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Exploring Roles, Strategies, and Implications

Historical and Conceptual Perspectives

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

Bernard Brodie, 1946

The power to hurt is bargaining power. To exploit it is diplomacy—vicious diplomacy, but diplomacy.

Thomas Schelling, 1966

The nuclear weapon has been referred to as the absolute or ultimate weapon because of the incomparable devastation packed by a nuclear warhead and the speed with which such devastation can be delivered.¹ Its advent was widely perceived as marking a new epoch in warfare, making for a revolution in thinking about war and in the relationship between war and politics with far-reaching implications for the role of force as an instrument of state policy and for the conduct of politics among nuclear weapon states (Brodie 1946, 1959, 1973; Jervis 1989; Schelling 1966). Military strategists, who tended to see the nuclear weapon in the traditional vein as a better and more effective bomb, contested the view that nuclear weapons brought about a paradigmatic change in thinking about war and politics (Friedberg 1982). Others, such as William Borden (1946), saw atomic weapons as revolutionizing strategy by elevating the tactical above the strategic; he asserted that “the key to victory lies in defeating hostile military forces,” not in hitting cities and industrial centers to lay waste the war-making potential of a country. The tension between these competing viewpoints framed the many debates on U.S. nuclear strategy during the Cold War. American strategic doctrine as observed by Aaron Friedberg (1982) “always contained two strands.” One was assured retaliation that emphasized countervalue deterrence. The second was the more traditional strand that focused on war outcomes should deterrence fail.

Nevertheless, the view that nuclear weapons had a transforming effect came to dominate strategic thinking especially in the civilian strategic community that became influential in the 1960s in framing U.S. nuclear strategy. Robert Jervis’s (1989) central claim that nuclear weapons had dramatically altered statecraft, because force and the threat of force could not support foreign policy as they did in previous eras, reflected widespread thinking among civilian and military strategic thinkers. This chapter outlines the transforming logic of nuclear weapons and explores at a conceptual level the roles of nuclear weapons, the strategies for their employment, and their implications for international security to provide a historical and conceptual perspective for the investigation of these issues in the country and concluding chapters that follow.

Transforming Effect

Three characteristics of the nuclear weapon underlie its transforming or revolutionary effect: one is the speed and incomparable devastation; second is the lack of defense against a nuclear weapon; and third is its punitive character. As Bernard Brodie (1946, 1959) and Thomas Schelling (1966) pointed out graphically, what is new is not the quantum of damage itself but the speed, efficiency, and economy with which it can be delivered. Cities and strategic industrial assets could be destroyed and a country paralyzed rather quickly by a small number of nuclear bombs. Absolute damage became the primary consideration; relative damage, important in earlier times in the cost-benefit calculation of war, appeared less important, even irrelevant. The second key characteristic is that there is no significant defense against the missiles that carry nuclear warheads or against the devastation caused by nuclear weapons and their lingering effects. States possessing nuclear weapons can destroy each other (mutual kill) without victory in the battlefield. The state and society are highly vulnerable in a nuclear attack; protection of strategic assets and society becomes crucial but also highly difficult or impossible. The significance of nuclear weapons, as Brodie (1959: 173) asserted “depends above all on the possibility of defense against them in a strategic attack.” Third, nuclear weapons are punitive in character (Schelling 1966: 33–34). Their significance lies in the power to hurt (kill hundreds of thousands of people and destroy strategic assets quickly), not in holding or taking ground or other assets of value. Taken together these characteristics have far-reaching implications for the purpose and employment of force as an instrument of state policy.

Limit War as an Instrument of Policy

Total war between nuclear weapon states can serve no conceivable political purpose. Victory in such a war would be meaningless, as both parties to the conflict would suffer irreparable damage; recovery would be slow and take many

years or may be impossible. With no defense available, each would be able to inflict damage on the other. Mutual vulnerability (later associated with the possession of mutual second-strike capability) implied that no nuclear weapon state could impose its will on another through total war. This underscored Brodie's famous assertion that the chief purpose of military establishments is no longer to win wars but to prevent (deter) them (1946: 76). The impossibility of military victory in total war led some, including Brodie for a brief period, to assert that nuclear weapons had invalidated Clausewitz's famous dictum that war is a continuation of policy by other means.²

The view that war had ceased to be a rational instrument of policy among nuclear weapon states was challenged on two grounds. First, although total war could no longer be a rational instrument, it was argued that limited war using conventional weapons could still be waged and serves that function. The idea of limited war later extended to include limited nuclear war to serve intrawar deterrence and war fighting functions in a strategy of conflict escalation. Limited wars were seen as more likely and having greater consequences than before (Kissinger 1957). Still the potential for escalation of limited war to total war among nuclear weapon states induced caution and set limits to the role of war as an instrument of policy among nuclear weapon states (Jervis 1989: 19–22).

The second challenge came from those who posited that although military victory was impossible in a nuclear war, nuclear weapons can serve important political ends (Schelling 1966; Kahn 1961). They argued that the threat of punishment and the manipulation of that risk had political-diplomatic value and should be exploited. Even exemplary forcible action, they argued, may have to be contemplated to demonstrate resolve and the threat of more pain to come. Utility can be derived from the threatened use of nuclear weapons to protect the nuclear weapon state's homeland, that of its allies, as well as to protect other vital interests and the international status quo. Others argued that limited nuclear war is a viable nuclear strategy that with appropriate diplomacy provides a means to escape the "sterility of the quest for absolute peace . . . and . . . of the search for absolute victory" (Kissinger 1957). Because of their limited or lack of utility in a military sense and the political utility derived from their threatened use, nuclear weapons came to be seen essentially as a political rather than a military weapon.

Threat of Punishment to the Fore

The punitive character of nuclear weapons and the lack of defense against nuclear weapons shifted the emphasis in the role of force in policy and strategy from actual use to threatened use (Schelling 1966). The devastating consequences rendered the rational use of nuclear weapons unthinkable, but the threat of devastating punishment became highly potent and became the mainstay of policy and strategy in the nuclear era. The salience of force shifted from use on the battlefield

to coercive threat to inflict unacceptable damage and pain.³ This shift has several important implications.

First, it elevates the salience of deterrence and downgrades that of defense and offense. The destructive power of nuclear weapons is of little use in defense (holding ground and defeating an attacking enemy, denying assets of value to the enemy) or in offense (attacking and defeating an enemy in the battlefield to acquire assets of value—land, population, resources, etc.). Its primary role is to deter attack by threatening devastating consequences. This elevates deterrence from a way station to war in the conventional era to the centerpiece of strategy in the nuclear era (Freedman 1983, 2004). During the Cold War, nuclear deterrence became the cornerstone of national security strategy and international politics. The lack of defense against nuclear weapons and possession of mutual second-strike capability—the ability to inflict absolute pain and extinction on each other regardless of who strikes first—decouples deterrence from defense.⁴ Nuclear weapons make for a sharp distinction between "deterrence by denial" and "deterrence by punishment" (Snyder 1961: 8–9, 14–16). Nuclear weapons reduce the potency of the former and dramatically elevate the importance of the latter. Deterrence is the central function of nuclear weapons and has come to exclusively mean deterrence by threat of punishment.

Second, the shift to the threatened use of force focuses attention on the adversary's intentions. Traditional military strategy focused almost exclusively on capability. A certain level of capability to carry out the articulated threat still remains crucial in the nuclear era; however, the significance of superiority beyond a certain level of retaliatory capability is much less important, possibly even irrelevant. The credibility of a nuclear threat depends not only on capability but also on influencing an adversary's perception and intention (Schelling 1966: 35). Issues relating to the credibility of threat including the "art of commitment" and "manipulation of risk" become highly important.

