

**Compelling with the Bomb?
Revisiting the Effectiveness of Nuclear Compellent Threats**

Alexander B. Downes
Department of Political Science and Elliott School of International Affairs
George Washington University
downes@gwu.edu

Charles L. Glaser
Senior Fellow, Security Studies Program
MIT
cglaser@mit.edu

Abstract

Are nuclear threats useful for compellence? The existing literature is highly polarized: “nuclear coercionists” argue that states with a nuclear advantage over their adversaries are more likely to prevail in international crises, while “nuclear skeptics,” maintain that possessing a nuclear arsenal provides states with almost no leverage in gaining compliance with compellent threats. We argue that both sides in the existing debate have drawn unwarranted conclusions about the (in)effectiveness of nuclear compellence. The principal reason is that most studies neglect to adequately incorporate strategic selection into their theories. We divide nuclear compellent threats into two types: those that arise out of a crisis or conflict in which states have the opportunity to select out, and those that come as a surprise to the target such that it cannot select out. We argue that in the former, selection yields states that are well-matched in terms of commitment and capability; hence, the outcome cannot be predicted *ex ante* but will be determined by intra-crisis signaling. We therefore expect a mix of nuclear compellent successes and failures. In the latter, a state’s nuclear capabilities, as well as its adversary’s, should influence the outcome of the crisis or war because these capabilities were not factored into the initial crisis decision. Thus, if the compeller has a large advantage in the ability to inflict nuclear damage, this should provide a bargaining advantage and increase the probability of compellent success. Although successful nuclear compellence is not common—we find a 30 percent success rate—some successes have occurred and generally comport with the conditions anticipated by our theory.

Introduction

Are nuclear threats useful for compellence? Scholars and practitioners have long recognized the deterrent capabilities of nuclear weapons, but the utility of these weapons for compellence is much debated. The existing literature is highly polarized: “nuclear coercionists” argue that states with a nuclear advantage over their adversaries are more likely to prevail in international crises. “Nuclear skeptics,” in contrast, maintain that possessing a nuclear arsenal provides states with almost no leverage in gaining compliance with compellent threats.¹

The debate over the effectiveness of nuclear compellence matters because it has serious policy implications. If nuclear weapons lack compellent value, for example, then nuclear proliferation should be less worrisome than is generally believed because new nuclear states would be unable to exploit their nuclear arsenals to overturn the status quo.² Nuclear weapons would also be ineffective for reversing conventional defeats, thereby circumscribing their role if conventional deterrence fails. By contrast, if nuclear weapons do have compellent value, then nuclear proliferation could threaten the status quo and nuclear weapons states should consider the compellent potential of nuclear weapons when planning their options for nuclear use. Understanding nuclear compellence is especially urgent given the ongoing war in Ukraine involving a nuclear-armed Russia and a possible U.S.-China crisis over Taiwan.

In this paper, we argue that both sides in the existing debate have drawn unwarranted conclusions about the (in)effectiveness of nuclear compellence. The principal reason for these misleading conclusions is that most studies neglect to adequately incorporate strategic selection

¹ For these labels, see Sechser and Fuhrmann 2017. Key coercionist works include Beardsley and Asal 2009; and Kroenig 2013, 2018. For the skeptical view, see Sechser and Fuhrmann 2013, 2017. A more nuanced view is offered by Fanlo and Sukin 2023.

² This claim is overstated, however, because a proliferator could use nuclear threats to deter the opponent’s nuclear weapons, thereby increasing the proliferator’s willingness to employ conventional forces. See Kapur 2007.

into their theories. States, in deciding whether to make threats and counter-threats, or instead to concede, judge whether the possible benefits of confrontation warrant the risks. Because states select into, and out of, crises based on their interests and military capabilities, actors that remain as the crisis escalates are likely to have a similar combination of commitment and capability; as a result, the outcome cannot be predicted by the variables that influence states' choices to initiate these crises.³ Instead, the outcome is likely to be determined by intra-crisis signaling, which leads states to revise their estimates of the extent of the adversary's interests. We therefore expect a mix of nuclear compellent successes and failures that cannot be predicted *ex ante*. We refer to this ideal type of nuclear crisis as the "standard selection" model.

