
NUCLEAR MYTHS AND POLITICAL REALITIES

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Two pervasive beliefs have given nuclear weapons a bad name: that nuclear deterrence is highly problematic, and that a breakdown in deterrence would mean Armageddon. Both beliefs are misguided and suggest that nearly half a century after Hiroshima, scholars and policy makers have yet to grasp the full strategic implications of nuclear weaponry. I contrast the logic of conventional and nuclear weaponry to show how nuclear weapons are in fact a tremendous force for peace and afford nations that possess them the possibility of security at reasonable cost.

Nuclear weapons have been given a bad name not just by the Left, as one might have expected, but by the Center and Right as well. Throughout the long life of NATO, calls for strengthening conventional forces have been recurrently heard, reflecting and furthering debate about the wisdom of relying on nuclear deterrence. Doubts were spread more widely when McGeorge Bundy, George Kennan, Robert McNamara, and Gerald Smith published their argument for adopting a NATO policy of "no first use" (Bundy et al. 1982). From the Right came glib talk about the need to be prepared to fight a protracted nuclear war in order to "deter" the Soviet Union and proclaiming the possibility of doing so. Brigadier General Louis Guifrida, when he was director of the Federal Emergency Management Agency, well described the Reagan administration's intended nuclear stance: "The administration," he said, "categorically rejected the short war. We're trying to inject a long-war mentality" (Dowd 1984). Such statements, which scared people at home and abroad out of their wits, quickly disappeared from public dis-

course. Nevertheless, preparation to carry the policy through proceeded apace. In 1982 Secretary of Defense Caspar Weinberger signed the five-year Defense Guidance Plan, which was to provide the means of sustaining a nuclear war; and in March of that year an elaborate war game dubbed Ivy League "showed" that it could be done (Pringle and Arkin 1983, 22-40). Finally, in March of 1983 President Reagan offered his vision of a world in which defensive systems would render nuclear weapons obsolete.

With their immense destructive power, nuclear weapons are bound to make people uneasy. Decades of fuzzy thinking in high places about what deterrence is, how it works, and what it can and cannot do have deepened the nuclear malaise. Forty-some years after the first atomic bombs fell on Japan, we have yet to come to grips with the strategic implications of nuclear weapons. I apply nuclear reasoning to military policy and in doing so contrast the logic of conventional and nuclear weapons.

Uneasiness over nuclear weapons and the search for alternative means of security stem in large measure from widespread

failure to understand the nature and requirements of deterrence. Not unexpectedly, the language of strategic discourse has deteriorated over the decades. This happens whenever discussion enters the political arena, where words take on meanings and colorations reflecting the preferences of their users. Early in the nuclear era *deterrence* carried its dictionary definition, dissuading someone from an action by frightening that person with the consequences of the action. To deter an adversary from attacking one need have only a force that can survive a first strike and strike back hard enough to outweigh any gain the aggressor had hoped to realize. Deterrence in its pure form entails no ability to defend; a deterrent strategy promises not to fend off an aggressor but to damage or destroy things the aggressor holds dear. Both defense and deterrence are strategies that a status quo country may follow, hoping to dissuade a state from attacking. They are different strategies designed to accomplish a common end in different ways, using different weapons differently deployed. Wars can be prevented, as they can be caused, in various ways.

Deterrence antedates nuclear weapons, but in a conventional world deterrent threats are problematic. Stanley Baldwin warned in the middle 1930s when he was prime minister of England that the bomber would always get through, a thought that helped to demoralize England. It proved seriously misleading in the war that soon followed. Bombers have to make their way past fighter planes and through ground fire before finding their targets and hitting them quite squarely. Nuclear weapons purify deterrent strategies by removing elements of defense and war-fighting. Nuclear warheads eliminate the necessity of fighting and remove the possibility of defending, because only a small number of warheads need to reach their targets.

Ironically, as multiplication of missiles

increased the ease with which destructive blows can be delivered, the distinction between deterrence and defense began to blur. Early in President Kennedy's administration, Secretary McNamara began to promote a strategy of Flexible Response, which was halfheartedly adopted by NATO in 1967. Flexible Response calls for the ability to meet threats at all levels from irregular warfare to conventional warfare to nuclear warfare. In the 1970s and 1980s more and more emphasis was placed on the need to fight and defend at all levels in order to "deter." The melding of defense, war-fighting, and deterrence overlooks a simple truth about nuclear weapons proclaimed in the book title *The Absolute Weapon* (Brodie 1946). Nuclear weapons can carry out their deterrent task no matter what other countries do. If one nuclear power were able to destroy almost all of another's strategic warheads with practical certainty or defend against all but a few strategic warheads coming in, nuclear weapons would not be absolute. But because so much explosive power comes in such small packages, the invulnerability of a sufficient number of warheads is easy to achieve and the delivery of fairly large numbers of warheads impossible to thwart, both now and as far into the future as anyone can see. The absolute quality of nuclear weapons sharply sets a nuclear world off from a conventional one.

