishment than the objectives merit, an aim that nuclear weapons make easy to thwart. Of course, the American threat to use such weapons is undercut by the Soviet ability to respond similarly. But this problem does not disappear even if the United States can deny other Soviet war aims without resorting to a pure policy of punishment. In the absence of the ability to protect itself, the United States risks destruction in any war with the USSR, even if the United States is successful in immediate military terms.

Because it is mutual second-strike capability and not nuclear weapons per se that has generated the new situation, it is possible to imagine a world in which such weapons existed, and yet deterrence by denial resumed its previous role. If defense were possible through any one

20. Glenn Snyder, *Deterrence and Defense* (Princeton: Princeton University Press, 1961).

21. This point has been stressed by McGeorge Bundy: see "To Cap the Volcano," *Foreign Affairs*, 48 (October 1969), 13; "The Bishops and the Bomb," *New York Review of Books*, June 16, 1983, pp. 3–8.

of three mechanisms, the analysis presented here would be negated. First and most obvious would be the development of a defensive shield that could protect society against nuclear attack. But such protection is impossible in this century if not forever. Defenses of lesser potency that could be deployed within the next ten or twenty years will not be considered here because they would not alter mutual vulnerability, although they might enhance some forms of coercion and make others more difficult. A second theoretical possibility would be for a state to gain the ability to destroy all the adversary's strategic forces in a first strike. As with a defensive shield—and perhaps in conjunction with it—this ability could produce protection no matter what the adversary tried to do to the state. But this prospect is not technologically feasibile either. Third, the United States and the Soviet Union could agree to reductions in strategic forces so drastic that, perhaps in conjunction with the deployment of defenses, one or both sides could protect themselves. The barriers to such a world are more political than technical, but both sides' rhetoric notwithstanding, this development also seems so unlikely that it can be put aside.

Although the contrast between deterrence by denial and deterrence by punishment is central to understanding the nuclear era, the transformation from one to the other is not unqualified. Nuclear weapons have greatly enhanced the role of punishment, not created it.[22] Naval blockades, raids on the other side's towns and farmlands, as well as what we now call "conventional" bombing, all inflicted punishment before 1945.[23] Much of the theory of air power in the 1920s and 1930s was based on the expected efficacy of bombing civilians and the belief that the outcome of the war would be determined by which nation could stand the most punishment.[24] Indeed, even before the development of airplanes, Ivan Bloch foresaw that battlefield defense was so strong and weapons of firepower so dreadful that "the future of war [would be] not fighting, but famine, not the slaying of men but the bankruptcy of nations and the break-up of the whole social orga-

22. See George Quester, *Deterrence before Hiroshima* (New York: Wiley, 1966).

23. See John Herz, *International Politics in the Atomic Age* (New York: Columbia University Press, 1959), pp. 96–108. Examples of punitive raids are presented in Schelling, *Arms and Influence*, pp. 178–79.

24. The picture, of course, is a complicated and controversial one. For a variety of reasons, the power of bombing was often overestimated, as I have discussed in "Deterrence and Perception," *International Security*, 7 (Winter 1982–83), 14–18. Also see Malcolm Smith, *British Air Strategy between the Wars* (Oxford: Clarendon Press, 1986), for a discussion of air doctrines that were not aimed at punishment and the argument that the fact that the British stance in the 1930s was meant to deter rather than to fight explains in part the RAF's lack of preparation actually to carry out bombing campaigns.

nization." The decisive factors then would be "the quality of toughness and capacity for endurance, of patience under privation, of stubbornness under reverse or disappointment."[25] Opposing sides could and did simultaneously attack each other's values. England could bomb Germany while Germany was bombing England; Britain could blockade Germany as Germany was cutting deeply into Britain's seaborne supply lines. In earlier eras, countries could simultaneously destroy each other's croplands; states without modern technology could assassinate each other's leaders.

Neither now nor in the past do the costs have to be overwhelming in order to deter nations from war. They just have to be high enough to make going to war less attractive than the alternative. In the past, states have been deterred from fighting wars they believed they could win because the costs have been expected to be too high.[26] Today, the United States refrains from invading Libya not because it could not do so successfully or because Libya or the USSR would retaliate (although terrorists might), but because the unfavorable allied and neutral reaction would outweigh the gains. But when nuclear weapons are not involved, the level of pain is not likely to rise to unacceptable levels or to be totally uncorrelated with the fortunes on the battlefield. For example, in World War II the Allied war effort—including bombing—slowly reduced the German ability to bomb England. And if the terms of peace were very demanding, the pain was worth bearing as long as there was a chance to stave off a defeat.

Two conceptual points need to be stressed. First, the relevant distinction is between deterrence by denial and deterrence by punishment, not between counterforce and countervalue, although the distinctions often are parallel. The use or threat of force exerts pressure either by making it impossible for the other side to reach its objectives or by exacting an unacceptable price for doing so. Usually the threat to destroy civilian targets fits into the latter category and the threat to destroy military targets into the former, but this connection is not rigid and invariant. Thus, in a long conventional conflict, destroying civilian targets such as factories could prevent the other side from carrying on the war. On the other hand, destroying military forces not directly involved in the war does more to punish the other side than to affect

25. Quoted in Michael Howard, "Men against Fire: Expectations of War in 1914," *International Security*, 9 (Summer 1984), 43.

26. This is especially likely if a war of attrition is foreseen. See John Mearsheimer, *Conventional Deterrence* (Ithaca: Cornell University Press, 1983); for a good discussion of the domestic impact of prolonged wars, see Arthur Stein, *The Nation at War* (Baltimore: Johns Hopkins University Press, 1980).

the course of battle. For example, in a war limited to Europe, the American threat to destroy Soviet forces in the Far East would be much more punishment than denial.

Second, the distinction between denial and punishment is blurred to the extent that force works through both channels simultaneously. Carl von Clausewitz noted that one method of warfare is "to influence the enemy's expenditure of effort; in other words, . . . to make the war more costly to him,"—deterrence by punishment. The most important way of doing this "is to wear down the enemy . . . using the duration of the war to bring about a gradual exhaustion of his physical and moral resistance."[27] Killing or disabling the enemy's soldiers not only makes it harder for him to reach his objectives, it also inflicts pain on the society. Bombing North Vietnam was supposed both to reduce its capability to wage war and to inflict sufficient pain so that it would come to the peace table. The United States accepted an unsatisfactory end to that war because the costs of continued fighting were too high, costs that would have been lower had the military balance in Indochina been more favorable. In the future as well, successful fighting would punish as it denies. American destruction of Soviet armies would not only endanger the success of the military mission, it would also destroy a valued instrument of their Soviet state. Indeed, as long as technology does not permit a quick victory, any war between large, industrialized, and resilient states will inflict enormous costs on each side even if neither consciously pursues a strategy of punishment. In contrast, the threat of nuclear war is a form of deterrence by denial in that no reasonable objective could be reached through an all-out conflict.

Policies can also combine punishment and denial, either by holding at risk targets that serve both functions or by planning to employ one or the other depending on the circumstances. Indeed, most American strategies have been based on seeking denial if the violence can be contained and seeking punishment if it cannot. Over the past decade the latter aspect of the policy has changed as American decision makers have changed their analysis of what the Soviets value—shifting attention from their cities to economic recovery and then to the leadership's control of the USSR. But, at least since the 1960s, the United States has sought to make denial the first line of deterrence, keeping the possibility of extreme punishment as the ultimate threat.

Nevertheless, the distinction between the two kinds of deterrence is still a valid one. One does not have to be a Marxist to believe that at

27. Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton: Princeton University Press, 1976), p. 93, emphasis omitted.

a certain point, a quantitative change becomes a qualitative change. The denial of the adversary's aims that was possible in the past entailed the protection of the state. The fact that the two effects are now severed, the ease with which each superpower can punish the other, the fact that such punishment does not depend on gaining military advantage, and the overwhelming nature of the destruction that is possible, all conspire drastically to alter the role of force between the superpowers.

Hostages

Because of mutual vulnerability, each superpower has involuntarily given the other hostages.[28] Three characteristics of hostages are particularly important. First, they can perform their functions only as long as they survive. The adversary is restrained because the state can hurt it; once the state has destroyed what the adversary values, this motive for holding back disappears. Thus Schelling points out that "no cities" was a misleading name for the McNamara strategy which held out the possibility of limited and counterforce wars. Rather, it should have been called the "cities" strategy because it stressed the value of cities and the influence that is provided only as long as at least some of them remained intact.[29] Inflicting pain on the other side by destroying some hostages provides bargaining leverage not directly—because there is nothing the state could do to reverse the destruction—but by making more credible the threat to continue and to increase the punishment.[30]

Second, the holding of hostages predates the advent of nuclear weapons, just as deterrence by punishment does. We should expect hostages to be taken whenever states are unable physically to protect their values, although the phenomenon may not be limited to this condition. Thus when armies were not large enough to defend all of the state's territory, attacks on civilians and property were common. Furthermore, in these circumstances states recognized the value of keeping hostages alive. The king of Sparta opposed immediately attacking Athenian territory, noting that the Athenians "will be more inclined to give way,

28. Some have argued that the United States has welcomed this situation and has foregone opportunities to alter it. The former claim is questionable at best. The latter is almost certainly false; at minimum, it could be made plausible only by careful historical research, coupled with the difficult analysis of the hypothetical situations that would have arisen had the United States acted differently. For a good discussion, see Warner Schilling, "U.S. Strategic Nuclear Concepts in the 1970s: The Search for Sufficiently Equivalent Countervailing Parity," *International Security*, 6 (Fall 1981), 49–79.

29. Schelling, *Arms and Influence*, pp. 192–98. Of course more recently there has been a vigorous debate about whether the Soviets value their cities.

30. Ibid., pp. 170–74; Snyder, *Deterrence and Defense*, p. 71.

since their land will still be untouched and, in making up their minds, they will be thinking of advantages which they still possess and which have not yet been destroyed. For you must think of their land as though it was a hostage in your possession, and all the more valuable the better it is looked after."[31] The nuclear era is unique, however, in that the value of the hostages is greater than what is at stake in the conflict, and defeating the other side's army cannot effectively protect the hostages.

Third, the exchange of hostages can facilitate cooperation. Thus in premodern times some agreements were possible only because one or both sides could send valued members of the community to the other side, where they could be killed if the sender reneged on its commitments. Modern corporations use analogous devices to see that their subsidiaries and others they deal with do not take advantage of them.[32] Much of the recent discussion of the ability of states to cooperate in the anarchic international environment stresses that hostages (in the form of values that would be sacrificed if conflict increased) discipline states against breaking agreements.[33] At any point in a continuing relationship, one state is likely to have gained more than the other and, through a tacit or an explicit understanding, will be expected to even the balance. Facing a short-run loss, the state will be tempted to renege on its promises. Understanding this dynamic at the start, in the absence of hostages states will hesitate to enter into arrangements that could prove highly advantageous over the long-run because they fear the other side will terminate them whenever it sees an immediate benefit in doing so. Of course hostages do not solve all problems of cooperation, but the effect helps explain why mutual vulnerability yields benefits as well as potential doom.