This selection model of nuclear crises, however, applies only when targets anticipate a nuclear threat and thus take the potential for such a threat into account in their crisis decision-making. However, this is not always the case: there are crises or wars in which nuclear threats come as a shock because the target did not believe it was selecting into a situation in which a nuclear threat was a possibility. We refer to such cases as the "surprise" model of nuclear compellence. In these cases, a state's nuclear capabilities, as well as its adversary's, should influence the outcome of the crisis or war: in contrast to the decisions envisioned by the standard selection model, these capabilities were not factored into the initial crisis decision. Thus, if the compeller has a large advantage in the ability to inflict nuclear damage, this should provide a bargaining advantage and increase the probability of compellent success.

Using the selection and surprise lenses to analyze cases of nuclear compellent threats leads us to conclusions that differ significantly from those in the existing literature. Contrary to the skeptics' view, we find that nuclear compellent threats (NCTs) can be successful under two

³ Fearon 1994b, 2002.

conditions: when compellers have large interests at stake in selection-model crises and are able to use nuclear threats to reveal the extent of those interests; and when the shock of a previously unknown nuclear arsenal or unanticipated nuclear threat forces targets to take the nuclear balance into account. These circumstances are not common, but nevertheless have occurred in historical cases and may recur in the future. Contrary to the coercionists, we reject their arguments that all crises involving nuclear states are nuclear crises; that larger nuclear forces provide compellers with unconditional advantages; and that having more nuclear weapons than an opponent matters when both states have large, survivable nuclear forces.

We develop our argument in four steps. First, after a brief review of the existing literature, we define nuclear compellent threats as consisting of a demand that a target make a change in the status quo combined with an explicit or tacit threat to use a nuclear weapon if the target fails to comply. We then show that there have been far fewer NCTs than influential research suggests. While acknowledging that some cases are ambiguous, we find only ten NCTs in nine cases since 1945.⁴ In two of these cases the threat was so poorly implemented or opaque that they barely qualify as nuclear threats at all.

Second, we develop a theoretical framework that identifies six factors that should influence both when states are likely to issue NCTs and whether they succeed: the nuclear balance; the compeller's nuclear vulnerability; the relative interests of the compeller and the target; the size of the compeller's absolute interests; the extent to which the compeller is constrained by norms against the use of nuclear weapons; and the conventional military balance. Although this framework may seem to lack parsimony, it contains only one more variable—the nuclear taboo—than the commonly-used deterrence calculation. To generalize, NCTs are more

⁴ Our assessment is in line with Sechser and Fuhrmann 2017.

likely when a compeller has large interests, interests that exceed the target's, lacks the conventional capability to achieve its objective, is not constrained by norms against nuclear use, and has a nuclear advantage over the target. Just as important, however, NCTs are unlikely when these conditions do not hold—which we argue is true in most crises.

Third, we explain why these variables usually do not directly affect whether NCTs succeed or fail. To do so, we unpack the two different pathways to a nuclear compellent threat—selection and surprise. In the former, selection effects result in capabilities and interests not predicting outcomes; instead, outcomes are determined by intra-crisis signaling that reveals new information. In the latter, targets must suddenly add the nuclear balance to previous assessments of capabilities and interests, and are more likely to concede if the balance is heavily tilted against them.

Fourth, we provide brief assessments of seven of the nine cases of nuclear compellence and then explore two cases—the U.S. nuclear threat against Japan and Soviet nuclear threats against China—to illustrate the contrasting logics of the surprise and selection pathways. We find three cases of plausible nuclear compellent success: U.S.-Japan in 1945 (surprise); the second of two threats in the Sino-Soviet Crisis in 1969 (selection); and the Cuban Missile Crisis in 1962 (contains elements of both). In the Cuban case, both states achieved some success.

Finally, we conclude with policy implications, including the dangers of nuclear compellence in Ukraine and Taiwan, which we judge are significant.

Nuclear Compellence: The State of the Debate

Compellence and deterrence are both forms of coercion. In the most basic terms, compellence involves a threat made to convince an actor to do something it otherwise would not. In contrast,

deterrence involves a threat to convince an actor *not* to do something it otherwise would.⁵ While the two forms of coercion share similar logics, theorists have argued—and empirical studies have found—that compellence is harder than deterrence.⁶ Nuclear compellence is simply a compellent demand coupled with a threat to use nuclear weapons if the target refuses to comply.