What Deters?

Most discussions of deterrence are based on the belief that deterrence is difficult to achieve. In the Eisenhower years "massive retaliation" was the phrase popularly used to describe the response we would supposedly make to a Soviet Union attack. Deterrence must be difficult if the threat of massive retaliation is required to achieve it. As the Soviet Union's arsenal grew, MAD (mutual assured destruction) became the acronym of

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choice, thus preserving the notion that deterrence depends on being willing and able to destroy much, if not most, of a country.

That one must be able to destroy a country in order to deter it is an odd notion, though of distinguished lineage. During the 1950s emphasis was put on the *massive* in *massive retaliation*. Beginning in the 1960s the emphasis was put on the *assured destruction* in the doctrine of MAD. Thus viewed, deterrence becomes a monstrous policy, as innumerable critics have charged. One quotation can stand for many others. In a warning to NATO defense ministers that became famous, Henry Kissinger counseled the European allies not to keep "asking us to multiply strategic assurances that we cannot possibly mean or if we do mean, we should not want to execute because if we execute, we risk the destruction of civilization" (1981, 240). The notion that the failure of deterrence would lead to national suicide or to mutual annihilation betrays a misunderstanding of both political behavior and nuclear realities.

Introducing the Eisenhower administration's New Look policy in January of 1954, John Foster Dulles gave the impression that aggression anywhere would elicit heavy nuclear retaliation. Just three months later, he sensibly amended the policy. Nuclear deterrence, Dulles and many others quickly came to realize, works not against minor aggression at the periphery, but only against major aggression at the center, of international politics. Moreover, to deter major aggression, Dulles now said, "the probable hurt" need only "outbalance the probable gain" (1954, 359). Like Brodie before him, Dulles based deterrence on the principle of proportionality: "Let the punishment fit the crime."

What would we expect the United States to do if the Soviet Union launched a major conventional attack against vital U.S. interests—say, in Western Europe?

Military actions have to be related to an objective. Because of the awesome power of nuclear weapons, the pressure to use them in ways that achieve the objective at hand while doing and suffering a minimum of destruction would be immense. It is preposterous to think that if a Soviet attack broke through NATO's defenses, the United States would strike thousands of Soviet military targets or hundreds of Soviet cities. Doing so would serve no purpose. Who would want to make a bad situation worse by launching wantonly destructive attacks on a country that can strike back with comparable force, or, for that matter, on a country that could not do so? In the event, we might strike a target or two—military or industrial—chosen to keep casualties low. If the Soviet Union had run the preposterous risk of attacking the center of Europe believing it could escape retaliation, we would thus show them that they were wrong while conveying the idea that more would follow if they persisted. Among countries with abundant nuclear weapons, none can gain an advantage by striking first. The purpose of demonstration shots is simply to remind everyone—should anyone forget—that catastrophe threatens. Some people purport to believe that if a few warheads go off, many will follow. This would seem to be the least likely of all the unlikely possibilities. That no country gains by destroying another's cities and then seeing a comparable number of its own destroyed in return is obvious to everyone.

Despite widespread beliefs to the contrary, deterrence does not depend on destroying cities. Deterrence depends on what one *can* do, not on what one *will* do. What deters is the fact that we can do as much damage to them as we choose, and they to us. The country suffering the retaliatory attack cannot limit the damage done to it; only the retaliator can do that.

With nuclear weapons, countries need threaten to use only a small amount of

force. This is so because once the willingness to use a little force is shown, the adversary knows how easily more can be added. This is not true with conventional weapons. Therefore, it is often useful for a country to threaten to use great force if conflict should lead to war. The stance may be intended as a deterrent one, but the ability to carry the threat through is problematic. With conventional weapons, countries tend to emphasize the first phase of war. Striking hard to achieve a quick victory may decrease the cost of war. With nuclear weapons, political leaders worry not about what may happen in the first phase of fighting but about what may happen in the end. As Clausewitz wrote, if war should ever approach the absolute, it would become "imperative . . . not to take the first step without considering what may be the last" (1976, 584).

Since war now approaches the absolute, it is hardly surprising that President Kennedy echoed Clausewitz' words during the Cuban Missile Crisis of 1962. "It isn't the first step that concerns me," he said, "but both sides escalating to the fourth and fifth step—and we don't go to the sixth because there is no one around to do so" (R. Kennedy 1969, 98). In conventional crises, leaders may sensibly seek one advantage or another. They may bluff by threatening escalatory steps they are in fact unwilling to take. They may try one stratagem or another and run considerable risks. Since none of the parties to the struggle can predict what the outcome will be, they may have good reason to prolong crises, even crises entailing the risk of war. A conventional country enjoying military superiority is tempted to use it before other countries right the military balance. A nuclear country enjoying superiority is reluctant to use it because no one can promise the full success of a disarming first strike. As Henry Kissinger retrospectively said of the Cuban Missile Crisis, the Soviet Union had only "60-70

truly strategic weapons while we had something like 2,000 in missiles and bombs." But, he added, "with some proportion of Soviet delivery vehicles surviving, the Soviet Union could do horrendous damage to the United States" (Kissinger 1979, 18). In other words, we could not be sure that our two thousand weapons would destroy almost all of their sixty or seventy. Even with numbers immensely disproportionate, a small force strongly inhibits the use of a large one.