Nuclear Revolution

The result of mutual vulnerability is what has been called the nuclear revolution.[34] The term "revolution" often is used quite freely. Thus

31. Thucydides, *The Peloponnesian War*, trans. Rex Warner (Harmondsworth, Engl.: Penguin Books, 1956), pp. 58–59.
32. Oliver Williamson, "Credible Commitments: Using Hostages to Support Exchange," *American Economic Review*, 73 (September 1983), 519–40.
33. See, for example, the articles in *World Politics*, 37 (October 1985), also published as *Cooperation under Anarchy*, ed. Kenneth Oye (Princeton: Princeton University Press, 1985).
34. The first analysis—which is still among the best—is Brodie et al., *The Absolute*

Albert Wohlstetter talks of "revolutionary changes in precision" guidance in missiles and a "revolution in microelectronics."[35] But I mean the term quite literally—a change that turns established truths about the relationships between force and statecraft on their heads. In the past, it was possible for conflict of interest to be total in that whatever one side won, its adversary lost. Although the nuclear era is often referred to as one of total conflict, the situation is very different today. The very fact that war could be total in the sense of destroying both sides means that the conflict of interest cannot be total.[36]

The claim that mutual second-strike capability has drastically altered the relationships between force and foreign policy underpins many of the detailed arguments being made here. So it stands to reason that those who disagree on the specific issues see nuclear weapons as less revolutionary. It is not that they think such weapons are only large conventional explosives, but that they believe they can be understood within the intellectual framework that was developed in the era when deterrence by denial prevailed. That is, they engage in what Hans Morgenthau called "conventionalization."[37] Thus it is not surprising that Paul Nitze not only stresses the importance of military advantage and multiple nuclear options but, long before these specific issues arose, argued that the nuclear revolution was a myth. As a member of the Strategic Bombing Survey, Nitze was one of the first Americans to visit Hiroshima. Although he did not minimize "the extent of the destruction" according to one historian, "he was also impressed at the number of people who had nonetheless managed to survive. Nitze

Weapon. For an excellent recent treatment, see Michael Mandelbaum, *The Nuclear Revolution* (Cambridge: Cambridge University Press, 1981). My own arguments on this point are in Jervis, *The Illogic of American Nuclear Strategy* (Ithaca: Cornell University Press, 1984), chap. 1.
35. Albert Wohlstetter, "Between an Unfree World and None," *Foreign Affairs*, 63 (Summer 1985), 990; also see Wohlstetter, "Swords without Shields," *The National Interest*, no. 8 (Summer 1987), 40.
36. For a discussion of the way in which the nuclear revolution has heightened both common and conflicting interests, see Jervis, *Illogic of American Nuclear Strategy*, pp. 29–34. To argue for the revolutionary nature of nuclear weapons does not mean that all earlier ideas no longer apply. The most important of these is Clausewitz's argument that war is not separate from politics but, rather, is subordinate to it. Military advantage is not an end in itself; it must serve political objectives. For further discussion, see Bernard Brodie, *War and Politics* (New York: Macmillan, 1973), chap. 1, and the concluding Chapter 7 below.
37. See Hans Morgenthau, "The Fallacy of Thinking Conventionally About Nuclear Weapons," in David Carlton and Carlo Schaerf, eds., *Arms Control and Technological Innovation* (New York: Wiley, 1976), pp. 256–64. My discussion is in *Illogic of American Nuclear Strategy*, pp. 56–63.

immediately began to question, he said, the 'common, popular view' that the atomic bomb 'was an absolute weapon and that this changed everything.' "[38] It followed that while the details of prenuclear strategies and tactics would have to be changed to accommodate the new technology, the basic intellectual guidelines remained:

> It is a copybook principle in strategy that, in actual war, advantage tends to go to the side in a better position to raise the stakes by expanding the scope, duration or destructive intensity of the conflict. By the same token, at junctures of high conflict short of war, the side better able to cope with the potential consequences of raising the stakes has the advantage. The other side is the one under greater pressure to scramble for a peaceful way out. To have the advantage at the utmost level of violence helps at every lesser level.[39]

There is no doubt that Nitze is correct that this is a copybook principle of strategy. But the question is whether the copybook still applies.

Claims for Military Victory

The disagreement about whether a major war could produce a military victory brings the issue of whether old guidelines are still usable most sharply into focus. As noted earlier, the central implication of the nuclear revolution is that it cannot. Paul Nitze and others disagree. What is intriguing is the standard they employ. Thirty years ago Nitze noted that one meaning of "winning" is "the comparison between the postwar position of the victor and the defeated" and argued that it was "of the utmost importance that the West maintain a sufficient margin of superior capability so that if general war occurred we could 'win' in [this] sense. The greater the margin (and the more clearly the communists understand that we have a margin), the less likely it is that nuclear war will ever occur."[40] More recently, Nitze has stressed

38. Gregg Herken, *Counsels of War* (New York: Knopf, 1985), p. 6; also see p. 47. Also see Steven Rearden, *The Evolution of American Strategic Doctrine: Paul Nitze and the Soviet Challenge*, SAIS Papers in International Affairs no. 4 (Boulder, Colo.: Westview Press, 1984), pp. 3, 23. Nitze was correct as long as atomic bombs remained relatively small and scarce.

39. Paul Nitze, "Is SALT II a Fair Deal for the United States?" (Washington, D.C.: Committee on the Present Danger, 1979), p. 6.

40. Paul Nitze, "Atoms, Strategy and Policy," *Foreign Affairs*, 34 (January 1956), 190–91.

the importance of being able to deny a Soviet leader "the ability or perception that he might successfully prosecute a war-winning strategy and emerge from a war in a predominant military position."[41]

The reasoning behind this position, spelled out by Harold Brown when he was secretary of the Air Force, is that "if the Soviets thought they may be able to recover in some period of time while the U.S. would take three or four times as long, or would never recover, then the Soviets might not be deterred."[42] Thus one of the criteria that Secretary of Defense Melvin Laird held necessary for the essential equivalence of Soviet and American forces was "preventing the Soviet Union from gaining the ability to cause considerable greater urban/industrial destruction than the United States would in a nuclear war."[43] Although noting that this approach could "be carried to absurd lengths," one of his successors argued that under one standard "if the Soviet Union could emerge from [a nuclear war] with superior military power, and could recuperate from the effects more rapidly than the United States, the U.S. capability for assured retaliation would be considered inadequate."[44] A secret White House memorandum in 1972 used a similar formulation when it defined "strategic sufficiency" as the forces necessary "to ensure that the United States would emerge from a nuclear war in discernibly better shape than the Soviet Union."[45]

41. Paul Nitze, "The Objectives of Arms Control," March 28, 1985 (U.S. Department of State, *Current Policy*, no. 667), p. 3. Nitze has expressed slightly different views in "The Relationship of Strategic and Theater Nuclear Forces," *International Security*, 2 (Fall 1977), 124, and in his interview in Michael Charlton, *From Deterrence to Defense*, (Cambridge: Harvard University Press, 1987), pp. 65–66. For how a range of officials and analysts think a nuclear war might be terminated, see the interviews reported in Stephen Kull, *Minds at War: Nuclear Reality and the Inner Conflict of Defense Policymakers* (New York: Basic Books, 1988), chap. 4.

42. U.S. Senate, Preparedness Investigating Subcommittee of the Committee on Armed Services, *Hearings on Status of U.S. Strategic Power*, 90th Cong., 2d sess., April 30, 1968 (Washington, D.C.: Government Printing Office, 1968), p. 186.

43. U.S. House of Representatives, Subcommittee on Department of Defense, *Appropriations for the FY 1973 Defense Budget and FY 1973–1977 Program*, 92d Cong., 2d sess., February 22, 1972 (Washington, D.C.: Government Printing Office 1972), p. 65. At one point, Eisenhower endorsed similar criteria: he told Dulles that the United States must be ready "to inflict greater loss upon the enemy than he could reasonably hope to inflict upon us" (*FRUS, 1952–1954*, vol. 2, pt. 1, p. 461). But this was only a passing formulation and his more considered and frequently-expressed position was very different, as we saw earlier.

44. Donald Rumsfeld, in Department of Defense, *Annual Report for FY 1978* (Washington, D.C.: Government Printing Office, 1977), p. 68.

45. Quoted in Herken, *Counsels of War*, p. 266. As the head of SAC, Gen. Thomas Power was supposed to have said in 1960: "At the end of the war, if there are two Americans and one Russian, we win!" (To which William W. Kaufmann replied: "Well,

This conception leads to measuring the peacetime strategic balance and the projected balance during a hypothetical war by looking at which side has more nuclear capability (amount of megatonnage, number of warheads, numbers of warheads capable of destroying hardened targets, etc.).[46] Similarly, Colin Gray, who shares many of Nitze's views on specific issues of nuclear strategy, argues that nuclear weapons have "*not* effected a revolution in statecraft." Following out the logic, he argues that "the United States [should] take seriously the proposition that deterrence and defense are one and the same," in part because "if the Soviet Union can win a war militarily, it will very likely be able to pick up the somewhat radioactive pieces at home." The goal of denying the Soviets a victory "translates with little difficulty into the requirement for a theory of a victory."[47]

Two linked aspects of this conception of victory reveal a conventionalized perspective. First, it is zero-sum. One side must come out ahead of the other; one or the other must retain more military power and be less slow to recover. Thus every war must have a winner. Second, the judgment involved is a relative one—the position of each side is being compared with that of the other. This stress on relative advantage fits nicely with the normal conception of power in international politics. Starting with Thucydides, scholars have argued that power makes no sense when viewed in absolute terms because the outcome of conflict, especially military conflict, will be determined not by the absolute size of the armies involved but by their relative capabilities. When deterrence by punishment is crucial, however, it is the absolute level of destruction that a state faces and can inflict that controls its behavior.[48]

While the conclusion that military victory is possible follows from

you'd better make sure that they're a man and a woman.") Quoted in Fred Kaplan, *The Wizards of Armageddon* (New York: Simon & Schuster, 1983), p. 246.

