

DETERRENCE AND COUNTERPROLIFERATION IN AN AGE OF WEAPONS OF MASS DESTRUCTION

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ONCE THE cornerstone of U.S. strategy during the cold war, deterrence theory is increasingly under fire in an age of proliferated weapons of mass destruction (WMD¹). While concerns and skepticism over deterrence were never completely absent, the tragic events of 11 September 2001 crystallized doubts about its reliability. Though perpetrated by a non-state terrorist group, the crisis of confidence stemming from 9/11 quickly extended to suspect—or “rogue”²—states as well, especially because state sponsorship of such organizations appeared to be growing. As President George Bush remarked in a speech at West Point on 1 June 2002:

Deterrence—the promise of massive retaliation against nations—means nothing against shadowy terrorist networks with no nation or citizens to defend. Containment is not possible when unbalanced dictators with weapons of mass destruction can deliver those weapons on missiles or secretly provide them to terrorist allies.³

If not deterrence and containment, however, then what? For the past decade, the United States has been gradually developing a counterproliferation strategy, based on the premise that deterrence is not enough and must be augmented by capabilities for protection and defense.⁴ In its most recent incarnation, dubbed the Bush Doctrine and articulated in the September 2002 *National Security Strategy*, there

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1. There are important distinctions between the different types of WMD, which will be noted when relevant, but the collective term WMD is a more simple and analytically useful shorthand.

2. Some authors argue that it is unproductive to group worrisome states together with this term, but since alternatives such as “states of concern” have failed to make their way into common usage, I will use “rogue states” to refer to nations such as Iran, Iraq, North Korea, Syria, and Libya. See Eric Herring, “Rogue Rage: Can we Prevent Mass Destruction?” *Journal of Strategic Studies* 23, no. 1 (March 2000): 188–212; Robert S. Litwak, *Rogue States and U.S. Foreign Policy: Containment after the Cold War* (Baltimore: Johns Hopkins University Press, 2000).

3. George W. Bush, Graduation Speech at West Point, 1 June 2002.

4. National Defense University, *The Counterproliferation Imperative: Meeting Tomorrow's Challenges* (Washington, D.C.: November 2001), 2.

is a significant emphasis on offensive means to preemptively defeat prospective threats:

We must be prepared to stop rogue states and their terrorist clients before they are able to threaten or use weapons of mass destruction against the United States and our allies and friends Given the goals of rogue states and terrorists, the United States can no longer solely rely on a reactive posture as we have in the past.⁵

In a potentially self-reinforcing fashion, the question then becomes how these rogue states will respond to the gathering U.S. threat directed at them, particularly in light of Operation Iraqi Freedom. While one might hope that their leaders will choose moderate policies and renounce WMD, it appears more likely that they will seek to deter interference in their affairs by threatening and potentially initiating WMD attacks, either against troops on the battlefield, U.S. allies, or the American homeland itself. For instance, even though WMD were not employed in the recent conflict with Iraq, Saddam Hussein certainly obliquely threatened their use and there was intense concern over the likelihood and consequences of such action.⁶ It is unclear whether American efforts at deterrence were successful on this occasion; or, if they were, whether they will continue to be in the future. The growing destructiveness of rogue state capabilities, coupled with doubts over the restraint of desperate and unpredictable leaders, may lead U.S. officials to eventually back down from such confrontations given the inherent risks posed by a WMD-armed adversary. This has become a particularly salient point in the ongoing impasse with North Korea, as it appears that the Bush administration has all but ruled out harsh economic penalties or military strikes in response to likely advances in the North Korean nuclear program that in a similar crisis nearly a decade ago were considered a strict “red line,” meant to invite U.S. retaliation. Ultimately, no one can predict with certainty how these security relationships will develop; deterrence is a two-way street, affecting both sides, and little is known about the rules of the road or who will yield to avoid collision.

5. U.S. Government, *The National Security Strategy of the United States of America* (Washington, D.C.: September 2002), 14 and 15.

6. James Dao, “Pentagon’s Worry: Iraqi Chemical Arms,” *New York Times*, 19 May 2002; Milton Viorst, “Imagining the Worst-Case Scenario in Iraq,” *New York Times*, 12 September 2002; Bradley Graham, “‘Scorched Earth’ Plans in Iraq Cited,” *Washington Post*, 19 December 2002; Philip Smucker, “Iraq Flexes its Military Trump Card,” *Christian Science Monitor*, 19 March 2003; Greg Jaffe, “Intelligence Suggests Hussein Allowed Chemical-Weapon Use,” *Wall Street Journal*, 20 March 2003; David E. Sanger, “U.S. Officials Fear Iraqis Plan to Use Gas on G.I.’s,” *New York Times*, 25 March 2003; Jessica Gynn, “As Coalition Nears Baghdad, Chemical Arms a Question Mark,” *Mercury News*, 3 April 2003; Thomas Fuller, “Iraq Vows ‘Unconventional’ Tactics to Defend Capital,” *New York Times*, 4 April 2003; Bill Gertz, “Coalition Still Wary of Chemical Weapons,” *Washington Times*, 5 April 2003.

This uncertainty is hardly due to the concept of deterrence suffering from academic neglect. There is an extensive literature on the bipolar dynamics of the cold war,⁷ the effects of asymmetries of power and interest,⁸ WMD proliferation,⁹ the psychological aspects of crisis situations,¹⁰ the specter of terrorism,¹¹ prospects for missile defense,¹² and more general theoretical analyses of deterrence.¹³ Surprisingly, while all of these aspects are essential pieces of the puzzle, there have been very few attempts to synthesize their insights, especially in regards to the unique but crucially relevant deterrence relationship between states that are asymmetric in military power but both in possession (or in likely possession) of WMD.¹⁴

7. Bernard Brodie, *The Absolute Weapon: Atomic Power and World Order* (New York: Harcourt, 1946); Henry Kissinger, *Nuclear Weapons and Foreign Policy* (New York: Harper & Brothers, 1957); Robert Osgood, *Limited War: The Challenge to American Security* (Chicago: University of Chicago Press, 1957); Albert Wohlstetter, "The Delicate Balance of Terror," *Foreign Affairs* 37, no. 2 (January 1959): 211–34; Morton Halperin, *Limited War in the Nuclear Age* (Westport, Conn.: Greenwood, 1963); Wolfgang K. H. Panofsky, "The Mutual-Hostage Relationship Between American and Russia," *Foreign Affairs* 52, no. 1 (October 1973): 109–18; Paul H. Nitze, "Deterring Our Deterrent," *Foreign Policy*, no. 25 (winter 1976/77): 195–210.

8. Andrew Mack, "Why Big Nations Lose Small Wars: the Politics of Asymmetric Conflict," *World Politics* 27, no. 2 (January 1975): 175–200; Yohanan Cohen, *Small Nations in Times of Crisis and Confrontation* (Albany: State University of New York Press, 1989); Barry Wolf, *When the Weak Attack the Strong: Failures of Deterrence*, RAND Note (Santa Monica, Calif.: RAND, 1991); T. V. Paul, *Asymmetric Conflicts: War Initiation by Weaker Powers* (Cambridge: Cambridge University Press, 1994).

9. Leonard S. Spector and Jacqueline R. Smith, *Nuclear Ambitions: The Spread of Nuclear Weapons 1989–1990* (Boulder: Westview, 1990); Kathleen C. Bailey, *Doomsday Weapons in the Hands of Many: The Arms Control Challenge of the 90s* (Chicago: University of Illinois Press, 1991); Martin van Creveld, *Nuclear Proliferation and the Future of Conflict* (New York: Free Press, 1993).

10. Robert Jervis, *Perception and Misperception in International Politics* (Princeton: Princeton University Press, 1976); Irving L. Janis and Leon Mann, *Decision Making: A Psychological Analysis of Conflict* (New York: Free Press, 1977).

11. Marvin E. Wolfgang, *International Terrorism* (Beverly Hills, Calif.: Sage, 1982); Jessica Stern, *The Ultimate Terrorists* (Cambridge: Harvard University Press, 1999); Gary Ackerman and Laura Snyder, "Would They if They Could?" *Bulletin of the Atomic Scientists* (May/June 2002): 41–47.

12. Dean Wilkening, *Ballistic-Missile Defence and Strategic Stability*, Adelphi Paper no. 334 (Oxford: Oxford University Press, for the International Institute for Strategic Studies, 2000); Philip Gordon, "Bush, Missile Defence and the Atlantic Alliance," *Survival* 43, no. 1 (spring 2001): 17–31; James J. Wirtz and Jeffrey A. Larsen, *Rockets Red Glare: Missile Defense and the Future of World Politics* (Boulder: Westview, 2001); James M. Lindsay and Michael E. O'Hanlon, *Defending America: The Case for Limited National Missile Defense* (Washington, D.C.: Brookings, 2001).

13. Thomas C. Schelling, *Arms and Influence* (New Haven: Yale University Press, 1966); Patrick M. Morgan, *Deterrence: A Conceptual Analysis* (Beverly Hills, Calif.: Sage, 1977); Kenneth N. Waltz, *The Spread of Nuclear Weapons: More May Be Better*, Adelphi Paper no. 171 (London: International Institute for Strategic Studies, 1981); Edward Rhodes, *Power and MADness: the Logic of Nuclear Coercion* (New York: Columbia University Press, 1989); Patrick M. Morgan, *Deterrence Now* (Cambridge: Cambridge University Press, 2003).

14. For example, Avigdor Haselkorn provides a brilliant and thorough account of the WMD threats that occurred during the Gulf War in *The Continuing Storm: Iraq, Poisonous Weapons, and Deterrence* (New Haven: Yale University Press, 1999). To be able to apply these insights to other strategic interactions, though, the evidence presented must be integrated into a broader theoretical framework. Likewise, Keith Payne offers a compelling case for the inadequacy of deterrence theory, drawing upon historical examples and persuasive analysis in *The Fallacies*

This article seeks to do exactly that, considering U.S. action in regional crises and conflicts involving important interests, ranging from the reversal of local aggression, the destruction of terrorist camps and WMD facilities, or even the removal of an adversary's regime. My argument is that deterrence is of decreasing reliability against rogue states, but of increasing potency against the United States. To forestall this development, the United States is investing in counterproliferation programs and articulating a preventive war doctrine against threatening regimes, aiming to eliminate potential security threats before they fully materialize. These efforts, while prudent in principle, will only be beneficial if tempered by a strategy that capitalizes on U.S. power and influence, but also recognizes its shortcomings and limitations. Otherwise, heavy-handed U.S. military action will dramatically exacerbate the threats arrayed against it, quite possibly to the point that even the most ambitious counterproliferation efforts will fail.

At first glance, the proposition that the United States will need protective means to shield against and defeat a prospective rogue state WMD attack may appear rather intuitive and unobjectionable. According to classic deterrence theory, however, the sheer terrifying potential of weapons of mass destruction ought to make them suitable only for defensive purposes. In speaking of nuclear weapons, Kenneth Waltz claims: "nothing can be done with them other than to use them for deterrence."¹⁵ In a more imaginative illustration, Robert Sandoval muses:

With the defense of its borders entrusted to forces structured around the firepower of nuclear weapons, any nation not now a nuclear power, and not harboring ambitions for territorial aggrandizement, could walk like a porcupine through the forests of international affairs: no threat to its neighbors, too prickly for predators to swallow.¹⁶

Seemingly confirmed by the nearly half-century of peace during the cold war, this formulation runs into two fundamental dilemmas in the post-cold war era. First, there may be—or could be in the future—WMD "porcupines" in the world that do have ambitions for territorial aggrandizement; some states may use a mutually deterrent relationship to provide strategic cover for local aggression, a phenomenon referred to as the "stability-instability paradox."¹⁷ An actual WMD

of Cold War Deterrence and a New Direction (Lexington: University Press of Kentucky, 2001). In order to make his argument even stronger, a solid link to contemporary examples of how states are actually practicing deterrence is necessary. This article will attempt to bridge these two approaches, drawing from their strengths to build a logical argument that is also based on real-world evidence.

15. Kenneth N. Waltz, "Waltz Responds to Sagan," in Scott D. Sagan and Kenneth N. Waltz, *The Spread of Nuclear Weapons: A Debate* (New York: Norton, 1995), 98.

16. Robert R. Sandoval, "Consider the Porcupine: Another View of Nuclear Proliferation," *Bulletin of the Atomic Scientists* 32, no. 5 (May 1976): 19.

17. Robert Jervis, *The Illogic of American Nuclear Strategy* (Ithaca: Cornell University Press, 1984), 29–34.

attack need not ever be carried out, or even threatened, just that it be enough of a possibility to make the expected costs of military action unacceptable to the United States. In 1990 Saddam Hussein, for one, “saw his extensive arsenal of mass destruction weapons, especially Iraq’s known chemical weapon capacity, as a strategic umbrella to dissuade any foreign interference in his plans” for Kuwait.¹⁸

Second, while a state may not be overtly expansionist, the 9/11 attacks sharpened the world’s awareness toward the danger of allowing unstable or revolutionary regimes to harbor terrorist elements within their borders, plotting for the perfect opportunity to strike. Similarly, even if a state such as North Korea does not have direct links to terrorist networks, it could sell nuclear weapons on the black market that could eventually end up in the wrong hands. In these scenarios, traditional deterrence theory is far from conclusive; mutual deterrence may be strained to the limits, especially if it results in an unacceptable policy outcome for the United States. In sum, deterrence is in a state of flux as regional powers attempt to neutralize American conventional weapon superiority while the United States tries to avoid such vulnerability or overcome its repercussions. How to approach these dangerous situations, when the world community may simply not be able to leave the porcupines of the forest alone, is the main challenge this article seeks to address.

Toward that end, I will first introduce some of the traditional concepts of deterrence theory, outlining several basic assumptions and revealing potential flaws in the theoretical construct. Next, I will address a few implications for international security and analyze the various counterproliferation options available to U.S. policymakers in coping with the declining utility of deterrence. Then, I will examine contemporary evidence of asymmetrical WMD deterrence, focusing in particular on the capabilities, doctrine, and behavior in the 1990–91 Gulf war and the 1993–94 crisis with the Democratic People’s Republic of Korea (DPRK). With these examples, I will draw on the theoretical literature to explain why deterrence failed, may have failed, or succeeded in each case. Finally, I will close by drawing some general conclusions and providing a few recommendations as to which counterproliferation strategies would be most appropriate in responding to the developing global threats.

DETERRENCE THEORY AND ITS FLAWS

DETERRENCE IS a complicated term that traditionally means persuading an opponent that the costs of a particular action will outweigh any potential

18. Haselkorn, *The Continuing Storm*, 19.

benefits.¹⁹ The aspect of persuading an opponent alludes to the psychological nature of deterrence, often an interplay of uncertain promises and threats that may be bluffs or firm commitments. According to the official U.S. Department of Defense definition, “Deterrence is a state of mind brought about by the existence of a credible threat of unacceptable counter action.”²⁰ Also, the word potential highlights the future-oriented nature of any deterrent threat, promising a certain reaction only in response to the undesired choice of another actor.²¹ Underlying any deterrent threat are the closely intertwined concepts of capability and credibility. While capability is reasonably straightforward and quantifiable, based on the military forces that can be brought to bear in a conflict, credibility is a much more fluid and qualitative variable, stemming from the probability that such forces will be used.²² For instance, a state may have very formidable armed forces, but if it is bound by domestic opinion to use them only in defense of the homeland, any strategy of extended deterrence will lack credibility. To reinforce the perception of one’s resolve, a common tactic is to employ commitment techniques that increase the costs of failing to act. This is akin to announcing publicly that one is about to go on a diet so that friends will act as a constant source of pressure to maintain the obligation. In a more dramatic illustration, the military image of “burning bridges” to make retreat impossible is an unambiguous method for cementing one’s resolve. In the words of Thomas Schelling: “What we have to do is get ourselves into a position where we cannot fail to react as we said we would—where we just cannot help it—or where we would be obliged by some overwhelming cost of not reacting in the manner we had declared.”²³ The American decision to post troops in Western Europe as a “tripwire” against Soviet aggression was one instance of bolstering resolve, with the United States making the defense of Europe a more certain prospect by effectively eliminating the choice of retreat and abandonment.

The idea that denying oneself options can actually be beneficial may seem counterintuitive at first. Schelling describes this phenomenon as a “. . . paradox that

19. Alexander George and Richard Smoke, *Deterrence in American Foreign Policy: Theory and Practice*, 11.

20. Quoted in Keith B. Payne, “Deterring the Use of Weapons of Mass Destruction: Lessons from History,” *Comparative Strategy* 14, no. 4 (October/December 1995): 347.

21. If, on the other hand, a form of punishment is administered *until* the other side acts, rather than *if* he acts, the strategy is normally labeled as compellence; Schelling, *Arms and Influence*, 70.