The catastrophe promised by nuclear war contrasts sharply with the extreme difficulty of predicting outcomes among conventional competitors. This makes one wonder about the claimed dependence of deterrence on perceptions and the alleged problem of credibility. In conventional competitions, the comparative qualities of troops, weaponry, strategies, and leaders are difficult to gauge. So complex is the fighting of wars with conventional weapons that their outcomes have been extremely difficult to predict. Wars start more easily because the uncertainties of their outcomes make it easier for the leaders of states to entertain illusions of victory at supportable cost. In contrast, contemplating war when the use of nuclear weapons is possible focuses one's attention not on the probability of victory but on the possibility of annihilation. Because catastrophic outcomes of nuclear exchanges are easy to imagine, leaders of states will shrink in horror from initiating them. With nuclear weapons, stability and peace rest on easy calculations of what one country can do to another. Anyone—political leader or man in the street—can see that catastrophe lurks if events spiral out of control and nuclear warheads begin to fly. The problem of the credibility of deterrence, a big worry in a conventional world, disappears in a nuclear one.

Yet the credibility of deterrence has been a constant U.S. worry. The worry is a hangover from the 1930s. Concern over

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credibility, and the related efforts to show resolve in crises or wars where only peripheral interests are at stake were reinforced because the formative experiences of most of the policy makers of the 1950s and 1960s took place in the 1930s. In rearming Germany, in reoccupying the Rhineland, in annexing Austria, and in dismantling Czechoslovakia, Hitler went to the brink and won. "We must not let that happen again" was the lesson learned, but in a nuclear world the lesson no longer applies. Despite rhetoric to the contrary, practice accords with nuclear logic because its persuasive force is so strong, and the possible consequences of ignoring it so grave. Thus, John Foster Dulles, who proclaimed that maintaining peace requires the courage to go the brink of war, shrank from the precipice during the Hungarian uprising of 1956. And so it has been every time that events even remotely threatened to get out of hand at the center of international politics.

Still, strategists' and commentators' minds prove to be impressively fertile. The imagined difficulties of deterrence multiply apace. One example will do: Paul Nitze argued in the late 1970s that, given a certain balance of strategic forces, the Soviet Union's supposed goal of world domination, and its presumed willingness to run great risks, the Soviet Union might launch a first strike against our land-based missiles, our bombers on the ground, and our strategic submarines in port. The Soviet Union's strike would tilt the balance of strategic forces sharply against us. Rather than retaliate, our president might decide to acquiesce; that is, we might be self-deterred (1988, 357-60). Nitze's scenario is based on faulty assumptions, unfounded distinctions, and preposterous notions about how governments behave. Soviet leaders, according to him, may have concluded from the trend in the balance of nuclear forces in the middle 1970s that our relatively small warheads and their civil defense would

enable the Soviet Union to limit the casualties resulting from our retaliation to 3% or 4% of their population. Their hope for such a "happy" outcome would presumably rest on the confidence that their first strike would be well timed and accurate and that their intelligence agencies would have revealed the exact location of almost all of their intended targets. In short, their leaders would have to believe that all would go well in a huge, unrehearsed missile barrage, that the United States would fail to launch on warning, and that if by chance they had failed to "deter our deterrent," they would still be able to limit casualties to only ten million people or so.¹ But how could they entertain such a hope when by Nitze's own estimate their first strike would have left us with two thousand warheads in our submarine force in addition to warheads carried by surviving bombers?

Nitze's fear rested on the distinction between counterforce strikes and countervalue strikes—strikes aimed at weapons and strikes aimed at cities. Because the Soviet Union's first strike would be counterforce, any U.S. president would seemingly have good reason to refrain from retaliation, thus avoiding the loss of cities still held hostage by the Soviet Union's remaining strategic forces. But this thought overlooks the fact that once strategic missiles numbered in the low hundreds are fired, the counterforce-countervalue distinction blurs. One would no longer know what the attacker's intended targets might be. The Soviet Union's counterforce strike would require that thousands, not hundreds, of warheads be fired. Moreover, the extent of their casualties, should we decide to retaliate, would depend on how many of our warheads we chose to fire, what targets we aimed at, and whether we used ground bursts to increase fallout. Several hundred warheads could destroy either the United States or the Soviet Union as ongoing societies. The assumptions made in the ef-

fort to make a Soviet first strike appear possible are ridiculous. How could the Soviet Union—or any country, for that matter—somehow bring itself to run stupendous risks in the presence of nuclear weapons? What objectives might its leaders seek that could justify the risks entailed? Answering these questions sensibly leads one to conclude that deterrence is deeply stable. Those who favor increasing the strength of our strategic forces, however, shift to a different question. “The crucial question,” according to Nitze, “is whether a future U.S. president should be left with only the option of deciding within minutes, or at most within two or three hours, to retaliate after a counterforce attack in a manner certain to result not only in military defeat for the United States but in wholly disproportionate and truly irremediable destruction to the American people” (1988, 357). One of the marvels of the nuclear age is how easily those who write about the unreliability of deterrence focus on the retaliator’s possible inhibitions and play down the attacker’s obvious risks. Doing so makes deterrence seem hard and leads to arguments for increasing our military spending in order “to deny the Soviet Union the possibility of a successful war-fighting capability” (1988, 360), a strategic capability that the Soviet Union has never remotely approached.