46. I have discussed the problems with this approach in "Cognition and Political Behavior," in Richard Lau and David Sears, eds., *Political Cognition* (Hillsdale, N.J.: Earlbaum, 1986), pp. 330–33, and "The Drunkard's Search," in Shanto Iyengar and William McGuire, eds., *Current Approaches to Political Psychology* (Urbana: University of Illinois Press, forthcoming).

47. Colin Gray, *Nuclear Strategy and National Style* (Lanham, Md.: Hamilton Press, 1986), pp. ix–x, 318, 117, emphasis in the original. The last step in the reasoning works because defeating the Soviet armed forces would probably mean "political disintegration" in the Soviet Union (p. 118). Also see Gray's *The Geopolitics of Super Power* (Lexington: University Press of Kentucky, 1988), pp. 35–36.

48. Note that the title of the book by Brodie et al. was *The Absolute Weapon*. For further discussion, see Jervis, *Illogic of American Nuclear Strategy*, pp. 59–63. For discussions of the differences in behavior that follow from a concern with relative gains and losses as contrasted with absolute gains and losses, see Arthur Stein, *Dilemmas of Interdependence: Logics of International Cooperation and Conflict* (Ithaca: Cornell University Press, forthcom-

the definition employed, such a conclusion is remarkably apolitical.[49] It does not relate the costs of the war to the objectives and thus ignores the question of whether the destruction would be so great that the winner, as well as the loser, would regret having fought it. Holders of this view, then, fall into the trap that Clausewitz warned about of seeing war as an end in itself instead of as a means to national goals, a point I will return to in the concluding chapter. The only way to rescue this argument would be to assume that the Russians are so highly motivated to expand that they would be willing to accept any level of destruction as long as they ended up ahead of the West and so were able to dominate the postwar world. Indeed, some analysts seem to ascribe this outlook to the Soviet Union, but they have not explicated the argument carefully enough to permit it to be taken seriously.[50] Also crucial and apolitical is the assumption that the state that could recover more quickly could control the adversary. It is hard to have any sense of what the postwar world would look like, but geography alone should caution against believing that either the United States or the Soviet Union could easily dominate the other.

The Stability-Instability Paradox

Before the implications of the nuclear revolution can be explored, we should note the fallacy in the common argument that because military victory is impossible in a nuclear war, nuclear weapons have little utility. At first glance, it would appear that this conclusion follows ineluctably from the premise. That it makes no sense for either side to start a major nuclear war nullifies the threat to strike except in retaliation. The result is what Glenn Snyder has called the stability-

ing), and Joseph Grieco, "Anarchy and the Limits of Cooperation," *International Organization*, 42 (Summer 1988), 485-507.

49. This is implicitly acknowledged by Nitze in an interview in Charlton, *From Deterrence to Defense*, pp. 65–66.

50. See the arguments by American officials in U.S. House of Representatives, Subcommittee on Department of Defense, *Appropriations for the FY 1973 Defense Budget and FY 1973–77 Program*, p. 65; U.S. Senate, Committee on Armed Services, *Hearings on FY 1978 Military Procurement, Research and Development, and Personnel Strengths*, pt. 2, 95th Cong., 1st sess. (Washington, D.C.: Government Printing Office, 1977), p. 892; U.S. Senate, Preparedness Investigating Subcommittee of the Committee on Armed Services, *Hearings on Status of U.S. Strategic Power*, p. 186; Francis Hoeber, "How Little Is Enough?" *International Security*, 3 (Winter 1978–79), 67; Nitze, "Atoms, Strategy and Policy," pp. 190–91. Also see Colin Gray, "Nuclear Strategy: A Case for a Theory of Victory," *International Security*, 4 (Summer 1979), 66–67, 76–77. Even George Kennan argued that the United States should ensure that "if cataclysm is unavoidable, [the catastrophe] is at least less than that suffered by our enemies" (*FRUS, 1950*, vol. 1, p. 37).

instability paradox.[51] Strategic stability creates instability by making lower levels of violence relatively safe and undermining "extended deterrence"—that is, the threat to use strategic nuclear weapons to protect allies. Thus, the argument goes, the ability of the Soviet Union to destroy the United States means that the United States cannot credibly threaten to use its strategic nuclear forces in response to a Soviet attack on West Europe or the Persian Gulf.

The point can be put more generally. Kenneth Boulding argues: "If [deterrence] were really stable . . . it would cease to deter. If the probability of nuclear weapons going off were zero, they would not deter anybody."[52] More graphic in tone but similar in content is Khrushchev's account: "When I was appointed First Secretary of the Central Committee and learned all the facts about nuclear power I couldn't sleep for several days. Then I became convinced that we could never possibly use these weapons, and I was able to sleep again. But all the same we must be prepared."[53] In the same vein, Patrick Morgan argues that the normal criticism that deterrence requires complete rationality has things backward. If decisionmakers were completely rational, they would never order the large-scale use of nuclear weapons and so the credibility of the nuclear threat would be very low.[54] This argument implies that each side's nuclear weapons cancel out the influence of the other's. Analysts as politically different as Robert McNamara and Colin Gray agree on this point. In the words of the latter, as long as the United States lacks a plausible means of securing victory, deterrence by punishment "is an idea it would be hard to improve upon were one seeking to minimize the relevance of (American) strategic weapons to world politics."[55] Nuclear weapons, then, have only two consequences, albeit

51. Glenn Snyder, "The Balance of Power and the Balance of Terror," in Paul Seabury, ed., *The Balance of Power* (San Francisco: Chandler, 1965), pp. 184–201. Also see Jervis, *Illogic of American Nuclear Strategy*, pp. 29–34.

52. Kenneth Boulding, "Confession of Roots," *International Studies Notes*, 12 (Spring 1986), 32.

53. Quoted in Mohamed Heikal, *The Sphinx and the Commissar: The Rise and Fall of Soviet Influence in the Middle East* (New York: Harper & Row, 1978), p. 129.

54. Patrick Morgan, *Deterrence: A Conceptual Analysis* (Beverly Hills, Calif.: Sage, 1977).

55. Gray, "Nuclear Strategy," p. 70. Robert McNamara's views are parallel: the "sole purpose [of strategic nuclear weapons] . . . is to deter the other side's first use of its strategic forces" ("The Military Role of Nuclear Weapons: Perceptions and Misperceptions," *Foreign Affairs*, 62 [Fall 1983], 68; also see p. 79 and the interview in Michael Charlton, *From Deterrence to Defense*, p. 18, in which McNamara explains the genesis of his views). For further discussion, see Chapter 3 below.

major ones. First, they make it extremely unlikely that either side will directly attack the other and, second, they ensure incredible destruction were an attack to be made.

If this view were correct, the nuclear revolution would not be trivial—these two results are surely significant. But the effect still would be contained to a relatively small sphere. In fact, although the logic is impeccable, the argument is flawed because it is too abstract and ignores crucial aspects of international behavior.

As long as we imagine a world of certainties—one in which decision makers can predict how the other side will react and have complete control over their emotions, subordinates, and military machinery—the argument works fairly well.[56] But this condition, although useful for some kinds of analysis, is not realistic. The outcome that everyone wants to avoid can come about; people have been killed playing Chicken. Even in everyday international politics, national behavior often diverges from that desired by the leaders, and the interaction of the behavior of several nations often produces results none of them foresaw. These effects are compounded in a crisis, especially when military forces are put in motion.[57] As I will discuss in Chapters 3 and 5, crisis management is endangered not only by the competitive moves of the other side but by the inherent difficulties in understanding and controlling a complex situation.

Because escalation can occur although no one wants it to, mutual second-strike capability does not make the world safe for major provocations and limited wars. The common claim to the contrary, says Thomas Schelling, "seems to depend on the clean-cut notion that war results—or is expected to result—only from a deliberate yes-no decision. But if war tends to result from a *process*, a dynamic process in which both sides get more and more deeply involved, more and more expectant, more and more concerned not to be a slow second in case the war starts, it is not a 'credible first strike' that one threatens, but

56. See Clausewitz's discussion of how the theory of absolute war needs "modifications in practice" (*On War*, pp. 78–81).

57. See, for example, Scott Sagan, "Nuclear Alerts and Crisis Management," *International Security*, 9 (Spring 1985), 99–139; Alexander George, "Crisis Management: The Interaction of Political and Military Considerations," *Survival*, 26 (September/October 1984), 223–34; George, "Problems of Crisis Management and Crisis Avoidance in U.S.–Soviet Relations," in Øyvind Østerud, ed., *Studies of War and Peace* (Oslo: Norwegian University Press, 1986), pp. 202–26; Richard Ned Lebow, *Nuclear Crisis Management: A Dangerous Illusion* (Ithaca: Cornell University Press, 1987); Ashton Carter, John Steinbruner, and Charles Zraket, *Managing Nuclear Operations* (Washington, D.C.: Brookings Institution, 1987).

just plain war."[58] In other words, states need not threaten an immediate full-scale nuclear attack on the other side in order to deter it. Instead, they can threaten to take actions that could lead to an undesired conflagration by a series of steps that cannot entirely be foreseen.[59] Empirical evidence bears out this argument: Alexander George and Richard Smoke found that one important cause of deterrence failure was the challenger's belief that he could control his risks.[60] But because having a larger nuclear arsenal or more nuclear options than the adversary cannot keep the interaction under control, the outcomes of confrontations are not strongly influenced by the details of the nuclear balance. This does not mean that the influence of nuclear weapons is sharply restricted, however.

The Possibility of Political Victory

Because the specter of devastation is present in any superpower confrontation, the fear of all-out war can deter many adventures even though starting such a war would be irrational. The stability-instability paradox then is not as stark as it is often portrayed: the influence of nuclear weapons on world politics is far-reaching. Although *military* victory is impossible, victory is not: nuclear weapons can help reach many important political goals.[61] Secretary of State Dean Rusk understood this well: "in this confrontation of two great blocs, each side has a capacity to inflict very great damage on the other. Therefore in terms of handling the relationships between the two power blocs, all responsible governments need to take that into account and not act irresponsibly or frivolously or not suppose that they can press in upon the vital interests of the other without incurring very great risks."[62] Herman Kahn also came to appreciate this view, although he is better known for his baroque portrayal of nuclear options. In the mid-1960s

58. Schelling, *Arms and Influence*, pp. 98–99. I have discussed the implications of these dynamics in *Illogic of American Nuclear Strategy*, chap. 5 and 6; see also Chapter 3 below.

59. This is Schelling's "threat that leaves something to chance." Schelling, *The Strategy of Conflict* (Cambridge: Harvard University Press, 1960), pp. 187–204; Schelling, *Arms and Influence*, pp. 92–125.

60. Alexander George and Richard Smoke, *Deterrence in American Foreign Policy* (New York: Columbia University Press, 1974), pp. 527–30.

