

How Does Nuclear Deterrence Differ from Conventional Deterrence?

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Abstract

Nuclear and conventional deterrence are in fact quite different in terms of theory, practice, and impact. The differences play out in various ways depending on whether strategies of denial, punishment, or retaliation constitute the basis of the deterrent threat. The fact that battle outcomes with conventional weapons are so difficult to predict highlights the observation that conventional deterrent threats are “contestable.” The contestability of conventional threats can raise doubts in the minds of those targeted by conventional deterrence concerning the capability of the side issuing deterrent threats to actually succeed. Contestability is the Achilles’ heel of conventional deterrence. By contrast, deterrent threats based on nuclear weapons are largely uncontestable. They offer an ideal deterrent capability because they tend to eliminate optimism about a positive war outcome. The fact that nuclear threats are uncontestable does not guarantee that they will be viewed as credible, while the contestable nature of conventional threats does not preclude their credibility.



Strategy is the art of mustering all available resources in a concerted effort to alter an opponent’s political preferences so they correspond to one’s liking.¹ Deterrence is an exquisite example of strategy because it is intended to alter an opponent’s political preferences without fighting in an effort to preserve the status quo, guarantee the peace, or ensure that diplomacy, not war, is the method of change in international affairs.² The goal of deterrence is to prevent war or the occurrence of some

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unwanted *fait accompli*. The onset of war constitutes the failure of deterrence and a total and potentially catastrophic failure of deterrence as a strategy.

The starting point for any deterrent strategy is capability. In other words, unless one is prepared to rely on bluff, one has to possess the military forces needed to execute threats if deterrence fails. For that matter, the likelihood of deterrence success increases if the opponent is aware that the party making a deterrent threat actually possesses the military capability needed to execute that threat. Capability, in turn, contributes to credibility, the idea in the mind of the opponent that a threat would actually be executed if certain redlines are crossed. Deterrent threats that rely on nuclear or conventional weapons are based on fundamentally different types of military capability, which, in turn, embody their own strengths and weaknesses when it comes to instilling the credibility of a threat in the mind of the opponent. Nuclear and conventional deterrence are in fact quite different in terms of theory, practice, and impact. The differences play out in various ways depending on whether strategies of denial, punishment, or retaliation constitute the basis of the deterrent threat.

This article will first explain why the different capabilities constituted by nuclear and conventional weapons actually shape the strategy of deterrence, especially the different ways nuclear or conventional threats create credibility, or the lack thereof, in the mind of the opponent. The article will then explore how conventional or nuclear threats play out differently when employed in different deterrence strategies.

Conventional vs. Nuclear Weapons: The Concept of “Contestable Costs”

In his classic study *Causes of War*, Geoffrey Blainey notes that anything that increases optimism about a positive war outcome makes the outbreak of war more likely.³ There is no reason to question Blainey’s judgment, but what is disturbing is that history reveals how frequently one or even both parties in a conflict actually get that estimate of likely outcomes wrong, leading to disastrous attritional campaigns that inflict costs far above initially expected gains. When World War I erupted, for example, euphoric Parisians actually drank the bars dry, only to find themselves mired in miserable trenches for years, suffering thousands of casualties weekly from “wastage”—exposure and disease—even before

enemy action. Optimism either facilitates or obfuscates misguided strategy or hides flawed estimates of the military balance or political realities, which are eventually revealed on the battlefield to the horror of all concerned.

Blainey's judgment reflects a fundamental problem faced by statesmen and officers alike: it is extraordinarily difficult to estimate combat outcomes involving conventional weapons. The starting point for contemporary estimates are simple quantitative measures. Achieving a force-to-force ratio of 1.5:1 or better in an operational theater or a 3:1 force ratio along the main axis of attack is likely to produce success. Backstopping these assessments are Lanchester firepower models that demonstrate why quantity has a quality of its own, so to speak, equipping the numerically superior side with an attritional advantage that accelerates over time. Unfortunately, in war, things rarely unfold as anticipated; sometimes the numerically inferior side wins. Hindsight often reveals that superior strategy or tactics, effective command philosophies and structures, disparities in force quality or morale, differences in the quality of weapons employed, or the ability to undertake combined-arms operations that produce significant effects especially when employed against less-sophisticated militaries can produce results at odds with simple quantitative measures.⁴ Only battle itself yields a definitive judgment about the balance between competing conventional forces.