We do not need ever-larger forces to deter. Smaller forces, so long as they are invulnerable, would be quite sufficient. Yet the vulnerability of fixed, land-based missiles has proved worrisome. Those who do the worrying dwell on the vulnerability of one class of weapon. The militarily important question, however, is not about the vulnerability of one class of weapon but about the vulnerability of a whole strategic-weapons system. Submarine-launched missiles make land-based missiles invulnerable since destroying only the latter would leave thousands of strategic warheads intact. To overlook

this again reflects conventional thinking. In the absence of a dominant weapon, the vulnerability of one weapon or another may be a big problem. If the means of protecting sea-lanes of communications were destroyed, for example, we would be unable to deploy and support troops abroad. The problem disappears in a nuclear world. Destroying a portion of one’s strategic force means little if sufficient weapons for deterrence survive.

Thinking about deterrence is often faulted for being abstract and deductive, for not being grounded in experience. The criticism is an odd one, since all statements about the military implications of nuclear weapons are inferred from their characteristics. Deterriers from Brodie onward have drawn conclusions from the all-but-unimaginable increase in easily delivered firepower that nuclear warheads embody. Those who in the nuclear era apply lessons learned in conventional warfare make the more problematic claim that despite profound changes in military technology the classic principles of warfare endure (Rose 1980, 102-106). We all, happily, lack the benefit of experience. Moreover, just as deterrent logic is abstract and deductive, so too are the weaknesses attributed to it. Scenarios showing how deterrence might fail are not only abstract but also far-fetched. Deterrence rests on simple propositions and relies on forces obviously sufficient for their purpose.

Deterring the Soviet Union

Underlying much of the concern about the reliability of nuclear deterrence is the conviction that the Soviet Union is especially hard to deter. Three main reasons are given for believing this. First, the Soviet Union’s ambitions are said to be unlimited. In 1984 Secretary of Defense Caspar Weinberger, when asked why the Soviet Union armed itself so heavily,

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answered the question bluntly, "World domination, it's that simple" (Rosenthal 1989). Second, her military doctrine seemed to contemplate the possibility of fighting and winning combined conventional and nuclear war, while rejecting the doctrine of deterrence. Third, the Soviet Union has appeared to many people in the West to be striving for military superiority.

These three points make a surprisingly weak case, even though it has been widely accepted. Ambitions aside, looking at the Soviet Union's behavior one is impressed with its caution when acting where conflict might lead to the use of major force. Leaders of the Soviet Union may hope that they can one day turn the world to communism. Although the Soviet Union's intentions may be extraordinary, her behavior has not been. Everyone agrees that except in the military sector, the Soviet Union is the lagging competitor in a two-party race. The Soviet Union has been opportunistic and disruptive, but one expects the lagging party to score a point or two whenever it can. The Soviet Union has not scored many. Her limited international successes should not obscure the fact that what the Soviet Union has done mostly since 1948 is lose.

The second point rests on basic misunderstandings about deterrence. It has often been argued that we could not rely on deterrence when the Soviet Union was rejecting the doctrine. One of the drawbacks of the "theory" of assured destruction, according to Henry Kissinger, was that "the Soviets did not believe it" (1981, 238). The efficacy of nuclear deterrence, however, does not depend on anyone's accepting it. Secretaries of defense nevertheless continue to worry that Soviet values, perceptions, and calculations may be different from ours. Thus, Secretary of Defense Harold Brown, worried by the Soviets' emphasis "on the acquisition of war-winning capabilities," concluded that we must "continue to adapt and update

our countervailing capabilities so that the Soviets will clearly understand that we will never allow them to use their nuclear forces to achieve any aggressive aim at an acceptable cost" (1980, 83).

The belief that the Soviet Union's having an aggressive military doctrine makes her especially hard to deter is another hangover from conventional days. Germany and Japan in the 1930s were hard to deter, but then the instruments for deterrence were not available. We can fairly say that their leaders were less averse to running risks than most political leaders are. But that is no warrant for believing that had they been confronted with second-strike nuclear forces, they would have been so foolhardy as to risk the sudden destruction of their countries. The decision to challenge the vital interests of a nuclear state, whether by major conventional assault or by nuclear first strike, would be a collective decision involving a number of political and military leaders. One would have to believe that a whole set of leaders might suddenly go mad. Rulers like to continue to rule. Except in the relatively few countries of settled democratic institutions, one is struck by how tenaciously rulers cling to power. We have no reason to expect Russian leaders to be any different. The notion that Russian leaders might risk losing even a small number of cities by questing militarily for uncertain gains is fanciful. Malenkov and Khrushchev lost their positions for lesser failures.