Finally, the threat of punishment has connected violence and diplomacy in novel ways that is vividly captured in the "diplomacy of violence" phrase coined by Schelling (1966). Diplomacy was always connected to the possible use of violence as demonstrated by phrases such as *gunboat diplomacy* and *coercive diplomacy*. However, diplomacy and force were distinct instruments that were considered alternatives, with force used when diplomacy failed. In the nuclear era, the threat and use of violence itself can be seen as an instrument of diplomacy. The danger and threat of nuclear war could be exploited as an important technique of influence, bargaining, and intimidation.

Nuclear Weapon Roles

Discussion of the roles of nuclear weapons must begin with Clausewitz's central insight that "war is a continuation of political intercourse, with the addition of

other means," and that its purpose and conduct must be influenced by the political objective (1976: 605–10). Rather than negate Clausewitz's insight, the immense destruction potential of nuclear weapons highlights the importance of discussing the purposes, roles, and limitations of these ultimate weapons in relation to desired political objectives and the prevailing political-strategic context. Even total war must be part of policy. A criticism leveled against "second-wave" strategic analysts was that their thinking was largely apolitical and abstract (Trachtenberg 1989). Abstract thinking is important for conceptualization and theorizing, but such thinking must be infused with political considerations when contemplating the role of nuclear weapons as an instrument of policy.

States resort to the threat and use of force for three basic political ends: to preserve their existence, to enhance state power to achieve national foreign policy goals including that of shaping the international environment (milieu goals), and to maintain international order.⁵ In an anarchic system, survival is precarious and highly contingent and is the basic goal of states. State survival entails protecting territorial integrity, preserving internal sovereignty (compulsory internal jurisdiction), and preserving international sovereignty (independence and autonomy in decision making). Informed by zero-sum distributional consequences, security is a scarce value, and the quest for it through competitive armament creates a security dilemma (Herz 1950; Jervis 1978). Pursuit of foreign policy objectives, including shaping the international environment, may require both preserving and altering the status quo, including protecting allies and friends, securing access to vital resources, denying them to adversaries, and prevailing in regional conflicts. The third goal of maintaining international order, which overlaps with shaping the international environment, includes domination (power and authority) to ensure a certain type of order and the construction of domestic regimes and international organizations in support of that order.⁶ Traditionally, military force has been assigned a primary role in the pursuit of all three goals. What is the role of the immense destructive power of nuclear weapons in the pursuit of these three basic goals?

As observed earlier, the punitive character of nuclear weapons and the lack of defense against them elevate deterrence and downgrade offense and defense. The primary function of nuclear weapons is to ensure survival and preserve the status quo by deterring aggression (deterrence) and compelling an adversary not to embark on or to undo a transgression that seeks change in the status quo (compellence). The threat of punishment, the danger of escalation to nuclear war, and the exemplary use of force may be exploited in an offensive role to compel or prevent a change in the status quo (coercive diplomacy or limited war), or to destroy an enemy's strategic assets (counterforce). The counterforce role can also serve a damage limitation function and be viewed as defensive. These roles are elaborated below.

Deterrence

Although deterrence has been employed in many ways (as a concept, a theory, and a strategy), my concern here is with the function of deterrence in a political-security role to deter aggression by threatening unacceptable punishment. Deterrence has a status quo orientation. The threat intent in deterrence is to keep the enemy from starting something. Types of deterrence may be distinguished on the basis of the referent unit for protection (who is to be protected), against what threats, and how deterrence is to be prosecuted. On who is to be protected, two types of deterrence may be identified. One is *basic* or *central deterrence*, which is the protection of the nuclear state's homeland by deterring outright military attack through threat of unacceptable consequences (Freedman 2004). The second is *extended deterrence*. This refers to the extension of the deterrence function of a state's nuclear arsenal to protect the homeland of an ally. Extended deterrence could also be applied more broadly to the protection of a nuclear weapon state's vital interests (maintaining a sphere of influence, protecting sea lines of communications) that lie outside the territory of an ally.

The question of what is to be deterred is more complicated. In the early years of the Cold War, it was believed that nuclear weapons could deter a wide range of threats, including direct nuclear attack, large-scale conventional attack, limited conventional attack and intrusion, low-intensity war, and biological and chemical attack. Progressively, however, it became clear, especially with the development of parity and mutual second-strike capabilities, that nuclear weapons could deter only a narrow range of threats and that other deterrents were essential to cope with lesser threats and plug the widening gap in deterrence policy (Huntington 1982; Kauffman 1956). The how question relates to strategy and is discussed later.

Finally, although it has to be in place and working all the time, deterrence may be general or immediate (Morgan 2003). The difference between the two is in the intensity of the threat and the readiness to execute the threat. Immediate deterrence is a crisis situation in which war is distinctly possible; general deterrence is "far less intense and anxious because the attack to be forestalled is still hypothetical" (Morgan 2003: 9). Nevertheless, general deterrence is a situation in which an opponent would consider attacking if a suitable occasion arose, but does not proceed beyond preliminary consideration of this option in light of the threat of retaliation posed by the other party (Morgan 2003: 80). In general deterrence, "an actor maintains a broad military capability and issues broad threats of punitive response" to prevent anyone from thinking seriously about attacking. In immediate deterrence, an actor has developed specific capabilities and issues threats to an opponent who is preparing to attack.

Compellence

In contrast to deterrence, which is passive, compellence is an irrevocable commitment to action that can only cease when the adversary complies with a demand.⁷ The threat of nuclear punishment is deployed to change the behavior of a state by affecting its cost-benefit calculus, usually to compel an enemy to stop or undo a certain course of action that he is embarked on (Schelling 1966: 69–78). A compellence threat involves initiation of a commitment or action and a clear deadline by which the adversary must respond. Should the opponent fail to comply, the initiator must be committed to carry through the stated action if the threat is to be credible.

Coercive Diplomacy

Alexander George defines coercive diplomacy broadly to include both defensive and offensive use of force.⁸ However, most Western analysts focus on the defensive role of coercive diplomacy—“efforts to persuade an opponent to stop and/or undo an action he is already embarked upon” (George 2004: 71). The defense orientation of coercive diplomacy in the literature privileges the status quo and may be a function of viewing it essentially through the lens of U.S. policy in the Cold War (Freedman 2004: 109–10). In this study, coercive diplomacy is defined broadly to also include the use of coercion (including exploitation of the danger of escalation to nuclear war) to bring about change in the status quo, to compel changes in the policies of an adversary, or to support other foreign policy objectives. Treating the risk of nuclear war as a shield, a state may pursue political objectives including intimidation and blackmail or compelling another state to negotiate on a particular issue by engaging in lower-level violence (conventional or low-intensity war) and threatening nuclear war. The threat and use of violence become infused with diplomacy.

Counterforce Role

In the counterforce role, nuclear weapons would be used to destroy or drastically impair an opponent's strategic force and other key military targets (such as massed troop formations, large military complexes, hardened military installations, and communication centers). Nuclear weapons may be used in a counterforce role for deterrence, damage limitation, and in support of an assertive foreign policy (Glaser and Fetter 2005). By denying a survivable retaliatory capability, counterforce capabilities can enhance deterrence. In the event deterrence fails, such capabilities (especially a second strike) can limit damage to a state's own assets and society by destroying enemy strategic assets. An ability to destroy enemy strategic assets would liberate foreign policy from the constraints arising from enemy possession of nuclear weapons. Although the benefits of counterforce against

the Soviet Union were ambiguous, it is argued that these benefits are more certain and useful for a country like the United States facing small nuclear powers (Buchan et al. 2003: 41–43). The 2002 Nuclear Posture Review (NPR) identifies counterforce as a key role for nuclear weapons. Together with ballistic missile defense (BMD), it is seen as “bringing into better balance U.S. stakes and risks in a regional confrontation and thus reinforcing the credibility of U.S. guarantees designed to deter attacks on allies and friends” (2002 NPR: 14, quoted in Glaser and Fetter 2005: 108). The distinction in the use of the counterforce role in deterrence and damage limitation lies in the purpose rather than in the nature of military action. It is thus subject to misperception. Glaser and Fetter argue that the counterforce role has limited deterrence value for a country that already has a strong second-strike capability and that it could be counterproductive in the conduct of foreign policy relating to regional conflicts. They see the chief value of the counterforce role in damage limitation.