22. According to Scott Sagan, credibility is based on a whole range of components including the perceived interests at stake, one’s reputation for following through on threats, the legitimacy of the conflict, and the audience costs of backing down; Scott D. Sagan, “The Commitment Trap: Why the United States Should Not Use Nuclear Threats to Deter Biological and Chemical Weapons Attacks,” *International Security* 24, no. 4 (Spring 2000): 98.

23. Thomas C. Schelling, *The Strategy of Conflict* (Cambridge: Harvard University Press, 1960), 43.

the power to constrain an adversary may depend on the power to bind oneself.”²⁴ Considering the game of “chicken” may help to clarify this concept. If two cars are about to start accelerating toward one another, it would send a powerful message if one driver chose to throw his steering wheel out the window. The other driver would then have no choice but to concede the contest or suffer catastrophe. Of course, while this technique can be a very effective way of enhancing resolve where interests or capability are lacking, the hidden danger is that it is always possible that both drivers will make the same decision, locking in an even worse outcome than if the position had been surrendered at the outset.²⁵ The crucial factor, then, will be who is able to make the first move, leaving the other with the only “last clear chance” to avoid calamity.²⁶

Finally, beyond committing oneself to a particular course, there is the tactic of issuing a “threat that leaves something to chance,” wherein the final decision of whether to act is not altogether under the threatener’s control.²⁷ This is a gambling technique that plays on the factor of risk-acceptance, assuming that the opposing side will choose to give in first. The classic image is of one person rocking a boat in order to elicit concessions from the other frightened occupants. Schelling uses the term brinksmanship to describe this strategy, the choice of “deliberately letting the situation get somewhat out of hand, just because its being out of hand may be intolerable to the other party and force his accommodation.”²⁸ In keeping with the “chicken” scenario, this would be akin to one driver publicly consuming a large amount of alcohol before stepping into the car, creating doubt in his opponent’s mind that he would be able to avoid collision even if he ultimately desired to do so. In the literature on deterrence, this phenomenon is called the “rationality of irrationality,” since one can draw coercive power from the prospect of being potentially undeterrable.²⁹ Once again, while this can be a particularly potent strategy, it courts disaster by embracing irrationality even though one’s opponent may have done the same or is fully expecting rational behavior in the crisis. Overall, despite the techniques that play out so well in game theory and hypothetical examples, it is always important to remember that deterrence is fundamentally about credibility and its roots in capability and resolve.

On the face of it, nuclear deterrence has a simplicity that is quite compelling: the United States can promise certain and devastating retaliation in response to

24. *Ibid.*, 22.

25. Stephen Maxwell, *Rationality in Deterrence*, Adelphi Paper no. 50 (London: International Institute for Strategic Studies, 1968), 4.

26. Herman Kahn, *Thinking About the Unthinkable* (London: Weidenfeld and Nicolson, 1962), 46.

27. Schelling, *The Strategy of Conflict*, 188.

28. *Ibid.*, 200.

29. Rhodes, *Power and MADness*, 16.

a WMD attack, and since no one in their right mind could tolerate such an outcome, deterrence should hardly be at risk. This is the basic logic that Kenneth Waltz invokes when he offers the assurance that “not much is required to deter.”³⁰ In fact, many scholars are so supremely confident in the power of deterrence that they speak of it “with the reverence of a physical principle,” a universal and timeless formulation that applies in any and all places.³¹ The desire to simplify deterrence theory is understandable; grouping adversaries and relying upon certain assumptions has enormous predictive and prescriptive power.³² Doing so enables policymakers to downplay the more complicated task of investigating who is being deterred and instead merely ensure that the American arsenal is terrifyingly decisive. At the same time, one must also consider that these WMD capabilities must have some substantial value to rogue nations or they would not go through the risk and expense of their development. Saddam Hussein, for instance, was willing to forgo \$15 billion a year in oil revenues in order to defy arms inspectors.³³ Many of these states are likely to see WMD as the only way to win a regional conflict; either by threatening their use to avoid battle altogether or using them to prevail in an asymmetric fashion.³⁴ This next section will investigate the theoretical and historical reasons to maintain a healthy skepticism toward deterrence, exploring asymmetries of interest and risk-taking, commitment tactics, psychological effects and the rationality of the irrational, last resort attacks, and millenarian regimes.

ASYMMETRIES OF INTEREST AND RUNNING RISKS

One major flaw of deterrence theory is that it posits a rational actor and then makes the assumption that a “rational” actor could never choose to risk its own destruction. From time to time, states are willing to accept enormous gambles, even ones that endanger national survival, for important causes. Thucydides described the famous dialogue in 416 B.C. between the Athenian spokesmen and the

30. Waltz, in *The Spread of Nuclear Weapons*, 22.

31. Ken Booth, *Strategy and Ethnocentrism* (London: Croom Helm, 1979), 41; Richard Rosencrance, “Strategic Deterrence Reconsidered,” in *Strategic Deterrence in a Changing Environment*, ed. Chrisoph Bertram (London: International Institute for Strategic Studies, 1981), 7; William C. Martel, “Deterrence and Alternative Images of Nuclear Possession,” in *The Absolute Weapon Revisited: Nuclear Arms and the Emerging International Order*, ed. T. V. Paul, Richard J. Harknett, and James J. Wirtz (Ann Arbor: Michigan University Press, 1998), 215.

32. Keith B. Payne and Lawrence R. Fink, “Deterrence Without Defense: Gambling on Perfection,” *Strategic Review* 17, no. 1 (winter 1989): 28; Rhodes, *Power and MADness*, 14.

33. Gordon, “Bush, Missile Defence, and the Atlantic Alliance,” 23; Edward M. Spiers, *Weapons of Mass Destruction: Prospects for Proliferation* (London: Macmillan, 2000), 39.

34. Robert G. Joseph, “The Role of Nuclear Weapons in U.S. Deterrence Strategy,” in *Deterrence in the 21st Century*, ed. Max G. Manwaring (London: Frank Cass, 2001), 54.

besieged Melians, the latter choosing to risk (and eventually suffering) annihilation and colonization by refusing to end their neutrality in the Second Peloponnesian war.³⁵ Likewise, Keith Payne recounts several instances of states suffering total societal destruction in the wake of war, ranging from the sacking of Carthage at the conclusion of the Third Punic War to the devastation of Kiev by Mongol warriors in 1240. According to Payne, “. . . leaders in the past have known or believed that their decisions would affect the probability of utter societal destruction, at least for them and their society, but that prospect did not render threats thereof reliable instruments for deterrence or coercion.”³⁶

There are also numerous examples of weak states actually attacking the strong, believing that there were no other options open to them or that the resolve of their opponent was quite frail. T. V. Paul studied six asymmetric conflicts of the twentieth Century, from the Russo-Japanese War to the Falklands crisis, observing: “The stronger powers in all the cases anticipated that their own overall superiority in power capability would act as a general deterrent preventing their weaker opponents from engaging in war.”³⁷ Instead, factors beyond mere capability were at play, often with the weaker side hoping for a political victory or judging that the asymmetries of interest were sufficiently in their favor to make military success possible.³⁸ In most regional conflicts, it is likely that local opponents would show considerable resolve given that any war would probably involve their core interests whereas the stakes for the United States might be more peripheral in nature.³⁹ The best illustration of this confidence is once again a variation on the game of “chicken,” with one driver as a convict on death row and the other a man with a family.⁴⁰ In such a match of wills, there will be an inherent advantage in brinkmanship to the side that feels it has “nothing left to lose.” Of course, to take the analogy one step further and incorporate capabilities, it is probably appropriate to depict the American “family man” as driving a large truck relative to the regional adversary. In the words of Colin Gray, however, “The huge disparity in physical strength between the United States and Iraq, Iran, or North Korea is all but beside the point when there is perceived to be no less huge disparity (to the disfavor of the United States) in intensity of national interest at stake.”⁴¹ This

35. Thucydides, *The Peloponnesian War*, translated by Rex Warner (London: Cassell, 1954), 358–66.

36. Keith B. Payne, *Deterrence in the Second Nuclear Age* (Lexington: University of Kentucky Press, 1996), 97.

37. Paul, *Asymmetric Conflicts*, 62–164 and 170.

38. Brad Roberts, “From Nonproliferation to Antiproliferation,” *International Security* 18, no. 1 (summer 1993): 161.

39. Dean Wilkening and Kenneth Watman, *Nuclear Deterrence in a Regional Context* (Santa Monica, Calif.: RAND, 1995), ix.

40. *Ibid.*, 12 n. 14.

41. Colin S. Gray, *The Second Nuclear Age* (London: Lynne Rienner, 1999), 125–26.

is especially true when WMD are involved, which can act as strategic equalizer, a sort of “bomb on the bumper” that would damage even the American truck in the event of a collision. For instance, the oft-quoted Chinese general who told an American envoy: “In the end, you care more about Los Angeles than you do about Taipei,” was demonstrating how asymmetries of interest strengthen their deterrent threat over a Taiwanese conflict.⁴² The Chinese leadership clearly places extremely high priority on restoring its lost province, and hardly anyone would doubt that it is at least possible that China would risk a nuclear exchange to prevent Taiwan’s independence.

The prospect of unpredictable leaders with unknown levels of risk-acceptance poses substantial problems for deterrence theory.⁴³ To be sure, there is little question that the risks involved in threatening or attacking the United States or its allies with WMD would be extraordinary, but it cannot be ruled out, especially when there is an imbalance in interests and resolve.⁴⁴ States in the past have accepted such supreme dangers, even on the level of putting their entire societies in mortal danger, and we would be remiss to assume that they will never do so again.

COMMITMENT TACTICS

As mentioned, while imposing audience costs in a brinkmanship contest can bolster resolve, if a leader’s reputation becomes too invested in a particular stand, a “commitment trap” can develop that creates an obligation to follow through with a threat even into an undesired conflict.⁴⁵ For example, in the build-up to the Sino-Indian war of 1962, Nehru is quoted as having told a colleague, “If I give them [a negotiated settlement], I shall no longer be Prime Minister of India.”⁴⁶ Beyond external constraints, internal psychological momentum can also bind decisionmakers to a commitment once it is made.⁴⁷ Feelings of pride and defiance may coalesce into a rigid determination to stay the course regardless of cost. In the Ussuri River border conflict between the Soviet Union and China in 1969, both sides were determined not to be cowed by nuclear blackmail and

42. Patrick E. Tyler, “As China Threatens Taiwan, It Makes Sure U.S. Listens,” *New York Times*, 24 January 1996; Lindsay and O’Hanlon, *Defending America*, 125.

43. John Arquilla, “Bound to Fail: Regional Deterrence after the Cold War,” *Comparative Strategy* 14, no. 2 (April–June 1995): 127; Martel, “Deterrence and Alternative Images of Nuclear Possession,” 216.

44. Lewis A. Dunn, *Controlling the Bomb: Nuclear Proliferation in the 1980s* (New Haven: Yale University Press, 1982), 83.

45. Sagan, “The Commitment Trap,” 86.

46. Quoted in Kenneth Watman and Dean Wilkening, with John Arquilla and Brian Nichiporuk, *U.S. Regional Deterrence Strategies* (Santa Monica, Calif.: RAND, 1995), 44–45.

47. Janis and Mann, *Decision Making*, 287.

the subsequent military clashes were disturbingly close to escalating into full-scale war.⁴⁸

Another commitment technique is to tie one's hands not through audience costs, but by the actual predelegation of command authority, known in the deterrence literature as setting up a "doomsday machine" or issuing a "threat that leaves something to chance."⁴⁹ Essentially, the authority to carry out a deterrent threat is placed down the chain of command, usually out of fear of the destruction of command/control links and the desire to shore up credibility by increasing the likelihood that there will be retaliation regardless. Shockingly, unknown to most observers, this strategy nearly led to the outbreak of war during the Cuban Missile Crisis. Recently released documents reveal that a Soviet submarine commander was on the verge of launching a nuclear-tipped torpedo in response to the American depth charges that were seeking to force him to the surface. Unaware of what was occurring on land, he is quoted as saying: "Maybe the war has already started up there, while we are doing somersaults here . . . We're going to blast them now! We will die, but we will sink them all. We will not disgrace our navy!" Fortunately the commander relented after conferring with his other officers, though the incident should serve as a sobering reminder of the limited control over wartime situations and the dangers of predelegation.⁵⁰

PSYCHOLOGICAL EFFECTS AND THE RATIONALITY OF THE IRRATIONAL

Recognizing that cool, calculated decision making will tend to strengthen deterrence, states may deliberately or implicitly cultivate a reputation for "irrational" behavior that may paradoxically be a very rational image to project.⁵¹ Nikita Khrushchev is one famous example of a leader who sought to come across as slightly unstable in order to gain leverage in brinkmanship contests.⁵² Beyond such partial deception, there are also many naturally occurring psychological biases and influences that could make a crisis—which by its very nature is inherently

48. Alfred D. Law, *The Sino-Soviet Dispute* (London: Associated University Presses, 1976), 277; Richard Wich, *Sino-Soviet Crisis Politics: A Study of Political Change and Communication* (Cambridge: Harvard University Press, 1980), 166; Harry Gelman, *The Soviet Far East Buildup and Soviet Risk-Taking Against China*, R-2943-AF (Santa Monica, Calif.: RAND, August 1982), 41; Lyle J. Goldstein, "Do Nascent WMD Arsenals Deter? The Sino-Soviet Crisis of 1969," *Political Science Quarterly* 118, no. 1 (spring 2003): 53–79.

49. Rhodes, *Power and MAD ness*, 155.

50. David Gonzalez, "At Cuba Conference, Old Foes Exchange Notes on 1962 Missile Crisis," *New York Times*, 14 October 2002.

51. Patrick M. Morgan, "Saving Face for the Sake of Deterrence," in *Psychology and Deterrence*, ed. Robert Jervis, Richard Ned Lebow, and Janice Gross Stein (Baltimore: Johns Hopkins University Press, 1985), 128; Rhodes, *Power and MAD ness*, 45 and 123.

52. Schelling, *Arms and Influence*, 37.

unstable—"get out of hand" in the heat of the moment.⁵³ The rationality of decisionmakers "may be degraded by factors of personal character or by such adverse circumstances as time pressure, fatigue, and anxiety."⁵⁴ Leaders can become desperate and panic, especially if extremist military cliques or domestic movements threaten their hold on power. In fact, military factions often try to push policy beyond the bounds the national leadership has set, as during the Cuban Missile Crisis and the conflicts between the United States and the DPRK in 1968–69.⁵⁵ More recently, the clashes between India and Pakistan over Kashmir have led some analysts to fear that the tension and political stakes involved have made war possible despite the potential for nuclear escalation.⁵⁶

In some cases, due to psychological effects, the target of a deterrence policy may simply not understand, fully register, or believe a particular threat. They may be resorting to "wishful thinking," or only seeing what they expect or would like to see.⁵⁷ Closely related to this is the concept of "denial" or "defensive avoidance," which involves refusing to fully consider evidence that contradicts a decision that has already been made.⁵⁸ A "mental blinder" such as this is known as a "motivated bias" since it satisfies a psychological need for peace of mind. In essence, when confronted with too many conflicting stimuli, a state of "cognitive dissonance" can develop, resulting in the distortion of information toward what one wants to believe in order to simplify an imminent decision or cope with difficult and dangerous choices.⁵⁹ Through defensive avoidance, evidence to the contrary is explained away, and "the decision maker achieves a state of 'pseudocalm' at the expense of effective search and appraisal."⁶⁰ For example, in the lead-up to the bombing of Pearl Harbor, Admiral Kimmel screened out various warning signs that were mixed in with other intelligence by rationalizing that the Japanese would not dare make a surprise attack.

53. *Ibid.*, 97.

54. Klaus Knorr, *The Power of Nations: The Political Economy of International Relations* (New York: Basic Books, 1975), 41.

55. Dae-sook Suh, *Kim Il Sung* (New York: Columbia University Press, 1988), 239; James G. Blight and David A. Welch, "Risking 'the Destruction of Nations': Lessons of the Cuban Missile Crisis for New and Aspiring States," *Security Studies* 4, no. 4 (summer 1995): 824; Sagan, in *The Spread of Nuclear Weapons*, 52; Joseph S. Bermudez Jr., "The Democratic People's Republic of Korea and Unconventional Weapons," in *Planning the Unthinkable*, ed. Peter R. Lavoy, Scott D. Sagan, and James J. Wirtz (Ithaca: Cornell University Press, 2000), 186–87.

56. Waheguru Pal Singh Sidhu, "India's Nuclear Use Doctrine," in Lavoy, Sagan, and Wirtz, *Planning the Unthinkable*, 143; Rajiv Chandrasekaran, "For India, Deterrence May Not Prevent War," *Washington Post*, 17 January 2002. See also Devin T. Hagerty, "Nuclear Deterrence in South Asia: the 1990 Indo-Pakistani Crisis," *International Security* 20, no. 3 (winter 1995/96): 95.