The recent literature on nuclear compellence is polarized between “coercionist” and “skeptical” camps. Although neither camp finds that nuclear compellent threats succeed most of the time, the arguments, nevertheless, diverge quite significantly. We provide a brief summary of the debate, which provides the foundation for establishing weaknesses in the current state of knowledge, including empirical problems—the mistaken belief that there have been a large number of cases of nuclear compellence—as well as theoretical ones.

Nuclear Compellence Coercionists and Skeptics

Coercionists argue that possessing more nuclear weapons than an adversary conveys an advantage in crisis bargaining because the nuclear-superior state can inflict greater damage than its adversary and will thus be willing to run greater risks. “Absolutists,” such as Kyle Beardsley and Victor Asal, code whether one or both states in a crisis has nuclear weapons, and examine the effect that monadic or dyadic nuclear possession has on crisis outcomes.⁷ The study finds that states with a nuclear monopoly are more likely to prevail, but this advantage disappears (or is attenuated) when both sides have nuclear weapons.⁸ “Relativists” like Matthew Kroenig, in

⁵ Schelling 1966, 69-78; Snyder 1961.

⁶ Schelling 1966, 82-91; Art 2003, 361-70. On relative success rates, compare Huth and Russett 1984, 505; and Sechser 2011, 389.

⁷ Coercionists use the International Crisis Behavior (ICB) dataset to identify cases that involve nuclear weapons states. Beardsley and Asal (2009) identify 79 dyads in 36 crises that include at least one nuclear-armed state.

⁸ Beardsley and Asal 2009, 289.

contrast, examine crises only among nuclear-armed states and find that nuclear superior states are more likely to prevail.⁹

Nuclear compellence skeptics, on the other hand, argue that nuclear weapons are of little use for changing the status quo. Leading skeptics Todd Sechser and Matthew Fuhrmann find that compellent threats by nuclear-armed states are not more effective than threats by non-nuclear weapons states because compellers rarely have major interests at stake, typically possess ample conventional capabilities to carry out their threats, and would face an enormous backlash from the international community for using nuclear weapons.¹⁰ Further, they find that if the target has nuclear weapons, having a larger nuclear arsenal does not help compellers achieve success.¹¹

In addition to their quantitative analysis, Sechser and Fuhrmann provide an extensive qualitative analysis of the cases of nuclear compellence. They conclude that while nuclear weapons may provide some benefits, “enhanced coercive leverage is not one of those perks;” that worrying that nuclear proliferation could enable a state to change the status quo “is a legitimate concern if nuclear weapons are, in fact, useful for nuclear blackmail...however, they are not;” and that “Nuclear blackmail does not work because threats to launch nuclear attacks for offensive political purposes fundamentally lack credibility.”¹²

⁹ Kroenig 2013, 160. Kroenig identifies 52 dyads in 20 crises in which participants on both sides possess nuclear weapons. It is important to note that “crises” are not synonymous with “compellence” or “compellent threats,” just as “winning” in crises is not synonymous with “compellence success.” Crises may include compellent threats, deterrent threats, both, or neither (Downes and Sechser 2012). Thus, the 79 dyads referred to above are not 79 nuclear compellent threats. However, since these studies contain a few cases of compellence—and have been interpreted as showing that nuclear weapons are useful for that purpose—they merit inclusion here.

¹⁰ Sechser and Fuhrmann 2017, 12-14, 45-51. Sechser and Fuhrmann use the Militarized Compellent Threat (MCT) dataset to identify 50 compellent threats by nuclear weapons states (which should not be confused with nuclear compellent threats) in 39 separate cases. On the MCT dataset, see Sechser 2011.

¹¹ Sechser and Fuhrmann 2017, 84-86.

¹² Sechser and Fuhrmann 2017, 15, 17, 236. In other passages Sechser and Fuhrmann provide more nuanced assessments, but we believe that these quotes fairly capture their core message.

Limitations of the Current Debate

We identify three shortcomings in the literature. First, the large- N component of existing studies does not test the effectiveness of nuclear *threats*. Instead, quantitative studies test the effect of possessing a nuclear arsenal (or the size of that arsenal) on victory in international crises or compliance with compellent threats. For coercionists, any crisis involving a nuclear weapons state—regardless of whether explicit threats are made—is an implied nuclear threat because, in their view, nuclear weapons, simply by virtue of their existence, affect every crisis involving nuclear states.¹³ Challengers need do nothing specifically “nuclear” to nuclearize a crisis because targets always take all of a challenger’s capabilities into account.¹⁴ Coercionist studies thus accept the argument articulated early in the nuclear era by analysts like Paul Nitze, who wrote that “whether or not atomic weapons are ever used again in warfare, the very fact of their existence, the possibility that they could be used, will affect all future wars.”¹⁵ Yet in the vast majority of cases in coercionist datasets, as we discuss below, nuclear weapons were not at all relevant to the course or outcome of the crisis. The consequence of accepting the Nitzeian assumption is that coercionist datasets are heavily populated by cases that do not include nuclear threats—and are thus irrelevant for learning about the conditions under which such threats work.