Preserving Strategic Autonomy

A nuclear weapon state could coerce and constrain the policy choices of a non-nuclear weapon state (either ally or foe) or could compel it into submission in certain conflict situations. To avoid such situations and to preserve autonomy in international relations, states may view nuclear weapons (their own or those of an ally) as vital to their national security and as a backstop to their foreign policy. A primary concern of a nonnuclear weapon state is avoiding blackmail by a nuclear weapon state in an adversarial situation. Although some nuclear weapon states have articulated a no-first-use (NFU) policy and pledged that they will not employ nuclear weapons against nonnuclear weapon states, those who could be on the receiving end do not take such pledges seriously. Forging an alliance with a substantial nuclear weapon state can alleviate this concern, although that arrangement may also constrain freedom of action.

Power and Prestige

Military power has always been an index of national power and prestige. Seen as the ultimate weapon, the possession of nuclear force may confer international power and status (membership in an exclusive club and big-power status) or enhance a state's international prestige (authority and legitimacy) (Gilpin 1981). Often Western analysts, especially in the arms control community, deprecate this role by assigning it a negative connotation in regard to nuclear weapon states and aspirants from the developing world. However, it is undeniable that countries such as the former Soviet Union, Britain, and France also viewed possession of nuclear weapons as necessary indicators of their international power and prestige. It is possible to argue that nuclear weapons no longer serve this function in

the post-Cold War world in which the significance of military power including nuclear weapons is declining relative to other indexes of power (Paul 1998).

Relationship to Conventional Capabilities

The connection between nuclear and conventional forces is important in understanding the contemporary roles of nuclear weapons and their significance in the overall national security policy of a state. As noted in the Introduction chapter, states that possess nuclear weapons are also modernizing their conventional military capabilities. The United States, for example, seeks to reduce its reliance on nuclear weapon capabilities by developing ballistic missile defense and more lethal conventional capabilities that can perform missions that were previously assigned to nuclear weapons. The old nuclear strategic triad is only one leg in Washington's new triad envisaged in the 2002 NPR. However, the United States also contemplates modern nuclear weapon capabilities for certain military purposes such as earth penetration. Russia, on the other hand, in light of its weaknesses in conventional capabilities, emphasizes the centrality of nuclear weapons for its international security. For most other nuclear weapon states and their allies, conventional capability is the more relevant means to deal with the immediate security challenges confronting them. Nuclear weapons serve other functions. The division of labor between the two capabilities, how they reinforce or constrain each other, and their respective weight in national security policy are important issues to investigate.

Redressing conventional power imbalance in a relatively cheap way is at times advanced as a separate purpose of nuclear weapons. During the Cold War, nuclear weapons were perceived by China as a cost-effective way to deter the vastly stronger United States and Soviet Union (Goldstein 2000). And American policy makers sought to counter Soviet conventional superiority in Europe and North Korean conventional superiority on the Korean peninsula with the deployment of tactical and intermediate range nuclear weapons. The purpose, however, was still deterrence. Compensating for weakness in conventional military capability is not a separate purpose in itself, but a means to an end—deterrence.

Apart from their role in dealing with certain security challenges for which nuclear weapons would not be relevant, conventional capabilities could be employed in conjunction with nuclear weapons in three ways. One conventional military force may be deployed to prevent a *fait accompli* by a blitzkrieg-type attack by the adversary and enhance the effectiveness of extended nuclear deterrence.⁹ This was the purpose of conventional forces in Europe and South Korea during the Cold War. The deployment of U.S. conventional forces in these theaters also served as a visible symbol of U.S. commitment and a trip-wire function to trigger stronger reaction including nuclear retaliation. Second, and this is linked to the first point, for situations in which nuclear threats seem disproportional, the threat

of conventional retaliation provides a credible alternative, preventing the stark choice between all and nothing. Conventional capability may be incorporated into escalation and war-fighting strategies. Third, conventional forces could be employed in a coercive diplomacy role, including limited war to pursue certain political objectives based on the assumption that the fear of escalation to nuclear war would deter large-scale conventional retaliation. Limited war in the shadow of the nuclear umbrella was and is envisaged in this context.

Nuclear Strategies

Connecting ends-and-means strategy formulates how military force will be employed in the pursuit of desired political outcomes. Correctly formulated, it can function as a force multiplier (Betts 2000). Some have questioned the utility of strategy. Criticisms include the absence of criteria for selecting a strategy, the difficulty of prediction in light of the complexity and contingency of war, difficulties communicating across cultures, and implementation problems. Often strategies are developed in an ad hoc manner and in hindsight to rationalize or provide an intellectual framework for a situation that already exists. Even if strategy is driven by specific purposes, the purposes themselves may not be clear, and there may be multiple and conflicting objectives. Further, there may be a wide gap between declaratory strategy, actual capability, and behavior in a crisis situation. In light of these problems, it could be argued that strategy cannot be meaningful. However, discussion of strategy is still necessary and useful because it provides the rationale for meaningful use of violence and threat of it as an instrument of state policy, and it indicates the international orientation and overall military posture of a state. Other states infer intent from the orientation of a state's strategy and behavior (Posen 1984). Strategies also affect the quality of international life, with consequences for security interaction, the nature and intensity of the security dilemma, and the type of security order.

Military strategy in the pre-nuclear era emphasized the achievement of political goals by winning wars. With the advent of nuclear weapons, as noted earlier, the emphasis in strategy shifted from the physical use of force to the threat and exemplary use of force to achieve political and military objectives. This shift underpins Brodie's claim that nuclear weapons revolutionized military strategy. Thomas Schelling (1966: 1-34) extends this further by arguing that the growing centrality of power to hurt without "collapsing [the enemy's] military force," implies that military strategy is no longer about winning wars but about the "art of coercion, of intimidation and deterrence," and "of manipulating risk" to achieve certain political outcomes.

Drawing on the Cold War experience but also on recent scholarship, this section outlines the main nuclear strategies and their key elements. The selection of specific roles and strategies would be a function of the political objectives of the

state, its political-strategic position in the international system, and its satisfaction or dissatisfaction with it. A revisionist state seeking to bring about change in the international system would most likely emphasize offense-oriented roles and strategies. By contrast, a state that is concerned about its own survival or satisfied with the status quo is likely to emphasize deterrence and defensive roles and strategies (Posen 1984).

Strategies of Deterrence

Nuclear deterrence seeks to prevent enemy aggression by threatening awful consequences usually labeled as unacceptable damage. For a strategy of deterrence to be effective, a state must commit to a political outcome that is vital, threaten unacceptable damage if that outcome is jeopardized, have the capability to inflict such damage, and communicate the seriousness of its intention through a clear policy, firm commitment, and a reputation for carrying out commitments (Morgan 2003: 13–19; Schelling 1966: 35–91). Nuclear deterrence thinking has gone through different phases, and there has been a proliferation of adjectives to convey specific situations or orientations.¹⁰ Some of these, such as *existential deterrence*, *recessed deterrence*, *opaque deterrence*, and *mutual assured destruction* (MAD), are situations or conditions, not strategies. Here, I discuss three primary strategies of basic or central deterrence—massive retaliation, assured retaliation, and minimum deterrence—and the strategy of extended deterrence. At base, all three basic deterrence strategies are similar in that they rely on the threat of punishment. They differ on the retaliatory capability (and by extension the size of the nuclear arsenal) required to deter, the degree of desired certainty, and the threats to be deterred or contingencies to be covered.

Massive Retaliation. First articulated in 1954 after the Korean War, this strategy was taken to imply that communist or communist-inspired aggression anywhere in the world would result in massive retaliation by the United States.¹¹ The threat of massive retaliation was considered important to supplement local ground defense and avoid worldwide commitment of U.S. ground forces and to reduce the cost of defense. It was also seen as providing flexibility in decision making because it allowed the United States to decide when and how to respond (Kauffman 1956). This strategy, which sought to maximize the utility of the special asset of the United States, was controversial from the outset.