The fact that battle outcomes with conventional weapons are so difficult to predict highlights the observation that conventional deterrent threats are "contestable," to employ a concept first suggested by Richard Harknett. Contestability suggests that conventional deterrent threats cannot be executed in a unilateral manner without significant regard for the opponent's military posture but instead occur as an outcome of the duel that is war. In other words, to execute a conventional deterrent threat, one literally has to fight one's way through the opponent's force, which can be expected to do everything in its power to negate the execution of that threat. The contestability of conventional threats can raise doubts in the minds of those targeted by conventional deterrence concerning the capability of the side issuing deterrent threats to succeed. According to Harknett:

The open promise that one has the potential to maximize the destructive effects of one's own weapons, while at the same time degrading the destructive effects of those of one's opponents, makes war a tempting roll of the dice. In this sense, it is not specifically the aggregate level of destruction that is critical, but whether

that level can be avoided in its entirety or delayed at least long enough to gain some decisive advantage against one's enemies.⁵

Those subjected to conventional deterrent threats have it in their power to interfere in the execution of those threats, making conventional deterrence contestable. When it comes to conventional capabilities, it is impossible definitively to demonstrate before an event unfolds that capability to execute those threats will be available because deterrence relies on the capabilities that remain after the opponent does its damage in battle. The target has a say when it comes to conventional deterrence, and, as Harknett notes, they are often more than willing to put their opinions to the test.

History is replete with incidents in which those subjected to conventional deterrent, or for that matter compellent, threats posed by even a vastly superior power adopted a "come and get it" attitude.⁶ When Saddam Hussein invaded Kuwait, for example, he told April Glaspie, the US ambassador to Iraq, that he did not fear a US response because Americans did not have the will to suffer 10,000 casualties a day in battle.⁷ When Japanese officials decided to attack Pearl Harbor, they believed that Washington would not respond vigorously to the setback and would instead reach some sort of negotiated settlement with Tokyo. Indeed, as the leading work on the subject suggests, conventional deterrent threats remain viable only as long as the target fails to develop what appears to be a cost-effective workaround, so to speak.⁸ Once Adolph Hitler was sold on the notion that blitzkrieg would produce a rapid collapse of French and British forces, for instance, the "Phony War" ended with a Nazi armored thrust that knocked France out of the war in about six weeks. Because combat itself is the ultimate arbiter of their effectiveness, conventional capabilities that appear on paper to be quite impressive might, for a host of reasons, not appear particularly significant to the target of conventional deterrent threats. For instance, the combat effectiveness of large conventional forces could be undermined by mediocre leadership, poor morale, faulty command and control, flawed doctrine, logistical handicaps, lack of domestic political support, or misguided strategy. Contestability is the Achilles' heel of conventional deterrence.

By contrast, deterrent threats based on nuclear capabilities enjoy a degree of certainty that can never be achieved by conventional weapons because the costs of nuclear war, especially engagements involving more than a few nuclear weapons, are largely uncontestable. The effects of

nuclear war also are easily calculated with a high degree of certainty, something that cannot be said about conventional weapons. For example, 50 percent of the people living within five-miles of a 1-megaton nuclear air burst will die promptly from blast effects; there is virtually nothing an opponent can do to mitigate the impact of that weapon once it detonates.⁹ Active defenses or an effective preemptive attack could reduce the number of weapons hitting the target, but it only takes one “leaker” to render those defenses superfluous. Nevertheless, as the number of nuclear weapons involved in an attack increase—in excess of approximately 100—the certainty about the levels of death and destruction inflicted also increases. During the Cold War, policy makers also went to great lengths to eliminate any guesswork when it came to the impact of nuclear retaliation (i.e., execution of a deterrent threat). During the tenure of Secretary of Defense Robert McNamara, for instance, “assured destruction” of the Soviet Union was pegged at the elimination of 70 percent of Soviet industry and 30 percent of the Soviet population, which would occur if 440 equivalent megatons of nuclear yield hit its targets.¹⁰ To achieve these levels of destruction in a worst-case scenario after suffering a Soviet nuclear attack, each leg of the triad was designed to deliver 440 equivalent megatons of firepower, giving the United States triple redundancy under a worst case (second-strike) scenario when it came to achieving its criteria for assured destruction. If the Soviets struck first, they could not prevent that destruction; if they did nothing at all, as critics often pointed out, most US nuclear weapons would simply end up making the rubble bounce.