61. This argument parallels McGeorge Bundy's argument about "existential deterrence," although the implications I draw for extended deterrence differ from his. See Bundy, "The Bishops and the Bomb," pp. 3–8. Also see Brodie, *War and Politics*, pp. 433–96, for the argument summarized in the chapter title "On Nuclear Weapons: Utility in Nonuse."

62. "Secretary Rusk Interviewed on 'Issues and Answers,' " *U.S. Department of State Bulletin*, 45 (November 13, 1961), 802.

he wrote: "Some years ago, I said, with a certain degree of contempt, that 'some . . . seem to view the deterrence of a rational enemy as almost a simple philosophical consequence of the existence of thermonuclear bombs.' I realize today that these people may have been much closer to the truth than I then thought reasonable."[63] The fear of war can lead the Soviet Union and the United States not only to refrain from attacking the other but also to make other concessions. The resulting victories may not be entirely clear-cut, nor is it certain that they will be upheld in the future, but they are real nevertheless. For a status-quo power like the United States the victories that are possible also are of major importance. The United States does not need the ability to win a nuclear war to protect itself and its allies.[64]

Expected Consequences of the Nuclear Revolution

The arguments so far, like many other writings on nuclear strategy, are more logical than empirical. Such an approach has been subject to legitimate criticism for paying less attention to evidence than to the elaboration of inferences based on unexamined first principles,[65] but it can be turned to an advantage when we treat the nuclear revolution as a theory yielding propositions that can be measured against the historical record. What follows are some first steps in such an attempt. They are limited by the looseness of the connections between the theory and the propositions, the ambiguity of evidence, and the availability of alternative explanations. Nevertheless, they indicate that nuclear weapons have indeed drastically altered the relationships between force and statecraft.

Peace

The first implication of the nuclear revolution is that military victory is not possible. From this it follows that if statesmen are sensible, wars

63. Herman Kahn, *On Escalation* (Baltimore: Penguin Books, 1968), p. 246.

64. The argument to the contrary is implicit in many arguments but is put most clearly by Colin Gray. See, for example, his "War Fighting for Deterrence," *Journal of Strategic Studies*, 7 (March 1984), 5–28, and *Nuclear Strategy and National Style*.

65. See, for example, George and Smoke, *Deterrence in American Foreign Policy*, pp. 58–83; Jervis, "Deterrence Theory Revisited," *World Politics*, 31 (January, 1979), pp. 289–301.

among the great powers should not occur.[66] Indeed, since 1945 they have not. This is significant evidence because the absence of fighting between the main international rivals is rare. Indeed, it seems to be unprecedented. "Since the second century A.D. under the Pax Romana, the Western World has known no long periods of general peace. The modern record was 38 years, 9 months, and five days . . . from the aftermath of Napoleon's defeat at Waterloo to the effective beginning of the Crimean War. . . . That record was broken . . . on May 15, 1984."[67] Joseph Nye's counting rule is a bit less stringent, and yields a previous record of forty-three years of peace (between the Franco-Prussian War and World War I), a record that has just been surpassed.[68]

Of course, contrary to the expectations generated by the theory, war could occur at any time.[69] But logic indicates another important change—if all-out war comes, it can come *only* through preemption, loss of control, and each side's belief that the other is about to strike. Preemption is not new—it played a role, for example, in 1914. But as long as each side maintains a second-strike capability, the highest levels of violence now can be reached through no other path. While all the other historically important causes of war can still yield Soviet-American tension and even limited violence, they cannot lead directly to total war, as they could in the past.

This is not to say that nuclear weapons are the only possible cause of peace. First, bipolarity may have brought peace by providing an easy and unambiguous identification of potential enemies and by diminishing the ability of allies to drag the leading powers into conflict.[70] When there are only two major powers in the system, each knows that only the other one can badly menace it, that it cannot pass the buck to third parties, and also that it need not worry about a dangerous

66. See Morgan, *Deterrence*, pp. 401–24 for a discussion of "sensible" as opposed to "rational" decision-making. Of course under some conditions it can be rational for a statesman to start a war even if he is sure his state will lose it. Losing a war could be better than the expected value of the world in the absence of a war or it could be believed that the adversary was about to attack and so peace was not a possiblity. The former path to war (discussed in Jervis, "War and Misperception," *Journal of Interdisciplinary History*, 18 [Spring 1988], 677–79) no longer seems troublesome; the latter still is: see Chapter 5 below.

67. Paul Schroeder, "Does Murphy's Law Apply to History?" *Wilson Quarterly*, 9 (New Year's 1985), 88.

68. Joseph Nye, Jr., "The Long-Term Future of Nuclear Deterrence," in Roman Kolkowicz, ed., *The Logic of Nuclear Terror* (Boston: Allen & Unwin, 1987), p. 234.

69. See, for example, Fred Iklé, "Can Nuclear Deterrence Last Out the Century?" *Foreign Affairs*, 51 (January 1973), 267–85.

70. Kenneth Waltz, *Theory of International Politics* (Reading, Mass.: Addison-Wesley, 1979).

shift in the balance of power if one of its allies should defect. As Kenneth Waltz argues, these changes eliminate three common paths to major war: the first two operated in the 1930s and the third was in part responsible for World War I. But a bipolar world in which military victory was possible might be unstable, as the examples of Athens and Sparta and Rome and Carthage indicate. Furthermore, although the Soviet Union became a superpower before it developed a large nuclear stockpile, it is not clear that, in the absence of nuclear weapons, it would so unequivocally still have that status.

Second, the processes of political and economic modernization might have brought peace even without nuclear weapons.[71] Several converging changes have been at work. As the two world wars and the conflict between Iran and Iraq indicate, modern states are so resilient and difficult to defeat that victory at reasonable cost is hard to obtain. Although blitzkriegs cannot be ruled out, technology and nationalism usually favor the defense. Prolonged wars fought with modern weapons are likely to exact a fearful toll from the victor; statesmen who understand this will risk a major war only for the strongest of motives. Furthermore, nonnuclear explosives are extremely powerful and can be delivered against populations over the heads of defending armies. Thus, deterrence by punishment would play a large role in a nonnuclear world.

As modernization has increased the pain of war, it may have simultaneously decreased the value of what victory brings. Trade, it can be argued, provides many of the economic benefits that previously came with conquest, as Japan's success indicates. Territory, the prime spoil of war, has become at least somewhat devalued. Although territorial disputes are not absent in Eastern Europe, Germans no longer burn to retake Alsace and Lorraine from France, and Frenchmen hardly miss the Saar. Indeed, it even appears that Canada would have been willing to permit Quebec to secede. Thus weapons of mass destruction may not have been needed to produce situations in which the expected costs of fighting outrun the expected gains.

While I would not completely dissent from this view, it seems incomplete and in places misleading.[72] First, the gains from trade can be

71. This is one of the themes of the provocative study by John Mueller, *Retreat from Doomsday: The Obsolescence of Major War* (New York: Basic Books, 1989). Also see Klaus Knorr, *On the Uses of Military Power in the Nuclear Age* (Princeton: Princeton University Press, 1966) and Richard Rosecrance, *The Rise of the Trading State* (New York: Basic Books, 1985).

72. This paragraph is drawn from Jervis, "The Political Effect of Nuclear Weapons," *International Security*, 13 (Fall 1988), 83–90.

realized only within a political structure that is supported in part by military power. Second, it is not entirely clear whether the diminished importance of territory is as much a cause as an effect of the unlikelihood of war. If France or Germany believed that war between them were possible, their desire for the previously contested lands might increase. On the cost side of the ledger, while meaningful victory would be difficult with conventional explosives, it could still be possible. As noted earlier, both the scale and the speed of destruction of a nuclear war are much greater than those of a conventional conflict. The former could deter where the latter, although daunting, might appear worth the chance of conquest. Furthermore, states would be likely to search for technologies, forces, and tactics that would permit blitzkreig. The general bias of military establishments toward offensive postures could reinforce the hopes of civilian decision makers and create crisis instability. Without nuclear weapons, war between the superpowers would not, of course, be certain and might not even be likely, but it would be more likely than it is now. The vast increases in the scale of destruction and the speed with which it could be accomplished give contemporary deterrence a potency it might otherwise lack.

Finally, it is easy to overlook the most obvious alternative explanation of Soviet-American peace—neither side has a strong motive to change the status quo. While both would prefer a somewhat different world, they already have what is most important for them. Thus it does not take a great deal of restraint to keep the peace. Much of American theory and practice of deterrence assumes that the adversary will seize on any opportunity to expand, but in fact it is far from clear whether this assumption applies to the USSR.[73] Even without the knowledge that all-out war would bring total destruction, the superpowers probably would refrain from fighting because they have so little reason to do so. The Soviet Union has benefited from the status quo only slightly

73. For a discussion of "initiation theory," see George and Smoke, *Deterrence in American Foreign Policy*, pp. 519–33; also see Jervis, "Deterrence Theory Revisited," pp. 322–24. A similar question is raised from a different perspective in George Modelski and Patrick Morgan, "Understanding Global War," *Journal of Conflict Resolution*, 29 (September 1985), 391–417. This argument points to a problem with Kenneth Waltz's argument that proliferation would make the world safer by replicating the Soviet-American nuclear stalemate (*The Spread of Nuclear Weapons: More May Be Better*, Adelphi Paper no. 171 [London: International Institute of Strategic Studies, 1981]). Many of the countries that might develop nuclear weapons are much more strongly motivated to challenge their rivals than are the United States or the USSR. Under these circumstances, coercion or war is a considerable danger.

less than the United States, a situation that has produced what John Mueller calls "general stability."[74]

Again, I think there is much to be said for this argument. But even though neither the United States nor the Soviet Union is strongly driven to expand, they do have important conflicts of interest and clashing security requirements. Furthermore, the basic insight of systems theory is that we cannot equate results with intentions: for wars to occur it is not required that the actors seek such an outcome.[75] Previous wars have broken out even though the major states were not pressing to overturn the status quo; without nuclear weapons these processes could be replicated. John Gaddis's analysis is persuasive:

> Wars, in the past, have started over far lesser provocations than have been present since 1945. World War I itself began as the result of a single political assassination. The Crimean War grew out of a quarrel between France and Russia over the custody of holy places in Palestine. Spain and England went to war in 1739, or so we are told, over the cutting off of a single sailor's ear. One need only compare these trivialities, with all their bloody effects, to such postwar episodes as the Iranian crisis of 1946, the Czechoslovak coup and the Berlin blockage in 1948, the North Korean invasion of South Korea in 1950, the fall of Dienbienphu in 1954, the Quemoy-Matsu incidents of 1954–55 and 1958, the Hungarian uprising and the Suez crisis of 1956, the Berlin confrontations of 1958–59 and 1961, the Cuban missile crisis of 1962, the mining of Haiphong harbor and the bombing of Hanoi in 1972, the Defcon 3 nuclear alert during the 1973 Middle East war, the invasion of Afghanistan in 1979, and the Korean airliner incident in 1983.[76]

In summary, although the "long peace" is consistent with the theory of the nuclear revolution, other explanations pointing to other developments can claim to account for this outcome.[77] But it is not clear that

74. Mueller, *Retreat from Doomsday*; also see Waltz, *Theory of International Politics*, p. 190.

75. Kenneth Waltz, *Man, the State, and War* (New York: Columbia University Press, 1955); Waltz, *Theory of International Politics*.