With conventional weapons a status quo country must ask itself how much power it must harness to its policy in order to dissuade an especially aggressive state from striking. Countries willing to run high risks are hard to dissuade. The varied qualities of governments and the temperaments of leaders have to be carefully weighed. In a nuclear world any state will be deterred by another state's second-strike forces. One need not become preoccupied with the character-

istics of the state that is to be deterred or scrutinize its leaders.

The third worry remains: the Soviet Union's seeming aspiration for military superiority. One might think that the worry should have run the other way through most of the years of the Cold War. In the nuclear business the United States moved from monopoly to superiority. In the late fifties Khrushchev deeply cut conventional arms, and the Soviet Union failed to produce strategic warheads and missiles as rapidly as we had expected. Nevertheless, the Kennedy administration undertook the largest peacetime military buildup the world had yet seen in both nuclear and conventional weaponry. We forged ahead so far strategically that Robert McNamara thought the Soviet Union would not even try to catch up. "There is," he said, "no indication that the Soviets are seeking to develop a strategic nuclear force as large as ours" (Interview, *U.S. News and World Report*, 12 April 1976, 52). The Soviet Union's giving up would have been historically unprecedented. Instead, the Soviet Union did try to compete, but to catch up with the United States was difficult. In the 1970s, the decade in which we are told the Soviet Union moved toward superiority (or, according to President Reagan, achieved it), the United States in fact added more nuclear warheads to its arsenal than the Soviet Union did.

We have exaggerated the strength of the Soviet Union; and they, no doubt, have exaggerated ours. One may wonder whether the Soviet Union ever thought itself superior or believed it could become so. Americans easily forget that the Soviet Union has the strategic weapons of the United States, Britain, France, and China pointed at it and sees itself threatened from the East as well as the West. More fundamentally, continued preoccupation with denying "superiority" to the Soviet Union, if not seeking it ourselves, suggests that a basic strategic implication

of nuclear weapons is yet to be appreciated. So long as two or more countries have second-strike forces, to compare them is pointless. If no state can launch a disarming attack with high confidence, force comparisons become irrelevant. For deterrence one asks how much is enough, and enough is defined as "having a second-strike capability." This does not imply that a deterrent force deters everything, but rather that beyond a certain level of capability, additional forces provide no additional coverage for one party and pose no additional threat to others. The United States and the Soviet Union have long had second-strike forces, with neither able to launch a disarming first strike against the other. Two countries with second-strike forces have the same amount of strategic power—since, short of attaining a first-strike capability, adding more weapons does not change the effective military balance.

Why Nuclear Weapons Dominate Strategy

Deterrence is easier to contrive than most strategists have believed. With conventional weapons, a number of strategies are available, strategies combining and deploying forces in different ways. Strategies may do more than weapons to determine the outcomes of wars. Nuclear weapons are different; they dominate strategies. As Brodie clearly saw, the effects of nuclear weapons derive not from any particular design for their employment in war but simply from their presence (1973, 412). Indeed, in an important sense, nuclear weapons eliminate strategy. If one thinks of strategies as being designed for defending national objectives or for gaining them by military force and as implying a choice about how major wars will be fought, nuclear weapons make strategy obsolete. Nevertheless, the conviction that the only reliable deter-

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rent force is one able to win a war or at least end up in a better position than the Soviet Union is widespread. Linton F. Brooks, while a captain in the U.S. Navy, wrote that "war is the ultimate test of any strategy; a strategy useless in war cannot deter" (1988, 580; see also Howard 1981, 15).

NATO policy well illustrates the futility of trying to transcend deterrence by fashioning war-fighting strategies. The supposed difficulties of extending deterrence to cover major allies has led some to argue that we require nuclear superiority, that we need nuclear war-fighting capabilities, and that we must build up our conventional forces. Once the Soviet Union achieved nuclear parity, confidence in our extended deterrent declined in the West. One wonders whether it did in the East. Denis Healey once said that one chance in a hundred that a country will retaliate is enough to deter an adversary, although not enough to reassure an ally. Many have repeated his statement; but none, I believe, has added that reassuring allies is unnecessary militarily and unwise politically. Politically, allies who are unsure of one another's support have reason to work harder for the sake of their own security. Militarily, deterrence requires only that conventional forces be able to defend long enough to determine that an attack is a major one and not merely a foray. For this, a trip wire force as envisioned in the 1950s, with perhaps fifty thousand U.S. troops in Europe, would be sufficient. Beyond that, deterrence requires only that forces be invulnerable and that the area protected be of manifestly vital interest. West European countries can be counted on to maintain forces of trip wire capability.