Nuclear skeptics, in contrast, explicitly disagree with the assumption that nuclear weapons are always influential and acknowledge that their quantitative work does not test the effectiveness of nuclear compellent threats.¹⁶ They argue, correctly, that to conduct a fair test of the Nitzeian conventional wisdom that nuclear weapons always matter, all compellent episodes

¹³ Kroenig 2013, 142; Beardsley and Asal 2009, 296; Horowitz 2009, 251. For related work on types of nuclear crises that also makes this assumption, see Bell and Macdonald 2019.

¹⁴ This is consistent with the literature on crisis bargaining and extended deterrence, which argues that states select themselves into crises based on all observable indicators, including nuclear weapons. Fearon 1994a, 1994b, 2002.

¹⁵ Nitze 1956, 195.

¹⁶ Sechser and Fuhrmann write that “the assumption that nuclear weapons loom in the background of every crisis involving a nuclear power is problematic” (Sechser and Fuhrmann 2017, 43; see also 245-46).

by nuclear states must be included regardless of whether threats were specifically nuclear.¹⁷

Their test yields no support for the conventional wisdom. Instead, Sechser and Fuhrmann write, “To insert nuclear weapons into a crisis, leaders must invoke their arsenals by alerting nuclear forces, conspicuously deploying relevant missiles or bombers, or making verbal threats.”¹⁸ Our definition below provides systematic guidelines for identifying nuclear compellent threats.

The literature on nuclear coercion, however, is not exclusively quantitative. Sechser and Fuhrmann examine nineteen possible cases of nuclear compellence. Once they eliminate cases in which nuclear compellence was absent, or where nuclear threats were deterrent in nature, only about half a dozen remain—which is consistent with the argument that nuclear compellent threats are rare (compared to conventional compellent threats or international crises).¹⁹ Among these, they find that most—but not all—NCTs failed. The exceptions are the Cuban Missile and Sino-Soviet crises, in which Sechser and Fuhrmann concede that nuclear compellence succeeded, although they maintain that the U.S. victory in the former “was not necessarily a slam dunk” while the Soviet victory in the latter was “feeble.”²⁰ Nevertheless, these are major exceptions to their theory. Furthermore, once the true number of cases is small, a few successes loom much larger than when it was fifty or seventy, and the possibility—and significance—of nuclear compellent success becomes much greater than Sechser and Fuhrmann suggest.

Second, turning to theory, Sechser and Fuhrmann have identified some of the important variables that explain the success and failure of nuclear compellence, but they do not push their

¹⁷ Sechser and Fuhrmann 2017, 68-69.

¹⁸ *Ibid.*, 246.

¹⁹ Although Sechser and Fuhrmann repeatedly mention this point, and are usually careful to distinguish “compellent threats by nuclear states” from “nuclear threats,” they sometimes blur the distinction between the two (Sechser and Fuhrmann 2017, 20, 128). Others (Kroenig 2018), however, are not nearly so careful. Moreover, it is our (admittedly subjective) impression that the use of large-*N* datasets has unintentionally created the misleading impression that there are many cases of nuclear compellence.

²⁰ Sechser and Fuhrmann 2017, 205, 216.

analysis to its natural conclusion. Although their argument is conditional on the compeller's interests, its conventional military power, and the costs it would suffer for using nuclear weapons, Sechser and Fuhrmann contend that these variables almost always take particular values: low compeller interests, high compeller military capabilities, and high external costs of nuclear use. While they acknowledge that "[n]uclear weapons could provide states with coercive leverage if the challenger's conventional power is insufficient to meet its objectives, the stakes in a crisis are exceedingly high, or the costs of nuclear first use are substantially curtailed," they dismiss the likelihood of such conditions existing "[i]n the real world" as "exceedingly rare."²¹ We agree that the conditions for credible nuclear threats are rare, but they have occurred in historical cases and may occur again under plausible circumstances. According to Sechser and Fuhrmann's own argument, which closely parallels our own, that is where we should find states making NCTs, some of which should succeed.