Formulated in the context of American nuclear superiority, the United States clearly had the requisite capability to carry out the strategy of massive retaliation. However, the strategy was deemed not credible on several counts, most importantly on the proportionality of response to threat (Kauffman 1956). It was considered credible only in regard to a very narrow range of contingencies, including the use of nuclear weapons by communist powers and direct attacks on the United

States and its key allies in Western Europe. The idea of a single deterrent to cope with a wide range of threats appears to have been a nonstarter from the outset.

Assured Retaliation. The strategy of assured retaliation (also known as assured destruction) was derived from a critique of the strategy of massive retaliation and in light of Soviet advances in strategic arms that supposedly neutralized American nuclear superiority.¹² The assured retaliation strategy seeks to deter a deliberate nuclear attack “by maintaining at all times a clear and unmistakable ability to inflict an unacceptable degree of damage upon any [and all] aggressors—even after absorbing a first strike” (Enthoven and Smith 1971, quoted in Freedman 1983: 246). The emphasis in this strategy is on surviving a first strike with the capability to execute a retaliatory threat to inflict unacceptable damage (countervalue targeting to destroy cities and populations). A secure second-strike capability is essential for an effective assured retaliation strategy. During the Cold War, this translated into a requirement for a large nuclear arsenal; a strategic triad of land, air, and sea assets; force protection; and sophisticated command, control, communications, and intelligence arrangements. The strategy was seen as credible against nuclear threats to the United States but less so in regard to key allies in Europe and Asia. Conventional military force, tactical nuclear weapons, and intermediate range missiles were deemed essential to shore up the deterrence commitment to allies. Along with damage limitation and conventional defense, assured retaliation formed a part of the U.S. flexible response policy that was designed to provide policy makers with options in dealing with different contingencies.

With advances in Soviet nuclear capability, a situation of MAD became a reality. As Jervis (1989) points out, MAD was not a strategy but a fact: a condition that developed as a consequence of the ease of countervalue retaliation (as opposed to counterforce damage limitation) and the development of secure second-strike capabilities by both superpowers. Though not preferred, vulnerability to mutual retaliation came to be seen as essential for the stability of deterrence. It is important to distinguish between MAD and assured retaliation. Although the end of the Cold War has undermined the MAD situation, the strategy of assured retaliation continues to be relevant for and among countries that possess the capability to retaliate after suffering a first strike.

Minimum Deterrence. The strategy of minimum deterrence rests on the belief that only a small nuclear force is required to deter nuclear and full-scale conventional attack. Absolute rather than relative level of damage is what matters, and nuclear balance and deployment are not as critical as they are in the strategy of assured retaliation. Nuclear threats are considered highly effective. The risk that nuclear weapons would be used either in retaliation or in the escalation of a conventional war, and the high level of absolute damage (countervalue) that can be caused even by a small number of nuclear weapons, lies at the heart of minimum deterrence

(Basrur 2006; Freedman 1983). A minimum deterrent force may deter nuclear and full-scale conventional attack. It may also have some limited utility in the following roles: compellence, coercive diplomacy, and protecting and enhancing foreign and strategic policy autonomy. Though the strategy of minimum deterrence appears cost-effective and attractive, it is seriously underdeveloped. What constitutes a minimum and how does one arrive at that figure? What are the survivability requirements necessary to reduce an adversary's temptation to strike first and one's own temptation to launch on warning? What sorts of deployment and command and control arrangements are required? Is minimum deterrence more suited for general deterrence than for immediate deterrence? Is countervalue targeting acceptable, especially in democratic states? These questions require investigation.

A subset of minimum deterrence is existential deterrence. Initially articulated in the context of the huge American and Soviet stockpile of nuclear weapons in relation to Europe, the idea of existential deterrence is rooted in the belief that the very existence of a nuclear weapon stockpile would create considerable caution in relations among nuclear weapon states (Bundy 1983, 1984, 2004). Existential deterrence rests on the fear of uncertainty about what could happen, not on specific force structure or doctrine, or what has been declared as policy. It is not affected by changes in the balance of power except those that "might truly challenge the overall survivability of the forces on either side" (Bundy 1983: 9). Existential deterrence deters impersonally; no provocative threat is required; and it deters both sides simultaneously. Seen in this manner, existential deterrence is more a condition or outcome than a strategy.

The idea of existential deterrence appears to have been adapted to the present period as a basic deterrence strategy for states with opaque, small, or nascent nuclear forces with the purpose of inducing caution and deterring large-scale conventional or nuclear attack by posing the danger of nuclear escalation and retaliation. In this conception, existential deterrence requires only the capability to carry out a simple, undifferentiated countervalue strike. A very small nuclear force would be sufficient for this purpose. For states that have not declared their nuclear weapon capabilities (India and Pakistan before 1998 and Israel), nuclear deterrence rests primarily on the perceived existence of nuclear capability than on declared intention or on relative capabilities (Hagerty 1998: 3). Existential deterrence would have no other purpose than protection of the homeland, although it could provide a certain measure of freedom in foreign policy and help mitigate the negative consequences of imbalance in conventional capability. Conceived in this manner, existential deterrence overlaps minimum deterrence and is likely to be the strategy of a weak or isolated state. Although presented as separate strategies, existential deterrence, minimum deterrence, and assured retaliation can form part of a continuum, with the first two as way stations on the path to assured retaliation.

Extended Deterrence. The strategy of extended nuclear deterrence broadens the deterrence function of a nuclear arsenal to protect the homeland of an allied state against attack. The strategy usually suffers two credibility problems. One arises when the home territory of the deterring state is vulnerable to nuclear attack. Would a nuclear weapon state risk nuclear war to counter a threat to an ally if its own home territory were vulnerable to nuclear attack? This question was at the heart of the extended deterrence problem in Cold War Western Europe. The greater the vulnerability of the nuclear weapon state's homeland to nuclear attack, the less credible would be its extended deterrence commitment. The second credibility problem arises if the nuclear threat appears out of proportion to the threat confronting an ally. Nuclear threats can deter only a narrow range of threats. Deterring nuclear threat will be more credible; deterring limited conventional attack, low-intensity aggression, and chemical and biological attack by threatening nuclear retaliation is less credible.

In both situations, the concern is how to make the extended deterrence commitment credible. Measures to make extended deterrence commitments credible include clear articulation of commitment, stationing troops and tactical nuclear weapons in allied countries, developing an ally's conventional capability to prevent a *fait accompli*, integrating that capability with one's own to demonstrate escalation potential, developing and deploying BMD to protect the strategic assets of the nuclear weapon state and that of its ally, and demonstrating resolve through regular exercises and development of reputation.

Strategies of Offense

Offensive strategies exploit the threat value of nuclear weapons, the risk of nuclear war, and the use of force in an exemplary or controlled manner as a means of bargaining to achieve certain political outcomes. These include rolling back infringements of the status quo, preventing or bringing about change in the status quo, calibrating means and ends in the pursuit of limited political objectives without resorting to general war, and demonstrating political resolve to foe and friend.

Compellence. Although it relies on the threat of punishment as well, compellence—unlike deterrence—demands change. The purpose of compellence is to demand compliance with a political demand and involves inducing action (acquiescence, retreat, or collaboration) through threat of punishment or exemplary use of force to indicate that more pain is in store if the adversary does not comply. A compellent threat may be designed to intentionally involve some loss of control. Schelling labeled this "threats that leave something to chance." Citing the Cuban missile crisis, he posits that this kind of threat "is more impersonal, more external to the participants [and] the threat becomes part of the environment rather than a test of will between adversaries. The adversary may find it easier—less costly in prestige

or self-respect—to back away from a risky situation . . . than from a threat that is backed exclusively by . . . resolve and determination” (Schelling 1966: 121n). Unlike deterrence, compellence strategies must be designed for specific situations as they develop.