57. Robert Jervis, *Perception and Misperception in International Politics*, 361.

58. Robert Jervis, "Deterrence and Perception," *International Security* 7, no. 3 (winter 1983/84): 29.

59. Jervis, *Perception and Misperception in International Politics*, 382.

60. Janis and Mann, *Decision Making*, 124.

Based on his analyses of past failures of deterrence, Richard Lebow observed: “When leaders felt themselves compelled to pursue brinkmanship challenges, they frequently rationalized the conditions for their success.”⁶¹ Especially when several individuals are brought together to make a decision, a phenomenon known as “groupthink” can arise, often resulting in a concurrence-seeking tendency and the development of an illusion of invulnerability. Janis and Mann identified several examples of this psychological bias, including Chamberlain’s inner circle in 1937–38, Truman in the lead up to the Korean War, and Kennedy in the Bay of Pigs fiasco.⁶² Once a state is committed to a certain policy, cognitive closure can set in, along with the conclusion that there are no other options available and that the risks involved with the chosen course are minimal.⁶³ Thus, it is always possible that even if a deterrent threat is credible and carefully communicated, the other side may simply not be listening or could misconstrue it as a bluff.

Finally, there is always the prospect that the leadership actually is mentally unbalanced, incapacitated, or following a nonrational method of decision making. The infirmities of old age have affected numerous major political figures; U.S. presidents Woodrow Wilson and Ronald Reagan are among those who required some assistance toward the end of their terms.⁶⁴ Several leaders in the past have abused drugs, including Hitler’s cocaine treatments, Mao’s barbiturate addiction, and South Korean president Park Chung Hee’s alcoholism. Recently declassified U.S. State Department documents reveal that senior U.S. officials considered Park dangerously unstable and prone to issuing “all sorts of orders when he begins drinking” that were fortunately ignored until he became sober.⁶⁵ There are further reports that Saddam Hussein relied on the advice of “soothsayers” to provide assistance in making his ill-fated military decisions during the 1990–91 Gulf war.⁶⁶ While instances of such erratic and unpredictable leaders may be rare, they are certainly dangerous if and when they do arise.⁶⁷ All in all, the potential for misperception and irrationality in crises, be it feigned, deliberate, or actual, poses a significant challenge to the proper functioning of deterrence.

61. Richard Ned Lebow, *Between Peace and War: The Nature of International Crisis* (Baltimore: Johns Hopkins University Press, 1981), 335.

62. Janis and Mann, *Decision Making*, 129; Booth, *Strategy and Ethnocentrism*, 107.

63. Robert Jervis, “Perceiving and Coping with Threat,” in Jervis, Lebow, and Stein, *Psychology and Deterrence*, 32; Frank C. Zagare and D. Marc Kilgour, *Perfect Deterrence* (Cambridge: Cambridge University Press, 2000), 44.

64. Jerome D. Frank, *Sanity and Survival: Psychological Aspects of War and Peace* (London: Cresset, 1967), 60.

65. Payne, *The Fallacies of Cold War Deterrence*, 58–59.

66. *Ibid.*, 44.

67. Yehezkel Dror, *Crazy States: A Counterconventional Strategic Problem* (Lexington, Mass.: Heath Lexington, 1971), xiii.

LAST RESORT ATTACKS

In moments of severe challenge to regime power or national interest, a leader may place certain values such as honor and dignity above life and even national survival. Given a powerful national ideology or religious commitment, there could be a readiness to sacrifice a great deal in its name.⁶⁸ Moreover, faced with a potentially humiliating outcome to a war with the United States and/or its allies, revenge may even become a primary motivating factor. A government in its death throes might attack nihilistically or become obsessed with a martyr complex, feeling that it might as well implement a sort of “Samson” strategy and attempt to bring down its enemies along with itself.⁶⁹ In the words of former Secretary of Defense Perry, such regimes “may not buy into our deterrence theory. Indeed, they may be madder than MAD.”⁷⁰

The concept of “undeterrable” states with leaders willing to sacrifice everything has some historical precedent. Hitler, for instance, called for a scorched earth form of national self-destruction in his infamous Nero orders of 18 and 19 March, 1945.⁷¹ A few months later, even after the atomic bomb devastated Hiroshima, some military leaders in Japan were contemplating a suicidal last stand, with the war minister musing: “Would it not be wondrous for this whole nation to be destroyed like a beautiful flower.”⁷² Such examples defy arguments that deterrence will always be sufficient to hold nations back from carrying out their WMD threat due to the ruinous repercussions.⁷³ It is fully possible that some leaders will be willing to “go down with their state” rather than accept loss of power or experience military defeat.⁷⁴ Even Winston Churchill, notwithstanding his considerable confidence in the nuclear “balance of terror,” still allowed for the “formidable admission” that such a deterrent did not apply to “lunatics or dictators in the mood of Hitler when he found himself in his final dugout.”⁷⁵ In these circumstances, a final revenge

68. *Ibid.*, 7.

69. Seymour M. Hersh, *The Samson Option: Israel, America and the Bomb* (London: Faber, 1991); Lewis A. Dunn, *Containing Nuclear Proliferation*, Adelphi Paper no. 263 (London: International Institute for Strategic Studies, Winter 1991), 24 and 26; Barry R. Schneider, “Strategies for Coping with Enemy Weapons of Mass Destruction,” *Airpower Journal*, special ed. (1996): 42; Haselkorn, *The Continuing Storm*, 151; James M. Lindsay and Michael E. O’Hanlon, “Correspondence,” *International Security* 26, no. 4 (spring 2002): 192.

70. Quoted in Stephen J. Cimbala, *The Past and Future of Nuclear Deterrence* (Westport, Conn.: Praeger, 1998), 107. [MAD stands for “mutually assured destruction.”]

71. Albert Speer, *Inside the Third Reich* (New York: Macmillan, 1970), 440; Joachim Fest, *Speer: The Final Verdict* (London: Phoenix, 1999), 250–51.

72. David McCullough, *Truman* (New York: Simon & Schuster, 1992), 459.

73. Thomas L. Friedman, “Who’s Crazy Here?” *New York Times*, 15 May 2001.

74. Dunn, *Containing Nuclear Proliferation*, 24.

75. Quoted in Fred Charles Iklé, “Can Nuclear Deterrence Last Out the Century?” *Foreign Affairs* 51, no. 2 (January 1973): 269.

attack may actually be “rational” in the mind of a desperate leader despite its consequences.

Many analysts concur, arguing prior to Operation Iraqi Freedom that Saddam Hussein would sooner start a Third World War than give up office voluntarily and that the DPRK would likely launch a WMD attack in the event that the U.S. tried to eliminate its nuclear facilities.⁷⁶ Indeed, given the number of suicide bombers that are willing to sacrifice their lives in the Arab-Israeli conflict, is it really that hard to imagine that a given leader would not at some point volunteer his state to serve that role? Radovan Karadzic, leader of the Bosnian Serbs, implied as much, threatening: “We are not prepared to give up our own self-defense. It is no problem to buy nuclear weapons on the world market. We will really carry it through. *We have nothing to lose.*”⁷⁷ During the Cuban Missile Crisis, Che Guevara and Castro reportedly urged a preemptive strike on the United States, preferring to sacrifice Cuba and “die beautifully” in the fight against American imperialism.⁷⁸ Fortunately, the Soviet vice-premier Anastas Mikoyan was able to overrule them, taking a much more conservative view of the situation.⁷⁹ As Keith Payne notes, however: “In future crises, leaders ready to ‘die beautifully’ may be in control of missiles, and their cost-benefit calculus will not permit the predictable functioning of deterrence.”⁸⁰ Overall, while it may be true that rogue leaders will rarely risk massive retaliation since they “want to have a country that they can continue to rule,” this simple logic becomes upended if regime change or unconditional surrender is the objective, which in many rogue states may end up resulting in the leader’s death.⁸¹

MILLENARIAN REGIMES

More troubling still is the potential that certain regimes will want to carry out WMD attacks regardless of whether their vital interests are threatened. Brad Roberts opines: “Proliferation may put strategic weapons in the hands of messianic leaders

76. Bermudez, “The DPRK and Unconventional Weapons,” 197; Dao, “Pentagon’s Worry: Iraqi Chemical Arms,” *New York Times*, 19 May 2002; Graham, “‘Scorched Earth’ Plans,” *Washington Post*, 19 December 2002; Michael R. Gordon, “Iraq Said to Plan Strategy of Delay and Urban Battle,” *New York Times*, 16 February 2003; Rowan Scarborough, “Saddam Ready to Kill Iraqis, Blame U.S.,” *Washington Times*, 12 March 2003.

77. Philip L. Ritcheson, “Proliferation and the Challenge to Deterrence,” *Strategic Review* 23, no. 2 (spring 1995): 42 (emphasis in original).

78. Blight and Welch, “Risking ‘the Destruction of Nations,’” 842; Payne, *The Fallacies of Cold War Deterrence*, 50.

79. Lt. General Robert T. Kadish, USAF, Speech at Military Appreciation Banquet, Fairbanks Alaska, 2 March 2001.

80. Payne, *The Fallacies of Cold War Deterrence*, 52.

81. Waltz, in *The Spread of Nuclear Weapons*, 13; Wilkening and Watman, *Nuclear Deterrence in a Regional Context*, 36.

seeking to wage wars of ethnic or religious righteousness against what they perceive to be a corrupt, secular world. . . .”⁸² Millenarian states and religious fanatics might seek destruction for its own sake, lashing out against America and its allies in retribution or to serve some higher end. Ramzi Yousef, the mastermind behind the World Trade Center bombing, claimed that he was retaliating for U.S. aid to Israel and hoped to kill 250,000 Americans.⁸³ Even the consequences of devastating American reprisals may be welcomed, justified as an act of martyrdom in service of a deity or ideology.⁸⁴ While individuals, groups, or states with such a frame of mind are probably quite rare, even a low level of incidence is a major cause for concern given the potential effects of WMD. After all, it took just over a dozen hijackers to bring down the World Trade Center towers, and there are similar networks of terror around the world; it is difficult to see how such covert organizations can be reliably deterred.

In the final analysis, there is no magic formula to ensure deterrence; in every instance the ultimate decision rests with the state being deterred. There are a variety of psychological, cultural, and political variables that can affect an adversary’s reaction to a deterrent threat, and their response can never be guaranteed by any amount of military capability.⁸⁵ Keith Payne explains:

The tremendous lethality of nuclear weapons may usefully focus leadership attention on occasion. Even very lethal threats, however, cannot bring to an end the enormous capacity of leaders to have poor judgment, impaired rationality, to pursue ‘unreasonable’ goals and embrace unreasonable values, to be ignorant, passionate, foolish, arrogant, or selectively attentive to risks and costs, and to base their actions on severely distorted perceptions of reality.⁸⁶

In general, in light of the magnitude of U.S. power, deterrence should work quite well, especially in cases of overt aggression against vital American interests, such as territorial defense of allies and the homeland. It is worth remembering, however, that deterrence has failed many times in the past, and even nuclear powers have come quite close to war despite the harrowing potential for escalation. In the event of an adversary actually employing WMD, the exception would certainly prove the rule, upending any confidence in a stable order based on

82. Roberts, “From Proliferation to Antiproliferation,” 161.

83. Jessica Stern, “Terrorist Motivations and Unconventional Weapons,” in Lavoy, Sagan, and Wirtz, *Planning the Unthinkable*, 215–16.

84. William E. Burrows and Robert Windrem, *Critical Mass: The Dangerous Race for Superweapons in a Fragmenting World* (London: Simon & Schuster, 1994), 19; Martel, “Deterrence and Alternative Images of Nuclear Possession,” 221.

85. Gordon A. Craig and Alexander L. George, *Force and Statecraft: Diplomatic Problems of Our Time*, 3rd ed. (Oxford: Oxford University Press, 1995), 208.

86. Payne, *The Fallacies of Cold War Deterrence*, 75.

deterrence.⁸⁷ Overall, the burden of proof is clearly on the side that holds that such an attack could never occur. As AJP Taylor noted: “A deterrent may work ninety-nine times out of a hundred. On the hundredth occasion it produces catastrophe.”⁸⁸ The next section will address ways to prevent such an occurrence, or reduce its harmful effects.

STRATEGIC CONSIDERATIONS AND COUNTERPROLIFERATION OPTIONS

THE PRECEDING analysis suggests that deterrence is in a state of flux; U.S. officials will have to make agonizing decisions by balancing the value of a particular foreign policy action against the risk that it will result in a breakdown of deterrence and the possibility of disastrous harm. Paradoxically, the excessive power of American nuclear weapons may make an adversary’s threat to use WMD—especially chemical-biological weapons (CB)—more credible; expecting that the U.S. counterattack is likely to remain conventional, a regional aggressor may decide that using unconventional weapons to complement an asymmetric military strategy is worth the risk. As a result, the potential for deterrence failure against a rogue state may be the very condition for deterrence success against America. The Cuban Missile Crisis of 1962, during which the United States had an overwhelming advantage in local conventional and nuclear capability, demonstrated how constrained decisionmakers can feel when confronted with even a low probability of a devastating response to military action.⁸⁹ U.S. strategic thinkers are quite aware of this tension; according to the *National Security Strategy*: “These weapons may also allow these states to attempt to blackmail the United States and our allies to prevent us from deterring or repelling the aggressive behavior of rogue states.”⁹⁰ The mere possession of WMD might be sufficient to splinter a coalition, complicating over-flight rights, aircraft basing, and force projection operations in a regional conflict. Allies, often closer to the war zone than the United States, may have significantly different risk tolerances or vulnerabilities, making them more susceptible to coercive tactics.⁹¹ Operationally, American deployment strategies and warfighting maneuvers could be severely constrained by the hazards of presenting fixed targets, potentially reducing military effectiveness.⁹² Moreover, once

87. Richard K. Betts, “Universal Deterrence of Conceptual Collapse? Liberal Pessimism and Utopian Realism,” in *The Coming Crisis: Nuclear Proliferation, U.S. Interests, and World Order*, ed. Victor A. Utgoff (Cambridge: MIT Press, 2000), 52.

88. Quoted in Payne, *Deterrence in the Second Nuclear Age*, xi.

89. *Ibid.*, 25.

90. U.S. Government, *National Security Strategy*, 15.

91. Schneider, “Strategies for Coping with Enemy Weapons of Mass Destruction,” 37.

92. Robert G. Joseph, “Regional Implications of NBC Proliferation,” *Joint Forces Quarterly*, no. 9 (autumn 1995): 68.

war has begun, WMD capabilities may be instrumental in limiting American or allied war aims, as some suspect occurred during the 1990–91 Gulf war when the coalition held back from invading Baghdad.

Might the solution then be to avoid situations that would result in a rogue state feeling driven to make such grave threats? Containment, after all, seems to have worked with the Soviet Union and hence many would like to see it applied to rogue states as well.⁹³ Perhaps the United States could, as Stephen Walt argues, combine deterrence with reassurance and promise not to overthrow a suspect regime as long as it abstains from aggression.⁹⁴ Kenneth Waltz essentially advocates this viewpoint, accepting that with nuclear proliferation, the U.S. “militarily punishing small countries for behavior we dislike would become much more perilous.”⁹⁵ Waltz’s answer is far less satisfactory, though, if the behavior America “dislikes” is a rogue state providing sanctuary for international terrorist groups, or pursuing limited coercive military operations against a neighboring country that might not clearly qualify as aggression. Further, a noninterference pact of this kind could allow a rogue state to clandestinely build up its WMD arsenal until the point that it feels confident enough to challenge U.S. interests; such a strategy does not ameliorate the potential for the United States to be self-deterred. In fact, rogue states may actually become more aggressive if they feel that their WMD have neutralized the U.S. strategic arsenal, calculating that they enjoy a conventional advantage over local adversaries. Extending mutually assured destruction on a multilateral basis would open a Pandora’s box of uncertainty over what would or would not be defended. Every conflict would be an exercise in brinksmanship, with each side hoping—or gambling—that the other had enough restraint to keep the fighting on a conventional level.

In sum, security threats do not disappear if the United States adopts a reactive stance and chooses to leave states alone until they commit aggression on a scale that merits an unmistakable and undeterrable response. Rogue states are still capable of causing a great deal of damage without resorting to overt aggression, perhaps through attempts at blackmail or interference in regional politics. In an era of mass globalization and modern technology, enabling a few individuals to kill thousands and potentially millions, perhaps through covert means, the containment “box” is becoming more porous than ever, hardly a sturdy barrier against creeping regional threats and terrorism. Security, unfortunately, no longer seems to end at one’s

93. Litwak, *Rogue States and U.S. Foreign Policy*, 152; William Raspberry, “Our Insane Focus on Iraq,” *Washington Post*, 9 September 2002; *New York Times*, “In Defense of Deterrence,” 10 September 2002.

94. Stephen M. Walt, “Containing Rogues and Renegades: Coalition Strategies and Counterproliferation,” in Utgoff, *The Coming Crisis*, 224.