Nuclear weapons strip conventional forces of most of their functions. Bernard Brodie pointed out that in "a total war" the army "might have no function at all" (1957, 115). Herman Kahn cited "the claim that in a thermonuclear war it is im-

portant to keep the sea lanes open" as an example of the "quaint ideas" still held by the military (1960, 38). Conventional forces have only a narrow role in any confrontation between nuclear states over vital interests, since fighting beyond the trip wire level serves no useful purpose. Enlarging conventional capabilities does nothing to strengthen deterrence. Strategic stalemate does shift military competition to the tactical level. But one must add what is usually omitted: nuclear stalemate limits the use of conventional forces and reduces the extent of the gains one can seek without risking devastation. For decades U.S. policy has nevertheless aimed at raising the nuclear threshold in Europe. Stronger conventional forces would presumably enable NATO to sustain a longer war in Europe at higher levels of violence. At some moment in a major war, however, one side or the other—or perhaps both—would believe itself to be losing. The temptation to introduce nuclear weapons might then prove irresistible, and they would be fired in the chaos of defeat with little chance of limited and discriminant use. Early use would promise surer control and closer limitation of damage. In a nuclear world a conventional war-fighting strategy would appear to be the worst possible one, more dangerous than a strategy of relying on deterrence.

Attempts to gain escalation dominance, like efforts to raise the nuclear threshold, betray a failure to appreciate the strategic implications of nuclear weapons. Escalation dominance, so it is said, requires a "seamless web of capabilities" up and down "the escalation ladder." Earlier, it had been thought that the credibility of deterrence would be greater if some rungs of the escalation ladder were missing. The inability to fight at some levels would make the threat to use higher levels of force easy to credit. But again, since credibility is not a problem, this scarcely matters militarily. Filling in the missing rungs

neither helps nor hurts. Escalation dominance is useful for countries contending with conventional weapons only. Dominance, however, is difficult to achieve in the absence of a decisive weapon. Among nuclear adversaries the question of dominance is pointless because one second-strike force cannot dominate another. Since strategic nuclear weapons will always prevail, the game of escalation dominance cannot be played. Everyone knows that anyone can quickly move to the top rung of the ladder. Because anyone can do so, all of the parties in a serious crisis have an overriding incentive to ask themselves one question: How can we get out of this mess without nuclear warheads' exploding? The presence of nuclear weapons forces them to figure out how to deescalate, not how to escalate.

To gain escalation dominance, if that were imaginable, would require the ability to fight nuclear wars. War-fighting strategies imply that nuclear weapons are not absolute but relative, so that the country with more and better nuclear weapons could in some unspecified way prevail. No one, however, has shown how such a war could be fought. Indeed, Desmond Ball has argued that a nuclear war could not be sustained beyond the exchange of strategic warheads numbered not in the hundreds but in the tens (1981, 9). After a small number of exchanges no one would know what was going on or be able to maintain control. Yet nuclear weapons save us from our folly: fanciful strategies are irrelevant because no one will run the appalling risk of testing them.

Deterrence has been faulted for its lack of credibility, its dependence on perceptions, its destructive implications, and its inability to cover interests abroad. The trouble with deterrence, however, lies elsewhere: the trouble with deterrence is that it can be implemented cheaply. The claim that we need a seamless web of capabilities in order to deter does serve one purpose: it keeps military budgets won-

drously high. Efforts to fashion a defensive and war-fighting strategy for NATO are pointless because deterrence prevails and futile because strategy cannot transcend the military conditions that nuclear weapons create.

Nuclear Arms and Disarmament

The probability of major war among states having nuclear weapons approaches zero. But the "real war" may, as William James claimed, lie in the preparation for waging it. The logic of deterrence, if followed, circumscribes the causes of "real wars" (1968, 23). Nuclear weapons make it possible for a state to limit the size of its strategic forces as long as other states are unable to achieve disarming first-strike capabilities by improving their forces.

Within very wide ranges, a nuclear balance is insensitive to variation in numbers and size of warheads. This has occasionally been seen by responsible officials. Harold Brown, when he was secretary of defense, said that purely deterrent forces "can be relatively modest, and their size can perhaps be made substantially, though not completely, insensitive to changes in the posture of an opponent." Somehow, he nevertheless managed to argue that we need "to design our forces on the basis of essential equivalents" (1979, 75-76). Typically, over the past three decades secretaries of defense have sought, albeit vainly, the superiority that would supposedly give us a war-fighting capability. But they have failed to explain what we can do with twelve thousand strategic nuclear warheads that we could not do with two thousand or an even smaller number. What difference does it make if we have two thousand strategic weapons and the Soviet Union has four thousand? We thought our deterrent did not deter very much and did not work with sufficient reliability just as we were reaching a peak of numerical superi-

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ority in the mid-1960s. Flexible response, with emphasis on conventional arms, was a policy produced in our era of nuclear plenty. "Superiority" and "parity" have had the same effect on our policy.