Because today no defense exists against a nuclear attack involving more than a few nuclear weapons, a peculiar opportunity emerges whereby it is possible to inflict significant death and destruction outside the dialectic of war. Thomas Schelling aptly named this opportunity “the diplomacy of violence.”¹¹ In the past, noted Schelling, it was necessary to first defeat an opponent’s military forces before striking at countervalue targets, such as population, industry, leadership, and mechanisms of state control. Nuclear weapons, by contrast, allow deterrent or compellent threats to be executed against countervalue targets regardless of the state of the opponent’s defenses, the conventional military balance or even the outcome of a clash of conventional arms. Schelling posited a situation in which an opponent’s conventional forces were fully combat ready and effective, while the country they were intended to defend lay

in ruins, obliterated by nuclear strikes that could not be stopped. “Nuclear weapons,” according to Schelling, “make it possible to do monstrous violence to the enemy without first achieving victory.”¹² Deterrent policies based on nuclear weapons can disregard the normal rules associated with conventional war and move directly to killing opponents and destroying industry and infrastructure on a scale that some have suggested is impossible even to imagine before Armageddon.¹³

The guaranteed offensive capability provided by nuclear weapons creates an odd paradox, a strategic situation characterized by defense dominance. In other words, regardless of what takes place on a conventional battlefield, execution of a nuclear deterrent threat produces an outcome that would be construed as defeat by the side suffering the nuclear strike. Nuclear weapons are defensive in the sense that they can destroy an opponent in virtually any conceivable circumstance; the certain devastating offensive becomes the perfect defense because it guarantees the opponent’s defeat.¹⁴ Colin Gray offers a slightly different version of this counterintuitive observation: “two unstoppable strategic offensive instruments should have the same implications for statecraft as would a standoff between two impenetrable defenses.”¹⁵ Indeed, this is exactly what happened when a situation of mutually assured destruction emerged between the superpowers during the Cold War: under no realistic scenario was it conceivable for either side to declare victory following a full-scale nuclear exchange. When it comes to nuclear deterrence, the side issuing the deterrent threat may or may not win, but the side facing the deterrent threat is most certainly going to lose, and there is nothing the target of deterrence can do to sidestep this nuclear capability.

As Blainey might observe, it is difficult to be optimistic about a positive war outcome when one faces nuclear deterrent threats. Once executed, those threats can guarantee defeat in war, which makes them an ideal deterrent weapon. Because deterrence is a “peace strategy,” nuclear weapons offer an ideal deterrent capability because they tend to eliminate optimism about a positive war outcome, thereby preserving the peace. By contrast, conventional deterrent threats are contestable—there always will be an element of doubt that conventional capabilities will be available and effective when it comes time to execute deterrent threats. In terms of capability, nuclear weapons trump conventional weapons when it comes to making deterrent threats. Avoiding the prospect of a few dozen nuclear weapons detonating over urban-industrial areas is

probably going to outweigh the vast majority of competing political objectives that might be suggested as a justification for war.

The Issue of Credibility

Credibility is a complicated matter. On the one hand, it seems related to the fact that nuclear and conventional threats rely on different capabilities. On the other hand, credibility is influenced by pre-commitment to executing threats, which is not necessarily tied to capability. The target of a deterrent threat judges whether the threat is credible, that is, whether the threat would actually be executed in the event of deterrence failure. Nevertheless, predicting if a deterrent threat will be seen as credible by the target is not a trivial problem. The fact that nuclear threats are uncontestable does not guarantee that they will be viewed as credible, while the contestable nature of conventional threats does not preclude their credibility. When it comes to credibility, context and the particular deterrent strategy employed tend to shape opponents' perceptions of the credibility of deterrent threats.

The execution of a deterrent threat only occurs upon the failure of deterrence as a strategy. In other words, deterrence fails when the adversary crosses some redline, initiates hostilities, creates a *fait accompli*, or undertakes some sort of unwanted activity. The impact of deterrence failure on the side issuing a deterrent threat is indeed profound and in fact constitutes an exquisite strategic victory for the recipient of the threat. The side embracing a deterrent strategy now faces the failure of its "peace preservation strategy" and confronts the need to prosecute a war that it hoped to avoid in the first place. This is the political and strategic setting in which the credibility of the threat matters; it is one thing to threaten violence, it is quite another to actually engage in hostilities.¹⁶ These differences are likely to loom large in the minds of those subjected to deterrence threats. Ironically, those relying on deterrence often do not explore how the altered political, strategic, and military setting that would follow in the wake of deterrence failure might affect their willingness to execute deterrence threats. In some cases, they actually fail to think through *ex ante* what they might actually do if deterrence fails—the threat made by Pres. Barack Obama to deter Syrian use of chemical weapons is a case in point.