95. Waltz, in *The Spread of Nuclear Weapons*, 111.

border, for the dangers can come from all directions at any time, and the harm caused can be virtually irreparable. The United States cannot necessarily afford the luxury of relying on the threat of punishment or regime removal to deter the use of WMD; chemical, biological, and nuclear weapons have taken the rungs out of the escalation ladder, creating a world in which the first break in the WMD taboo is likely to be catastrophic.

As we can see, basing deterrence almost exclusively on retaliatory measures is becoming increasingly problematic as weapons of mass destruction proliferate around the globe and into unpredictable hands. In response, U.S. strategy has begun to focus on reducing the expected costs of engaging rogue states, known in military circles as “counterproliferation.” The shift toward augmenting deterrence with capabilities for protection and defense began with Secretary of Defense Les Aspin’s chartering of the Defense Counterproliferation Initiative in 1993, consolidated into the Defense Threat Reduction Agency (DTRA) in 1998. Though recently perceived as virtually synonymous with the Bush Doctrine and its focus on preemption, in reality the U.S. counterproliferation strategy is based on several objectives including nonproliferation, active defense, passive defense/consequence management, and counterforce.

NONPROLIFERATION

The use of export controls to prevent potential adversaries from acquiring advanced weaponry has always been the most sensible first line of defense. During the cold war, the United States created the Coordinating Committee for Multilateral Export Controls (COCOM) to deny sophisticated technology to the Soviet Union, and a veritable alphabet soup of arms control agencies and treaties are in place today to limit the spread of WMD. Unfortunately, the intense secrecy of weapons programs and the difficulty in placing restrictions on dual-use items has made this effort a very modest success.⁹⁶ Iraq in particular shocked the world with the degree to which it was able to quietly procure the precursors to its arsenal of WMD, often directly from suppliers in the West.⁹⁷ The Internet is also proving to be a useful tool for proliferators, prompting the Bush administration to withdraw

96. David Albright, “A Proliferation Primer,” *Bulletin of Atomic Scientists* 49, no. 5 (June 1993): 14. Dual-use items are goods developed for civilian purposes, but which can be used for military applications or to produce weapons.

97. Kenneth R. Timmerman, *The Death Lobby: How the West Armed Iraq* (London: Fourth Estate, 1992); David Kay, “Denial and Deception Practices of WMD Proliferators: Iraq and Beyond,” *Washington Quarterly* 18, no. 1 (winter 1995): 85–105; Robert W. Chandler, with Ronald J. Trees, *Tomorrow’s War, Today’s Decisions: Iraqi Weapons of Mass Destruction and the Implications of WMD-Armed Adversaries for Future U.S. Military Strategy* (McLean, Va.: AMCODA Press, 1996), 129.

scores of technical documents relating to CB weapons production from the web and begin drafting a new information security policy.⁹⁸

On a more positive note, notwithstanding the much publicized Indian and Pakistani tests in 1998 and the suspicions surrounding Iran and North Korea, nuclear nonproliferation measures have shown significant progress, mostly through the Cooperative Threat Reduction Program. Parallel to this effort, the United States has made a major financial and political commitment to the G-8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, which intends to raise over twenty billion dollars in ten years to help maintain control over the dismantlement of much of the former Soviet Union's nuclear programs. Following off of several instances of successful interdiction of trade and the apprehension of dangerous international terrorists, the United States is also advocating the Proliferation Security Initiative to seize suspected arms shipments from proliferators and rogue states.⁹⁹ On the whole, since any effective arms control measures mean less proliferation, it is sensible for the United States to act on a multilateral basis whenever it can to limit WMD sales and technical assistance. Even North Korea, despite the recent heated exchanges and acknowledgment of its clandestine uranium enrichment program, has expressed interest in reaching a comprehensive agreement with the United States concerning security on the Korean peninsula and DPRK proliferation activities.¹⁰⁰

ACTIVE DEFENSE

As the prospects for effective nonproliferation dwindle, government officials are giving much more attention and funding to missile defense programs.¹⁰¹ Often maligned as a pipe dream that seeks to "hit a bullet with a bullet," some observers feel that the low reliability of such a system combined with its susceptibility to countermeasures means that it is unlikely to provide many strategic

98. William J. Broad, "U.S. Tightening Rules on Keeping Scientific Secrets," *New York Times*, 17 February 2002.

99. Patrick E. Tyler, "No Chemical Arms Aboard China Ship," *New York Times*, 6 September 1993; Thomas E. Ricks and Peter Slevin, "Spain, U.S. Seize N. Korean Missiles," *Washington Post*, 11 December 2002; Sarah Lyall, "Arrest of Terror Suspects in London Turns up a Deadly Toxin," *New York Times*, 8 January 2003; Richard C. Paddock and Barbara Demick, "N. Korea's Growing Drug Trade Seen in Botched Heroin Delivery," *Los Angeles Times*, 21 May 2003; Nicholas Kralev, "U.S. Asks Aid Barring Arms From Rogue States," *Washington Times*, 5 June 2003.

100. Paul Eckert, "North Korea Calls for Talks on Arms," *Washington Post*, 23 October 2002; "North Korea's Response," Text by *New York Times*, 26 October 2002; Philip Shenon, "North Korea Says Nuclear Program Can be Negotiated," *New York Times*, 3 November 2002; James Brooke, "North Korea Eases Its Stance on Talks Over Nuclear Program," *New York Times*, 12 April 2003.

101. James Dao, "Pentagon Optimistic About Missile Shield," *New York Times*, 15 April 2002; Greg Miller, "U.S. Claims 90% Hit Rate in Missile Plan," *Los Angeles Times*, 19 March 2003.

benefits.¹⁰² Referring to the current National Missile Defense (NMD) proposal, one group of analysts assert: "Confidence in the effectiveness of the planned NMD system would not be high enough to increase U.S. freedom of action beyond the level already achieved through deterrence."¹⁰³ The chance, however small, that even one missile might defeat the NMD system and destroy a city would instill extreme caution in U.S. foreign policy. On the other side of this debate are those who feel that any uncertainty over accuracy will affect the enemy as well, and it is worth "raising the admission price" of potential WMD attacks as high as possible.¹⁰⁴ U.S. missile defenses could act as a "psychological deterrent," providing important insurance against attack and making the willingness to use force more credible.¹⁰⁵ As Lindsay and O'Hanlon put it: "... even a porous missile defense could enhance deterrence by forcing an attacker with limited capability to contemplate the possibility that any attack would be futile and fatal."¹⁰⁶

Both arguments have merit, and ultimately the decision will come down to what form of insurance is worth the premium. In brinkmanship situations, if an adversary is hoping to deter the United States, will it likely rely heavily on a long-range missile threat? The sources of danger will multiply as cruise missiles proliferate, weapons perfectly suited for carrying biological weapons (BW) and capable of extreme accuracy if coupled with Global Positioning System (GPS) technology.¹⁰⁷ Choosing defensive technologies against this panorama of threats will require careful prioritization, especially with research into promising boost-phase options and sophisticated theatre missile defense (TMD) technologies competing for budget resources. Further complicating matters is the uncertainty and mistrust borne of the revelation that the Patriot missile launcher's success in the 1990–91 Gulf war was a myth, sparking challenges of NMD and TMD performance and test results

102. Richard L. Garwin, "A Defense That Will not Defend," *Washington Quarterly* 23, no. 3 (summer 2000): 110; William J. Broad, "Achilles' Heel in Missile Plan: Crude Weapons," *New York Times*, 27 August 2001.

103. George Lewis, Lisbeth Gronlund, and David Wright, "National Missile Defense: An Indefensible System," *Foreign Policy* no. 117 (winter 1999/2000): 128.

104. Henry Kissinger, *Does America Need a Foreign Policy?* (New York: Simon & Schuster, 2001), 69; U.S. Department of Defense, *Nuclear Posture Review* (Washington, D.C.: 31 December 2001). Available at <http://www.globalsecurity.org/wmd/library/policy/dod/npr.htm>.

105. Jerome H. Kahan, "Deterrence and Warfighting in an NBC Environment," in *The Niche Threat: Detering the Use of Chemical and Biological Weapons*, ed. Stuart E. Johnson (Washington, D.C.: National Defense University Press, 1997), 54; Stephen J. Hadley, "A Call to Deploy," *Washington Quarterly* 23 no. 3 (summer 2000): 100; Gordon, "Bush, Missile Defence and the Atlantic Alliance," 18.

106. Lindsay and O'Hanlon, *Defending America*: 20.

107. Rex R. Kiziah, Lt. Col, USAF, *Assessment of the Emerging Biocruse Threat*, The Counterproliferation Series, Future Warfare Series No. 6 (Maxwell Air Force Base, Alabama: Air War College, August 2000).

that continues to this day.¹⁰⁸ All in all, there is a great deal of skepticism regarding missile defense systems and much of it is justified. Nevertheless, the unique coercive power of ballistic and cruise missiles justifies further testing of new defensive technologies to see whether they are technically feasible and cost-effective.

PASSIVE DEFENSE/CONSEQUENCE MANAGEMENT

Considering the fallibility of nonproliferation efforts and missile defenses, it is imperative to try and limit the destructiveness of WMD attacks should they ever occur. Given their smaller claim on resources relative to other counterproliferation missions, passive defenses can be justifiably described as offering “more ‘anti-bang’ for the buck.”¹⁰⁹ Military gaming exercises show that CB detection and defense capabilities can significantly boost U.S. resolve, giving soldiers confidence that they can fight and win in a contaminated environment.¹¹⁰ In response, the Department of Defense (DoD) is developing a whole range of sensors, masks, decontamination systems, and medical kits for soldiers in the field.¹¹¹ Similar to the psychological deterrent power of missile defenses, effective passive defense measures are likely to create uncertainty in the mind of an adversary that their WMD use would succeed, causing them to fear inviting repercussions without any military gain. To reinforce this perception, the U.S. military is gradually expanding its training for operations involving WMD, including the use of simulations, the creation of special response teams and medical units, and the exploration of new doctrine and operational tactics to limit vulnerability.¹¹² While there are surely shortcomings in certain areas and significant room for improvement, the progress in CB defense capabilities was reflected in assessments that coalition soldiers in Operation Iraqi Freedom were reasonably well prepared to withstand a chemical weapons (CW) attack.¹¹³

108. Rick Atkinson, *Crusade: The Untold Story of the Gulf War* (London: HarperCollins, 1994), 79; Bradley Graham, “Improved Air Defense Gets Tryout in Combat,” *Washington Post*, 21 March 2003.

109. Betts, “Universal Deterrence or Conceptual Collapse?” 79.

110. Joseph, “The Role of Nuclear Weapons in U.S. Deterrence Strategy,” 58.

111. Spiers, *Weapons of Mass Destruction: Prospects for Proliferation*, 134; U.S. Department of Defense, *Threat and Response* (Washington, D.C.: January 2001), 85–90; John Hendren, “Pentagon Battles Unknown Preparing for a Toxic War,” *Los Angeles Times*, 29 September 2002; Teresa Riordan, “Plastic Pods for Biological Attacks,” *New York Times*, 30 September 2002.

112. U.S. Department of Defense, Chemical and Biological Defense Program, *Annual Report to Congress and Performance Plan* (Washington, D.C.: April 2002); Ann Scott Tyson, “For Army, A New Primer in Chemical War,” *Christian Science Monitor*, 21 October 2002; John Diedrich, “SpaceCom Improves Ability to Dodge Scuds,” *Colorado Springs Gazette*, 31 January 2003.

113. Matt Kelley, “Iraq Can Make Chemical Weapons That Penetrate U.S. Protective Gear,” *Associated Press*, 17 November 2002; Peter Baker, “But What if the Iraqis Strike First?” *Washington Post*, 23 January 2003; Romesh Ramesar, “Can They Strike Back?” *Time*, 3 February 2003;

Such training, investment, and innovation should be mirrored on the domestic level to improve the skills and equipment of first-responders and Civil Support Teams in major cities.¹¹⁴ Especially after the anthrax attacks in the fall of 2001 and subsequent reports of a plot to detonate a “dirty bomb” in a U.S. city, the threat of WMD has without question become a domestic concern. Border security is taking on newfound importance, bolstered by the development of portable pager-sized nuclear detection devices that can sense minute amounts of radioactive material.¹¹⁵ Unfortunately, producing comparable biological weapon detectors is proving much more of a challenge, prompting research into advanced technologies such as tissue-based biosensors as well as specialized environmental and public health monitoring systems to improve detection speed and sensitivity.¹¹⁶

On the surface, it seems that the Bush Administration understands the need for developing such defensive technologies, having requested eleven billion dollars over two years to protect the nation against bioterror.¹¹⁷ Beyond the well-publicized smallpox vaccine shots prior to Operation Iraqi Freedom, Bush has also proposed a \$6 billion program called Project Bioshield that would encourage private firms to conduct research into new vaccines against threats like anthrax and experiment with novel techniques like artificial antibodies to potentially treat smallpox after infection. Some studies, however, have found that the Bush administration’s current Homeland Security program is far too shallow to afford genuine protection and leaves many areas, especially critical industries like food supplies and oil refineries, dangerously unprepared for a catastrophic terrorist attack.¹¹⁸

Matthew Cox and William Matthews, “The Best Protective Gear in the World?” *Air Force Times*, 24 February 2003; Tony Capaccio, “Iraq Probably Can’t Mount Major Chemical Attack, General Says,” *Bloomberg.com*, 4 March 2003.

114. See Richard A. Falkenrath, Robert D. Newman, and Bradley A. Thayer, *America’s Achilles’ Heel: Nuclear, Biological, and Chemical Terrorism and Covert Attack* (Cambridge: MIT Press, 1998); Bill Miller, “Denver Stages Mock Terror Attack,” *Washington Post*, 23 February 2002.

115. Barton Gellman, “Fears Prompt U.S. to Beef Up Nuclear Terror Detection,” *Washington Post*, 3 March 2002; Steven Johnson, “Stopping Loose Nukes,” *Wired* 10, no. 11 (November 2002); Anthony L. Kimery, “Searching for ‘Dirty Bombs,’” *Insight Magazine*, 21 January 2003; Joby Warrick, “Bush to Seek Funds for Fighting ‘Dirty Bombs,’” *Washington Post*, 30 January 2003; Philip Shenon, “Border Inspectors to Look for Radioactive Material,” *New York Times*, 1 March 2003.

116. U.S. Department of Defense, *Threat and Response*, 119; Judith Miller, “U.S. is Deploying a Monitor System for Germ Attacks,” *New York Times*, 22 January 2003; Spencer S. Hsu, “Sensors May Track Terror’s Fallout,” *Washington Post*, 2 June 2003.

117. Judith Miller, “Bush to Request Big Spending Push on Bioterrorism,” *New York Times*, 4 February 2002.

118. Jim A. Davis and Barry R. Schneider, eds., *The Gathering Biological Warfare Storm* (Maxwell Air Force Base, Alabama: USAF Counterproliferation Center, April 2002); Gary Hart and Warren B. Rudman, co-chairs of Council on Foreign Relations Task Force, *America Still Unprepared—America Still in Danger*, 17 October 2002; Stephen Smith, “U.S. Farms Called Vulnerable to Terrorism,” *Boston Globe*, 22 November 2002; Brad Knickerbocker, “Risk of Terrorism to Nation’s Food Supply,” *Christian Science Monitor*, 24 December 2002.

Despite the considerable financial burden, it is important to have sufficient investment in these areas to protect both soldiers in the field and civilians at home, providing some level of safety if the unthinkable does occur.

COUNTERFORCE

Fearing that none of these largely defensive measures will be adequate, military analysts and government officials are increasingly considering the prospect of preemptive strikes against WMD facilities, eliminating them before they can be used or threatened in wartime.¹¹⁹ This new strategic outlook was articulated in a recent article by Secretary of Defense Donald Rumsfeld: "It is not possible to defend against every threat, in every place, at every conceivable time. Defending against terrorism and other emerging threats requires that we take the war to the enemy. The best—and, in some cases, the only—defense is a good offense."¹²⁰ The challenge, though, will be how to make the "offense" successful, given that "we can expect future WMD target sets to be large, extremely difficult to find, hardened, well-protected, and located next to things or people we do not want to damage or injure."¹²¹ If there are too many targets to be able to place confidence in even the most thorough of air campaigns to destroy them all—indeed, there are more than 1,100 hardened and deeply buried facilities known to be in existence¹²²—then a preemptive attack runs the risk of provoking the very attack it intended to foreclose. The reliability of target identification ought to be tempered by the experience of the 1990–91 Gulf War, after which target planners were shocked at how badly they underestimated the number of Iraqi WMD facilities.¹²³ Conversely, the apparent overestimation of Iraqi WMD stockpiles during Iraqi Freedom also does little to instill faith in the ability of the intelligence community to develop an accurate target set.¹²⁴

Even if all of the WMD targets could be identified and destroyed,¹²⁵ there is still the serious danger of causing collateral damage through their demolition. During

119. Wilkening, *Ballistic-Missile Defence and Strategic Stability*, 7; Michael J. Glennon, "Preempting Terrorism: The Case for Anticipatory Self-Defense," *Weekly Standard* 7, no. 19 (28 January 2002): 26; U.S. Government, *National Security Strategy*, 15.