Finally, the existing literature on nuclear compellence does not adequately address selection effects.²² Rather than occurring in a vacuum, nuclear threats typically evolve from conventional disputes and threats to conventional war to nuclear threats.²³ Thus, even threats issued under conditions that would appear to favor the compeller might fail because targets that choose to remain in the crisis as it escalates are likely to be deeply committed, reflecting a

²¹ Ibid., 56, 57. Sechser and Fuhrmann's case studies include compellers with large interests, such as the United States in the Cuban Missile Crisis, but they do not investigate how those interests affected the credibility of NCTs.

²² For a recent exception, see Fanlo and Sukin 2023. These authors argue that in nuclear crises, interests vary inversely with arsenal size. Because weaker states with small arsenals are likely to be highly resolved (or else they would have conceded before the crisis), whereas strong states with large arsenals are unlikely to have large interests at stake, the former will make more credible threats and the possibility of nuclear strikes outweighs the potential benefits for (powerful) challengers. Our selection model begins in the same way but does not assume that interests are endogenous to arsenal size. Fanlo and Sukin also test their theory using Kroenig's dataset drawn from ICB, which contains few NCTs.

²³ Sechser and Fuhrmann (2017, 88-92) examine a similar form of selection in the quantitative work: the possibility that compellent threats by nuclear states fail because threats are made only in the cases with the highest stakes. Although their variable for stakes has been criticized (Gavin 2014), they find no evidence of selection into the most difficult cases. They do not, however, assess the effect of selection in their case studies of actual nuclear compellence.

combination of high interests and capabilities. Under conditions of selection, it becomes impossible to read off the probability of compellence success from the ex ante values of the key variables. The theory we offer below explains the conditions under which compellers are likely to make nuclear threats and the conditions under which those variables will also affect whether the threat succeeds—and when they won't.

Definition and Cases of Nuclear Compellent Threats

What is nuclear compellence? In this section, we offer a definition of nuclear compellent threats and identify the corresponding universe of cases. We then demonstrate that the vast majority of cases in existing quantitative studies do not qualify as cases of nuclear compellence.²⁴ Although this point has previously been made,²⁵ it is worth reiterating both to differentiate our case universe from others and to correct the mistaken impression that existing large- N studies test the efficacy of nuclear threats.

Defining Nuclear Compellent Threats

Our coding is guided by a simple definition of nuclear compellence. Nuclear compellence occurs when a state that possesses nuclear weapons makes a demand that an adversary take an action to change the status quo and couples this demand with a threat to use a nuclear weapon if the target refuses to comply.

The clarity of compellent demands and the explicitness of nuclear threats both vary. For compellent demands, at one end of the spectrum lie cases in which the compeller articulates

²⁴ To reiterate, some studies (Sechser and Fuhrmann 2017) are aware of this fact and do not purport to test the effectiveness of NCTs whereas others (Kroenig 2018) claim that such cases are relevant.

²⁵ Gavin 2014.

specific demands verbally or in writing.²⁶ For example, after the discovery of Soviet missiles in Cuba in October 1962, President John F. Kennedy demanded “the prompt dismantlement and withdrawal of all offensive weapons in Cuba under the supervision of UN observers.”²⁷ At the other end of the spectrum are cases in which compellers do not articulate verbal or written demands, but the content of what they want is reasonably clear from context. One example might consist of two states negotiating an end to a war in which the compeller’s terms of settlement are known to the target from previous bargaining, as in the latter stages of the Korean War.

Like compellent demands, nuclear threats can also be more or less explicit. In some cases, compellers issue verbal or written threats to use nuclear weapons if the target fails to comply. Even in these cases, however, nuclear threats are rarely stated directly. In one of the most explicit examples, Soviet President Nikolai Bulganin addressed a note to British Prime Minister Anthony Eden at the height of the 1956 Suez Crisis that read, in part: “In what situation would Britain find herself if she were attacked by stronger states, possessing all types of modern destructive weapons...for instance, rocket weapons.”²⁸

Threats to use nuclear weapons, however, can also be implicit, signaled without words by a variety of actions that compellers can take with their nuclear arsenals or conventional forces. Nuclear examples include placing nuclear forces on alert, such as putting nuclear-armed bombers in the air or mating nuclear warheads with delivery vehicles. During the Cuban Missile Crisis, for example, the United States sent clear yet tacit signals of intent to use nuclear weapons by moving to DEFCON-2—its second highest military alert status.