A compellent strategy must have a definite objective, have a deadline that is near-term but allows sufficient time for the adversary to act, ensure that the threat will not be carried out if the adversary acts accordingly, and provide a reasonable exit for the adversary. To be effective, a compellent strategy must have a high probability that the threat will be executed if the adversary does not meet the demand.

Controlled Escalation and Limited War. Though these two strategies are often discussed separately, they have common premises and overlapping features of deterrence and compellence. Limited war and controlled escalation strategies assume that deterrence of general nuclear war would continue to operate even after lower-level conflict has been deliberately waged. By calibrating ends and means and relying on intrawar deterrence, strategies of controlled escalation and limited war seek comparative advantage in a conflict by escalating the means and level of violence, crossing limits that previously constrained both sides, and threatening even greater risk and damage (Freedman 1983: 210–11). Controlled escalation and limited war presume a process of bargaining, concession, or further escalation based on deliberate decisions by belligerents. To be successful, these strategies require clear identification of interests and threats, calibrated responses, clear communication, implementation monitoring, and an exit strategy. These stringent requirements are not easily met, and the strategies could have unintended and opposing effects as demonstrated by the experience in the Vietnam War in which a strategy of controlled escalation was deliberately applied (Gaddis 2004).

Strategies of Defense

Counterforce is the only defensive role of nuclear weapons. If deterrence fails, nuclear weapons can be used to limit damage by destroying the enemy’s strategic assets. Defense in a nuclear context, however, also includes BMD and conventional defense. As with offense, there is no specific defense strategy. Depending on the threat and desired comprehensiveness, strategies of defense may be developed around one or more of three elements: counterforce damage limitation, conventional defense, and defense against missile attacks. In light of earlier discussion, the consideration of counterforce and conventional defense in this subsection is brief.

Counterforce Damage Limitation. The purpose of a counterforce damage limitation strategy is to destroy the opponent’s nuclear assets, other weapons of mass destruction, and command and control facilities through a first strike (preventive or pre-

emptive), or second strike (retaliatory action) to reduce the damage from attacks by such weapons. A successful damage limitation strategy can prevent enemy attacks on cities and its own strategic assets; hence it can be enormously useful. Glaser and Fetter (2005) argue that a first-strike strategy risks precipitating early launch by the enemy and undermining deterrence. A strategy that relies on retaliatory action does not undermine deterrence; targeting surviving nuclear forces avoids unnecessary use of nuclear weapons and prevents a large retaliatory strike by the enemy. A damage limitation strategy may be limited or comprehensive; the latter may include invasion to gain control of the enemy’s strategic assets.

Although more useful than the counterforce role in deterrence or in increasing the leeway for foreign policy, the damage limitation counterforce strategy is not without drawbacks. A first-strike strategy can bring about an unnecessary nuclear war. A counterforce strategy that emphasizes prevention and preemption could also provide an incentive for target states to launch first, making for an unstable crisis situation. With a second-strike strategy there is no certainty that it can destroy desired enemy targets. Some analysts claim that the costs outweigh the benefits and that a counterforce strategy can be destabilizing (Glaser and Fetter 2005). Still others argue that counterforce missions and roles might work in the contemporary context against fledgling nuclear powers (Buchan et al. 2003: 41–43). However, as with BMD, the advantage of counterforce is likely to be temporary and uncertain; over time the target country could presumably develop more survivable nuclear forces. In any case, attacking an adversary’s nuclear forces with nuclear or conventional forces is a serious matter that most likely would result in a retaliatory strike. It carries much risk, is likely to undermine the taboo against the use of nuclear weapons, and could have negative political and military ramifications.

Conventional Defense. The purpose of a conventional defense is to deny victory to the enemy if deterrence fails and to provide credible options in responding to enemy attack. The defense force must be able to stop and defeat limited conventional intrusion as well as large-scale conventional attack, especially of the blitzkrieg type, on home territory or that of allies. It also must have the capability to launch a counteroffensive to destroy and limit enemy capability or to regain lost value (such as territory). As indicated in earlier discussion, in a nuclear setting the size, purpose, and role of conventional forces and the strategy for their employment would necessarily be linked to and vary with nuclear policy and strategy.

Ballistic Missile Defense. In the defense role, the purpose of BMD is to destroy enemy missiles to defeat an enemy attack, and to protect and limit damage to a state’s own strategic assets. BMD may also enhance deterrence by protecting strategic assets to secure the second-strike capability. The capability to reduce the vulnerability of the nuclear weapon state to nuclear attack and the capability to protect

strategic assets deployed overseas could also enhance the effectiveness of extended deterrence. BMD may also be a key component of an offensive strategy. With an effective defense shield, a state would be less deterred and may seriously contemplate attacks on other countries.

BMD may comprise boost phase, midcourse, and terminal interceptors. And it may be limited and tactical or comprehensive and strategic. It may be designed to protect specific strategic assets, civilian populations, or both against a specific threat or a wide array of threats. The 1972 Anti-Ballistic Missile (ABM) Treaty, for example, specifically allowed the deployment of BMD for force protection in two sites. The Clinton administration pursued a limited ground-based midcourse system designed to defend "the territory of the United States against limited ballistic missile attack (whether accidental, unauthorized, or deliberate)."¹³ North Korea was the country of most concern. Vide the 2002 NPR, the Bush administration proposed the development of an integrated, layered missile defense system with boost, midcourse, and terminal components. The idea is that if one layer of interceptors misses the target the next will have a second shot (Coyle 2006). Although public pronouncements still cite rogue states as the target, such a comprehensive system would appear to have broader ramifications as well. The United States and its allies (Japan, Taiwan, and North Atlantic Treaty Organization [NATO] member states) are also investing heavily in theater or tactical missile defense.

From the foregoing discussion of roles and strategies for the employment of nuclear weapons, it is evident that strategies of deterrence are better grounded and developed than offensive and defensive strategies. Though intellectually attractive, there are practical limits to exploiting the threat potential of nuclear weapons for offensive purposes. This situation could alter dramatically if defense against ballistic missiles became effective. For the present, technological and other hurdles suggest that defense against nuclear threats is likely to be limited and rather easily countered. In this context, deterrence appears likely to continue to be the dominant purpose and strategy for the employment of nuclear weapons.

Security Implications

Robert Jervis (1989: 23–45) identified several far-reaching security implications of mutual vulnerability arising from the possession of mutual second-strike capability: the impossibility of military victory and the perpetuation of peace, preservation of the status quo and the absence of peaceful change, stability and infrequent crises, high effectiveness of threats and the importance of commitments and compromise, the salience of nuclear danger as opposed to the military balance, and a tenuous link between military balance and political outcomes. He concluded that evidence from the Cold War period generally confirms these propositions. The issue is whether these implications continue to be valid in the con-

temporary strategic environment. Taking into account the differences between the Cold War and the contemporary strategic situations, this section develops an overview for exploring the security implications of nuclear weapons and strategies in the present period. Specifically it addresses the impact of nuclear weapons on distribution of power and alliance arrangements, bilateral and regional security dynamics, peace and stability, and dispute resolution.

Structural Consequences

The structural effects of nuclear weapons may be explored by investigating the implications of nuclear weapons for the balance of power, the balancing behavior of states, and the salience of alliance arrangements.

Power Balance. The term *balance of power* has many meanings.¹⁴ The focus here is on the impact of nuclear weapons on the distribution of power, which realists posit determines the material structure of the international system, with consequences for state behavior and system stability. A second focus is the imperative of balancing in an anarchic system and the associated realist claim that weak states balance strong ones through internal generation of power or through alliance formation.