120. Donald H. Rumsfeld, "Transforming the Military," *Foreign Affairs* 81, issue 3 (May/June 2002): 20–32.

121. Chandler, *Tomorrow's War, Today's Decisions*, 156.

122. U.S. Department of Defense, *Nuclear Posture Review*.

123. Chandler, *Tomorrow's War, Today's Decisions*, 154.

124. Walter Pincus, "U.S. Has Still Not Found Iraqi Arms," *Washington Post*, 26 April 2003; Barton Gellman, "Frustrated, U.S. Arms Team to Leave Iraq," *Washington Post*, 11 May 2003; Greg Miller, "Analysis of Iraqi Weapons 'Wrong,'" *Los Angeles Times*, 31 May 2003; Michael Duffy, "Weapons of Mass Disappearance," *Time*, 9 June 2003.

125. In order to be able to destroy such underground structures, the Department of Defense is reconsidering the employment of tactical nuclear weapons, lobbying to lift a ban on their

Operation Desert Fox in 1998, Secretary of Defense William Cohen left many Iraqi CB facilities off the target list, remarking: "We're not going to take a chance and try to target any facility that would release any kind of horrific damage to innocent people."¹²⁶ This is a significant lesson for any rogue state hoping to secure sanctuary for its WMD. As a result, extensive research is underway on technologies like high-power microwave weapons (that would disable the electricity and communications of a facility), high-temperature incendiaries (that would seek to burn up any released material) and even special foam (that would seal off a site and render it unusable without releasing its contents).¹²⁷ Finally, mobile ballistic and cruise missile launchers are incredibly difficult to hunt down and destroy. In fact, during the 1990–91 Gulf war, there was not a single confirmed kill of a mobile Scud launcher.¹²⁸ In order to rectify this shortcoming, DOD is now employing advanced unmanned aerial vehicles (UAVS) and new hyper-spectral imaging satellites that will be capable of dwelling on-site or achieving rapid enough revisit rates to enable persistent surveillance.¹²⁹ With more accurate and versatile sensors (like J-STARS and AWACS), the development of improved data fusion

development and creating a tumult by announcing that it is developing contingency plans against seven states for their use. While some analysts argue that bunker busting nuclear weapons are necessary to bolster deterrence, there is a growing consensus that such a strategy will fall prey to the same flaws that have foiled all plans for tactical nuclear weapons before: they simply cannot be used without causing unacceptable radioactive fallout. Instead, development is proceeding on new conventional options such as penetrating "thermobaric" bombs (called BLU-118Bs) or advanced munitions that can employ a "hard target smart fuze" to delay detonation. See Eric M. Sepp, *Deeply Buried Facilities: Implications for Military Operations*, Occasional Paper no. 14 (Maxwell Air Force Base, AL: Air War College, May 2000); U.S. Department of Defense, *Threat and Response*, 90; National Defense University, *The Counterproliferation Imperative*, 30; Paul Richter, "U.S. Works up Plan for Using Nuclear Arms," *Los Angeles Times*, 9 March 2002; David G. Savage, "Nuclear Plan Meant to Deter," *Los Angeles Times*, 11 March 2002; William J. Broad, "Call for New Breed of Nuclear Arms Faces Hurdles," *New York Times*, 11 March 2002; Amy Scott Tyson, "Nuclear Plan Changes Calculus of Deterrence," *The Christian Science Monitor*, 14 March 2002; Rose Gottemoeller, "On Nukes, We Need to Talk," *Washington Post*, 2 April 2002; Michael A. Levi, *Fire in the Hole: Nuclear and Non-Nuclear Options for Counterproliferation*, Working Paper no. 31 (Washington, D.C.: Carnegie Endowment, November 2002); Richard T. Cooper, "Making Nuclear Bombs 'Usable,'" *Los Angeles Times*, 3 February 2003; James C. Dao, "Senate Panel Votes to Lift Ban on Small Nuclear Arms," *New York Times*, 10 May 2003.

126. Steven Lee Myers, "The Targets: Jets Said to Avoid Poison Gas Sites," *New York Times*, 18 December 1998.

127. Bryan Bender, "USA Planning Warhead to Hit CB Weapons," *Jane's Defence Weekly* 31, issue. 12 (24 March 1999): 63; John Hendren, "U.S. Studies Foam Bombs Among Options to Isolate Chemicals," *Los Angeles Times*, 18 July 2002; David A. Fulghum, "Microwave Weapons May Be Ready for Iraq," *Aviation Week & Space Technology*, 5 August 2002; Michael Smith, "Saddam to be Target of Britain's 'E-Bomb,'" *London Daily Telegraph*, 26 August 2002; Michael Sirak, "U.S. Air Force Set to Acquire Chem-Bio 'Agent Defeat' Weapons Soon," *Jane's Defence Weekly*, 4 December 2002.

128. Chandler, *Tomorrow's War, Today's Decisions*, 111.

129. U.S. Department of Defense, *Nuclear Posture Review*; Eric Schmitt, "U.S. Would Use Drones to Attack Iraqi Targets," *New York Times*, 6 November 2002; Jonathan Finer, "A High-Tech Pilot Who Keeps His Feet on the Ground," *Washington Post*, 7 March 2003.

capabilities should produce near-real-time intelligence that will enhance counter-missile operations.¹³⁰

Despite the admirable progress in counterforce technologies, there are international law complications and enormous political difficulties inherent in carrying out a preemptive attack, as exemplified in the furor leading up to Operation Iraqi Freedom. The evolving U.S. strategy against WMD, basing anticipatory action more on an adversary's possession rather than imminent use of such weapons, is really most accurately defined as a doctrine of preventive war, dealing with a problem well before it becomes a crisis.¹³¹ Since rogue states are cultivating links with terrorist networks, as well as tending to invest in asymmetric military options that may not require an obvious mobilization and massing of force, warning of impending action is likely to be nearly nonexistent. Placing one's faith in containment and waiting for some sign of malicious intent may only be delaying the inevitable day of reckoning to be fought on much worse terms and under a threat of catastrophic destruction. Yet, a doctrine of destroying the WMD of America's most threatening potential adversaries, some who may genuinely only seek a deterrent against America's massive conventional superiority, is likely to be overly ambitious, provoking international resistance, and perhaps at some point severe retaliation. There are no easy answers, and ultimately U.S. policymakers will have to make a careful balance of the costs of action versus inaction; as one observer put it: "Is it worth the price of another war to try to deny North Korea the atomic bomb?"¹³²

One way to change the nature of the question itself is through the aforementioned counterproliferation strategies, for if they are seen as effective then adversaries will be less likely to run the risk of using WMD and may not even bother to develop such weapons in the first place. On the other hand, if they are deemed a failure, rogue states may be emboldened to make challenges to international security, confident that the United States and its allies will find the dangers of a response too great and end up self-deterred. The next section will address two examples of how international conflict involving WMD have played out in the real world, hopefully providing some lessons as to how counterproliferation ought to be implemented.

130. Chandler, *Tomorrow's War, Today's Decisions*, 127; Ann Roosevelt, "New Systems Could Improve 'Next Great Scud Hunt,'" *Defense Week*, 25 November 2002; Mark Thompson, "The Great Scud Hunt," *Time*, 23 December 2002.

131. U.S. Government, *National Security Strategy*, 15; Lawrence Freedman, "Prevention, Not Preemption," *Washington Quarterly* 26, no. 2 (spring 2003): 107.

132. Barry R. Schneider, *Radical Responses to Radical Regimes: Evaluating Preemptive Counterproliferation*, McNair Paper no. 41 (Washington, D.C.: NDU Press, May 1995), 33.

DETERRENCE WITH WMD: CRISIS AND CONFLICT
WITH IRAQ AND THE DPRK

WE HAVE seen that history is full of surprises; states attack unexpectedly, make rash decisions, and take astounding risks even in the face of military disaster. Such examples reveal the theoretical wrinkles in the assumption of rationality, and thereby raise considerable doubt over the reliability of deterrence itself. We have also seen that there are many counterproliferation options available to policymakers wishing to minimize the potentially overwhelming costs of deterrence failure. It remains to be seen, though, how these theoretical and strategic variables operate in practice, and more importantly how to integrate their insights. In the past, nearly without exception, states have only employed WMD when their opponents lacked a comparable capability, implying that restraint—or deterrence in some sense—would be likely if the potential to cause major destruction was mutual.¹³³ How well, then, do deterrent threats hold up in asymmetric regional conflicts or crises when backed by catastrophic weapons on both sides? While very few cases with such conditions exist, this section will investigate two in particular: the 1990–91 Gulf war, and the 1993–94 U.S.–North Korea crisis, examining the likely causes of deterrence success or failure in both.

U.S.–IRAQ AND THE GULF WAR (1990–91)

Despite once being its de facto ally and major arms supplier, the United States was never quite at ease with the rapid advancement of Iraq's WMD capabilities, especially under the presidency of Saddam Hussein. Israel certainly shared this concern, going so far as to make a preemptive strike on Iraq's Osirak nuclear reactor in 1981.¹³⁴ The extensive use of CW during the war with Iran only exacerbated these misgivings, as Iraq experimented with a whole range of toxins and nerve gases. The conflict turned especially brutal toward the end, when Iraq fired more than 160 Scuds toward Tehran alone during the infamous War of the Cities in early 1988.¹³⁵ Hussein also stepped up the CW attacks, the most egregious of which occurred at Halabja in March of 1988, when a mixture of mustard gas and the

133. Bailey, *Doomsday Weapons in the Hands of Many*, 63.

134. Shai Feldman, "The Bombing of Osirak—Revisited," *International Security* 7, no. 2 (fall 1982): 114–42; Burrows and Windrem, *Critical Mass*, 38.

135. David B. Ottaway, "In Mideast, Warfare With a New Nature," *Washington Post*, 5 April 1988; Thomas L. McNaughter, "Ballistic Missiles and Chemical Weapons: The Legacy of the Iran-Iraq War," *International Security* 15, no. 2 (fall 1990): 5.

nerve agents sarin, tabun, and vx killed over 5,000 Iraqi civilians, most of them Kurds.¹³⁶

The Iraqi willingness to employ unconventional weapons became yet a greater worry once the remnants of the alliance with the United States fell apart and Iraq began to make preparations for the annexation of Kuwait. Hussein minced no words in attempting to capitalize on this fear, warning in May of 1990 that any military aggression against him would be met by a counterattack to “sweep away U.S. influence in the region.”¹³⁷ Around the same time he made a similar threat to Israel, alluding to his binary CW arsenal: “I swear to God that we shall burn half of Israel if it tries to wage anything against Iraq.”¹³⁸ In a meeting with the American ambassador just prior to invading Kuwait, Hussein broadened his threat to include terrorist reprisals against the United States, stating: “We cannot come all the way to you in the United States, but individual Arabs may reach you.”¹³⁹ Tariq Aziz, then Iraq’s foreign minister, soon extended this admonition to all of America’s allies, contending that Iraq would be “free of any moral constraint” if attacked.¹⁴⁰

After occupying Kuwait, as tensions mounted toward war, Hussein also tried to raise the prospect of mass casualties, promising: “. . . whoever attacks Iraq will find in front of him columns of dead bodies which may have a beginning but may not have an end.”¹⁴¹ According to some reports, Iraq openly and ostentatiously loaded and then removed chemical weapons from aircraft in an attempt to deter military action.¹⁴² Once the coalition air strikes began, Hussein became even more explicit regarding the potential for WMD use, commenting in an interview with a CNN reporter: “I pray to God I will not be forced to use these [nonconventional] weapons, but I will not hesitate to do so should the need arise.”¹⁴³ *Al-Qadisiya*, a prominent Iraqi newspaper, intoned a few days later: “We will use whatever power

136. Youssef M. Ibrahim, “Iran Reports New Iraqi Gas Raids, And Says Cities May be Hit Next,” *New York Times*, 2 April 1988; Patrick E. Tyler, “Both Iraq and Iran Gassed Kurds in War, U.S. Analysis Finds,” *Washington Post*, 3 May 1990; Adel Darwish and Gregory Alexander, *Unholy Babylon: The Secret History of Saddam’s War* (London: Victor Gollancz, 1991), 78; Christine Gosden, “Why I Went, What I Saw,” *Washington Post*, 11 March 1998.

137. Quoted in Amatzia Baram, “The Iraqi Invasion of Kuwait: Decision-Making in Baghdad,” in *Iraq’s Road to War*, ed. Amatzia Baram and Barry Rubin (London: Macmillan, 1994), 11.

138. *Ibid.*

139. Dilip Hiro, *Desert Shield to Desert Storm: The Second Gulf War* (New York: Routledge, 1992), 92.

140. Efraim Karsh and Inari Rautsi, *Saddam Hussein: A Political Biography* (London: Brassey’s, 1991), 232.

141. Haselkorn, *The Continuing Storm*, 35; Falkenrath, Newman, and Thayer, *America’s Achilles’ Heel*, 82.

142. R. Jeffrey Smith, “U.S. Warns of Retaliation if Iraq Uses Poison Gas,” *Washington Post*, 9 August 1990; Karsh and Rautsi, *Saddam Hussein: A Political Biography*, 232.

143. Con Coughlin, *Saddam: The Secret Life* (London: Macmillan, 2002), 268.

and weapons are at our disposal, starting from kitchen knives to weapons of mass destruction.”¹⁴⁴ Even the Iraqi ambassador to the UN, Abd al-Amir al-Anbari, warned: “If the high-altitude bombings against Iraq are not stopped, we would have no choice but to resort to weapons of mass destruction.”¹⁴⁵ Most dramatically of all, just before the Coalition ground campaign Hussein insinuated the possibility of imminent CW use by asking “the people of justice” to “forgive Iraq for any action they will initiate.”¹⁴⁶ In essence, Hussein attempted to initially deter the United States and the coalition forces from intervening at all, and then from taking the war too far by threatening to launch CW attacks against allied troops, Israel, and Saudi Arabia.

The United States, for its part, was certainly not a silent recipient of such dire warnings. Bush wrote a letter to Saddam Hussein that was delivered to Tariq Aziz, stating that if chemical or biological weapons are used, “The American people would demand the strongest possible response. You and your country will pay a terrible price if you order such unconscionable action of this sort.”¹⁴⁷ The envoy to that meeting, Secretary of State James Baker, made the most explicit counterthreat in person:

If the conflict starts, God forbid, and chemical or biological weapons are used against our forces, the American people would demand revenge, and we have the means to implement this. This is not a threat, but a pledge that if there is any use of such weapons, our objective would not be only the liberation of Kuwait, but also the toppling of the present regime. Any person who is responsible for the use of these weapons would be held accountable in the future . . . we will not permit terrorism to be directed against Americans or against their partners in this coalition, and we will not allow any attempt to destroy Kuwaiti oilfields.¹⁴⁸

After hostilities began in January, Defense Secretary Cheney reiterated the point, stressing that “were Saddam Hussein foolish enough to use weapons of mass destruction, the U.S. response would be absolutely overwhelming and devastating.”¹⁴⁹

Since there is no concrete evidence that Iraq resorted to WMD during the Gulf war, most analysts draw the conclusion that U.S. threats to that effect were

144. John Swain and James Adams, “Saddam Gives Local Commanders Go-Ahead for Chemical Attacks,” *Sunday Times*, 3 February 1991.

145. Karsh and Rautsi, *Saddam Hussein: A Political Biography*, 260.

146. Timothy McCarthy and Jonathan Tucker, “Saddam’s Toxic Arsenal: Chemical and Biological Weapons in the Gulf Wars,” in Lavoy, Sagan, and Wirtz, *Planning the Unthinkable*, 68.

147. George Bush and Brent Scowcroft, *A World Transformed* (New York: Knopf, 1998), 442.

148. Quoted in Lawrence Freedman and Efraim Karsh, *The Gulf Conflict 1990–1991: Diplomacy and War in the New World Order* (London: Faber and Faber, 1993), 257.

149. Robert Toth, “American Support Grows for Use of Nuclear Arms,” *Los Angeles Times*, 3 February 1991.

successful.¹⁵⁰ Indeed, if postwar accounts from the Iraqi leadership and military command are accurate, there was little doubt that they believed the coalition (as well as Israel) was prepared to use nuclear weapons or topple Hussein had Iraq attacked with CW.¹⁵¹ This assessment, however, is usually unqualified, and presented without much direct evidence to substantiate such a significant finding. Sometimes the “proof” is as spurious as claiming that since copies of Bush’s letter were found all around Iraq after the war, the threats therein must have been effective.¹⁵² Very few commentators ask the decisive question of whether deterrence would have continued to hold firm if coalition forces had begun to directly threaten Hussein’s grip on power with an attack on Baghdad itself. While just such a military operation has taken place over ten years later, considerable uncertainty and disagreement remains even now over why Iraq did not turn to WMD—if it had them—as a last resort option.¹⁵³ Moreover, even if we judge deterrence to be a success in the present day, it would not prove that similar restraint would have prevailed under quite different circumstances in 1991.