²⁶ This is the standard adopted by the MCT dataset (Sechser 2011). For the sake of presentational simplicity, we dichotomize what is in reality a continuum between explicit and implicit demands/threats.

²⁷ Kennedy 1962.

²⁸ Quoted in Gorst and Johnman 1997, 123.

An implicit nuclear threat could also occur without the compeller issuing an explicit threat or sending tacit nuclear signals. Conventional fighting could itself communicate a nuclear threat by interacting with the compeller's nuclear forces in ways that increase the probability of escalation. For example, fighting could increase the probability of a nuclear attack via loss of control or accident, especially if theater nuclear weapons are integrated with conventional forces. It could also generate incentives for one or both sides to escalate to nuclear attacks by making nuclear war appear more likely and by destroying early warning and command and control systems.²⁹ A third possibility is that fighting a conventional war is so costly that the compeller's willingness to incur those costs communicates information about the extent of its interests, which could convince the target that the compeller is willing to launch a nuclear attack and run the risks of nuclear retaliation. Cases like these thankfully remain hypothetical but could yet occur.

In short, NCTs can be doubly explicit or doubly implicit. Explicit demands can also be supported with implicit threats and vice-versa. The clarity of a threat, however, does not necessarily generate credibility; a clear threat could also obviously be a bluff, as the Soviet threat was in 1956.³⁰

Cases of Nuclear Compellent Threats

Table 1 lists the ten NCTs in nine cases (involving sixteen total targets) that we identify.³¹ We define a case as a time-delimited interaction between a challenger and one or more targets during which the compeller's demand remains the same. A case may include more than one NCT. We count a new instance of nuclear compellence each time a challenger makes a new nuclear threat

²⁹ Glaser 1990; Talmadge 2017.

³⁰ Fursenko and Naftali 2007, 136, 133.

³¹ Summaries of how all threats were coded appear in the Supplemental Materials.

in support of its demand. Most cases include only a single threat but the Sino-Soviet crisis contains two.

Although many of the cases in the table—such as the Suez and Cuban Missile Crises and the Soviet threats against China in 1969—are easily classified as NCTs, others require explanation. The U.S. atomic attacks on Japan, for example, are included because after the first bomb was dropped on Hiroshima, the United States threatened to continue dropping them until Japan surrendered. Not only was the United States implicitly threatening additional attacks, but President Truman issued a nuclear threat after the Hiroshima bombing when he warned the Japanese that additional atomic bombs would be dropped if the country did not surrender.³²

The Berlin (1958, 1961) and Indo-Pakistani (2001-02) crises are atypical because while the Soviets and Indians had clear compelling objectives—to eject the Western powers from West Berlin in the former and to end Pakistani support for terrorist groups in the latter—and backed their demands with implicit nuclear signals, the countries' verbal nuclear threats were deterrent in nature.³³ We include these cases because even though the rhetoric in these cases threatened only nuclear retaliation for nuclear first strikes by the opponent, in both the compeller took observable actions with its nuclear arsenal to support its demands.³⁴

³² Hasegawa 2005, 181.

³³ For a summary of Khrushchev's deterrent threats, see CIA, "Khrushchev on Nuclear Strategy," January 19, 1960, p. o; and Sechser and Fuhrmann 2017, 134-35, 137-38. For Indian deterrent statements, see Sechser and Fuhrmann 2017, 157-58.

³⁴ Soviet nuclear signals in 1958 included over twenty nuclear tests from September to November and stationing nuclear missiles in East Germany. Norris and Cochran 2001, 33-34; and Sechser and Fuhrmann 2017, 135. In the fall of 1961, among other moves, Moscow tested almost fifty nuclear weapons. Norris and Cochran 2001, 34-35; and Betts 1987, 106-08. India moved nuclear-capable Prithvi missiles to northern Punjab province and test-fired another nuclear-capable missile (the Agni). Sechser and Fuhrmann 2017, 157-58. Even if Moscow and Delhi had made only verbal nuclear deterrent threats, however, they were arguably still engaged in nuclear compellence because they were setting in motion a series of steps in which nuclear escalation was their opponents' best option, which would then be met with retaliation. Even though the targets in these cases would have struck the first (nuclear) blow, the Soviets and Indians were still using the threat of nuclear war to compel concessions.

