

## CHAPTER ONE

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### Introduction

The world has entered a second nuclear age. This age is not defined by a bipolar global superpower competition involving massive nuclear arsenals with the capability to destroy each other multiple times over. In this new era, regional nuclear powers will define the proliferation and conflict landscape. These states have small nuclear arsenals, are often ensnared in long-standing rivalries, participate in multiple active conflicts, and often have weak domestic political institutions.

However, because scholarly attention has focused largely on the superpowers and the Cold War nuclear competition we presently have a poor understanding of these unfolding nuclear dynamics. The superpower model of nuclear strategy and deterrence does not seem to be applicable, for example, to India and Pakistan, which have small arsenals and where an active and enduring territorial rivalry is punctuated by repeated crises that openly risk nuclear war. In the Middle East, if Iran were to successfully acquire nuclear weapons, a cascade of nuclear weapons states could emerge that would create complicated multipolar competitions very different from the bipolar Cold War arms race. In East Asia, almost nothing is known about North Korea's nuclear arsenal or the doctrine by which those weapons might be employed. And there are potential proliferators waiting in the wings: Japan, essentially a standby nuclear state, could one day be compelled to weaponize its nuclear capabilities, with significant consequences for East Asian and global security. There is little evidence that these countries' nuclear arsenals will mirror those of the superpowers, or that their nuclear behavior will follow the same patterns. What strategies and choices

will these states make about their nuclear weapons? And how will those decisions about nuclear strategy affect international relations and conflict?

Examining the decisions that regional nuclear powers—such as China, India, Pakistan, Israel, France, and South Africa—have made about their arsenals thus far, and their resulting behavior, helps address these questions. Regional nuclear powers, for systematic and predictable reasons, choose clearly identifiable nuclear postures and these postures matter to a regional power's ability to deter conflict. These countries' nuclear choices, therefore, provide valuable insight into the crucial challenges of contemporary nuclear proliferation and international stability. This book thus focuses on the overlooked experiences of the regional nuclear powers. It concentrates on two important questions. First, which nuclear strategies do regional powers adopt, and why? Second, what effect do these choices have on their ability to deter conflict?

## REGIONAL POWER NUCLEAR POSTURES

What do scholars and policy makers presently know about the nuclear strategies and postures of regional powers and why they choose them? Unfortunately, very little, for two reasons. First, the bulk of the scholarly literature on nuclear weapons suffers from a Cold War hangover, focusing heavily on the superpower experience of the United States and the Soviet Union.<sup>1</sup> However, seven of the nine current nuclear states, and all those that might emerge, are, by definition, regional powers. Compared to the superpowers, these states face different constraints and opportunities, have arsenals that are orders of magnitude smaller, and must manage different

1. See, for example, Lawrence Freedman, *The Evolution of Nuclear Strategy*, 2nd ed. (London: Macmillan, 1989); Scott D. Sagan, *Moving Targets: Nuclear Strategy and National Security* (Princeton: Princeton University Press, 1989); Charles L. Glaser, *Analyzing Strategic Nuclear Policy* (Princeton: Princeton University Press, 1990); Lynn Eden and Steven Miller, eds., *Nuclear Arguments: Understanding the Strategic Nuclear Arms and Arms Control Debates* (Ithaca: Cornell University Press, 1989); Marc Trachtenberg, "The Influence of Nuclear Weapons in the Cuban Missile Crisis," *International Security*, vol. 10, no. 1 (Summer 1985); Thomas Schelling, *Arms and Influence* (New Haven: Yale University Press, 1966); Thomas Schelling, *The Strategy of Conflict* (Cambridge: Harvard University Press, 1960); Bernard Brodie, *Strategy in the Missile Age* (Princeton: Princeton University Press, 1959); John Lewis Gaddis, *The Long Peace: Inquiries into the History of the Cold War* (New York: Oxford University Press, 1987); Robert Jervis, *The Meaning of the Nuclear Revolution* (Ithaca: Cornell University Press, 1989); Robert Jervis, "The Political Effects of Nuclear Weapons: A Comment," *International Security*, vol. 13, no. 2 (Autumn 1988), 80–90; for a classic on specific doctrinal/postural effects, see John J. Mearsheimer, "Nuclear Weapons and Deterrence in Europe," *International Security*, vol. 9, no. 3 (Winter 1984/1985), 19–46.