Counterfactuals like this, of course, have no easy answers. One critical indicator of Hussein’s intentions is the nature of his WMD capabilities and deployments at the time, for such preparations would hardly be made without any intent for their use in combat or as a tool of deterrence. Much of our knowledge of these aspects comes from either UN weapons inspections or information from the defection in August 1995 of Hussein’s son-in-law, Hussein Kamil Hassan al-Majid, who was in charge of Iraq’s BW program after its launch in 1985. We now know, for instance, that Iraq deployed 191 weapons (both aerial bombs and missiles) carrying BW to two sites before the Gulf war, and had thirty CW Scud warheads ready for launch.¹⁵⁴ Moreover, as late as December 1990, Iraq was working on a spray tank

150. Waltz, in *The Spread of Nuclear Weapons*, 13; Robin Ranger and David Wiencek, *The Devil’s Brews II: Weapons of Mass Destruction and International Security*, Bailrigg Memorandum 17 (Lancaster: Centre for Defence and International Security Studies, 1997); Daniel Byman, Kenneth Pollack, and Matthew Waxman, “Coercing Saddam Hussein: Lessons from the Past,” *Survival* 40, no. 3 (autumn 1998): 132; Robert G. Joseph and John F. Reichart, *Deterrence and Defense in a Nuclear, Biological, and Chemical Environment* (Washington, D.C.: National Defense University Press, 1999), 19; Robert Litwak, *Rogue States and U.S. Foreign Policy*, 41; Jan Lodal, *The Price of Dominance: The New Weapons of Mass Destruction and Their Challenge to American Leadership* (New York: Council of Foreign Relations, 2001), 25.

151. William M. Arkin, “Calculated Ambiguity: Nuclear Weapons and the Gulf War,” *Washington Quarterly* 19, no. 4 (autumn 1996): 3–18; Chandler, *Tomorrow’s War, Today’s Decisions*, 64; Leonard A. Cole, *The Eleventh Plague: The Politics of Biological and Chemical Warfare* (New York: W. H. Freeman and Company, 1997), 128.

152. Walter Pincus, “Military Study Mulls Deterrence of ‘Fear,’” *Washington Post*, 5 July 2001.

153. Tony Capaccio, “U.S. Tactics May Have Blunted Iraqi Chemical Threat,” *Bloomberg.com*, 8 April 2003; Brian Knowlton, “War Largely Going as Planned, Pentagon Says,” *New York Times*, 9 April 2003; Therese Delpech, “The Weapons Hunt,” *Wall Street Journal*, 16 April 2003.

154. Raymond A. Zilinskas, “Iraq’s Biological Warfare Program: The Past as Future?” in *Biological Weapons: Limiting the Threat*, ed. Joshua Lederberg (Cambridge: MIT Press, 1999), 141;

to deliver anthrax by a remotely piloted plane.¹⁵⁵ According to Rolf Ekeus, then chief UN arms inspector, BW were “Baghdad’s last trump card and could have been fired immediately—which is really unique. Bombs with biologically effective material were already stationed at military air bases and rocket launching sites. This is an absolute novelty—worldwide.”¹⁵⁶

As for CW preparation, there is evidence that Iraq conducted missile tests and even established chemical decontamination sites for protection.¹⁵⁷ UNSCOM inspections confirmed that Iraq deployed gas-filled 155 mm artillery and 122 mm multiple rocket rounds into the rear areas of the war theatre. Shockingly, Iraq’s chemical weapons had no special visible markings, and were often stored in the same area as conventional weapons.¹⁵⁸ Overall, given the unlikely U.S. initiation of WMD use, the extensive weaponization and deployment of Iraq’s chemical-biological (CB) capability casts doubt on claims that such weapons were solely a deterrent against U.S. nuclear strikes and would never be used first under any circumstances, as they were designed much more for war fighting than revenge attacks.

One crucial point of contention is whether or not Saddam Hussein actually predelegated control over any CB weapons to lower-level commanders, a “commitment tactic” normally used to enhance credibility. Some analysts argue that CB authority was quite circumscribed and probably released on a very strict basis, if at all.¹⁵⁹ The growing consensus on this issue, however, is that Hussein did authorize local commanders to launch CW in the event of his death or the destruction of command and control links.¹⁶⁰ Recent scholarship reveals that Hussein probably hedged his bets against the dangers of unauthorized WMD use on one hand and the risk of a decapitation blow against him on the other, granting authority to a special unit commander to carry out a revenge attack in the event of a coalition nuclear

Haselkorn, *The Continuing Storm*, 13 and 26; McCarthy and Tucker, “Saddam’s Toxic Arsenal,” 54.

155. Chandler, *Tomorrow’s War, Today’s Decisions*, 78. The remotely piloted plane was probably not operational, however, and would have been quite vulnerable given U.S. air superiority. See Zilinskis, “Iraq’s Biological Warfare Program: The Past as Future?” 146.

156. Haselkorn, *The Continuing Storm*, 1–2.

157. *Ibid.*, 37.

158. Anthony H. Cordesman, *Iran’s Military Forces in Transition: Conventional Threats and Weapons of Mass Destruction* (Westport: Praeger 1999), 251.

159. Lawrence Freedman and Efraim Karsh, “How Kuwait Was Won: Strategy in the Gulf War,” *International Security* 16, no. 2 (fall 1991): 34; Ranger and Wiencek, *The Devil’s Brews II*, 43.

160. Dunn, *Containing Nuclear Proliferation*, 21; Elaine Sciolino, *The Outlaw State: Saddam Hussein’s Quest for Power and the Gulf Crisis* (New York: Wiley, 1991), 258; Hiro, *Desert Shield to Desert Storm*, 337; Chandler, *Tomorrow’s War, Today’s Decisions*, 90; Paul Bracken, *Fire in the East: The Rise of Asian Military Power and the Second Nuclear Age* (New York: HarperCollins, 1999), 40; Haselkorn, *The Continuing Storm*, 49; Sagan, “The Commitment Trap,” 109; Joseph Cirincione, with John B. Wolfsthal and Miriam Rajkumar, *Deadly Arsenals: Tracking Weapons of Mass Destruction* (Washington, D.C.: Carnegie Endowment for International Peace, June 2002), 279.

strike.¹⁶¹ Iraqi officials stress the second-strike nature of this capability; Hussein himself is even reported as stating that Iraq “knew its limits” and well understood the mismatch between Israel’s nuclear capability and his own country’s chemical one.¹⁶²

While uncertainty remains over whether Iraq would have actually escalated to WMD if Hussein’s hold on power came into jeopardy, the reported contingency plans lead to the conclusion that it was certainly possible if not probable. This assessment is supported by British, U.S., and Israeli intelligence reports at the time that viewed CB attacks as likely in any event, and all but assured if Iraq was defeated and Hussein felt he was on the brink of being ousted.¹⁶³ Most telling, Central Command’s Situation Report on 24 February, the eve of the ground war, stated that it expected Iraq to initiate chemical operations within twenty-four hours.¹⁶⁴ As Iraqi scholar Amatzia Baram puts it: “The logic behind [Hussein’s predelegation] is that he preferred Baghdad be annihilated rather than conquered by the Allied forces.”¹⁶⁵ Iraq clearly began “rocking the boat” with its missile attacks on Israel, and sent a particularly potent signal when it launched a missile toward the Israeli nuclear facility at Dimona. This was quite a dangerous decision, especially since Israel was barely restrained from striking back.¹⁶⁶ As Scott Sagan has remarked, “How could Saddam Hussein have been absolutely certain that Israel would not retaliate with nuclear weapons? Governments take gambles, especially when they are in desperate straits.”¹⁶⁷ Notably, this missile—a Scud variant known as “al Hijarah”—was full of hardened concrete, an indication that it was capable of containing BW.¹⁶⁸ Avigdor Haselkorn concludes that this missile was not a mistake, but the indirect delivery of a last-resort threat. According to Haselkorn, “Saddam was apparently hoping to convince his enemies that if they were thinking about toppling him, he was ready to bring down Israel and perhaps

161. McCarthy and Tucker, “Saddam’s Toxic Arsenal,” 76; Kenneth Pollack, “Why Iraq Can’t be Deterred,” *New York Times*, 26 September 2002.

162. Van Crevelde, *Nuclear Proliferation and the Future of Conflict*, 117.

163. Swain and Adams, “Saddam Gives Local Commanders Go-Ahead for Chemical Attacks,” *Sunday Times*, 3 February 1991; Lisa Beyer, “Coping with Chemicals,” *Time*, 25 February 1991; Tom Masland with Douglas Waller, “Are we Ready for Chemical War?” *Newsweek*, 4 March 1991; Michael R. Gordon and General Bernard E. Trainor, *The General’s War* (New York: Little, Brown, 1995), 355; Haselkorn, *The Continuing Storm*, 59; Judith Miller, Stephen Engleberg, and William Broad, *Germs: The Ultimate Weapon* (London: Simon & Schuster, 2001), 113; Richard L. Russell, “CIA’s Strategic Intelligence in Iraq,” *Political Science Quarterly* 117, no. 2 (summer 2002): 200.

164. Arkin, “Calculated Ambiguity,” 7.

165. Amatzia Baram, “Saddam Husayn: Between his Power Base and the International Community,” *Middle East Review of International Affairs* 4, no. 4 (December 2000): 19.

166. Atkinson, *Crusade*, 84.

167. Sagan, in *The Spread of Nuclear Weapons*, 129 (emphasis in original).

168. Ofra Bengio, *Saddam’s World: Political Discourse in Iraq* (New York: Oxford University Press, 1998), 201; see also http://www.fas.org/nuke/guide/iraq/missile/al_hussein.htm.

the entire Middle East with him.”¹⁶⁹ In sum, it is not completely clear that Hussein was ever actually deterred; it is possible that “the fighting ended before the U.S. (or, for that matter, Israeli) deterrence could be put to the test.”¹⁷⁰ Indeed, if the Gulf war was definitive proof of the futility of threatening the use of CB weapons, one must explain the various reports of Iraqi warnings—though admittedly now it appears that they were backed up with questionable capabilities—of a red line around Baghdad that was to serve as a tripwire for CW use during Operation Iraqi Freedom.¹⁷¹

When looked at in this way, the question is not simply whether Iraq was deterred from using WMD, but indeed whether the United States itself was deterred from achieving all of its objectives in Operation Desert Storm. While it is true that the United States never explicitly identified ousting Hussein as its war aim, there is ample evidence that this was highly desired; Bush called upon the Iraqi people to “take matters into their own hands, to force Saddam Hussein, the dictator, to step aside,” and even remarked that the American people did not want to “let Saddam get away.”¹⁷² With nearly all U.S. analysts reassuring Bush that Hussein would surely fall on his own, though, there was little reason to continue fighting even if much of the Iraqi army was in full retreat.¹⁷³ To be sure, there would have been other major obstacles in taking the war to Baghdad; U.S. policymakers noted the costs of occupation and dealing with a hostile population, potentially transforming Hussein into a nationalist hero, and opening up the region to Iranian influence through the “Lebanonization of Iraq.”¹⁷⁴ At the same time, there were some military officers who did not want to call for a ceasefire, instead urging that

169. Haselkorn, *The Continuing Storm*, 72–75. Based on interviews with U.S. government officials, if this was Hussein’s intent, the message was not adequately communicated and the al Hijarah missile did not affect coalition war operations. Buster Glosson, phone interview with author, 26 August 2003; Brent Scowcroft, phone interview with author, 28 August 2003; James Baker, phone interview with author, 20 November 2003.

170. Haselkorn, *The Continuing Storm*, 85; Sagan, “The Commitment Trap,” 91.

171. Graham, “‘Scorched Earth’ Plans,” *Washington Post*, 19 December 2002; Philip Sherwell and David Wastell, “Iraq Has Poison Bombs,” *London Sunday Telegraph*, 23 February 2003; Jaffe, “Intelligence Suggests Hussein Allowed Chemical-Weapon Use,” *Wall Street Journal*, 20 March 2003; Sanger, “U.S. Officials Fear Iraqis Plan to Use Gas on G.I.s,” *New York Times*, 25 March 2003; Bernard Weinraub, “Army Reports Iraq is Moving Toxic Arms to its Troops,” *New York Times*, 28 March 2003; Gertz, “Coalition Still Wary of Chemical Weapons,” *Washington Times*, 5 April 2003.

172. Bush and Scowcroft, *A World Transformed*, 483; Atkinson, *Crusade*, 303; see also James A. Baker III, with Thomas M. DeFrank, *The Politics of Diplomacy* (New York: Putnam’s, 1995), 408 and Secretary of State Baker’s comment that there is “unfinished business” in Gordon and Trainor, *The General’s War*, 416.

173. Michael Sterner, “Closing the Gate: The Persian Gulf War Revisited,” *Current History* 96 no. 606 (January 1997): 14; Andrew Cockburn and Patrick Cockburn, *Out of the Ashes: The Resurrection of Saddam Hussein* (London: Verso, 2000), 37.

174. Patrick E. Tyler, “Stirring the Iraqi Pot,” *New York Times*, 21 March 1991; Yuen Foong Khong, “Vietnam, the Gulf, and U.S. Choices: A Comparison,” *Security Studies* 2, no. 1 (autumn 1992): 89; Baker, *The Politics of Diplomacy*, 435–37; Cockburn and Cockburn, *Out of the Ashes*, 24.

a push on Baghdad could be achieved with minimal casualties on both sides.¹⁷⁵ Even General Schwarzkopf commented in a postwar interview—later recanting after Colin Powell reminded him that he had an opportunity to air those views during the conflict—that his recommendation would have been to “continue the march” since the mission was not just to liberate Kuwait, but to destroy Iraq’s offensive capabilities as well.¹⁷⁶

Bush, despite recognizing that there “hasn’t been a clean end,” felt that the original mission was accomplished and pushing beyond it would be a political mistake, likely resulting in the dissolution of the fighting coalition.¹⁷⁷ Granting that the dangers inherent in continuing the war were quite legitimate, what is nevertheless amazing is that there is scarcely even a mention of the specter of WMD use that remained the Iraqi wildcard, nor of the intense danger that Israel would attempt to unilaterally destroy the Iraqi WMD capability if missile attacks continued. Indeed, there seems to be no public record whatsoever indicating that Iraq’s unconventional weapons were a reason for the cessation of hostilities.¹⁷⁸ This omission is particularly surprising given how frank some of the same decisionmakers were about expressing their concerns regarding Iraq’s potential WMD threat in the lead-up to Operation Iraqi Freedom.¹⁷⁹ Bush’s advisors, though, insist that Iraq’s suspected CB arsenal played no part in the Gulf war cease-fire decision.¹⁸⁰ Such disregard is unusual given the nearly universal alarm over Iraq’s CB potential both before and during the war, but military strategists probably discounted the Iraqi threat due to the rudimentary design of its warheads and delivery methods.¹⁸¹ Whether the cease-fire strategic assessment would have been the same had the U.S. officials been aware of the true magnitude of the BW threat they faced is another matter.

175. Atkinson, *Crusade*, 475; Gordon and Trainor, *The General’s War*, 423, 452, and 476.

176. R. W. Apple Jr., “Allies Destroy Iraqis’ Main Force; Kuwait is Retaken After 7 Months,” *New York Times*, 28 February 1991; Sterner, “Closing the Gate: The Persian Gulf War Revisited,” 16. For Schwarzkopf’s clarification, see General H. Norman Schwarzkopf, with Peter Petre, *It Doesn’t Take a Hero* (London: Bantam, 1992), 497 and Colin Powell, with Joseph E. Persico, *A Soldier’s Way* (London: Arrow Books, 1995), 524.

177. Bush and Scowcroft, *A World Transformed*, 489; James Dao, “Senior Bush Defends ’91 Decision on Iraq,” *New York Times*, 1 March 2003.

178. William L. Dowdy and Barry R. Schneider, “On to Baghdad? Or Stop at Kuwait? A Gulf War Question Revisited,” *Defense Analysis* 13, no. 3 (December 1997): 323; Samuel Berger, Caspar Weinberger, and Senator Joseph Biden, Hearing on Iraq before the Foreign Relations Committee, U.S. Senate, Washington, D.C., 1 August 2002.