76. John Gaddis, "Nuclear Weapons, Stability, and the Postwar International System" (unpublished paper, Ohio University, Athens), pp. 7–8.

77. The phrase comes from John Gaddis, "The Long Peace: Elements of Stability in the Postwar International System," *International Security*, 10 (Spring 1986), 99–142, who presents a balanced analysis of its causes.

they fully predict the results we have seen. In many cases these developments reinforce effects of nuclear weapons, and it is not easy to apportion the responsibility for peace.

One interesting kind of evidence cuts against our general argument, however. Once we look beyond the Soviet-American case, we can see that force has been used against states with nuclear weapons. Indeed, by some definitions, the territory of these states has been invaded. British nuclear weapons did not stop Argentina from taking the Falklands, although the attack made sense to the Argentines only because they thought the British realized that this territory was not really British.[78] The 1973 Middle East war raises the same challenge more sharply. Even though Israel does not acknowledge having nuclear weapons, it was generally thought to have them. Yet this did not deter Egypt from attacking in Sinai and the Syrians from moving into territory the Israelis considered their own and later annexed. Indeed, it is not clear in retrospect—and certainly was not clear to the Israelis at the time—that Syria would have stopped had its army reached Israel proper.[79] The fighting along the Sino-Soviet border in 1968 constitutes a third case. Although the potential gains and losses of territory were minuscule, they were heavily freighted with political symbolism, and both sides possessed nuclear weapons.

American interests were challenged even when the United States had a nuclear monopoly, or something close to it. Not only did the Russians try to force the United States out of Berlin in 1948, but North Korea attacked South Korea two years later. Of course in the former case violence was not used, and in the latter it seemed that the United States would not resist. But when China joined the Korean War it had to engage American troops directly and could not dismiss the danger of an atomic response.

The ability of nuclear weapons to keep the peace and provide extended deterrence for close allies is also rendered questionable by later

78. Richard Ned Lebow, "Miscalculation in the South Atlantic: The Origins of the Falklands War," in Robert Jervis, Richard Ned Lebow, and Janice Stein, *Psychology and Deterrence* (Baltimore: Johns Hopkins University Press, 1985), pp. 89–124. For a discussion of the role of nuclear weapons in the war, see George Quester, "The Nuclear Implications of the South Atlantic War," in R. B. Byers, ed., *The Denuclearization of the Oceans* (London: Croom Helm, 1986), pp. 119–26.

79. When the situation looked bleakest for Israel, Golda Meir apparently sent President Nixon a message that said that unless the situation was reversed, Israel might have to use "every means" at its disposal (Alan Dowty, *Middle East Crises: U.S. Decision-Making in 1958, 1970, and 1973* [Berkeley: University of California Press, 1984], p. 245; also see Nadav Safran, *Israel: The Embattled Ally* [Cambridge: Harvard University Press, 1978], p. 483).

events in Southeast Asia. Chinese nuclear weapons did not deter Vietnam from conquering China's protégé, Cambodia; Soviet nuclear weapons did not prevent China from responding with a foray into Vietnam. Of course in these cases nuclear weapons may have restrained either or both sides; we cannot tell what they would have done in the absence of the chance of devastation. Furthermore, in some of these conflicts, particularly the 1973 Middle East war, the knowledge that the superpowers would not permit the complete defeat of either side may have provided underlying stability that simultaneously limited the local adventures and made them more safe.

These cases underline the crucial role played by the degree to which the states are highly motivated to act in ways inconsistent with the other's vital interests and remind us that the theory of the nuclear revolution does not imply that the status quo can easily and safely be maintained in the face of an adversary who is willing to run high risks to change it. But it does imply that the risks of trying to do so are higher than they were in the past.

Preservation of the Status Quo

The nuclear revolution can also explain the second most striking characteristic of the postwar world—the absence of peaceful change on issues of most concern to the superpowers. In principle, the fear of war could be used as a lever to change the status quo as well as to preserve it. Nuclear weapons would still have very great influence, but the world would be quite different from what it is. Offense in the sense of altering a situation would be as easy as defense in the sense of protecting it; instability would be greater; states would be quick to exploit any opportunity for nuclear blackmail; the chances of miscalculation and the resulting danger of war would be great.[80]

80. My analysis here parallels much of Schelling's argument that deterrence is usually easier than compellence. In the latter, the actor requires the adversary to change his behavior, either to stop doing something he has been doing or to commence behavior he otherwise would not undertake. Deterrence only requires that the other continue to refrain from forbidden acts. Deterrence usually seeks to uphold the status quo and compellence to change it, but Schelling's distinction refers to the adversary's behavior, whereas the status quo refers to a situation. On occasion, the two distinctions will not coincide, for example when one side needs to take new actions in order to maintain the status quo. Thus in 1968 the Soviet Union had to intervene forcibly in Czechoslovakia in order to maintain its hold on that country, and in 1980 the Carter administration made a weak attempt to deter the Soviet Union from sending its armies into Poland to accomplish this objective. After North Vietnam started sending soldiers to the South, the United States sought to compel it to cease these activities, thus facilitating the maintenance of

In fact, however, our argument implies that this lever is not used. The side defending the status quo usually enjoys two kinds of advantages. First, its interest is usually greater than that of the other side. Bargaining theory supports common sense in indicating that the higher the value a state places on prevailing on an issue, the higher the risks it will be willing to run in order to do so. Thus the side that has more of a stake in an issue can make more credible threats to stand firm.[81] As Robert Kennedy explained, "The missiles in Cuba, we felt, vitally concerned our national security, but not that of the Soviet Union."[82] This asymmetry of interests made it both necessary and possible for the United States to prevail on the central issues. Historical, political, and psychological factors conspire to give the defender a strong interest in perpetuating the situation. The distribution of values and territory that constitutes the status quo is no accident; the United States and the Soviet Union have generally achieved dominant influence in the

the status quo. Schelling, *Arms and Influence*, pp. 69–91, 99–105, 172–76. Also see David Baldwin, "Bargaining with Airline Hijackers," in I. William Zartman, ed., *The 50% Solution* (Garden City, N.Y.: Doubleday, 1976), pp. 416–21 and Jervis, "Deterrence Theory Revisited," 314–22. Alexander George, David Hall, and William Simons, *The Limits of Coercive Diplomacy* (Boston: Little, Brown, 1971), develop empirical arguments about the conditions under which the superpowers can use threats and limited force to change the status quo. Also see Walter Petersen, "Deterrence and Compellence: A Critical Assessment of Conventional Wisdom," *International Studies Quarterly*, 30 (September 1986), 269–94.

81. See George, Hall, and Simons, *Limits of Coercive Diplomacy*; George and Smoke, *Deterrence in American Foreign Policy*; Glenn Snyder, " 'Prisoner's Dilemma' and 'Chicken' Models in International Politics," *International Studies Quarterly*, 15 (March 1971), 66–103; Robert Jervis, "Bargaining and Bargaining Tactics," in J. Roland Pennock and John Chapman, eds., *Coercion*, NOMOS, vol. 14 (Chicago: Aldine, Atherton, 1972), pp. 272–88; Jervis, "Deterrence Theory Revisited," pp. 314–22. Khrushchev put the point in his typical style when discussing a confrontation in the Middle East: "The real problem is not one of weapons; it's one of peace or war. The situation is highly a dangerous one, and I think that the people with the strongest nerves will be the winners. That is the most important consideration in the power struggle of our time. The people with weak nerves will go to the wall" (quoted in Heikal, *The Sphinx and the Commissar*, pp. 97–98.) Also see the sophisticated modification of this argument: Robert Powell, "Crisis Bargaining, Escalation, and MAD," *American Political Science Review*, 81 (September 1987), 717–27, and Powell, "Nuclear Brinkmanship with Two-Sided Incomplete Information," *American Political Science Review*, 82 (March 1988), 155–78. It should be noted that while the high value the United States places on Western Europe helps protect it against Soviet aggression, these ties also turn the Soviet ability to destroy the Continent into bargaining leverage against the United States. This was particularly important in the years before the Soviets developed second-strike capability. For in this period when the United States itself was relatively invulnerable it may have been restrained by the knowledge that a war with the USSR would entail the loss of territory that it valued only slightly less than its own.

82. Robert Kennedy, *Thirteen Days* (New York: Norton, 1971), p. 104.

areas that are most important to them. This effect is compounded by a psychological one. Ingenious experiments have confirmed what most of us feel by introspection—the hurt of losing a certain amount of a value is usually deeper than the gratification of gaining that same amount of a value.[83] Actors will then go to greater lengths to resist a degradation of their position than they will to better it.

Furthermore, the status quo normally serves as a salient point for a settlement, thus increasing its attraction as a solution to tacit bargaining. Partly for this reason, demands to change the status quo cannot help but raise the question of whether yielding will call up further demands. By contrast, the state that refrains from challenging an existing situation is not likely to lead its adversary to conclude that it will permit encroachments on its interests.[84]

It is then hard for a state to threaten to run high risks to alter the status quo. The defender can plausibly argue that changes would be intolerable; its adversary has in fact tolerated the previous distribution of values. The circumstances under which this handicap can be overcome are fairly restrictive: the revisionist state needs to show either that the balance of capabilities has changed—which is only marginally relevant in an era of nuclear plenty; that the status quo itself has changed to its detriment and that it is merely seeking to reestablish its position; or that what it had been able to live with before now has become impossibly painful (as the increased flow of refugees from East to West Berlin in the early 1960s made the lack of a firm division between the two halves of the city much worse for the Soviet bloc than it had been in the 1950s).