On the distribution of power, a key question is what constitutes a pole. Although it is difficult to compute the power of nations and rank them, Hans Morgenthau and Kenneth Waltz assert that the rank of a state and whether it constitutes a pole depends on how well it scores on all dimensions of power, not just one dimension or sector. Morgenthau identifies geography, natural resources, industrial capacity, military preparedness, population, national character, national morale, quality of diplomacy, and quality of government as key elements of national power (1978: 117–55). Size of population and territory, resource endowment, economic capability, military strength, political stability, and competence are the key attributes of power identified by Waltz (1979: 131). International influence as a pole, however, depends not only on material capabilities; it is also contingent on certain nonmaterial qualities such as vision, policy, and political will to translate brute power into authority and influence over other states in the system.

Nuclear weapons may modify the military balance of power, but on their own they are unlikely to affect the overall distribution of power in the system. Nuclear weapons can affect the military balance by reducing or negating the potency of imbalance in conventional military capabilities. A small nuclear force can deter large-scale conventional and nuclear attacks by countries that are much stronger. This consideration underlies the claim that nuclear weapons, or more specifically the "balance of terror," equalize imbalances in military power. However, the equalizing effect operates only against specific adversaries and contingencies; it is not fungible like the defensive balance that is based on conventional military

capability.¹⁵ The military balance canceling effect of nuclear weapons does not alter the distribution of power at the system level unless nuclear weapon capability is combined with other attributes of power. In the post-World War II era, for example, nuclear weapons sharpened the already existing bipolarity. They did not create it. China became a nuclear weapon state in 1964 but did not figure significantly in the regional balance of power until well into the 1980s after it had become politically more stable, its economy began growing rapidly, and resources were available to modernize its military. Though Russia continues to have a formidable nuclear weapon capability, it is not considered a superpower or a pole today. Until its recent economic resurgence, Russia was not even taken seriously as a regional power in Asia. For change in the distribution of power, concurrent growth is required in several key attributes of power, and the state concerned should be willing to exercise that power in pursuit of a particular vision. Nuclear weapon capability adds to national military power, but by itself does not alter the ranking of a state or the distribution of power in the system.

Balancing Behavior. As with the distribution of power, nuclear weapons need not have a significant impact on the imperative of balancing in an anarchic international system. They may make internal balancing more possible and desirable than external balancing, but do not obviate the need for external balancing. Internal balancing is more possible and preferable for several reasons. First, even small nuclear forces can deter aggression (conventional and nuclear) by much stronger countries. Because it is easier to exploit the danger of nuclear war and to sustain a retaliatory force than to ensure a successful disarming first strike or an effective defense against nuclear weapons, superior nuclear capability (advantage in the ability to inflict retaliatory damage) is less likely to affect political outcomes when vital interests are at stake. Nuclear weapons can reduce the fear of abandonment, eliminate the concern about the commitment credibility of a nuclear weapon ally, and make states more self-reliant in ensuring their survival. Second, nuclear weapons do not add up in the same way as conventional capability and are much less fungible; that is, potency ceases to increase with numbers beyond a certain point (unlike with conventional weapons). Destructive power beyond a certain level (when parties to a conflict have a secure second-strike capability that can inflict unacceptable damage) is politically and strategically irrelevant. Third, alliances among nuclear weapon states may also complicate and limit the flexibility in nuclear planning by smaller states (a version of the fear of entrapment). However, the decision of a state to forego external balancing depends on its nuclear capability and the security contingencies it has to cover. A nascent nuclear weapon state that still has not developed a reliable retaliatory capability would find it useful to ally with a nuclear weapon state that can extend the deterrence function of its nuclear arsenal. Broader political and economic considerations may also make for alliances among nuclear weapon states. Nuclear Britain continued the alliance

relationship with the United States, France developed its own nuclear force and pulled out of nuclear NATO but remained a member of NATO, and China strategically aligned with the United States until the early 1980s.

Salience of Alliances. Balance of power informed by consideration of threat provides the rationale for alliance formation (Walt 1987). Alliances and alignments combine the power of states to confront a powerful adversary. They may also serve broader functions that go beyond purely military considerations. As observed earlier, nuclear weapons could reduce the salience of allies in military balancing because they make internal balancing more possible and attractive in certain situations. However, this consideration does not make alliances irrelevant. Although allies could not affect the strategic balance, alliances were considered important during the Cold War. Allied countries, especially large ones such as Japan and several NATO countries, did matter in many other attributes of power. Alliances not only extend the power and influence of the dominant partner; they can assist in the construction of a preferred order, allow for shared responsibilities, and balance the conventional military capability of an aspiring hegemon.

For nonnuclear weapon states, alliance with a nuclear weapon state that can provide security support or a guarantee makes eminent security sense, although the credibility issue can argue against relying on the nuclear guarantee of another state when that state itself is vulnerable to nuclear attack. Through a nuclear guarantee, the nuclear weapon state can discourage nuclear proliferation and also influence allies. Smaller countries obtain voice opportunities through alliances, which could also be a means for constraining the alliance lead power. For these and other reasons, alliances were important during the Cold War. Would alliances among nuclear weapon states and between nuclear and nonnuclear weapon states continue to be important in the contemporary unipolar world? This question is explored in Chapter 18, with specific reference to the U.S.-centered alliance system in Asia. It will also be useful to explore if and how the development of nuclear weapon capability by Pakistan has affected the China-Pakistan strategic alignment and Pakistan's security relationship with the United States.

Security Interaction Consequences

A key consequence of the transforming effect of nuclear weapons is the elevation of deterrence to center stage in national security policy and the relative decline in the salience of defense and offense. How this affects security interaction may be investigated by exploring its consequences for regional peace and stability and dispute resolution.

Cold War Experience: Relative Peace and Strategic Stability. The impossibility of military victory in a total war in a situation of mutual vulnerability has been cited as a cause of the unprecedented "long peace" between the two superpowers since 1945

(Jervis 1989: 23–24). Although other reasons (bipolarity, political and economic modernization, and satisfaction of the two superpowers with the status quo) may also have contributed to the long peace, it is unclear if they, on their own, can account for the Soviet–American peace.¹⁶ It is difficult to apportion responsibility, but it is unlikely that mutual vulnerability was unimportant. It is more likely that the different factors reinforced each other.

Jervis argues that nuclear weapons enhanced stability because they favor preservation of the status quo. Traditionally the threat and use of military force have been deployed along with other instruments to alter the status quo through war. Because of the mutual vulnerability of the two superpowers, nuclear weapons were more relevant during the Cold War in the deterrence role than in the coercive diplomacy or forcible use roles. Further, the state protecting a firmly entrenched status quo through deterrence enjoys certain bargaining advantages. Jervis (1989: 29–35) argues that the status quo country has a higher stake and therefore higher resolve in defending it; and the country seeking to alter the status quo bears the onus of moving first, knowing full well that its action could cause a conflict to escalate to a full-scale war. The status quo advantage applied in the prenuclear era as well. Nuclear weapons have magnified the effect. A firmly established status quo in the nuclear era favors the state practicing deterrence and is difficult to alter.

Crisis should also be infrequent in a condition of mutual, secure second-strike capability and when the status quo is firm (Jervis 1989: 35–38). Prenuclear causes of crisis, such as adventures in the expectation of victory and defection by significant allies that could change the distribution of power, are not valid in a situation of mutual vulnerability where security is provided by secure second-strike capability. The Cuban missile crisis occurred when the Soviets were weak and still seeking parity. Although there were conflicts on the periphery since then, they did not generate a crisis between the superpowers. As long as both sides were satisfied with the status quo, generating a crisis to gain something was not attractive enough to outweigh the costs. Should a crisis occur in the nuclear era, it will not be due to misreading enemy military strength as in the past; it will be based on the importance of the issue at stake, each state's willingness to run risks, and judgment of each other's resolve. Mutual vulnerability and the desire to avoid undesirable outcomes also provided incentives for Soviet–American cooperation. Such cooperation was designed to strengthen strategic stability and reduce the risk of unintended war.