179. Brent Scowcroft, “Don’t Attack Saddam,” *Wall Street Journal*, 15 August 2002; John Diamond, “Split over Iraq Grows more Public,” *USA Today*, 19 August 2002. See also Avigdor Haselkorn, “Iraq’s Bio-Warfare Option: Last Resort, Preemption, or a Blackmail Weapon?” *Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science* 1, no. 1 (2003): 19–26.

180. Scowcroft, phone interview; Baker, phone interview.

181. Gordon and Trainor, *The General’s War*, 414; Russell, “CIA’s Strategic Intelligence in Iraq,” 200; Michael R. Gordon, “Iraq Said to Plan Tangling the U.S. in Street Fighting,” *New York Times*, 26 August 2002; Joby Warrick, “Uncertain Ability to Deliver a Blow,” *Washington Post*, 5 September 2002.

As with any counterfactual analysis, though some conclusions are possible, one cannot make a definitive determination of who was successful in deterring whom. Identifying deterrence failures, fortunately, is a much easier task. On the Iraqi side, it certainly appears that Saddam Hussein misjudged the United States, especially in regards to his initial warning that a conflict against Iraq would turn into the “mother of all battles.” His menacing threats to create “columns of dead bodies” did not stop the coalition forces from following through with Desert Storm and ejecting the Iraqis from Kuwait, even with the knowledge (albeit underestimated) of Iraq’s CB capability. Moreover, U.S. forces were even confident enough to target Hussein himself with super penetrator munitions, a remarkably foolhardy objective if they truly feared WMD retaliation in the wake of a decapitation strike.¹⁸² American deterrence failures include Hussein choosing to initially invade Kuwait and hold his ground despite massive coalition forces aligned against him and American promises that his aggression would not stand. Significant controversy remains over how clear American threats were prior to the invasion of Kuwait, but regardless it was an undeniably bold and aggressive move by Iraq against U.S. interests.¹⁸³ Theoretically, it appears that Hussein believed the asymmetries of interest involved were sufficient to enable a victory despite Baghdad’s inferior military capabilities. Saddam Hussein also took a major gamble in flouting Baker’s threat to hold accountable those who commit terrorism against coalition partners or attempt to destroy Kuwaiti oilfields. Hussein did it all, apparently without fear of the consequences, raining missiles down on Israeli and Saudi cities, directing a (mostly failed) global terrorism effort, and setting oil wells ablaze in the last days of the war, causing one of the worst environmental disasters ever. Even if somehow Iraq was aware of the Bush administration’s private decision not to employ nuclear weapons in the event of an Iraqi CW or similarly unconventional attack, this is still the most unambiguous failure of a specific deterrent threat.¹⁸⁴

On the positive side of the ledger, it does appear that U.S. deterrent threats made Hussein think twice about using his WMD; after all, Iraqi restraint prevailed amidst a sweeping and humiliating defeat in the land war. While some analysts speculate that nonuse may have been due to interrupted communications or a lack of atropine injectors to prevent self-contamination, this cannot fully explain the absence of CW in the long-range Scud launches or the scarcity of CW in the Kuwaiti

182. Byman, Pollack, and Waxman, “Coercing Saddam Hussein: Lessons from the Past,” 141; Cockburn and Cockburn, *Out of the Ashes*, 34.

183. Thomas L. Friedman, “Envoy to Iraq, Faulted in Crisis, Says She Warned Hussein Sternly,” *New York Times*, 21 March 1991; Darwish and Alexander, *Unholy Babylon*, 268, 270, and 275; Janice Gross Stein, “Deterrence and Compellence in the Gulf, 1990–91: A Failed or Impossible Task?” *International Security* 17, no. 2 (fall 1992): 152–56; Baram, “The Iraqi Invasion of Kuwait,” 20; Cockburn and Cockburn, *Out of the Ashes*, 84; Said K. Aburish, *Saddam Hussein, The Politics of Revenge* (London: Bloomsbury, 2000), 282.

184. Baker, *The Politics of Diplomacy*, 359; Bush and Scowcroft, *A World Transformed*, 463.

theatre if mass devastation was Iraq's strategic intention.¹⁸⁵ It is much more likely that Hussein was concerned about an Allied nuclear response, or the prospect of being forcibly ousted from power. At the same time, it also looks as if Hussein was able to prevent the United States from directly challenging his regime, even when pushing on to Baghdad would not have been a particularly taxing mission. There are many credible reasons for this restraint, and Iraq's CB may have been low on the list, but the fact that the coalition forces were equipped with gas masks and Israel inspected every missile attack for CW indicates an underlying fear that deterrence could fail. Even Colin Powell acknowledged that the possibility of a BW attack was his greatest nightmare during the war, and coalition intelligence reports reflected this concern.¹⁸⁶ How, then, can so many authors express such unqualified confidence that deterrence worked entirely in America's favor during the Gulf War? It seems more accurate to argue that both sides "rocked the boat" but neither was willing to take matters too far.

U.S.-NORTH KOREA (1993–94)

Even though its nuclear research program dates back to the 1950s, by the mid-1980s North Korea's main communist benefactors, China and the Soviet Union, were providing less than certain defense support, leading the DPRK to decide to develop a secret nuclear weapons capability as a deterrent against U.S. military intervention.¹⁸⁷ During a covert refueling of their operating reactor in 1989, U.S. intelligence agencies estimate that the DPRK extracted and potentially reprocessed approximately 10–12 kg of plutonium, which is sufficient fissile material for at least two nuclear devices, depending on its design.¹⁸⁸ North Korea is also suspected of having produced a wide range of CB weapons—an estimated stockpile of 2,500 to 5,000 tons—and ballistic missiles with nearly intercontinental range.¹⁸⁹ Overall, despite the recently rescinded Agreed Framework of 1994, North Korea's nuclear program remains largely a mystery to the outside world, and is becoming even more so now that International Atomic Energy Agency (IAEA) inspectors have been expelled from the country.

185. Sciolino, *The Outlaw State*, 262; Stephen D. Bryen, "Ironic Chemistry: The UN Boosts Saddam's Threat," *Wall Street Journal*, 9 December 2002.

186. Powell, *A Soldier's Way*, 503–4. Primakov, the Russian foreign minister, worried that Hussein suffered from a "masada complex." See Atkinson, *Crusade*, 283.

187. Victor D. Cha, "The Second Nuclear Age: Proliferation Pessimism Versus Sober Optimism in South Asia and East Asia," *Journal of Strategic Studies* 24, no. 4 (December 2001): 91.

188. Joseph S. Bermudez Jr., "Exposing North Korea's Secret Nuclear Infrastructure—Part Two," *Jane's Intelligence Review* 11, no. 8 (August 1999): 42; Joseph S. Bermudez Jr., *The Armed Forces of North Korea* (New York: I. B. Tauris, 2001), 8.

189. Joseph S. Bermudez Jr., "The Rise and Rise of North Korea's ICBMs," *Jane's International Defense Review* 32, no. 7 (1 July 1999); Bermudez, "The DPRK and Unconventional Weapons," 191.

Diplomatically, ever since Reagan's "modest initiative" in 1988, the United States has sought to engage North Korea, all the while communicating a tough stance of firm resolve and deterrent power. Relations were improving dramatically in December of 1991, when North and South Korea concluded their Joint Declaration on the Denuclearization of the Korean Peninsula—now nullified—renouncing nuclear reprocessing or uranium enrichment and providing for mutual inspections.¹⁹⁰ Unfortunately, after a promising initial meeting in New York in January of 1992, IAEA inspections later that year at Yongbyon uncovered evidence that three plutonium separations may have taken place in 1989, prompting accusations of cheating and demands for evidence of the missing plutonium.¹⁹¹ The United States presented satellite photos indicating further deception in February of 1993, enraging members of Congress and leading North Korea to announce its intention to withdraw from the Non-Proliferation Treaty (NPT). As Korea expert Don Oberdorfer put it, "The announcement of the withdrawal was treated as an incomprehensible act of defiance and an ominous sign that North Korea was hell-bent on the production of nuclear weapons."¹⁹² Some on Capitol Hill and in the American media began pressing for tough counteraction, including the consideration of military options.¹⁹³ Talks recommenced later that year, culminating in a joint statement that suspended the North Korean withdrawal threat one day before it was to take effect.

With this temporary reprieve in hand, the IAEA returned to its demand of full inspections, even though North Korea was actively seeking a middle ground that allowed a continuity of monitoring but forbade investigation into its prior potential diversion of fissile material.¹⁹⁴ Some bargaining took place, as the United States raised the option of providing a proliferation-resistant light water reactor (LWR) and discussed the possible tradeoff of inspections in return for a suspension of the U.S.-South Korean military training known as Team Spirit Exercises. Talks were never consistent, however, and soon broke down amidst reports of a North Korean military buildup along the DMZ and a reconsideration of sanctions by the United States. With inspections still on hold, the IAEA announced that its monitoring equipment would soon run out of film and batteries, placing at risk the ability to ensure that North Korea would not remove more plutonium from the reactor. About this time, in November of 1993, President Clinton claimed on NBC's "Meet the Press" that "North Korea cannot be allowed to develop a nuclear

190. Marcus Noland, *Avoiding the Apocalypse: The Future of the Two Koreas* (Washington, D.C.: Institute for International Economics, 2000), 147.

191. Don Oberdorfer, *The Two Koreas: A Contemporary History* (London: Warner Books, 1997), 270.

192. *Ibid.*, 280.

193. Litwak, *Rogue States and U.S. Foreign Policy*, 210.

194. Michael J. Mazarr, *North Korea and the Bomb: A Case Study in Nonproliferation* (London: Macmillan, 1995), 128.

bomb.”¹⁹⁵ South Korean president Kim Young Sam backed this assessment, stating: “North Korea’s nuclear development should be stopped by all means.”¹⁹⁶

Relations continued to plummet with the start of the new year, as the United States prepared to send reinforcements to the peninsula, including Patriot missiles, and began to plan for Team Spirit Exercises. A new visit by the IAEA in March of 1994 failed to guarantee that plutonium had not been reprocessed since the previous visit, but fortunately seemed able to preserve the continuity of its monitoring capabilities.¹⁹⁷ Talks remain stymied, and became heated, as a North Korean official broadcast declared that the new military steps by the United States and South Korea had “pushed the situation to a very dangerous brink of war.”¹⁹⁸ The most dramatic remark, though, came from the North Korean negotiator at Panmunjom, Park Yong Su, who made the now famous warning to his South Korean counterpart: “Seoul is not far from here. If a war breaks out, it will be a sea of fire. Mr. Song, it will probably be difficult for you to survive.”¹⁹⁹ As in the dialogue leading up to Desert Storm, the United States responded forcefully to this deterrent threat, with Secretary of Defense William Perry issuing a sharp warning that the United States intended to stop North Korea from developing a substantial arsenal of nuclear weapons even at the potential cost of another war on the Korean peninsula.²⁰⁰

As if tensions were not high enough, crisis struck in April 1994 when Kim Il Sung announced that the major reactor at Yongbyon would be shut down a second time so that spent fuel rods from its core could be removed, potentially permanently erasing evidence of its past defueling. Surprisingly, Kim coupled this revelation with two remarkably conciliatory interviews in which he disowned the “sea of fire” comment by calling it “a mistake,” renounced any nuclear ambitions, and called for a recommencement of talks with the United States.²⁰¹ Focusing on North Korea’s actions rather than its words, the United States proved that Perry’s statement was far from empty rhetoric; along with harsh economic sanctions, subsequent accounts now reveal that the United States was also contemplating a

195. Bermudez, “The DPRK and Unconventional Weapons,” 189. Later, after various U.S. officials speculated that North Korea already had at least one bomb, the White House said that Clinton had misspoken. See Oberdorfer, *The Two Koreas*, 295. See also Marc Dean Millot, “Facing the Emerging Reality of Regional Nuclear Adversaries,” *Washington Quarterly* 17, no. 3 (summer 1994): 47.

196. Andrew Mack, “A Nuclear North Korea,” *World Policy Journal* 11, no. 2 (summer 1994): 28.

197. Mazarr, *North Korea and the Bomb*, 155.

198. T. R. Reid, “North Korea Warns of ‘Brink of War,’” *Washington Post*, 23 March 1994.

199. J. F. O. McAllister, “Pyongyang’s Dangerous Game,” *Time*, 4 April 1994; Oberdorfer, *The Two Koreas*, 304.

200. R. Jeffrey Smith, “Perry Sharply Warns North Korea,” *Washington Post*, 31 March 1994.

201. Leon V. Sigal, *Disarming Strangers: Nuclear Diplomacy with North Korea* (Princeton: Princeton University Press, 1998), 111.

preemptive attack, readying a war plan that called for the precision bombing of the Yongbyon facility, hoping to destroy it and entomb the plutonium without causing a meltdown.²⁰² The IAEA responded to North Korea by emphasizing that it would be imperative for it to have complete access during the defueling to ensure that none of the fuel rods were diverted. It also requested to take samples from the rods to determine the amount of fuel unloaded in the 1989 shutdown.²⁰³ The DPRK agreed to allow inspectors to view the defueling, but refused the sampling request.

When unloading of the fuel rods began in mid-May, proceeding at a pace that made proper IAEA monitoring impossible, chief inspector Hans Blix declared that confidence over the control of reactor fuel had been lost irreversibly. With this news, the pressure rose further and the United States pushed its case for economic sanctions to the international community, stating that the DPRK had “crossed the point of no return.”²⁰⁴ North Korea promptly responded that it would “rather accept a war” than give up its defense secrets, and that “sanctions mean war, and there is no mercy in war.”²⁰⁵ Just two days later the U.S. ambassador ordered his family out of Seoul and met with the commander of U.S. forces in Korea to map out evacuation plans.²⁰⁶ Relations were in a free-fall, as North Korea withdrew from the IAEA and again hinted at leaving the NPT.

Conservatives in the American press were outraged, and began another strong push for the consideration of military strikes.²⁰⁷ The U.S. military command was indeed weighing over that very option in a major strategy session, and on 18 June Clinton met with his national security advisors to finalize an “Action Plan” for a substantial expansion of American military forces in and near Korea.²⁰⁸ Around this time former president Jimmy Carter was en route to Pyongyang on a mission to try and avert the looming war, and upon meeting with Kim Il Sung the two worked out a plan to keep inspectors in place and start a new round of talks. Perry testified to Congress that he was just in the process of presenting several alternative build-up plans to Clinton for his final approval at the very hour

202. Ashton B. Carter and William J. Perry, *Preventive Defense: A New Security Strategy for America* (Washington, D.C.: Brookings Institution, 1999), 128; Ashton B. Carter and William J. Perry, “Back to the Brink,” *Washington Post*, 20 October 2002; Selig S. Harrison, *Korean Endgame: A Strategy for Reunification and U.S. Disengagement* (Princeton: Princeton University Press, 2002), 122; William J. Perry and Ashton B. Carter, “The Crisis Last Time,” *New York Times*, 19 January 2003.

203. Paul Leventhal and Steven Dolley, “The North Korean Nuclear Crisis,” Nuclear Control Institute, 16 June 1994. See <http://www.nci.org/n/nkib2.htm>.

204. *Ibid.*

205. Oberdorfer, *The Two Koreas*, 311.

206. Harrison, *Korean Endgame*, 117.

207. Charles Krauthammer, “Get Ready for War,” *Washington Post*, 3 June 1994; Sigal, *Disarming Strangers*, 117.

208. Harrison, *Korean Endgame*, 118.

they got word from Carter that the North Koreans were prepared to sit down and negotiate an agreement.²⁰⁹ Though many in Washington were infuriated by Carter's intervention, it certainly came at a fortuitous time and led to a round of talks that eventually culminated in the Agreed Framework in October of 1994.

Most analysts and participants themselves agree that the danger of war during these two months was quite high. Robert Litwak opines: "Given the mutual mistrust and the absence of regular contact between North Korea and the United States, the May–June 1994 crisis carried a significant risk of inadvertent military escalation through misperception and miscalculation."²¹⁰ Since the conflict was defused before it could get too far out of hand, it is difficult to judge how actively deterrence—and compellance—was at play. On the one hand, a DPRK preemptive attack seemed extremely unlikely, despite the comment of one North Korean colonel to a U.S. officer that "We are not going to let you do a buildup."²¹¹ On the other, the likelihood of an unprovoked U.S. military attack appeared equally remote, especially given U.S. casualty estimates of a prospective war. Perry noted that he and General Shalikashvili (the chairman of the Joint Chiefs of Staff) had concluded that a preemptive attack "was very likely to incite the North Koreans to launch a military attack on South Korea," effectively removing the military option from further consideration.²¹² There were certainly not many attractive options, and even the alternative of sanctions carried a very real threat of devastating war. In a hearing before Congress, Perry testified that he took the DPRK "sea of flames" rhetoric seriously enough to lead him to recommend to the president that any imposition of sanctions on North Korea should be accompanied by an immediate augmentation of U.S. military forces in the Republic of Korea.²¹³

Essentially, using our theoretical framework, the DPRK successfully communicated the impression (feigned or actual) of irrationality, leading to the quite rational outcome of deterrence power against the United States. Though North Korea certainly was deficient in overall strategic capabilities and could not threaten the U.S. homeland directly, its abundant artillery batteries located within striking distance

209. William Perry, Hearing on Security Implications of the Nuclear Agreement with North Korea before the Senate Armed Services Committee, U.S. Senate, Washington, D.C., 26 January 1995.