conflict environments. As a result, the Cold War lexicon that was used to describe American and Soviet nuclear strategies cannot simply be superimposed on the regional nuclear states. These states have, in fact, chosen a diverse array of nuclear postures and strategies—the capabilities, envisioned employment modes, and command-and-control procedures that go into operationalizing a nuclear weapons capability—that look very different from those of the superpowers. Yet, the choices of the regional nuclear powers—reflecting many additional decades of thinking on nuclear strategy—that are most relevant to the present and emerging international nuclear landscape have been largely ignored.

Second, to the extent that scholars have paid attention to the non-superpower nuclear weapons states, they have focused primarily on their initial acquisition of nuclear weapons.<sup>2</sup> Little systematic thought has been given to what, if anything, regional powers choose to do after they acquire nuclear weapons, largely because deterrence scholarship has convinced itself that the mere existence of nuclear weapons, rather than their strategy and posture, drives patterns of stability and conflict. This “acquisition” or “existential” bias is an untested and dangerous assumption. If regional powers’ thinking on nuclear strategy does not follow the superpower pattern, the effects of their choices are unlikely to be the same either. At present, however, scholars and policy makers lack a vocabulary and common analytical lens with which to categorize and understand regional power nuclear strategy.

I fill this vacuum in the first part of the book by analyzing the experiences of the regional nuclear powers, or the non-superpower states that have developed independent nuclear forces: China, India, Pakistan, Israel, South Africa, and France.<sup>3</sup> I discuss these states’ choices about nuclear

2. See, for example, Scott D. Sagan, “Why Do States Build Nuclear Weapons? Three Models in Search of the Bomb,” *International Security*, vol. 21, no. 3 (Winter 1996–97), pp. 54–86; T. V. Paul, *Power versus Prudence: Why Nations Forgo Nuclear Weapons* (Montreal: McGill-Queen’s University Press, 2000); Etel Solingen, *Nuclear Logics: Contrasting Paths in East Asia and the Middle East* (Princeton: Princeton University Press, 2007); and Jacques Hymans, *The Psychology of Nuclear Proliferation: Identity, Emotions, and Foreign Policy* (Cambridge: Cambridge University Press, 2006).

3. The United Kingdom is excluded because it does not have an independent nuclear arsenal. Because of its tight integration with U.S. nuclear forces since 1958, such as dual-key control of tactical forces, leasing of forces, and strategic targeting coordination with the United States, I consider its nuclear weapons as essentially an adjunct force of America’s. Unlike France, which retained full independent control of its nuclear forces, Britain’s subordination to American nuclear planning makes studying its independent deterrent effect problematic. As a result, I do not classify the United Kingdom as having an *independent* nuclear posture. See Jeffrey Lewis, “Britain’s Independent Deterrent,” *ArmsControlWonk.com*, December 22, 2008. Available at: <http://lewis.armscontrolwonk.com/archive/2139/britains-independent-deterrent>. In relation to the subsequent theory I develop, one might indeed classify the United Kingdom as having adopted the most extreme version of the

strategy in terms of *nuclear posture*. Nuclear posture is the incorporation of some number and type of nuclear warheads and delivery vehicles into a state's overall military structure, the rules and procedures governing how those weapons are deployed, when and under what conditions they might be used, against what targets, and who has the authority to make those decisions.<sup>4</sup> Nuclear posture is best thought of as the operational, rather than the declaratory, nuclear doctrine of a country; while the two can overlap, it is the operational doctrine that generates deterrent power against an opponent. To put it bluntly, states care more about what an adversary can credibly *do* with its nuclear weapons than what it *says* about them. I thus use the term “nuclear posture” to refer to the capabilities (actual nuclear forces), employment doctrine (under what conditions they might be used), and command-and-control procedures (how they are managed, deployed, and potentially released) a state establishes to operationalize its nuclear weapons capability. This can also be thought of as “nuclear strategy,” and I use these terms interchangeably with both referring to the preceding definition. As Tara Kartha colorfully put it, without a nuclear posture or strategy, “a much vaunted [nuclear] test remains simply a loud bang in the ground.”<sup>5</sup>