The second general factor at work is that the state that seeks to change the status quo must bear the onus of moving first. The possibility of escalation means that to create a crisis or to use force against the other superpower is to multiply drastically the chance of all-out war. Even a limited and successful aggression which would require the defender to escalate in order to reply adequately would start a journey whose destination neither side could foresee. This is nicely brought out by the exchange between Khrushchev and Averell Harriman about Berlin in 1959. As Harriman later remembered it, the Soviet leader declared

83. For citations and a further discussion of the implication of this phenomenon, see Chapter 5 below.

84. Schelling, *Arms and Influence*, pp. 69–78, 100–5; Morton Kaplan, *The Strategy of Limited Retaliation*, Policy Memorandum no. 19 (Princeton University Center of International Studies, April 1959). Retreats are often believed to be likely to lead to the "domino effect" of producing further losses thereby increasing the incentives to defend the status quo. Actors rarely expect such positive feedback when they make gains.

that America could not maintain its position in Berlin by force: after he signed a peace treaty with East Germany, any attempt to reassert Western access rights would mean that "rockets would fly and the tanks would burn." Harriman's account of what happened next almost seems designed to fit the argument here: "I laughed. He asked, 'What are you laughing about?' I said, 'What you're talking about would lead to war and I know you're too sensible a man to want to have war.' He stopped a minute and looked at me and said, 'You're right.' "[85]

Much of this explanation for the bargaining advantage of the side defending the status quo applies to the prenuclear era as well. But the effect is magnified by mutual vulnerability. In the past, a revisionist power of sufficient strength could either wage war to alter the situation or credibly threaten to do so unless the other side met its demands. But when all-out war is catastrophic and even the limited use of force is very costly and dangerous, brute force will not avail.

This is not to say that threats can always uphold the status quo and never change it. Indeed, the status quo may be ambiguous.[86] Was the United States trying to maintain the status quo during the Cuban missile crisis or to force the return to a previous situation (i.e., one in which there were no missiles or bombers in Cuba)? What was the status quo in Afghanistan in December 1979? To the extent that it was the Soviet domination of that country, the invasion solidified—or sought to solidify—the situation. But of course the status quo could be seen—and was seen by at least some participants—as the absence of either Soviet troops or complete Soviet control, and so in this sense the invasion altered it. Assessments are especially likely to diverge if the actors have different concepts of the idea of the status quo. On a general level, the Soviets may see it not as the frozen situation, but as constant change through the objective "forces of history." In specific clashes, each side may well see itself as defending the status quo. Indeed, because of political dynamics like the security dilemma, it may be hard for a country to consolidate its position without infringing on what the other sees as its established interests. Thus the crises over Berlin, especially in 1948–49, that the United States saw as Soviet attempts to

85. Quoted in Glenn Seaborg, with the assistance of Benjamin Loeb, *Kennedy, Khrushchev, and the Test Ban* (Berkeley: University of California Press, 1981), p. 252. This story may be too good to be true. As Marc Trachtenberg has pointed out to me, it does not appear in the contemporary description of the conversation: Owen to State Department, June 26, 1959, President's Office Files, box 126, folder "USSR, Vienna Meeting, Background Documents (D)," John F. Kennedy Library, Boston.

86. For a related discussion, see Edward Kolodziej, "The Limits of Deterrence Theory," *Journal of Social Issues*, 43, no. 4 (1987), 130–1.

make major gains may have been largely driven by the Soviet desire to shore up the East German regime.

A second complicating factor is a broader version of the dynamics just discussed: a state may need to change some part of the status quo if it is to preserve its general outlines. Just as alliance commitments can require a status quo power to take the military offensive, so external ties and internal needs can necessitate coercing the adversary to change some of his positions. To take a hypothetical case, if a West German government began undermining the German Democratic Republic (GDR) by propaganda and force of example, the USSR might have to change the situation to be able to maintain its client.

We also must remember that changes in the status quo can be set in motion by actors other than the superpowers. While many of us think of the Soviet attempt to compel the West to withdraw from West Berlin as the paradigm case of superpower conflict, the Middle East or Angola probably are better models for the future. When the situation is fluid, the idea of the status quo makes little sense. What was the status quo in Angola in 1974–75? Furthermore, forces of change are likely to arise within Third World countries or in conflicts among them. Neither superpower will need to bear the onus of directly challenging the other; neither will be able to gain the bargaining advantages discussed above. Indeed, even if both sides believe that local strife holds greater menace than prospects for gain, they may not be able to prevent it, and when they cannot, defending the status quo will often be as difficult as challenging it—if the two can be distinguished.

Finally, even when there is a clear status quo and the superpowers are the dominant actors, for a number of reasons the balance of incentives may favor change.[87] First, of course, the expansionist may have sufficient power to implement its threats with little cost or danger. Second, the expansionist can have unusually high resolve or the defender unusually low resolve. Thus Hitler differed from normal German statesmen not so much in his aspirations as in his willingness to risk all in order to try to fulfill them. Third, statesmen may see either the domestic or the international situation as precarious enough to merit great risks and costs. They will be strongly motivated to act when they see enormous gains to be had by forcing a change, or, more frequently the case, enormous losses looming if they do not do so.

87. An early discussion of bargaining that is extremely useful on this point is David Baldwin, "Inter-Nation Influence Revisited," *Journal of Conflict Resolution*, 15 (December 1971), 471–86. Also see George and Smoke, *Deterrence in American Foreign Policy*, pp. 519–32, and Jervis, "Deterrence Theory Revisited," pp. 317–19.

Thus, states have often contemplated or carried out preventive wars because they believed that they could not otherwise maintain their positions.[88] Dynamics within the state can produce the same result. When political leaders have staked their domestic fortunes on forcing the other side to accommodate to their desires, the incentives to achieve their objective, even at a high cost to the nation as a whole, are very great.[89] In these situations, deterrence is rendered more difficult and, if the defender understands the situation, coercive changes become easier, although rarely easy, to accomplish.

It is clear, then, that under some circumstances the status quo is not a meaningful benchmark and that under others defending it is no easier than altering it. Nevertheless, on the central issues of the Cold War, the side practicing deterrence usually has significant bargaining advantages. Part of the result is that overt challenges are beaten back, but even more, that such challenges will be relatively rare. A state will seek to alter the status quo only when it thinks that its move may succeed; the understanding that its bargaining position is weak is most clearly shown by its reluctant acceptance of the prevailing situation.

The theory of the nuclear revolution, then, predicts that the basic outlines of the status quo will be preserved. Major shifts in territory and spheres of influence usually occur through war or the threat of war. Because of the bargaining advantages held by the defender, these motors of change should be less potent. This expectation is generally borne out. The most important change in world politics—decolonization—was one that neither offended nor was engineered by either superpower. Of course in many parts of the world the superpowers have gained or lost influence, most strikingly in the change of orientation of China, first through a civil war and then through a diplomatic realignment. But neither side has been able to use threats of force to move the other out of the most important positions it established after World War II. We tend to take this situation for granted, but it is unusual for the map of the areas of greatest interest to the major powers to remain almost unchanged for two generations. Although nuclear

88. For a good discussion of the empirical and methodological issues, see Jack Levy, "Declining Power and the Preventive Motivation for War," *World Politics*, 40 (October 1987), 82–108.

89. High international or domestic incentives for change also generate psychological pressures that can lead the state to underestimate the risks it is running. See Richard Ned Lebow, *Between Peace and War* (Baltimore: Johns Hopkins University Press, 1981); Jervis, Lebow, and Stein, *Psychology and Deterrence;* George and Smoke, *Deterrence in American Foreign Policy*, pp. 572–80.

weapons are not the only new factor in world politics, they are the one most easily connected with the new stability.

If the argument here is correct, then, contrary to many claims about the influence of nuclear weapons, the maintenance of mutual second-strike capability permits the superpowers to protect a good deal more than their homelands. If the stability-instability paradox operated strongly, either side should be prepared to use force when the local balance is in its favor. In fact, this situation has occurred only well below the nuclear threshold—for example, in Southeast Asia, Grenada, Afghanistan, and Angola. These events show that nuclear weapons have not put an end to all superpower adventures, but they do not contradict the central argument here. I am not arguing that stability extends throughout the globe but that it does extend to the areas where both powers are deeply concerned. More damaging to my argument are the attempts to alter the status quo in Europe. Thus the Soviets have tried to force the West out of Berlin and have used tactics of intimidation against Western Germany, while the United States made some attempts to deter the Soviets from using force to put down Solidarity in Poland. But these efforts have been infrequent and none has succeeded. The success of extended deterrence is quite striking when compared with the proposition—one that logically follows from conventionalized premises—that the threat of nuclear war cannot protect the status quo beyond the superpowers' borders.

The Infrequency of Crises

A third implication of the nuclear revolution is that once the lines of the status quo are clear and both sides have second-strike capability, crises should not be frequent. Furthermore, those that occur usually should be in peripheral areas and be initiated, not by the superpowers themselves, but by local actors.

In eras when military victory was possible, a state could challenge its adversary in the expectation that if the latter did not retreat, the state could resort to war. Today, the knowledge that war would be suicide coupled with the bargaining advantage possessed by the side defending the status quo means that would-be expansionists should be loath to instigate confrontations. In addition, because in the past the balance of power could be upset if a significant actor shifted from one camp to the other, the major powers' security interests were often deeply involved with those of their allies. The series of pre–World War I confrontations provide obvious examples. The main reason why Brit-

ain supported France in the Moroccan crises was the fear that if it did not, France might desert the Entente and leave England dangerously isolated. The same dynamics were at work in July 1914. France had to support Russia and Britain had to support France and Russia because a failure to do so might break up the Entente and leave them exposed to German dominance. Similarly, Germany could not afford to see Austria-Hungary leave the alliance or, more probably, disintegrate. In the nuclear era, by contrast, security is provided by second-strike capability; defections by allies are therefore less damaging. Thus neither France's withdrawal from the military arrangements of NATO nor China's realignment precipitated a superpower crisis. If this argument is correct, the superpowers should not permit their allies to drag them into excessively dangerous situations.[90]

Postwar history supports these hypotheses. Crises have been rare since the advent of mutual second-strike capability; in this period most tensions have been generated by third actors in areas of less than central importance and are driven more by the superpowers' desire to project a general image of high resolve than by any specific stake; allies have less ability than they did before the advent of nuclear weapons to require that the superpowers support them in risky ventures. Crises were most frequent in the late 1940s and early 1950s, a period in which the status quo was not entirely clear and before the United States, let alone the Soviet Union, possessed overwhelming levels of destructive capability.[91] The single most dangerous confrontation—the Cuban missile crisis—not only occurred when the Soviets had weak nuclear forces but was in part motivated by the urgent Soviet need to gain something like parity. In the years since this goal has been reached, there have been no serious crises. The nearest approximation was the 1973 confrontation in the Middle East, which was mild compared with crises that were frequent in the nonnuclear era.