Many who urge us to build ever more strategic weapons in effect admit the military irrelevance of additional forces when, as so often, they give political rather than military reasons for doing so: spending less, it is said, would signal weakness of will. Yet militarily, only one perception counts, namely, the perception that a country has second-strike forces. Nuclear weapons make it possible for states to escape the dynamics of arms racing; yet the United States and the Soviet Union have multiplied their weaponry far beyond the requirements of deterrence. Each has obsessively measured its strategic forces against the other's. The arms competition between them has arisen from failure to appreciate the implications of nuclear weapons for military strategy and, no doubt, from internal military and political pressures in both countries.

Many of the obstacles to arms reduction among conventional powers disappear or dwindle among nuclear nations. For the former, the careful comparison of the quantities and qualities of forces is important. Because this is not so with nuclear weapons, the problem of verifying agreements largely disappears. Provisions for verification may be necessary in order to persuade the Senate to ratify an agreement, but the possibility of non-compliance is not very worrisome. Agreements that reduce one category of conventional weapons may shift competition to other types of weapons and lead to increases in their numbers and capabilities. Because with nuclear weapons sufficiency is easily defined, there is no military reason for reductions in some weapons to result in increases in others. Conventionally, multiparty agreements are hard to arrive at because each party has to consider how shifting alignments may alter

the balance of forces if agreements are reached to reduce them. In a world of second-strike nuclear forces, alliances have little effect on the strategic balance. The Soviet Union's failure to insist that British, French, and Chinese forces be counted in strategic arms negotiations may reflect its appreciation of this point. Finally, conventional powers have to compare weapons of uncertain effectiveness. Arms agreements are difficult to reach because their provisions may bear directly on the prospects for victory or defeat. Because in a nuclear world peace is maintained by the presence of deterrent forces, strategic arms agreements do not have military but economic and political, significance. They can benefit countries economically and help to improve their relations.

A minority of U.S. military analysts have understood the folly of maintaining more nuclear weapons than deterrence requires. In the Soviet Union, Mikhail Gorbachev and some others have put forth the notion of "reasonable sufficiency," defined as having a strategic force roughly equal to ours and able to inflict unacceptable damage in retaliation. Edward Warner points out that some civilian analysts have gone further, "suggesting that as long as the USSR had a secure second-strike capability that could inflict unacceptable damage, it would not have to be concerned about maintaining approximate numerical parity with U.S. strategic nuclear forces" (1989, 21). If leaders in both countries come to accept the minority view—and also realize that a deterrent force greatly reduces conventional requirements on central fronts—both countries can enjoy security at much lower cost.

Strategic Defense

Strategic defenses would radically change the propositions advanced here.

The Strategic Defense Initiative, in Reagan's vision, was to provide an area defense that would protect the entire population of the United States. Strategic defenses were to pose an absolute defense against what have been absolute weapons, thus rendering them obsolete. The consequences that would follow from mounting such a defense boggle the mind. That a perfect defense against nuclear weapons could be deployed and sustained is inconceivable. This is so for two reasons: (1) it is impossible, and (2) if it were possible, it wouldn't last.

Nuclear weapons are small and light; they are easy to move, easy to hide, and easy to deliver in a variety of ways. Even an unimaginably perfect defense against ballistic missiles would fail to negate nuclear weapons. Such a defense would instead put a premium on the other side's ability to deliver nuclear weapons in different ways: firing missiles on depressed trajectories, carrying bombs in suitcases, placing nuclear warheads on freighters to be anchored in American harbors. Indeed, someone has suggested that the Soviet Union can always hide warheads in bales of marijuana, knowing we cannot keep them from crossing our borders. To have even modestly effective defenses we would, among other things, have to become a police state. We would have to go to extraordinary lengths to police our borders and exercise control within them. Presumably, the Soviet Union does these things better than we do. It is impossible to imagine that an area defense can be a success because there are so many ways to thwart it. In no way can we prevent the Soviet Union from exploding nuclear warheads on or in the United States if it is determined to do so.

Second, let us imagine for a moment that an airtight defense, however defined, is about to be deployed by one country or the other. The closer one country came to deploying such a defense, the harder the other would work to overcome it. When

he was secretary of defense, Robert McNamara argued that the appropriate response to a Soviet defensive deployment would be to expand our deterrent force. More recently, Caspar Weinberger and Mikhail Gorbachev have made similar statements. Any country deploying a defense effective for a moment cannot expect it to remain so. The ease of delivering nuclear warheads and the destructiveness of small numbers of them make the durability of defenses highly suspect.

The logic of strategic defense is the logic of conventional weaponry. Conventional strategies pit weapons against weapons. That is exactly what a strategic defense would do, thereby recreating the temptations and instabilities that have plagued countries armed only with conventional weapons. If the United States and the Soviet Union deploy defensive systems, each will worry—no doubt excessively—about the balance of offensive and defensive capabilities. Each will fear that the other may score an offensive or defensive breakthrough. If one side should do so, it might be tempted to strike in order to exploit its temporary advantage. The dreaded specter of the hair trigger would reappear. Under such circumstances a defensive system would serve as the shield that makes the sword useful. An offensive-defensive race would introduce many uncertainties. A country enjoying a momentary defensive advantage would be tempted to strike in the forlorn hope that its defenses would be able to handle a ragged and reduced response to its first strike. Both countries would prepare to launch on warning while obsessively weighing the balance between offensive and defensive forces.