Under these circumstances, do nuclear or conventional threats carry more credibility? Challengers might hope that the side that made either

a conventional or nuclear deterrent threat will think twice about executing that threat, and the possibility of those second thoughts cast doubt *ex ante* on the credibility of deterrence. For instance, execution of a conventional threat might involve a lengthy attritional campaign that might not be worth the stakes. Execution of a nuclear threat might appear to be grossly disproportionate to issues under dispute, raising significant and lasting political costs, for instance, by breaking the so-called nuclear taboo under less than existential circumstances.¹⁷ In fact, the nature of a challenger's actions can be crafted to facilitate doubt and hesitation on the part of those now called upon to execute a deterrent threat. Challenges to conventional deterrence, for example, might take the form of a *fait accompli* that forces the side executing a deterrent threat to engage in a costly conventional war to respond to or reverse the challenge.¹⁸ Challenges to nuclear deterrence, by contrast, might take the form of incremental insults to the status quo, never clearly crossing the redlines that would trigger nuclear retaliation. In effect, the credibility of nuclear and conventional deterrent threats can be undermined, but in different ways. Anything that increases the contestability of conventional deterrent threats decreases their credibility, while anything that highlights the disproportionate nature of nuclear retaliation decreases the credibility of nuclear threats.

Although doubts about the credibility of nuclear and conventional deterrent threats emerge in different ways, these doubts share a key variable in common: they both posit that the side relying on deterrence as a strategy possesses some flexibility when it comes time to make good on its deterrent threat. In other words, the side issuing the deterrent threat retains a choice when it actually comes to executing that threat in the wake of deterrence failure. Although those making deterrent threats often accompany them with profound pledges that they will be executed if deterrence should fail, execution of most of the deterrence threats made today are in fact a matter of choice, which inevitably reduces their credibility.

This phenomenon was not particularly salient during the Cold War heyday of deterrence theorizing that focused on the Soviet-American confrontation. A conventional Warsaw Pact attack across the central front would have immediately and inevitably erupted in a major conventional war because of the existing force posture and standard operating procedures adopted by the North Atlantic Treaty Organization (NATO).

Although some feared that certain allies might try to opt out at the last minute, there was little doubt that in the event of a major attack, NATO would be fully engaged militarily even before higher headquarters could actually give the order to respond. If the balloon had gone up, so to speak, options would have indeed become extremely limited.

The credibility of nuclear and conventional deterrence is probably context specific; it is difficult to say that one type of deterrence is inherently more credible. Nevertheless, anything that reduces choice when it comes to executing threats in the wake of deterrence failure increases the likelihood that those threats will be perceived as credible *ex ante*. Actions that demonstrate political, strategic, and operational commitment to executing threats should deterrence fail increase credibility, but actions that reduce actual flexibility when it comes to executing a deterrent threat send a message that is difficult to ignore.

Retaliation, Punishment, or Denial: Does the Type of Strategy Matter?

Deterrence comes in three varieties: retaliation, punishment, and denial. At the heart of all three types of deterrence lie capability and credibility. It is thus possible to offer a judgment about how well nuclear and conventional weapons fulfill the demands posed by retaliation, punishment, and denial based on the need to be capable and credible. Of course, all three varieties of deterrence strategies can incorporate threats based on nonmilitary action: sanctions or diplomatic initiatives. All three also are enhanced if they are accompanied by inducements to increase the likelihood that the target will alter its preferences in a positive manner. Nevertheless, when it comes to making threats involving military force, do nuclear or conventional weapons have some advantage when it comes to making different types of deterrent threats?

Deterrence by retaliation threatens that the costs of some unwanted activity on the part of the opponent will exceed the gains secured by engaging in that activity. The costs inflicted do not have to be directed at reversing the unwanted gain but are instead inflicted by holding some valued asset at risk. For instance, to deter a territorial incursion, one might threaten to hold military forces, population, or industrial infrastructure at risk. Retaliation would not rely on military action to directly reverse the territorial incursion but to inflict unacceptable costs on the opponent for their land grab. In other words, if the opponent's forces

have crossed the border and are occupying their newly acquired territory, deterrence by retaliation would call for inflicting costs in excess of gains. Two or three cities, for instance, might be destroyed in exchange for every one seized by force. Deterrence by retaliation also is an all-or-nothing proposition that is not affected by the prospect of future compliance: costs are simply inflicted that outweigh the gains achieved through prohibited action. Retaliation as a strategy is thus attractive in situations where it is impossible or unlikely to return to the status quo, such as following a major nuclear attack.