The other disturbing incidents since the mid-1960s have occurred in areas where neither side was deeply involved and in which local actors drew the superpowers in. The clashes in Angola and the Horn of Africa fit this pattern. The status quo was not clear and was changing largely

90. Of course the explanation offered here parallels that for the role of bipolarity. Here, as in several other places, the two influences are similar and it is therefore difficult to determine which theory offers the better explanation. See Waltz, *Theory of International Politics*, and Glenn Snyder and Paul Diesing, *Conflict among Nations* (Princeton: Princeton University Press, 1977), chap. 6.

91. But Richard Betts notes that even in the 1950s American decision makers acted as though the Soviets had second strike capability (*Nuclear Blackmail and Nuclear Balance* [Washington, D.C.: Brookings Institution, 1987], chap. 4).

in response to local forces. Neither superpower sought a major confrontation and, for the United States at least, the main fear was that the adversary would perceive a weakness of will that would be expected to manifest itself in areas of greater importance. This is not to say that these incidents were trivial: they contributed to the decline of detente and in the future ones like them could lead to sharper confrontations. But their infrequency and unimportance, as compared with those in the prenuclear world, is what is most striking and significant. As the theory of the nuclear revolution leads us to expect, as long as neither side is overwhelmingly dissatisfied with the status quo, creating a crisis to try to make competitive gains is unattractive because the prospects for success are not great enough to merit the costs of greater tensions and the increased danger of war.

The expectation that allies lack the bargaining leverage to bring the superpowers to the brink of war also appears to be borne out. The Soviet Union refused to give more than lip service to the PRC's attempt to retake Quemoy and Matsu in the 1950s. Increasing the conflict with China was less costly than increasing the risk of war with the other superpower. Similarly, although the United States paid some heed to the preferences of its German ally during the Berlin crisis, it would not allow itself to be pushed into bold and dangerous policies. Even more strikingly, the transcripts of the meetings at the climax of the Cuban missile crisis reveal that President Kennedy probably would have been willing to offend the NATO allies by trading the missiles in Turkey if this had been necessary to avoid an armed clash with the USSR.[92] The combination of the supreme penalty that war would bring and the diminished importance of allies has made the superpowers more cautious and less willing to challenge each other, especially for the benefit of their weaker partners, than they had been in previous eras.

92. See McGeorge Bundy, transcriber, and James Blight, ed., "October 27, 1962: Transcripts of the Meeting of the ExComm," *International Security*, 12 (Winter 1987–88), 32–92, and Dean Rusk's letter printed in James Blight, Joseph Nye, Jr., and David Welch, "The Cuban Missile Crisis Revisited," *Foreign Affairs*, 66 (Fall 1987), 179. For earlier treatments that had stressed Kennedy's caution and willingness to make concessions, see George, Hall, and Simons, *Limits of Coercive Diplomacy*, pp. 86–140, and Arthur Schlesinger, Jr., *Robert F. Kennedy and His Times* (Boston: Houghton Mifflin, 1978), pp. 530–43. Bernard Brodie also noted that in the crisis each superpower was "asking each other: How do we get out of this with the absolute minimum of damage to each other?" Furthermore, consistent with this unusual goal, which was created by the mutual need to avoid war, came a change in method: "From beginning to end the confrontation . . . shows a remarkably different quality from any previous one in history. There is an unprecedented candor, direct personal contact, and at the same time mutual respect between the chief actors" (Brodie, *War and Politics*, p. 426).

It is often said that crises are the functional substitute for war. War being impossible, crises now take on the roles of determining relative power, recalibrating dominance, and redistributing contested values. There is something to this argument, but a number of amendments are in order. As long as crises can be dangerous and the most important aspects of the status quo are too well entrenched to be easily altered, crises may become even less frequent than wars were in the past. Thus, as I will discuss in Chapter 6, other kinds of demonstration may become prominent. Moreover, nuclear crises are not likely to arise out of differences in judgments about military strength, as they often did in the past, nor will their outcomes be primarily determined by the military balance. They will be triggered by differences in estimates of how likely each side is to stand firm, which in turn will be influenced by judgments about the relative importance of the issue to each side and general assessments of each side's willingness to run risks.

While the paucity of crises could also be deduced from some of the competing theories presented earlier, the propositions about the causes and resolutions of the confrontations cannot be. Thus, if sustained, these propositions give us strong reasons to conclude that the nuclear revolution is real. As usual, the evidence is scarce and ambiguous, but on preliminary inspection the findings seems confirmatory. As I will discuss further below, it is hard to correlate the rise and fall of each superpower's general influence and ability to prevail in crises with its military, let alone its nuclear, power.

Credibility, Chicken, and Bargaining

Since the ultimate sanction is mutual suicide, it is both difficult and important to make threats credible, but nuclear threats may not have to be highly credible in order to be highly effective. Even a slight chance that a provocation could lead to nuclear war will be sufficient to deter all but the most highly motivated adversaries.[93] Furthermore, because a high level of violence could result even if neither side sought that outcome, states need not threaten all-out war in order to have that specter loom large in the adversary's (and their own) mind. For example, while it would be totally irrational to destroy the world in order to try to stop the Soviet Union from conquering Iran, it could make

93. Many arguments about military strategy may really revolve less around the sorts of considerations advanced here and more around the nature of the Soviet Union, its goals, its motivations, and how much credibility is required in order to deter it. See Jervis, *Perception and Misperception in International Politics*, chap. 3, and Robert Levine, *The Arms Debate* (Cambridge: Harvard University Press, 1963).

resolve

sense for the United States to respond to a Soviet invasion by taking actions that it believed entailed a significant risk of this result.

The possibility of threats to create dangerous situations does not solve all problems. Each superpower still must be concerned lest the adversary believe that the fear of nuclear war will lead the former to abandon important interests rather than run any risk of destruction. Credibility and resolve are hard to demonstrate, however. Bluffs are always possible and thus valid threats subject to discount. Two implications follow. First, small issues will often loom large, not because of their intrinsic importance, but because they are taken as tests of resolve. What actually happens in many disputes in peripheral areas of world politics is not important; whether the United States and the Soviet Union are seen as having lived up to their commitments in these disputes may be crucial. As superpower tensions in Europe have eased and the focus of Soviet-American conflict has turned to the Third World, what is at stake in most confrontations are not issues of intrinsic value but, rather, each side's image. But the question of how images of resolve are projected and interpreted is plagued with both logical and empirical difficulties, some of which will be discussed in Chapter 6. A careful study of prenuclear crises shows that while states fear that others will draw wide-ranging inferences from cases in which they do not stand firm, in fact statesmen do not examine the other's behavior in this way.[94] Indeed, it may not make a great deal of sense for states to try to decide how others would behave at the brink of war on the basis of what they do when the stakes and dangers are much lower. The costs and risks of fighting a nuclear war or even a major conventional one are so much greater than those involved in any confrontation up to now that behavior in such confrontations probably does not predict what either side would do in unprecedented crises. But, in the absence of better indicators of resolve, it is understandable both that statesmen would see minor conflicts as a way to demonstrate that they would be bold in future crises and that the adversary in fact might not be particularly impressed by this behavior.

A second implication of the need to demonstrate resolve is that states must resort to a variety of bargaining tactics to show that they will

94. Snyder and Diesing, *Conflict among Nations*, p. 187; also see Jervis, "Deterrence Theory Revisited," pp. 317–22. But also see Paul Huth and Bruce Russett, "What Makes Deterrence Work: Cases from 1900 to 1980," *World Politics*, 36 (July 1984), 517, and Paul Huth, *Extended Deterrence and the Prevention of War* (New Haven: Yale University Press, 1988), pp. 55, 68–71, 80–83. For a general discussion, see Robert Jervis, "Domino Beliefs and Strategic Behavior," in Jack Snyder and Robert Jervis, eds., *Dominoes and Bandwagons: Strategic Beliefs and Superpower Competition in the Eurasian Rimland* (New York: Oxford University Press, forthcoming).

stand firm. When the situation resembles a game of Chicken, each side would rather make concessions than go to war or even to enter a situation in which war is likely. But since each side knows that this is the other's preference as well, it can try to use the common interest in avoiding danger to make competitive gains.

Although the details of the tactics that can be used are limited only by statesmen's imaginations, the general outlines can be deduced from the structure of the game.[95] Most obviously, states can try to commit themselves to standing firm. In some cases, commitment can be physical—that is, the state can make it difficult to avoid going to war if the other side takes prohibited actions. Thus by having American troops in Europe, the United States ensures that a Soviet invasion would kill Americans. Furthermore, the presence of American dependents means that not only American soldiers but women and children as well would be killed. While the United States is not physically committed to launching a nuclear attack, it could not avoid bloodshed that could easily escalate.

The second kind of commitment occurs when a state stakes its reputation on resisting the other side's demands. Because commitments are believed to be interdependent, to renege on one is to endanger others. By becoming committed, then, states increase the cost they will pay if they eventually retreat, limit their own freedom of maneuver, and thereby make it less likely that they will back down. A related bargaining tactic is Schelling's "rationality of irrationality."[96] Standing firm may be irrational because it entails excessive costs, but if the state can convince the other side that it is in fact irrational, the other will have no choice but to retreat and the result will be that the state will gain its objective.

These tactics are familiar, and if they are much more common in the nuclear age than they were in the past, the theory of nuclear revolution will be confirmed. As usual, only impressionistic evidence is available and even this is mixed. On the one hand, states seem very reluctant

95. See Schelling, *Strategy of Conflict*; Schelling, *Arms and Influence*; Snyder, " 'Prisoner's Dilemma' and 'Chicken' Models in International Politics," pp. 66–103; Jervis, "Bargaining and Bargaining Tactics," pp. 272–88.

96. Schelling, *Strategy of Conflict*, pp. 16–20, and *Arms and Influence*, pp. 36–43, 229; for a good application see Daniel Ellsberg, "The Theory and Practice of Blackmail," in Oran Young, ed., *Bargaining* (Urbana: University of Illinois Press, 1975), pp. 343–64. For recent elaborations of this argument, see George Quester, "Some Thoughts on 'Deterrence Failures,' " in Paul Stern, Robert Axelrod, Robert Jervis, and Roy Radnor, eds., *Perspectives on Deterrence* (New York: Oxford University Press, 1989), and Edward Rhodes, *Rational Deterrence and Irrational Responses: The Logic of Nuclear Coercion* (New York: Columbia University Press, 1989).

to foreclose their future options, let alone to pretend to be irrational.[97] Robert Haldeman reports that President Nixon sought to lead the North Vietnamese to conclude that he was unpredictable and could not be counted on to be sensibly restrained, but even if this story is correct, it seems exceptional.[98] On the other hand, the superpowers—or at least the Americans—do seem more concerned with their bargaining reputations than they were in the past.[99] This is not to say that such considerations were ever absent. But when states could rationally resort to war, concern with credibility and commitment was not as dominant. The realization—or belief—that they must convince others of their willingness to pay a high price to defend their interests has led statesmen routinely to adopt tactics that were used only in extreme cases in the past. Similarly, although it is hard to be sure that the difference is one of national behavior rather than one of scholars' attention, it seems that tactics of commitment are much more common than they were in previous eras. The Chicken model generates expectations that generally are met by superpower behavior in severe crises, for example in October 1962. The United States not only prepared to fight if need be—as would have been the case in prenuclear crises—but pledged its reputation on seeing that missiles were removed. By moving publicly and forcefully, the United States limited its options, increased the cost it would pay if it backed down, and thereby increased its bargaining leverage.