Finally, let us imagine what is most unimaginable of all—that both sides deploy defenses that are impregnable and durable. Such defenses would make the world safe for World War III—fought presumably in the manner of World War II but with conventional weapons of

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much greater destructive power.

Still, some have argued that even if some American cities remain vulnerable, defenses are very good for the cities they do cover. The claim is spurious. In response to the Soviet Union's deploying antiballistic missiles to protect Moscow, we multiplied the number of missiles aimed at that city. We expect to overcome their defenses and still deliver the "required" number of warheads. The result of defending cities may be that more warheads strike them. This is especially so because both they and we, working on worst-case assumptions, are likely to overestimate the number of missiles that the other country's system will be able to shoot down. Strategic defenses are likely to increase the damage done.

Most knowledgeable people believe that an almost leak-proof defense cannot be built. Many, however, believe that if improved hard-point defenses result from the SDI program, they will have justified its price. Defense of missiles and of command, control, and communications installations will strengthen deterrence, so the argument goes. That would be a solution, all right; but we lack a problem to go with it: deterrence is vibrantly healthy. If the Soviet Union believes that even one Trident submarine would survive its first strike, it will be deterred.³ Since we do not need hard-point defenses, we should not buy them. The deployment of such defenses by one side would be seen by the other as the first step in deploying an area defense. Strategic considerations should dominate technical ones. In a nuclear world defensive systems are predictably destabilizing. It would be folly to move from a condition of stable deterrence to one of unstable defense.

Conclusion

Nuclear weapons dissuade states from going to war more surely than conventional weapons do. In a conventional

world, states going to war can at once believe that they may win and that, should they lose, the price of defeat will be bearable. World Wars I and II called the latter belief into question before atomic bombs were ever dropped. If the United States and the Soviet Union were now armed only with conventional weapons, the lesson of those wars would be strongly remembered—especially by Russia, since she has suffered more in war than we have. If the atom had never been split, the United States and the Soviet Union would still have much to fear from each other. The stark opposition of countries of continental size armed with ever-more-destructive conventional weapons would strongly constrain them. Yet in a conventional world even forceful and tragic lessons have proved to be exceedingly difficult for states to learn. Recurrently in modern history one great power or another has looked as though it might become dangerously strong (Louis XIV's and Napoleon's France, Wilhelm II's and Hitler's Germany). Each time, an opposing coalition formed, if belatedly, and turned the expansive state back. The lesson would seem to be clear: in international politics, success leads to failure. The excessive accumulation of power by one state or coalition of states elicits the opposition of others. The leaders of expansionist states have nevertheless been able to persuade themselves that skillful diplomacy and clever strategy might enable them to transcend the normal processes of balance-of-power politics. The Schlieffen Plan, for example, seemed to offer a strategy that would enable Germany to engage enemies on two fronts, serially: Germany would defeat France before Russia could mobilize fully and move westward in force. Later, Hitler, while denouncing the "boobs" of Wilhelmine Germany for getting themselves into a war on two fronts, reenacted their errors.

How can we perpetuate peace without

solving the problem of war? This is the question that states with nuclear weapons must constantly answer. Nuclear states continue to compete militarily. With each state tending to its security interests as best it can, war is constantly possible. Although the possibility of war remains, nuclear weapons have drastically reduced the probability of its being fought by the states that have them. Wars that might bring nuclear weapons into play have become extraordinarily hard to start. Over the centuries great powers have fought more wars, and lesser states have fought fewer: the frequency of war has correlated less closely with the attributes of states than with their international standing. Yet because of a profound change in military technology, waging war has more and more become the privilege of poor and weak states. Nuclear weapons have reversed the fates of strong and weak states. Never since the Treaty of Westphalia in 1648, which conventionally marks the beginning of modern history, have great powers enjoyed a longer period of peace than we have known since the Second World War. One can scarcely believe that the presence of nuclear weapons does not greatly help to explain this happy condition.

Notes

This essay was presented as the presidential address at the annual meeting of the American Political Science Association in Washington, 1988. David Schleicher's penetrating criticisms and constructive suggestions helped me greatly in writing it.

1. Nitzze blandly adds that if we do launch on warning, "the estimates in the Soviet civil defense manuals are overoptimistic from the Soviet viewpoint" (1988, 357).

2. Quaint ideas die hard. In the fall of 1989 NATO resisted discussing naval disarmament with the Soviet Union because of the need for forces to guard the sea-lanes to Europe (Lewis 1988).

3. An Ohio-class Trident submarine carries twenty-four missiles, each with eight warheads.

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