The fact that nuclear threats are not contestable gives them an edge when it comes to retaliation. Retaliatory threats would be executed following a setback and that setback could be significant, resulting in loss of territorial sovereignty or important military capabilities. Because conventional threats could be contested, deterrence failure itself might occur because the opponent is attempting to eliminate the conventional military capability needed to execute the retaliatory threat in the first place. The credibility of retaliatory threats based on nuclear weapons is enhanced by the uncontestable nature of the threat, but their enormous destructive power reduces their credibility in less than dire circumstances. Threats to retaliate with nuclear weapons would probably appear incredible in the wake of modest infractions, but as setbacks begin to approach existential levels, nuclear retaliation, especially since deterrence failure itself might create a lack of alternatives, would probably be perceived as increasingly credible.

Many nuclear doctrines actually seem to be based on retaliation, which would be prompted by either existential threats or the loss of conventional capabilities. For instance, Avner Cohen has identified four redlines that might trigger an Israeli decision to employ its unacknowledged nuclear deterrent: (1) a significant military incursion into Israeli urban areas; (2) the elimination of the Israeli Air Force; (3) large-scale conventional air attacks directed against Israeli civilians; and (4) use of chemical, biological, or nuclear weapons against Israeli cities.¹⁹ What is interesting about this list is that three of the redlines reflect loss of conventional military capabilities combined with a growing existential threat (1–3), while option 4 reflects the prompt emergence of an existential threat. Under these circumstances, the threat to engage in nuclear retaliation following deterrence failure would probably appear to an opponent to be inherently credible. Nuclear weapons work best in strategies of re-

taliation because they offer a capability to inflict costs under nearly all conceivable circumstances. The credibility of the threat to use nuclear weapons also increases as the situation becomes dire. The loss of options increases the credibility of nuclear retaliation strategies.

Deterrence by punishment promises to inflict costs continuously on an opponent until compliance is achieved, which might be thought of as a return to the status quo ante bellum following a deterrence failure. In other words, deterrence by punishment threatens continuous or escalating damage to compel the target to abandon some course of action; it is a deterrent threat that morphs into a strategy of compellence following deterrence failure.²⁰ Unlike deterrence by retaliation, deterrence by punishment implies that costs are not “all or nothing,” but will persist or even escalate in the face of some unwanted initiative. This is a meaningful distinction because punishment is intended to create a situation in which the target can avoid potential loss by complying with compellent demands. In the aftermath of a territorial incursion, for example, one might threaten to conduct military strikes at regular intervals until the opponent abandons their ill-gotten gains. Opponents thus have the opportunity to abandon their gains as the costs of their initiatives grow. Deterrence by punishment thus allows the party practicing deterrence to fine-tune threats over time, while providing it with an opportunity to generate additional military capabilities to execute compellent actions following the failure of deterrence. Punishment does not have to be immediate to be effective, and its duration and extent largely depend on the willingness of the target to bear costs to preserve its gains. Deterrence by punishment might actually benefit from a process of gradual escalation so that the opponents have time to recognize that costs will increase the longer their undesirable policies persist.

Conventional weapons are probably best suited to deterrence strategies based on punishment, notwithstanding certain advantages enjoyed by nuclear weapons. For instance, deterrence failure could be prompted by an opponent's effort to eliminate capabilities needed to execute a punishment strategy. The fact that the effects of nuclear weapons are not contestable give them an edge over conventional weapons under these circumstances. Nevertheless, the fact that punishment can unfold over time helps to mitigate issues of contestability when it comes to employing conventional weapons. A punishment strategy would not necessarily be undermined by the fact that it might be necessary to overcome resis-

tance before inflicting punishment or that death and destruction might take time to accumulate. The destruction inflicted by nuclear weapons also might be deemed to be disproportionate to the issues at stake, reducing the credibility of threats of nuclear punishment. In other words, once nuclear weapons are used, an opponent might be forgiven for believing that things in fact might not get much worse. A punishment strategy implies that the opponent has an opportunity to minimize the costs incurred by challenging deterrence by returning to the status quo ante bellum or satisfying other demands to avoid suffering additional damage. By contrast, because practical considerations make it difficult to fine-tune the use of nuclear weapons, nuclear punishment could easily suggest to the target that existential issues are at stake and that the time for moderation or negotiation has passed. Conventional punishment carries the implication that worse is yet to come, while it might be difficult to discern levels of current and potential destruction once nuclear weapons are used.