However, it was feared that stability at the strategic level would make it safe to engage in lower-level violence. The stability–instability paradox rested on the belief that the mutual possession of second-strike capability lowers the probability that conventional wars will escalate to the nuclear level.¹⁷ The low likelihood of escalation (termed *strategic stability*) makes conventional war less dangerous, opening up space for limited war and other lower levels of violence in the pursuit of

political goals. However, as Jervis notes, because escalation can occur, mutual second-strike capability does not make the world safe for major provocations and limited wars. A requirement of U.S. strategy during the Cold War was to set in train a process that reconnected nuclear retaliation to conventional aggression. Despite fear of a Soviet blitzkrieg-type attack in Europe, the two superpowers studiously avoided conventional conflict with each other, fearing that such conflicts could escalate to the nuclear level.

Relevance for the Contemporary Era. The claim that nuclear weapons contribute to peace and strategic stability is grounded almost exclusively in the Cold War context of the two superpowers' mutual vulnerability. Would nuclear weapons have a similar effect in the contemporary nuclear context? There are two issues to consider here. One relates to the condition of asymmetry and the small size of the nuclear force of many states in the Asian security region. Can small nuclear forces deter each other, and can they deter stronger nuclear powers? Can stability be achieved with small nuclear forces? Would the risk of escalation to nuclear war make conventional war and low-intensity violence more likely among newer nuclear weapon states and undermine stability? The second issue relates to deterrence dominance. Does the development of missile defense in combination with a nuclear counterforce role undermine deterrence dominance and increase the space for offense by states with such capabilities?

Small Nuclear Forces and Deterrence. The premise that nuclear danger induces uncertainty and caution among nuclear weapon states underscores the thinking that small nuclear forces can deter aggressive action by other small nuclear powers as well as those by superior ones. Bundy (2004) argued that it did not take a huge stockpile of nuclear weapons or an assured destruction capability to deter even a formidable adversary like the Soviet Union. The strategies of minimum and existential deterrence rely on this premise. Kenneth Waltz (1995) forcefully makes the case that small nuclear forces can deter each other and also deter stronger nuclear powers. Arguing that a low probability of destructive attack is sufficient for deterrence, he posits that the requirements of effective deterrence—second-strike capability, avoiding launch on warning and on false signals, and effective command and control arrangements—can be satisfied by new nuclear weapon states with small nuclear forces and that nuclear threat by weaker countries is highly credible. What counts is not the balance of force but the balance of resolve, which hinges on the issue at stake (defense of the homeland for the weaker states) and the fear that aggressive action will invite nuclear retaliation.

This line of thinking is countered by those who argue that the requirements of stable deterrence cannot be satisfied by the new nuclear weapon states because military officers view preventive war in a positive light and are not interested in constructing invulnerable strategic forces; they also argue that the nuclear arsenals

of the newer nuclear weapon states are more prone to accidental and unauthorized use (Sagan 1995). A critical difference (not just between Waltz and Sagan, but between Waltz and his other critics as well) centers on the requirement of a secure second-strike capability. For assured retaliationists, effective deterrence entails certainty of retaliation and the capability to inflict a level of damage that is defined as unacceptable. For Waltz, the uncertainty and risk of nuclear war, and the perception that even a few bombs can inflict a high level of damage, are sufficient for deterrence to be effective. Even a slight chance that a provocation could lead to nuclear war is sufficient to deter all but the most highly motivated adversary (Bundy 1983). Robert Powell (2003: 101) argues that resolve is the key issue. When the balance of resolve favors a small nuclear power, it can deter a larger nuclear power. Even when the balance of resolve is ambiguous, if the smaller state is willing to run a higher risk, it can deter the larger nuclear power.

Small Nuclear Forces, Peace, and Stability. Building on the argument that small nuclear forces can deter like forces and even superior ones, Waltz posits that the spread of nuclear weapons to more states is not destabilizing. It can advance peace, security, and stability (Waltz 1995). He supports this assertion with these points: Nuclear weapons help ensure the security of states in an international system based on self-help; small nuclear forces will not affect the strategic balance; nuclear weapons reduce the chance of war by making miscalculation difficult and increasing the cost of war; and new nuclear weapon states will feel the same constraints that have been experienced by the older ones. The combination of nuclear deterrence and conventional defense eliminated war among advanced states in their core area of interest, but the proliferation of conventional weapons has sustained and possibly increased the incidence of wars on the periphery, making violence the privilege of the strong against the weak and among the weak and the poor. The gradual spread of nuclear weapons, according to Waltz, will decrease the incidence of war among the new states as well.

Analysts who argue that organizational pathologies, technological shortcomings, geographic proximity, intense disputes and distrust, and small nuclear arsenals increase volatility in the already conflict-prone regions contest such reassuring analysis (Feaver 1992/3, 1993; Sagan 1994, 1995). Some take this critique a step further by claiming that, instead of inducing caution and reducing the incidence of conventional war, the danger of nuclear war can make conflict among newer nuclear weapon states more likely (Kapur 2006: 10). Rather than restrain behavior, the introduction of nuclear danger makes the world a more violent place. Earlier, Jervis argued that the advantage favoring the status quo in the nuclear era may not hold when the status quo is ambiguous or when a revisionist state has the power to implement its threats with little cost or danger, has high resolve, and sees the domestic or international situation as precarious enough to merit great risk

and cost (Jervis 1989: 32–34). Along these lines but in a more detailed fashion, in the context of new nuclear powers and drawing on Pakistan's behavior in the conflict over Kashmir in the post-1990 period (de facto and overt nuclear periods), Paul Kapur (2006: 42–43) argues that nuclear weapons may provide incentives for a weaker, revisionist state to engage in limited conventional military action to alter the status quo. Such a state would not engage in aggressive behavior in a conventional world because it would most likely result in failure.

In a nuclear world, the stronger state is inhibited from employing its full military might against a weaker state because of the fear of escalation to nuclear war. This risk of escalation emboldens a highly motivated weaker state to behave aggressively. Kapur advances two reasons why a weak, revisionist state might engage in conventional aggression (2006: 45). First, conventional military aggression can forcefully alter the territorial status quo while the nuclear weapons of the weaker state deter full-scale conventional retaliation by the stronger adversary. Second, conventional military action can trigger a highly visible international crisis, which can be used by the weaker state to seek favorable international diplomatic intervention and an outcome favorable to itself.

That nuclear weapons enable weaker states to punch above their weight is difficult to refute. Kapur's line of argument is not without merit, but it can be rebutted on several counts. One, behaving aggressively carries high costs—although escalation concerns may reduce the military cost, the political, diplomatic, and economic costs can be considerable. Repeated adventurism is counterproductive. Second, it is unlikely that such aggressive behavior could in fact bring about meaningful change in the status quo. If the stakes are high enough, the stronger status quo party will resort to full-scale conventional retaliation. The onus of escalating to the nuclear level then shifts to the conventionally weaker, revisionist state that initiated the crisis. Third, there is no certainty that international diplomatic intervention would favor the revisionist state. It could work against it. The net effect could still favor the status quo state. Finally, it is possible to argue that, as in the Cuban missile crisis, a long view of the 1999 and 2002 crises in South Asia would demonstrate the limited utility of nuclear weapons in altering the status quo through force and the danger of such behavior and thus constrain future action by the affected states. I will further develop this argument in Chapter 18.

Is Deterrence Dominance Eroding? The assertions that small nuclear forces can deter other nuclear weapon states, including those with much stronger nuclear arsenals, and that they can contribute to peace, security, and stability are based on the premise that nuclear weapons favor deterrence dominance. However, if defense against nuclear weapons becomes effective, the assumption of mutual vulnerability would not hold, deterrence dominance would be undermined, and the relationship between force and statecraft among nuclear weapon states would

undergo substantial change. As Waltz states, the logic of strategic defense is that of conventional weaponry. It reintroduces the defense/offense race (Waltz 2004). If all sides have impregnable defenses, according to Waltz, the world has been made safe for World War III. Effective ballistic missile defense and the development of a nuclear counterforce capability would undermine deterrence dominance and the stability that is based on it. Growing possibility and effectiveness of offense increases the prospects for opportunistic expansionism, the incentive to strike first, and arms racing. Increasing effectiveness of defense against nuclear threats introduced many uncertainties.