Thus, I shift the critical variable of interest from simply the possession of nuclear weapons to how a regional power chooses to operationalize those capabilities as a nuclear posture. I identify three analytically distinct and identifiable nuclear postures: a *catalytic* strategy that attempts to catalyze superpower intervention on the state's behalf; an *assured retaliation* strategy that threatens certain nuclear retaliation in the event a state suffers a nuclear attack; and an *asymmetric escalation* strategy that threatens the first use of nuclear weapons against conventional attacks. Understanding

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catalytic posture: complete subordination of its forces to its envisioned third-party patron. However, since it does not meet the scope conditions of an independent regional nuclear power, I choose to exclude the United Kingdom from my analysis.

Similarly, Ukraine, Kazakhstan, and Belarus are excluded because, although they inherited nuclear weapons as newly independent states, they never exerted independent control over them before transferring them back to Russia. North Korea is excluded for temporal reasons since we currently have too little knowledge about the ways in which it chooses to employ its nuclear weapons capability. I discuss the North Korean case in the conclusion. Because Russian nuclear posture is a legacy of the Soviet Union, I continue to classify Russia as a nuclear superpower.

4. As a definitional aside, the focus is intended to be on a state's observable nuclear posture as defined above, as opposed to a state's declared nuclear doctrine. A state's nuclear posture is essentially its peacetime nuclear orientation and procedures for deployment and signaling during crises. Because of the challenges of studying doctrines in general, and nuclear doctrines in particular—which are highly classified, often unarticulated, untested, and of questionable credibility—I have chosen to focus on a critical component of doctrine, a state's nuclear posture, in order to gain some leverage on the questions of interest.

5. Tara Kartha, “Ballistic Missiles and International Security,” in Jasjit Singh, ed., *Nuclear India* (Delhi: IDSA, 1998), p. 115.

why states choose one of these postures over the others provides novel insights into the nuclear strategies and conflict dynamics across important areas of the world including the Middle East, East Asia, and South Asia.

## **NUCLEAR STRATEGY AND DETERRENCE IN THE MODERN ERA**

The variation in regional power nuclear strategy is only important if it makes a difference to international security and conflict dynamics. So, which of these nuclear postures are required to deter conflict? Scholars and policy makers still do not know, due again to shortcomings related to the twin problems of the Cold War hangover and the acquisition bias. However, this lack of understanding is not because they have always believed that posture is irrelevant. During the Cold War, the United States and Soviet Union invested substantial effort and thought into how and whether the nuclear postures they adopted affected the strategic balance. The American vocabulary on nuclear strategy was littered with phrases such as “assured destruction,” “flexible response,” “massive retaliation,” “countervailing strategy,” and “damage limitation.”<sup>6</sup> Scholars and practitioners believed that these different postures would affect the American ability to deter the Soviet Union, and invested billions of dollars on the basis of those beliefs.

Practitioners of deterrence during the Cold War, and a nontrivial proportion of theorists, believed that it took quite a bit—often maximalist nuclear postures—to deter both conventional and nuclear conflict between the superpowers. As advocated by the likes of Albert Wohlstetter and Herman Kahn, the superpowers developed massive nuclear arsenals.<sup>7</sup> They did so without ever answering how much of an arsenal, and of what type, it would take to deter conventional conflict. The development of overkill arsenals outpaced thinking on this critical issue. The superpowers were also so much more militarily powerful than the other states in the system that their ability to deter non-superpower states was overdetermined, making it difficult to isolate the deterrent power of their nuclear arsenals.