By expanding the time horizon for the execution of deterrent threats, deterrence by punishment also involves a running contest over credibility. In other words, credibility rests on the ability to commit to the sustained infliction of costs over an extended period. On the one hand, this might be viewed as creating a very high bar for both nuclear and conventional punishment strategies. Those making punishment threats are actually promising to engage in a test of wills to determine who is best at bearing the costs entailed in securing their objectives. On the other hand, punishment strategies might restore credibility in the wake of deterrence failure. In other words, an initial response can be modest with a promise of worse to come. The fact that punishment strategies can easily incorporate escalation might actually bolster their credibility, because targets might find it highly credible that crossing a redline is likely to provoke a response, albeit at a minimal level initially.²¹ Punishment might thus permit the restoration of the status quo ante bellum without making matters worse by escalating to highly destructive levels of conflict. It increases the likelihood that deterrent threats will be executed and successful. It can also allow deterrence targets to rectify errors in face-saving ways without locking themselves into contests in which costs for all concerned might outweigh benefits. Because conventional forces can be more finely tuned than nuclear forces, all things being

equal, they are probably the weapon of choice when it comes to deterrence strategies based on punishment.

Deterrence by denial promises that a response to some unwanted act will directly prevent the opponent from achieving its objectives. In other words, deterrence by denial does not rest on the threat of inflicting unacceptable costs on the opponent or the threat to inflict costs until the opponent abandons its course of action but instead promises to prevent them from achieving objectives in the first place. To deter a territorial incursion, denial might thus involve: (1) threats to launch a preemptive attack or preventive war to deny the opponent the military capability to launch an attack; (2) threats to defeat an attack where and when it occurs by fighting at the border or launching a counteroffensive to reverse some ill-gotten gain; or (3) threats to eliminate the “bone of contention,” so to speak, before it can fall into the enemy’s hands, leading to a situation where temporary success is transformed into a Pyrrhic victory not only for the opponent but maybe even both sides in the contest. Although this third option might strike some observers as self-defeating or unrealistic, war sometimes creates enormous death and destruction. In other words, the effort to engage in the first two denial strategies could very easily bring about the third outcome.

It is difficult to assess whether or not conventional or nuclear weapons are best suited to deterrence by denial strategies. Denial strategies might be best thought of as broadly symmetrical to the threats they are intended to deter. In other words, a symmetrical response might be best suited to defeating an attack at its point of origin. Nevertheless, a conventional ground attack could be stopped with nuclear weapons. For instance, this strategy has apparently been adopted by Pakistan as a counter to India’s Cold Start conventional doctrine. Pakistan might promptly use battlefield nuclear weapons to defeat an Indian armored breakthrough.²² Use of nuclear weapons to stop a conventional attack, however, could lead an opponent to also use nuclear weapons, which would begin to make it difficult to discern victory from defeat among the contestants. Because denial promises opponents that they will not achieve their objectives, if not suffering outright defeat in war, it probably behooves the side seeking to deter to minimize the risk of prompting a nuclear exchange as part of a denial strategy. Under most circumstances, the destructiveness of nuclear weapons probably reduces the credibility of incorporating them into denial strategies. Broadly symmetrical responses that minimize the

costs of executing threats in the wake of deterrence failure are probably best suited to deterrence by denial. Conventional weapons likely fit these criteria better than nuclear weapons. Indeed, if one embraces a deterrence by denial strategy, by implication one should possess a credible capability to defeat an opponent quickly at minimal cost. Given those criteria, it would be difficult, albeit not impossible, to incorporate nuclear weapons into a denial strategy, especially against an opponent who is also armed with nuclear weapons.

Conclusion

Regardless of the weapons employed or the strategy adopted, capability and credibility are the key ingredients of deterrence success. Opponents must believe that the side issuing deterrent threats has the capability to make good on those threats and will actually execute them in the wake of deterrence failure. Therein lies the rub. Nuclear and conventional weapons constitute fundamentally different types of capability, while the inherent credibility of nuclear and conventional threats differs across specific contexts and strategies. Nuclear and conventional deterrence are different, but not in a way that would allow an observer to state that one deterrent capability is actually superior to another regardless of context or strategy.