Currently, only the United States and its allies are actively pursuing a missile defense capability with the stated purpose of defending against threats posed by rogue states, increasing the credibility of extended deterrence, and reducing the incentive for proliferation by U.S. allies. Through its new triad, Washington is seeking to reduce its reliance on nuclear weapons but increase their tactical role. Should all these efforts succeed, the vulnerability of the United States to attack by other nuclear weapon states would decline, allowing it greater freedom to engage in offensive operations (preventive, preemptive, and limited war) against them. To be operationally meaningful, however, U.S. vulnerability must decline greatly, possibly to zero before decision makers can have sufficient confidence to employ offensive and defensive strategies.

At the same time, even a marginal increase in effectiveness would create concern in target countries about the effectiveness of their strategic deterrent. They may seek better force protection, build additional missiles and decoys, and develop other countermeasures such as multiple warhead missiles to overwhelm and penetrate the U.S. defense system, and in a crisis situation they may attack the defense system to limit its effectiveness or destroy it. They might also engage in the development of their own missile defense systems. Probably only Russia and China have the capability to move in these directions. Other target states would likely disperse and hide their nuclear arsenals to create uncertainty in the minds of U.S. decision makers as to whether they can destroy the entire arsenal of those states in a first strike. In light of continuing technological limitations reflected in the partial success of tests and limited deployment, and the relative ease with which a retaliatory capability can be sustained, it appears that deterrence dominance would continue to prevail. Uncertainty and the danger of nuclear war are likely to create cautious relations among nuclear weapon states, although they may not prevent all violence.

Nuclear Superiority. Unless defense becomes more effective, superiority in nuclear capability may not confer military or diplomatic advantage on strong nuclear weapon states in their interaction with lesser nuclear weapon states. During the Cold War, although superiority in numbers appears to have been a consideration

in the strategies of the two superpowers at certain points in time, it does not appear to have been consequential, especially after both had developed secure second-strike capabilities. One lesson of the Cold War was that political outcomes had little or no connection to the strategic balance. Differences in capability did not seem to have affected the security behavior of lesser nuclear weapon states. The security relationships of these states were shaped in large measure by the dispute at stake and the resolve of the conflicting parties as the Soviet Union discovered in the military clashes with China in 1969. However, the certainty of massive retaliation by a more powerful adversary when provoked can be expected to limit the range of goals and options available to a smaller nuclear weapon state and restrain its behavior.

Nuclear weapons do not seem to have conferred any definite advantage to nuclear weapon states in their dealings with nonnuclear weapon states. The huge American nuclear arsenal, for example, did not deter North Vietnam. For a number of reasons, the United States was constrained in using its nuclear capability. Bundy (2004) disputes the claim that the threat of nuclear war had any impact on the 1953 Korean armistice agreement or the 1946 Soviet withdrawal from Iran. He argues that since the 1958 Taiwan crisis pertaining to the offshore islands, nuclear threats have not featured in regional conflicts and that possession of nuclear capability did not confer diplomatic and military advantage, as nonnuclear weapon states were not deterred. Vietnam invaded Cambodia, which was supported by China; and China attacked Vietnam, which was backed by the Soviet Union.

Nuclear Weapons and Resolution of Disputes

Although nuclear weapons contributed to Soviet-American peace and strategic stability, they did not bring about resolution of disputes or prevent all forms of violence. Some, including Jervis, identify this as a weakness of deterrence theorizing, which focused almost exclusively on threats and demonstrating resolve in a conflict situation. It did not focus on rewards or compromise to ease tensions and bring about conflict settlement. Nuclear weapons also prevented the traditional use of military force along with other instruments of policy to resolve disputes on the battlefield. Consequently, the security interaction of the two superpowers remained "frozen," preventing the resolution of disputes through peaceful means or through the use of force, as would have happened in the prenuclear era (Jervis 1989: 29–32). The absence of change is also attributed to the bargaining advantages enjoyed by the side defending a firmly established status quo.

However, to argue that nuclearization or mutual vulnerability prevents the resolution of disputes is to conflate cause and symptom. Nuclear weapons are not the cause of political disputes. Although nuclear weapons may have negated conflict resolution through the use of force, conflicts could still have been addressed

peacefully through negotiations and other means as long as the parties were amenable to bridging differences through compromise. The Cold War came to a peaceful end despite the situation of mutual vulnerability. Domestic political change in the Soviet Union was a principal factor in terminating the Cold War.

The debates over the implications of nuclear weapons—deterrence effectiveness of small nuclear forces and their contribution to peace and stability—are grounded largely in abstract reasoning, the Cold War experience, or refutation of that experience. More empirical work is required to develop and substantiate claims. This, however, is made difficult because the effectiveness of deterrence and its contribution to stability are not easy to demonstrate; because of limited real-world cases and experience; the tendency to downplay the significance and role of nuclear weapons; and the high confidentiality and lack of transparency in Asian countries on matters associated with nuclear weapon capabilities, strategies, interaction, and outcomes. Nevertheless, more empirical work is becoming available especially on the India-Pakistan relationship during the crises at the turn of the twenty-first century. This book seeks to contribute to this by making it possible to advance stronger empirically grounded statements on the purposes and roles of national nuclear forces and to offer broad observations on their implications for regional security dynamics, peace, stability, and conflict resolution.

Notes

1. *The Absolute Weapon* is the title of the book by Bernard Brodie and others (1946) that examines the implications of atomic power for world order.
2. Cited in Trachtenberg (1989: 304). It should be noted here that Brodie subsequently changed his view. He wrote an introductory essay titled "The Continuing Relevance of 'On War'" for the publication of Clausewitz's "On War" in English (Brodie 1976). See also Brodie (1973, Chap. 9).
3. Schelling (1966: 7) posits that the distinction between use and threat of force does not effectively capture the change brought about by nuclear weapons.
4. Forces and weapon systems developed for deterrence were no longer useful in defense in the sense that they could not guarantee that a nuclear-armed state could not retaliate and inflict unimaginable devastation. Nuclear weapons also negated the potential for war mobilization that was important in earlier periods. Nuclear war would be fought and decided with the arsenal in place. See Brodie (1946: 88–90). Urban-industrial centers continued to be important targets, however, not because of their economic and war potential, but as hostages in coercive warfare.
5. The discussion of political ends draws on the realist paradigm, which assigns state violence a central role in these quests.
6. On international order, see Alagappa 2003.
7. Thomas Schelling introduced the term *compellence* (Schelling 1966).
8. George and Simon (1994) first employed the term *coercive diplomacy* in 1970. George (2004) distinguishes coercive diplomacy from compellence.
9. On conventional deterrence, see Mearsheimer (1983) and Huntington (1982).

10. On the waves or evolution of deterrence thinking, see Jervis (1979), Freedman (1983), and Morgan (2003). Freedman (2004) documents the rise and decline of deterrence.
11. The discussion of the strategy of massive retaliation draws on Dulles (1954), Kauffman (1956), and Freedman (1983).
12. Because the term *assured retaliation* was perceived as bland, the strategy was labeled as "assured destruction" in order to convey the intentional nature of the retaliatory threat and to highlight the harsh consequences that would follow. The new label was also intended to convey an image of toughness to the American right (Freedman 1983: 246). However, the term *assured retaliation* is more accurate as a concept and strategy.
13. National Missile Defense Act of 1999, quoted in Glaser and Fetter (2001: 46).
14. On the many meanings of balance of power see Claude (1962), Haas (1953), Morgenthau (1978), and Sheehan (1996).
15. On balance of terror, deterrent balance, and defensive balance, see Snyder (1961: 43–44).
16. On alternative explanations for the long peace, see Mueller (1988) and Waltz (1979).
17. On the stability-instability paradox, see Snyder (1961) and Jervis (1989: 19–22).

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