Because of this overdetermination, the superpower nuclear balance is a poor guide for analyzing the relationship between nuclear weapons and deterrence. Moreover, because of resource constraints and perhaps because the regional powers have learned from the superpower experience, the large arsenals and nuclear architectures of the superpowers have not been, and are unlikely to be, replicated by another state. The superpower balance

6. See note 1.

7. Glaser, *Analyzing Strategic Nuclear Policy*; Keir Lieber and Daryl Press, “How Much Is Enough? Nuclear Deterrence Then and Now,” Working Paper presented at Wisconsin International Relations Colloquium, University of Wisconsin–Madison, February 3, 2009.

is thus a methodologically and empirically unreliable guide to identifying the type of nuclear forces required to deter conflict. Despite this, virtually the entire corpus of existing scholarship on nuclear strategy and deterrence focuses on these two globally dominant states with massive nuclear architectures. None of this work addresses the question of whether the smaller arsenals and different strategies of the regional nuclear powers are sufficient to deter nuclear and conventional attack. Nearly seventy years after the advent of nuclear weapons, we still do not know exactly what size and type of nuclear arsenal is sufficient to deter.

Toward the end of the Cold War, moreover, a revisionist line of thinking emerged in the writings of scholars such as Kenneth Waltz and Robert Jervis.<sup>8</sup> This line of argument veered in the opposite direction, suggesting that deterrence could be achieved with far more minimal nuclear postures than the United States and Soviet Union developed. Indeed, the current thinking on nuclear proliferation evinces a deep “existential deterrence” bias, a concept first coined by McGeorge Bundy positing that the “mere existence of nuclear forces,” even ambiguous or non-weaponized forces, should induce caution in adversaries and deter conflict, both nuclear *and* conventional.<sup>9</sup> States are treated as equivalent once they acquire even a single nuclear weapon. This line of thinking has caused scholars and policy makers to worry about emerging nuclear powers such as North Korea. The implication is that with only a handful of nuclear weapons, a state can deter much more powerful actors, like the United States, because even a small risk of escalation to the nuclear level will deter nuclear and conventional attacks. By the end of the Cold War, and with the emergence of new regional nuclear powers, it became almost an article of faith that the mere possession of even a small number of nuclear weapons generated significant deterrent effects.<sup>10</sup>

As noted earlier, this belief in existential deterrence resulted in a focus on regional powers’ initial marches toward nuclear weapons capabilities, based on the belief that the decision to acquire nuclear weapons was critical and that the choices that came afterward were largely irrelevant. Little attention was paid to the strategies and forces regional powers developed once they first acquired nuclear weapons—that is, the nuclear postures

8. See, for example, Kenneth Waltz, *The Spread of Nuclear Weapons: More May Be Better*, Adelphi Papers No. 171 (London: IISS, 1981); Jervis, *The Meaning of the Nuclear Revolution*; Jervis, “The Political Effects of Nuclear Weapons: A Comment”; and John J. Mearsheimer, *The Tragedy of Great Power Politics* (New York: Norton, 2003), p. 129.

9. See, for example, Marc Trachtenberg, “The Influence of Nuclear Weapons in the Cuban Missile Crisis,” *International Security*, vol. 10, no. 1 (Summer 1985), p. 139.

10. See, for example, Matthew H. Kroenig, “Time to Attack Iran: Why a Strike Is the Least Bad Option,” *Foreign Affairs*, January/February 2012, pp. 76–86.

regional powers adopted—because scholars assumed that these details were not relevant to deterrence or conflict dynamics.

This consensus among scholars and policy makers is wrong. As I show in the second part of the book, regional nuclear powers have achieved widely different deterrence results with their nuclear arsenals. Even during the Cold War, the superpowers' postures eventually evolved to establish a degree of mutual stability,<sup>11</sup> with differential deterrent effects as their postures evolved over time.<sup>12</sup> The effect for regional powers is even more pronounced. All of the regional nuclear powers developed nuclear forces along similar orders of magnitude (less than several hundred), and all faced the constraints and opportunities imposed by having to operate and maneuver below the superpowers. Yet some of them have been more successful in deterring their adversaries than others. Pakistan has successfully deterred Indian conventional attack on numerous occasions, but India has not been able to do likewise, as the 1999 Kargil War demonstrated. Even with nuclear weapons, Israel experienced serious deterrence failures against its Arab opponents in 1973 and 1991. Arguments about existential deterrence have no way to explain this variation in the rates of deterrence success.