Nevertheless, because nuclear weapons can inflict “uncontestable costs,” they do offer a capability that in many respects is ideal as a deterrent, especially when incorporated into a strategy of retaliation. No matter what an opponent does, including an all-out nuclear assault, a few score remaining nuclear weapons can carry out retaliatory threats that can inflict catastrophic levels of damage. The very destructiveness of nuclear weapons can undermine the credibility of nuclear threats in most circumstances. As the threat becomes existential or as choice is curtailed, however, the credibility of nuclear threats increases. It is thus no surprise that strategies of retaliation often involve nuclear weapons. Retaliation is not undertaken in the hopes of restoring the status quo ante bellum but as a way to inflict costs greater than the existential threat one is facing. Nuclear weapons offer a way to inflict extraordinarily high levels of death and destruction in extraordinarily dire circumstances, at a moment when conventional forces may be defeated and most of one’s country is already lying in ruins. Nuclear capabilities are most relevant

and nuclear deterrence is most credible when facing existential threats with no viable alternatives.

Conventional weapons, by contrast, are probably best suited to deterrence by punishment strategies. Because even small nuclear weapons are so destructive, nuclear use might work at cross purposes with the goals of a punishment strategy, to convince the opponent that they have an opportunity to correct their mistakes and avoid costs. Retaliating with nuclear weapons might in fact send the wrong signal, that is, the time for negotiating is over, creating an existential threat in the minds of the opponent. Admittedly, because conventional threats are contestable, conventional punishment strategies might appear weak to an opponent. Threats of conventional punishment could be seen as credible and still ignored because the opponent might believe that the side issuing a punishment threat will lack the capability to execute that threat when the time comes. In any event, because deterrence by punishment is based on the notion that a return to the status quo ante bellum is actually possible following deterrence failure, the fact that conventional punishment is contestable and requires time to inflict significant damage is not necessarily a limitation. Under these circumstances, creating an opportunity for an opponent to relent after crossing a cost threshold would have to be incorporated into a deterrence by punishment strategy. If nuclear weapons were employed in a significant way, it is possible that threshold would be immediately exceeded, prompting potential nuclear retaliation and the loss of a chance to return to the state of affairs existing before deterrence failure.

Deterrence by denial would seem to imply a broadly symmetrical response to the challenge. In other words, defeating an opponent at the point of attack seems to imply utilizing superior, albeit generally similar, forces. Thus, conventional weapons seem to be the weapon of choice when it comes to deterrence by denial, given that most threats involve conventional weapons and that the chance of nuclear escalation from the outset of hostilities is not necessarily credible in most circumstances. When nuclear weapons are integrated into deterrence by denial strategies, in Pakistan's nuclear doctrine or the NATO policy of flexible response for example, they are done so in a way that creates a pathway from conventional deterrence by denial to nuclear deterrence by denial. A conventional denial strategy is likely best suited to situations when the stakes are less than existential and superior military capabilities are

credible. A nuclear denial strategy seems more suited to dire situations in which conventional defenses are inadequate and the party issuing deterrent threats wants to raise the prospect of all-out nuclear war as a possibility. Once again, whether or not a nuclear denial strategy is credible rests on perception of the severity of the threat posed by the opponent and the lack of conventional alternatives to meet that threat.

Nuclear weapons offer a foolproof capability when it comes to deterrence. They can inflict staggering amounts of death and destruction under virtually any conceivable circumstance, and the costs threatened by nuclear deterrence are not contestable. This very destructiveness, to say nothing about the possibility of retaliation in kind, however, generally limits the credibility of nuclear deterrence to countering existential threats or to situations lacking viable military alternatives. Such situations are mercifully rare for most states.

By contrast, conventional deterrence is not foolproof; to be effective, conventional threats have to be executed with relative strategic, operational, and tactical dexterity. The costs of conventional deterrence are contestable, and opponents from time to time are willing to pay the costs. Credible conventional deterrent threats can be issued across a broader range of contingences compared to nuclear threats because the costs and risks of conventional deterrence correspond to a broader range of interests at stake in various disputes. Oddly enough, doubts about the credibility of conventional deterrence largely flow from doubts that the capability to execute deterrent threats will be available if deterrence should fail.