210. Litwak, *Rogue States and U.S. Foreign Policy*, 216.

211. Oberdorfer, *The Two Koreas*, 326.

212. Steven Greenhouse, "Perry Says U.S. Considered Bombing North Korean Reactor," *Houston Chronicle*, 25 January 1995; Carter and Perry, *Preventive Defense*, 128–29.

213. Perry, Hearing on North Korea, U.S. Senate, Washington, D.C.: 26 January 1995. See also William J. Perry, "Crisis on the Korean Peninsula: Implications for U.S. Policy in Northeast Asia," Speech given at the Brookings Institution, 24 January 2003. Despite this conclusion, in November 2002 former president Bill Clinton reportedly told an audience at the University of California's Davis campus that eight years ago, "we literally threatened to attack and planned to attack North Korea if they didn't end their nuclear weapons program." See Carl Limbacher, "Clinton: I Threatened to Attack North Korea," *NewsMax.com*, 24 November 2002.

of Seoul (and therefore American troops as well) created a rough conventional parity that was worrisome enough. Moreover, the DPRK had sufficient compelling interest in protecting its nascent nuclear program and avoiding sanctions that would further cripple its economy to make the threat of all-out war credible. In the final analysis, to the United States, the imperative to discover North Korea's potential to produce a handful of nuclear weapons was simply not worth the risk of a major conflict. U.S. ambassador Laney and General Luck both saw a diplomatic deal as the most prudent option, commenting: "Why are we going to risk killing a million people? A bomb or two can't even do that."²¹⁴ In fact, Perry's statements implied a tacit consent of a limited DPRK arsenal, conceding in April of 1994: "Our policy right along has been oriented to try to keep North Korea from getting a significant nuclear-weapon capability." Regarding the one to two weapons the United States already suspected the DPRK of possessing, Perry said: "We don't know anything we can do about that. What we can do something about, though, is stopping them from building beyond that."²¹⁵

At the same time, if we reverse perspective, it becomes apparent that the United States had a fair amount of deterrence—or, more properly, compellence—leverage itself. Of course, we will never know how events would have played out if Carter had not intervened, but Perry and his colleague Ashton Carter insist that they were prepared to risk war if the Agreed Framework had fallen through. Most U.S. officials involved in the crisis likewise maintain that the North Korean threat of war did not deter them from pursuing their objective of restraining further DPRK nuclear development.²¹⁶ North Korea did ultimately have to offer concessions to reach a compromise, implying that there was some fear that continued "stonewalling" on their part could indeed lead to a military strike on Yongbyon or international sanctions, despite the threat of war in response.

Especially given the almost total lack of knowledge of the DPRK leadership, it is quite hard to compare which side felt the greater deterrence pressure; for two states facing the imminent prospect of catastrophic war, they both seemed willing to stand firm over certain baseline negotiating positions no matter what. Deterrence theory would generally predict a more cautious and gingerly approach, though this was perhaps an instance of both sides employing commitment techniques and thereby locking themselves into positions from which it became increasingly

214. Sigal, *Disarming Strangers*, 122.

215. Mark Thompson, "Well, Maybe a Nuke or Two," *Time*, 11 April 1994.

216. Joel Wit, interview with author, 18 August 2003; William Perry, phone interview with author, 21 August 2003; Robert Gallucci, phone interview with author, 22 August 2003. For a more in-depth assessment, see William M. Drennan, "Nuclear Weapons and North Korea: Who's Coercing Whom?" in *The United States and Coercive Diplomacy*, ed. Robert J. Art and Patrick M. Cronin (Washington, D.C.: United States Institute of Peace Press, 2003).

difficult to make a graceful retreat. Theory aside, even if deterrence worked successfully in this case, the potential for war in the spring of 1994 was disturbingly high. Lieutenant General Howard Estes, the senior U.S. air officer in Korea admitted: "Inside we all thought we were going to war."²¹⁷ Robert Gallucci, the chief negotiator of the Agreed Framework with North Korea, said recently: "There was every indication at the time that Clinton would have used force rather than allow the North Koreans to separate more plutonium to produce nuclear weapons."²¹⁸ Perry himself said in a 1999 news conference: "We were literally within a day of imposing severe sanctions on North Korea—sanctions that they said would be equivalent to an act of war. We were within a day of making major additions to our troop deployments in Korea, and we were about to undertake an evacuation of American civilians from Korea."²¹⁹

Perhaps both the United States and North Korea were engaged in a high-stakes bluff and neither would have actually stayed the course into conflict. Perhaps too Iraq would never have resorted to WMD, even with the coalition forces marching on Baghdad, as turned out to be the case in Iraqi Freedom. No matter how one interprets the evidence, however, these cases are certainly not a ringing endorsement for the power of deterrence in the post-Cold War era. Kenneth Waltz's assurance that "not much is required to deter" begins to ring a little hollow when applied to real-world conflicts.²²⁰ More important, these two examples are hardly isolated events; rather, they are part of a definitive trend, an evolution in the way that weaker states and terrorist groups choose to counterbalance the conventional superiority of the United States. Virtually every other conflict in the past decade—ranging from the Bosnian war to Operation Desert Fox—has involved open references to asymmetric unconventional warfare.²²¹ Iran has also embarked on an ambitious effort to offset American military advantages, working on producing antiship technology, long-range missiles, and even nuclear weapons.²²² During the campaign in Afghanistan, there were numerous newspaper accounts of Al Qaeda trying desperately to develop WMD. Subsequently, raids on

217. Oberdorfer, *The Two Koreas*, 306.

218. David E. Sanger and James Dao, "North Korea Says It Regains Access to Its Plutonium," *New York Times*, 23 December 2002.

219. Kim Myong Chol, "Kim Jong Il's Military Strategy for Reunification," *Comparative Strategy* 20 (2001): 404.

220. Waltz, in *The Spread of Nuclear Weapons*, 22.

221. Ritcheson, "Proliferation and the Challenge to Deterrence," 42; Henning Riecke, "NATO's Non-Proliferation and Deterrence Policies: Mixed Signals and the Norm of WMD Non-Use," *Journal of Strategic Studies* 23, no. 1 (March 2000): 46; Major Robert D. Critchlow, U.S. Air Force, "Whom the Gods Would Destroy: An Information Warfare Alternative for Deterrence and Compellence," *Naval War College Review* 53, no. 3 (summer 2000): 27.

222. Iran's MRBM (Medium Range Ballistic Missile) program has benefited from considerable Russian assistance, and its nuclear program has received intense scrutiny recently. For further details on Iran's WMD and missile build-up, see: Shahram Chubin, "Does Iran Want Nuclear

various labs and hideouts have revealed bioterror manuals, videos of experiments with chemical agents, a diagram for a “dirty” radiological bomb, and even low-grade uranium-238.²²³ Even though bin Laden has been quoted as only desiring chemical and nuclear weapons to deter American use of the same, Al Qaeda’s development of such weapons would be of grave concern.²²⁴ Terrorists do not seem to be following the old dictum that they “want a lot of people *watching* and not a lot of people *dead*.”²²⁵ There is simply not enough confidence in deterrence to allow leaders and states with a declared and demonstrated willingness to attack innocent Americans to threaten such weapons. The final section will examine various policy recommendations and offer a few brief concluding remarks.

POLICY RECOMMENDATIONS AND CONCLUSIONS

AMERICA IS awakening to a degree of vulnerability it has never experienced before. There is no panacea, no foolproof defense or indomitable offensive capabilities that will guarantee security. Yet retreat from international involvement is hardly a safe alternative; the devastating events of 9/11 were proof enough of that. This does not mean that the United States should act as a global “crusader” to rid the world of evil; in fact, there is an inherent tension between striking a threat at its source, and that action paradoxically contributing to the very source of the threat.²²⁶ Power alone can never change people’s hearts and minds, and since the decision of whether to use WMD will ultimately always rest with the adversary, a long-term development toward peaceful relations is the best hope for security.

Weapons?” *Survival* 37, no. 1 (spring 1995): 97; Cordesman, *Iran’s Military Forces in Transition*, 4; Michael Dobbs, “A Story of Iran’s Quest for Power,” *Washington Post*, 13 January 2002; Scott Peterson, “Iran’s Nuclear Challenge: Deter, not Antagonize,” *The Christian Science Monitor*, 21 February 2002; Joby Warrick and Glenn Kessler, “Iran’s Nuclear Program Speeds Ahead,” *Washington Post*, 10 March 2003; Massimo Calabresi, “Iran’s Nuclear Threat,” *Time*, 17 March 2003; Joby Warrick, “Enriched Uranium Traces Found in Iran,” *Washington Post*, 19 July 2003.

223. Colum Lynch, “Bin Laden Sought Uranium, Jury Told,” *Washington Post*, 8 February 2001; Mike Boettcher, “Evidence suggests al Qaeda Pursuit of Biological, Chemical Weapons,” *CNN*, 14 November 2001; Bob Woodward, Robert G. Kaiser, and David B. Ottaway, “U.S. Fears Bin Laden Made Nuclear Strides,” *Washington Post*, 4 December 2001; Judith Miller, “Qaeda Videos Seem to Show Chemical Tests,” *New York Times*, 19 August 2002; Neil Doyle, “Al Qaeda Nukes Are Reality, Intelligence Says,” *Washington Times*, 28 October 2002; Associated Press, “Bin Laden Said to Have Sought Nuclear Arms,” *Baltimore Sun*, 30 December 2002; Josh Meyer, “Al Qaeda Feared to Have ‘Dirty Bombs,’” *Los Angeles Times*, 8 February 2003.

224. David Willman and Alan C. Miller, “Nuclear Threat is Real, Experts Warn,” *Los Angeles Times*, 11 November 2001.

225. Brian M. Jenkins, “Will Terrorists Go Nuclear?” *Orbis* 29, no. 3 (fall 1985): 511 (italics his).

226. Richard K. Betts, “The New Threat of Mass Destruction,” *Foreign Affairs* 77, no. 1 (Jan/Feb 1998): 40.

Certain states and organizations, however, pose too great a danger to adopt a wait-and-see approach. It is frightening to think of a terrorist group like Al Qaeda finding a true sanctuary behind a fully WMD-armed nation, or taking over a vulnerable nuclear state such as Pakistan. Containment can be a very effective and prudent doctrine, but only against those regimes that accept the status quo and judge that the balance of deterrence is not in their favor; those that believe otherwise, or do not care about consequences, must be dealt with in a different manner. Rumsfeld cautions:

I think realistically we have to face up to the fact that we live in a world where our margin for error has become quite small . . . we have to recognize that terrorist networks have relationships with terrorist states that have weapons of mass destruction and that they inevitably are going to get their hands on them, and they would not hesitate one minute in using them. That's the world we live in.²²⁷

By way of illustration, the critical question is if the United States determines it cannot afford to count on the adversary always swerving in these international games of “chicken,” what policies—Driving an armored car? Killing the other driver? Avoiding the contest altogether?—ought the United States to follow? The preceding analysis suggests that deterrence needs to be refashioned to incorporate counterproliferation strategies, bolstering U.S. defensive capabilities so that an adversary's WMD threat is drained of its coercive power. Otherwise, the United States may find itself increasingly reluctant to intervene in regional conflicts. In the end, America's willingness to accept risks and, if necessary, to absorb or deflect costs in regional conflicts will determine whether deterrence will favor the United States or rogue states in the age of WMD.²²⁸ This article has attempted to identify those risks and provide some ways to reduce them.

Beyond the general policy recommendations offered in the counterproliferation section, specific strategies will depend upon the profile of each state under consideration. Iraq's threat during the 1990–91 Gulf war and Iraqi Freedom was based largely on asymmetries of interest/risk taking (hoping that it could impose sufficient coalition casualties to undermine political support for war), commitment tactics (predelegation of WMD authority) and the possibility that its military choices would be based on circumstances of last resort. In both conflicts, the fact that the coalition possessed formidable conventional military forces and precision strike capabilities undercut any Iraqi hopes of draining coalition willpower

227. Donald H. Rumsfeld, Testimony to the Senate Appropriations Defense Subcommittee, Committee on Appropriations, Hearing on FY2003 Appropriations for the Defense Department, 21 May 2002.

228. National Defense University, *The Counterproliferation Imperative*, 50.

through attrition. As for Iraq's CB threat, especially during Iraqi Freedom, a three-pronged strategy of promising war-crime trials for any officers that authorized WMD use (personal deterrence), attempting to disrupt command/control networks and paralyze missile launch sites (counterforce to defeat Hussein's predelegation), and advertising defensive CB equipment (passive defense to undermine the threat itself) was probably successful in rendering whatever Iraqi weapons may have existed less effectual and therefore more likely to be unused or destroyed altogether.

North Korea's profile, conversely, is based on the rationality of the irrational, coupling a much more firm commitment of WMD retaliation to any precision strike on its nuclear facilities with the prospect of a devastating conventional attack on South Korea, despite the overwhelming American response it would invite. Seoul's vulnerability to an artillery barrage, effectively canceling out the U.S. conventional military advantage, means that an American strategy based on the Iraqi model would likely fail given the asymmetries of interest the DPRK enjoys. Instead, because the North Korean leadership appears fundamentally conservative and sensitive to deterrence (though clearly, based on recent events, unpredictable and provocative), the proper approach is to foster a dialogue over security concerns while attempting to reduce the coercive potential of the main DPRK threat—nuclear weapons and long-range missiles—through missile defenses (active defense). Several authors have identified the importance of garnering international support for a package deal that allows North Korea to “save face” through a nonaggression agreement and aid while ensuring that its nuclear programs are dismantled and its illegal drug and missile trade eradicated (nonproliferation).²²⁹ In instances where deterrence is less stable, as with a millenarian group such as Al Qaeda in Afghanistan, such a reactive stance would not be prudent. Rather, military strikes to remove the threat (preventive counterforce) are appropriate since no amount of deterrence power would be sufficient. Finally, there are states, such as Iran and Syria, which have limited military strength, but sponsor terrorist organizations that pose a very severe and potentially undeterrable threat to the United States and its allies. A critical judgment for these cases is the long-term projection of their progress toward liberalization and democracy, since ideally a cessation of terrorist funding and support should develop internally rather than be imposed by force, which would likely destabilize the region and spark further anti-American sentiment. Fortunately, though relations are undoubtedly strained and at times

229. James T. Laney and Jason T. Shaplen, “How to Deal with North Korea,” *Foreign Affairs* 82, issue 2 (March/April 2003): 16–30; Gary Samore, “The Korean Nuclear Crisis,” *Survival* 45, no. 1 (spring 2003): 7–24; William J. Perry, “It's Either Nukes or Negotiation,” *Washington Post*, 23 July 2003.

fairly hostile, there is increasing optimism that Iran and Syria are making gradual reforms and know where to draw the line in challenging U.S. interests.²³⁰ Therefore, priority should be given to cutting these state-sponsored terrorist groups off from any access to WMD materials (nonproliferation/interdiction) and building up homeland security measures (domestic passive defense) to defend against the possibility of isolated terrorist strikes.

To return once more to the “chicken” analogy, especially in the Middle East and Central Asia it will be necessary for the United States to undertake nontraditional missions such as nation building, peacekeeping, and—in the case of Israel and Palestine—peacemaking to try and minimize the number of disgruntled drivers on the road looking for a challenge. Winning over and empowering moderates is the best preventive medicine because there is simply no surefire defense or offense against suicide bombers and the eventual prospect of suicide states. Ultimately, the United States must have the capabilities to deter and defeat its adversaries when it really counts, but it must also work to create an international environment where it has to roll the dice of deterrence as few times as possible. The game is as dangerous as they come, so one should know the other players and choose an opponent wisely.

230. Scott Peterson, “Iran Quietly Signals an Openness to Terror Fight,” *Christian Science Monitor*, 13 August 2002; Nazila Fathi, “Iran’s President Trying to Limit Power of Clergy,” *New York Times*, 29 August 2002; Glenn Kessler and Walter Pincus, “One Step Forward, Direction Uncertain,” *Washington Post*, 18 April 2003; John Tierney, “Bush Hails Signs that Syria is Starting to Cooperate on Iraq,” *New York Times*, 20 April 2003; Mike Allen and Daniel Williams, “President Praises Efforts By Syria,” *Washington Post*, 21 April 2003; Daniel J. Wakin, “Powell Says Syria is Taking Action on Terror Groups,” *New York Times*, 4 May 2003; Dexter Filkins, “With U.S. in Neighborhood, Syria Eases its Grip,” *New York Times*, 23 July 2003.