These two bodies of literature on nuclear weapons therefore leave a major theoretical gap in our knowledge on deterrence. On the one hand, there is a significant body of work focusing on superpower nuclear strategy during the Cold War and why it was important to deterrence dynamics. On the other hand, since the end of the Cold War the rise of an existential deterrence bias has suggested that everyone else's nuclear strategy has no impact on their ability to deter conflict—a belief that Cold War superpower deterrence theories and contemporary evidence suggest is fundamentally mistaken.

Why have states with similarly sized arsenals had such differential success in deterring conventional conflict? I return to the intuition that guided early nuclear strategists and practitioners: nuclear posture and strategy, particularly for the regional powers, matters for deterrence and conflict stability. The conflict and deterrence experiences of the regional nuclear powers, which have thus far been overlooked, can provide insight into what kinds of nuclear forces are required to deter conflict. I find that differences in nuclear posture generate variation in a state's ability to deter different types and intensities of conflict.<sup>13</sup> There is little evidence that regional

11. This is a vast literature but see, for example, Freedman, *Evolution of Nuclear Strategy*.

12. Richard K. Betts, *Nuclear Blackmail and the Nuclear Balance* (Washington, DC: Brookings Institution Press, 1987); and Lieber and Press, "How Much Is Enough?"

13. For an excellent discussion of the deterrence tradeoffs in theory facing emerging nuclear powers in terms of security environment versus civil-military relations, see Peter Feaver, "Command and Control in Emerging Nuclear States," *International Security*, vol. 17, no. 3 (Winter 1992–3), pp. 160–87.

powers have reaped systematic deterrence benefits from the mere possession of nuclear weapons. Rather, their deterrence success is a function of their nuclear posture, and some postures fail to deliver on their promise to deter attacks. Nuclear posture, not just nuclear weapons, determines critical patterns of conflict and peace in international relations.

## THE ARGUMENT IN BRIEF

Largely forgotten in the scholarly and policy obsession with the Cold War and with nuclear acquisition is the fact that the regional powers have chosen different nuclear strategies. These differences matter greatly to their ability to deter conflict. I take these issues in turn. The first part of the book asks: which nuclear postures have regional powers adopted, and why? I begin in chapter 2 by identifying the diverse nuclear postures adopted by the regional powers, using original data collected from the field, and then develop a new theory for their selection. I classify and characterize three possible regional power nuclear postures, arrayed across a spectrum of capabilities and deployment options.

- A *catalytic* posture, which consists of only a handful of nuclear weapons, threatens the explicit breakout of nuclear weapons in the event the state's survival is threatened in order to compel—or catalyze—third-party intervention on the state's behalf. For example, Israel and South Africa adopted this posture for a significant portion of their nuclear histories.
- An *assured retaliation* posture involves the development of secure second-strike nuclear capabilities that enable a state to threaten certain nuclear retaliation should it suffer primarily a nuclear attack. This posture has been adopted by India and China.
- An *asymmetric escalation* posture develops capabilities and procedures that credibly enable the rapid and first use of nuclear weapons in the event of a conventional attack. France and Pakistan have each, at some point, adopted this posture.

Given these three alternative nuclear postures, why might states select one over the others? Current alternative theories in international relations that may explain a state's nuclear posture—security environment, technological determinism, and strategic culture—are unsatisfactory and often indeterminate. Therefore, I propose a novel theory of the sources of nuclear posture: Posture Optimization Theory, or optimization theory for short. Taking inspiration from the neoclassical realist school of international relations theory, it explains how and why a regional power might select and optimize its nuclear posture in response to external security and internal

domestic political and financial constraints. It offers a determinate prediction for a state's nuclear posture based on several clearly identifiable and sequential variables. A state's security environment—the availability of powerful allies and the severity of its immediate threats—is critical and, indeed, the primary variable responsible for nuclear postures. But where that security environment is permissive, as is often the case, states have a range of choice in nuclear postures. Other considerations at the domestic level, such as civil-military relations and resource constraints, regulate a state's choice of nuclear posture. For example, the asymmetric escalation posture is not only financially and organizationally demanding, but it forces a state's leadership to be prepared to devolve nuclear assets and authority to military end users in order to maintain the credibility of first-use options. This increases the risk of unauthorized and accidental use of nuclear weapons and can impose tremendous strain on a state's civil-military organs. As such, states with permissive security environments that can opt out of an asymmetric escalation posture may find it rational to do so if adopting this posture is incompatible with other unit-level preferences and constraints—especially those imposed by the configuration of the state's civil-military relations.