Admittedly, it is risky to offer generalizations about deterrence when strategies adopted and the idiosyncrasies in various contexts produce an endless stream of qualifications. Nevertheless, the difference between nuclear and conventional deterrence might indeed boil down to a single generalization: the target actually has a say when it comes to the execution of a conventional deterrent threat, while nuclear threats, especially after they cross a certain threshold, are simply not contestable. ■■■

Notes

1. Colin Gray, *The Strategy Bridge: Theory for Practice* (New York: Oxford University Press, 2011).
2. It is exquisite because as Sun Tzu noted, “To subdue the enemy without fighting is the acme of skill.” Sun Tzu, *The Art of War*, trans. Samuel B. Griffith (New York: Oxford University Press, 1971), 77.
3. Geoffrey Blainey, *Causes of War* (New York: The Free Press, 1973), 35–56.
4. Ryan Grauer, *Commanding Military Power: Organizing for Victory and Defeat on the Battlefield* (Cambridge, UK: Cambridge University Press, 2016), 9–18.
5. Richard J. Harknett, “State Preferences, Systemic Constraints, and the Absolute Weapon,” in *The Absolute Weapon Revisited: Nuclear Arms and the Emerging International Order*, ed. T. V. Paul, Richard Harknett, and James J. Wirtz (Ann Arbor: The University of Michigan Press, 1996), 52–53.
6. For a detailed explanation of why conventional deterrence often fails between strong and weak actors, see James J. Wirtz, *Deterring the Weak: Problems and Prospects*, Proliferation Papers, no. 43 (Paris: Institut Francais des Relations Internationales, Fall 2012), <https://www.ifri.org/en/publications/enotes/proliferation-papers/deterring-weak-problems-and-prospects>.
7. April Glaspie, “Confrontation in the Gulf; Excerpts from Iraqi Document on Meeting with U.S. Envoy,” *New York Times*, 23 September 1990, A-19, <https://www.nytimes.com/1990/09/23/world/confrontation-in-the-gulf-excerpts-from-iraqi-document-on-meeting-with-us-envoy.html>.
8. John J. Mearsheimer, *Conventional Deterrence* (Ithaca, NY: Cornell University Press, 1985).
9. Although online nuclear weapons effects calculators are available, the classic study is Office of Technology Assessment, *The Effects of Nuclear War*, NTIS order #PB-296946 (Washington, DC: Office of Technology Assessment, May 1979), especially fig. 1, <http://ota.fas.org/reports/7906.pdf>.
10. Alain C. Enthoven and K. Wayne Smith, *How Much is Enough? Shaping the Defense Program 1961–1969* (New York: Harper & Row, 1971), 174.
11. Thomas Schelling, *Arms and Influence* (New Haven, CT: Yale University Press, 1966), 22.
12. Ibid.
13. John Mueller, *Retreat from Doomsday* (New York: Basic Books, 1989).
14. Ted Hopf, “Polarity, the Offensive-Defense Balance, and War,” *American Political Science Review* 95 (June 1991): 475–93, <http://dx.doi.org/10.2307/1963170>.
15. Colin S. Gray, *Weapons Don't Make War: Policy, Strategy, and Military Technology* (Lawrence: University of Kansas Press, 1993), 15.
16. Wirtz, “Deterring the Weak: Problems and Prospects.”
17. T. V. Paul, *The Tradition of Non-Use of Nuclear Weapons* (Stanford, CA: Stanford University Press, 2009).
18. James J. Wirtz, “Life in the Gray Zone: Observations for Contemporary Strategists,” *Defense and Security Analysis* 33, no. 3 (2017): 106–14, <https://doi.org/10.1080/14751798.2017.1310702>.
19. Avner Cohen, *Israel and the Bomb* (New York: Columbia University Press, 1998), 237.
20. Matthew Kroenig has recently noted that “it is difficult to distinguish in practice between deterrence and compellence.” Matthew Kroenig, *The Logic of American Nuclear Strategy* (New York: Oxford University Press, 2017), 32. In the case of deterrence by punishment, the reason for the difficulty is clear—in the event of the failure of deterrence by punishment, execution of the punishment threat actually takes the form of a compellence strategy.

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21. Although others have made an equally plausible argument that the high costs of executing coercive threats make them credible; see Dianne Pfundstein Chamberlain, *Cheap Threats: Why the United States Struggles to Coerce Weak States* (Washington, DC: Georgetown University Press, 2016).

22. Sumit Ganguly and S. Paul Kapur, *India, Pakistan, and the Bomb: Debating Nuclear Stability in South Asia* (New York: Columbia University Press, 2012).

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