Compromising Knowing that tactics of commitment should be common and the side defending the status quo usually should have the advantage does not tell us the extent to which compromises will be accepted in order to avoid a war. Because Chicken is a game in which each side tries to outguess and outbluff the other, one cannot readily predict each side's choices. Much of the academic discussion has been of tactics that can extract the greatest advantage, and the *flavor* of these treatments implies that at least one side will be willing to run high risks in order to prevail. Indeed, the state gains a bargaining advantage if it can convince its adversary that it is willing to do so.

But moderation, although not following deterministically from the nuclear revolution, certainly is compatible with it. As long as the cost

97. See Oran Young, *The Politics of Force* (Princeton: Princeton University Press, 1968), pp. 217–20; Jervis, "Deterrence Theory Revisited," pp. 303–4.

98. See H. Robert Haldeman, *The Ends of Power* (New York: New York Times Books, 1968), pp. 82–83, 98.

99. See Patrick Morgan, "Saving Face for the Sake of Deterrence," in Jervis, Lebow, and Stein, *Psychology and Deterrence*, pp. 125–52.

of standing firm in the incorrect belief that the other will retreat is enormous, there is reason to expect that both sides will be cautious. The state that has the upper hand will not press its advantage to the limit when the marginal gains for so doing are outweighed by the danger of war. The recent revelations of the Cuban missile crisis fit this pattern. As noted, President Kennedy was open to the idea of trading the missiles in Turkey for those in Cuba even though the price of doing so would have been high. Had the cost of all-out war been lower, the United States might have been more unyielding. Similarly, in the aftermath of the crisis, Kennedy considered allowing the IL-28 bombers to remain in Cuba rather than renew the confrontation if the Soviets proved adamant on this point, which they did not.[100] Although the evidence from other Cold War crises is more ambiguous, it fits the same pattern. McGeorge Bundy reveals that "in the White House at the height of the [1961 Berlin] crisis there was a greater interest in . . . compromise than Kennedy ever chose to show publicly. On August 28 I reported to him the growing belief among those at work on our negotiating position 'that we can and should shift substantially toward the acceptance of the GDR, the Oder-Neisse Line, a non-aggression pact, and even the idea of two peace treaties.' "[101] More speculatively, Bundy reminds us of Anthony Eden's judgment that the fear of nuclear war helps explain why the participants in the Geneva summit in 1954 were willing to compromise and end the Indochina war.[102] Thus it appears that Cuba is not unique in generating a settlement in which a state could have made more gains—at least in the short run—if it had been willing to maintain or increase the risk of war. Nuclear weapons have now made such behavior too dangerous for sensible decision makers to undertake if they can possibly avoid it.

Military Balance, Balance of Resolve, and Political Outcomes

If the arguments about the nuclear revolution are correct, there should be only tenuous links between the details of the military balance and political outcomes. As McGeorge Bundy has put it, what matters

100. Raymond Garthoff, *Reflections on the Cuban Missile Crisis* (Washington, D.C.: Brookings Institution, 1987), pp. 67–71. As President, Nixon similarly recognized that "the balance of nuclear power has placed a premium on negotiation rather than confrontation": Richard Nixon, *U.S. Foreign Policy for the 1970s: A New Strategy for Peace:* A report to the Congress, February 18, 1970, p. 133.
101. McGeorge Bundy, *Danger and Survival* (New York: Random House, 1988), p. 385.
102. Ibid., pp. 271–73.

is not nuclear *superiority* or the exact state of the nuclear *balance*, but the nuclear *danger*.[103] Since having more nuclear weapons or more nuclear options than the adversary cannot provide much assistance in terminating the war, this posture should not provide a great peacetime advantage. Were it to be shown that the international political fortunes of the superpowers were significantly correlated with the state of the nuclear balance, this would be important evidence against the validity of the theory of the nuclear revolution.

The evidence is, of course, highly ambiguous and a full canvass of it is beyond the scope of this book.[104] But it is difficult to attribute many political outcomes over the past twenty-five years to changes in the nuclear balance. For example, while there are many possible causes of the Soviet invasion of (and retreat from) Afghanistan and adventures in Africa—probably the most alarming events since the Cuban missile crisis—the superpowers' nuclear postures do not number among them. It is also interesting to note that even changes in the nuclear balance as great as those that have occurred since 1962 have not allowed the Soviets to revise the agreements that ended the Cuban missile crisis, although they have made fitful attempts to do so.[105] Indeed, Kissinger has said that the existence of nuclear parity did not inhibit the Nixon administration in the conflict over the Soviet submarine base at Cienfuegoes in 1970: "We used more or less the same tactics [as Kennedy used in 1962] and we achieved more or less the same result."[106] Similarly, the pleas of Kissinger and others for the Carter administration to take a firmer stand against the Soviets in Africa only make sense if they believed that such a tough stance was not prohibited by the nuclear balance. In this light it is not surprising that Carter administration officials replied in the negative when asked whether they would have advocated taking a harder line in disputes with the Soviet Union if the United States had had greater nuclear strength.[107]

103. Ibid., passim, and especially chap. 8.
104. The best surveys are Betts, *Nuclear Blackmail and Nuclear Balance*, and Bundy, *Danger and Survival*. Also see Richard Betts, "Nuclear Peace and Conventional War," *Journal of Strategic Studies*, 11 (March 1988), 79–95, and Chapter 3 below.
105. Of course the military advantages of putting missiles into Cuba would now be quite slight, but the political gain would be very significant, especially if the Russians actually were pressing hard to expand their influence. Thus their continued acquiesence cannot be explained entirely by the unimportance of the issue to them.
106. Interview in Charlton, *From Deterrence to Defense*, p. 34.
107. Interviews conducted by the author during 1979–83. A few government officials claim that the Soviet adventures in Africa and Afghanistan can be attributed to the nuclear balance, but these assertions are not supported by evidence or careful analysis. Indeed they often fly in the face of the facts. See Chapter 3 below.

Similarly, if the Soviets have been more moderate since 1980, the reason cannot be the state of military balance, because it remains essentially unchanged. In 1978, Kissinger stressed that because of "the vulnerability of our strategic forces . . . [Soviet] willingness to run risks . . . must exponentially increase." The following five years, he argued, were going to be "our period of maximum danger."[108] The logic is impeccable: that subsequent events did not conform indicates that the fallacy lies in the premise.

Those who argue for the powerful operation of the stability-instability paradox agree that the nuclear balance is not crucial but expect the local conventional military balance to strongly influence the outcomes of confrontation. Thus they argue for the importance of the American naval predominance around Cuba in 1962. While this argument seems to make sense, closer examination casts it into doubt. If conventional superiority were crucial in Cuba, why did the parallel Soviet advantage around Berlin not produce a parallel result? A decade later, the increases in the mobility of Soviet forces were a necessary condition for the interventions in Africa. But these increases were a matter of Soviet capabilities, not of the military balance. No Western strength could have removed the transport aircraft from Soviet hands. In fact, the United States could have transported more men and matériel to Africa than the Soviets did or could have forcibly interdicted the Soviet supply lines. The reason the United States did not engage in such a contest was not lack of capability but the belief that the issues were not worth the costs and risks that intervention would have entailed. In 1979 Harold Brown argued, "We now recognize that the strategic nuclear forces can deter only a relatively narrow range of contingencies, much smaller in range than was foreseen only twenty or thirty years ago."[109] Leaving aside the dubious historical recollection, what is striking is that neither superpower has taken advantage of conventional superiority to challenge the other's important interests.

Of course, it would be dangerous if the imbalance of conventional forces were so great that the Soviets could stage a fait accompli and quickly conquer an area of importance to the West.[110] But the large-

108. U.S. Senate, Committee on Foreign Relations, *The SALT II Treaty*, 96th Cong., 1st sess., (Washington, D. C.: Government Printing Office, 1979) pt. 3, pp. 224–25. Paul Nitze took a similar position thirty years earlier: *FRUS, 1950*, vol. 1, p. 147.

109. Department of Defense, *Annual Report for FY 1980* (Washington, D.C.: Government Printing Office, 1979), p. 76.

110. For a discussion of failures of deterrence because of the Soviet ability to carry out a fait accompli, see George and Smoke, *Deterrence in American Foreign Policy*, pp. 536–40.

scale use of conventional force, particularly in areas in which the other side has an established position, carries with it the risk of escalation, especially when the fighting is likely to be prolonged. Thus military capability is not a good predictor of national behavior or international outcomes, and deterrence by denial is not necessary in order to convince the adversary that such moves should not be undertaken. The Soviets have not moved in Europe in spite of their reputed overwhelming conventional advantage (an estimate disputed by articulate critics and, perhaps, by the Soviets). Their increased ability to fight a conventional war in Europe has not made them bolder.[111] (Indeed, the military buildup has been accompanied by political settlements.) While there is no reason to believe that military calculations are central to this Soviet policy, it is likely that what plays at least some role is the realization that the ability to win a conventional war is not synonymous with the ability to keep the war conventional.[112]

The implications of mutual second-strike capability are many and far-reaching. If nuclear weapons have had the influence that the nuclear-revolution theory indicates they should have, then there will be peace between the superpowers, crises will be rare, neither side will be eager to press bargaining advantages to the limit, the status quo will be relatively easy to maintain, and political outcomes will not be closely related to either the nuclear or the conventional balance. Although the evidence is ambiguous, it generally confirms these propositions.

111. The most thorough treatment is Michael MccGwire, *Military Objectives in Soviet Foreign Policy* (Washington, D.C.: Brookings Institution, 1987).

112. Again, the strength of the Soviet motivation to change the status quo may be a crucial factor. Were Soviet dissatisfaction greater—either because of the desire to dominate Western Europe or the fear that they would be attacked if they did not—the Western posture might be inadequate. But, for reasons both rational and psychological, if the Soviet incentives were great enough, they might attack without regard for the military balance.