This theory provides the most valid available framework for why states select the nuclear postures they do, providing testable and falsifiable predictions for the nuclear postures emerging and future regional nuclear powers might select in the future, and specifying when and under what conditions existing regional nuclear powers might *shift* postures. It is important to note that this theory attempts to predict and explain posture outcomes, not necessarily the process or efficiency by which a state adopts a particular posture (which is a separate question demanding a different theory and study).

Chapters 3 through 8 focus in detail on the nuclear postures of each regional power: Pakistan, India, China, France, Israel, and South Africa. For each, I describe the specific nuclear strategy that the regional nuclear power has adopted over time. From an empirical perspective, this discussion on the actual nuclear postures of the regional powers over time provides the first comparative treatment of all six regional nuclear powers. I then test each state's choice of nuclear posture against my theory and the three alternative explanations: structural realism, technological determinism, and strategic culture. I analyze whether the form and rationale for each state's selection is consistent with each of these four theories. For example, I show that Pakistan has shifted from a catalytic posture to an asymmetric escalation posture and deploy my theory to explain these choices. Similarly, I offer an explanation for why India, China, and now Israel have all opted for small but secure assured retaliation postures, even though they have the capability to adopt more aggressive strategies.

From a theoretical standpoint, these chapters provide the first broad explanation for why these states have adopted the nuclear postures that they have. They provide a framework that helps theorists and policy makers alike think about the variables that might drive regional powers to adopt a specific nuclear strategy, and understand the conditions under which states might shift strategies. The empirical tests establish the validity of the theory, thereby providing testable predictions for the postures that possible future nuclear states, such as Japan or Iran, might adopt.

The variation in regional power nuclear strategies is only important, however, if there are consequences to the different choices these powers make. Thus, the second part of the book focuses on the ramifications of these choices about nuclear posture for international security. It asks the critical question posed earlier: what kind of nuclear strategy is required to deter conflict? Using both quantitative and qualitative analysis, I find that the mere possession of nuclear weapons fails to systematically deter conventional attacks. Chapters 9 and 10 demonstrate that there are very real differences in the deterrence consequences of these various nuclear strategies: some nuclear postures fail to deliver on their promise to deter conflict. In fact, *only* those states that adopt an asymmetric escalation posture enjoy significant deterrent success against conventional attacks. The catalytic and assured retaliation postures fail to do so because the risk of nuclear use even in intense conventional conflicts is so low that it does not deter opponents from attacking these nuclear powers—sometimes resulting in conflicts of very high intensity.

Chapter 9 conducts a large-*n* analysis to isolate the average effects of these nuclear postures in reducing armed attacks at various levels of intensity. This analysis illuminates the general deterrence effects of each nuclear posture, providing an estimate of how many fewer attacks a state can expect to experience after adopting a particular nuclear posture. It shows that the asymmetric escalation posture is uniquely “deterrence optimal,” reducing conflict at each level of armed intensity against both nuclear and non-nuclear powers. Contrary to conventional wisdom about the deterrent power of possessing any nuclear weapons, states adopting assured retaliation and catalytic postures have experienced serious deterrence failures even at high levels of conventional conflict intensity. The implication is that even secure second-strike nuclear forces may not be sufficient to deter the initiation of full wars against a regional nuclear power. Certainly, nuclear weapons alone are insufficient to reap any significant deterrent effect. These findings fundamentally challenge the assumption that the mere possession of nuclear weapons provides substantial deterrent benefits.

Chapter 10 focuses on the effects of nuclear postures in particular crises. These crises, selected in part based on the large-*n* analysis in the previous chapter, tease out the mechanisms that connect nuclear posture to

deterrence success and failure. I examine a series of crises in enduring rivalries between India and Pakistan, and between Israel and the various Arab states over time. Examining crises in enduring rivalries has the benefit of holding many variables constant in crises where many moving parts would otherwise make it difficult to isolate the effect of nuclear postures. In this chapter, I probe how different nuclear postures have affected states' decisions to escalate or de-escalate a crisis, measuring differential deterrence effects of postures on both the outbreak and the course of the crisis. I augment the empirical richness of the data on these crises with interviews with key national security decision makers, especially in the India-Pakistan cases. This chapter confirms the findings from the large-*n* analysis, showing that not only does the asymmetric escalation posture uniquely reduce armed attacks, but decision makers are deterred from attacking an asymmetric escalator *because* of the fear of nuclear first use. Catalytic postures have resulted in high-intensity wars being waged against states, and even assured retaliation postures have been unable to deter high-intensity wars, such as the 1999 Kargil War launched by Pakistan against India. On the other hand, when Pakistan shifted from a catalytic to an asymmetric escalation posture, it enjoyed a marked increase in deterrence success against India.

Contrary to the conventional wisdom—indeed, contrary to a bedrock article of faith in the canon of nuclear deterrence—the acquisition of nuclear weapons does *not* produce a uniform deterrent effect against opponents. Despite the arguments of scholars including Kenneth Waltz, Robert Jervis, and John Mearsheimer, the possession of nuclear weapons by itself, and even the adoption of secure second-strike forces, is insufficient to systematically deter conventional conflict. This finding overturns a central belief of modern deterrence theory, held for more than half a century, in the efficacy of nuclear weapons possession. The driver of deterrence success is not nuclear *weapons*, it is nuclear *posture*. Nuclear weapons may deter, but they deter unequally. States that wish to deter conventional attacks with nuclear weapons must explicitly orient their nuclear forces to do so.

I conclude in chapter 11 with some implications for our understanding of nuclear deterrence and nuclear proliferation in a world where an increasing number of regional powers are pursuing nuclear weapons. The most important finding for theory is that nuclear weapons do not produce a uniform deterrent effect. Not only have limited nuclear arsenals had significant deterrence failures, but so have nuclear forces that have attained secure second-strike capabilities. This significantly revises the conventional understanding of what it takes to deter conflict with nuclear weapons. The key variable in generating deterrent power against conventional conflict is not simply nuclear weapons, but nuclear posture. While the acquisition of nuclear weapons is an important step for regional powers, what comes

afterward, and the pressures regional powers face in adopting nuclear strategies, are more important to the texture of international politics. Nuclear posture is the variable that produces differential deterrent effects, the factor that affects the frequency and the intensity of international conflict.

The book also offers a vocabulary and a framework with which to think about the unique choices and pressures driving regional power nuclear strategy. It provides the first general framework for predicting how current and future regional nuclear powers might operationalize their nuclear weapons. Determining the type of posture a state might adopt provides insights about the frequency and intensity of conflict the region and the international system might expect, and thereby offers a blueprint for managing the existing proliferation landscape as well as the one that is unfolding. The coming decades are likely to bear witness to more volatile rivalries involving regional nuclear powers. Understanding a state's likely nuclear strategy in that environment is important because these postures carry important tradeoffs that affect international security. For example, as Pakistan has demonstrated since 1998, states with an asymmetric escalation posture may reap significant deterrence benefits but they may simultaneously face substantial difficulties in securely managing that posture. Based on the projected risks to nuclear security, the international community might then be able to either ameliorate security predicaments driving the state toward such an aggressive nuclear posture, or provide command-and-control assistance so that the chosen nuclear posture can be implemented as safely as possible. In combination, understanding the sources and consequences of regional power nuclear postures provides a template for predicting—and managing—where and when nuclear proliferation could be particularly dangerous.

The two analytical questions that animate this book—the sources and deterrence consequences of regional power nuclear strategies—advance our understanding of nuclear proliferation and deterrence dynamics by moving beyond the twin problems of the Cold War hangover and the acquisition bias that pervade the nuclear proliferation literature. A remarkable literature was penned on the evolution of the workings of the super-power nuclear balance, but these choices and experiences are unlikely to recur. The bulk of current nuclear weapons states, and every one that will emerge from this point forward, faces a different set of constraints and opportunities than the United States and the Soviet Union. But we have little systematic understanding of what comes after their initial decisions to “go nuclear.” I show that regional powers have developed innovative nuclear strategies and that these choices matter deeply to international relations and conflict.