Table 1. Cases of Nuclear Compellent Threats

Compeller	Target(s)	Year	Demand	Nuclear Threat	Explicitness of Threat	Pathway to NCT	NCT Success
U.S.	Japan	1945	Unconditional surrender in World War II	Truman's warning to Japan of further nuclear strikes, August 6, 1945	Doubly explicit	Surprise	Yes
USSR	Britain France	1956	Withdraw forces from Suez Canal region	Bulganin's letters to Britain and France threatening them with attacks with "rocket weapons," November 5, 1956	Doubly explicit	Surprise	No*
USSR	Britain France U.S.	1958	Withdraw forces from West Berlin	Twenty nuclear weapons tests Stationing nuclear weapons in East Germany	Explicit-implicit	Selection	No
USSR	Britain France U.S.	1961	Withdraw forces from West Berlin	Over fifty nuclear weapons tests	Explicit-implicit	Selection	No
U.S.	USSR	1962	Withdraw missiles from Cuba	U.S. shift to DEFCON-2, October 24, 1962	Explicit-implicit	Surprise and selection	Yes
USSR	China	1969	Return to border negotiations	1. Soviet nuclear-capable bombers practice attacks on mockups of Chinese nuclear facilities (June) 2. Soviet inquiries in third countries regarding attitudes toward a Soviet nuclear strike on Chinese nuclear facilities (August)	Explicit-implicit Doubly explicit	Selection	No Yes
U.S.	USSR DRV	1969	End Vietnam War	U.S. global nuclear alert, October 13-30, 1969	Explicit-implicit	Selection	No†
U.S.	Egypt	1973	Withdraw request for U.S. and Soviet troops	Nixon's warning to Sadat of consequences of two nuclear powers confronting each other in Egypt, October 24, 1973	Doubly implicit	Surprise	No*†
India	Pakistan	2001-2002	End support for cross-border terrorism and turn over twenty wanted terrorists	Movement of Prithvi missiles (Dec. 2001); test-firing of Agni missile (Jan. 2002); verbal threats to retaliate with nuclear	Explicit-implicit	Selection	No‡

weapons; conventional threat that could
have escalated to a nuclear exchange

* Indicates cases in which targets took the action desired by the compeller but very likely for reasons other than the compeller's threat. Cases of compliance without asterisks should not be interpreted to mean that nuclear threats were the sole reason that targets complied.

† Indicates cases in which the nuclear threat was so vague or poorly executed that the target either failed to understand the purpose of nuclear signals at all, or the possibility of nuclear strikes was so distant that it is highly unlikely to have affected the target's decision.

‡ Minimal short-term compliance, longer term failure.

Another complicated case is the U.S. threat against Egypt during the Yom Kippur War. The main nuclear threat in this case was deterrent, made by the United States to dissuade the Soviet Union from intervening unilaterally in the conflict. In addition, the United States sent a note to Egyptian President Anwar Sadat informing him that the United States could not agree to his request for joint U.S.-Soviet intervention. The note contained a veiled nuclear threat: “I ask you to consider the consequences for your country if the two great nuclear countries were thus to confront each other on your soil.”³⁵

Whether U.S. policy in this case qualifies as nuclear compellence is questionable. The demand in the U.S. note is ambiguous. It states that Washington “will not be able to agree” to Sadat’s proposal. Sadat, however, could reasonably interpret this as a demand to rescind his request. The nuclear threat in the message is similarly cryptic: it simply warned Sadat of the potential dangers of having American and Soviet military forces fighting in his country. The unstated implication is that a conventional conflict involving the United States and the Soviet Union—after many intervening steps—could possibly escalate to nuclear war. The U.S. nuclear alert was not intended to influence Egypt but might have had the collateral benefit of reinforcing the U.S. demand.³⁶ Despite this ambiguity, we include this case as a borderline instance of nuclear compellence.

Finally, Richard Nixon’s “madman alert” in 1969 is technically an NCT but one that was very poorly designed. Nixon, six months after taking office, wrote privately to Ho Chi Minh, threatening that “unless some serious breakthrough had been achieved by the November 1 deadline...I would regretfully find myself obliged to have recourse to measures of great

³⁵ Nixon 1973.

³⁶ Stein 1999, 94-95.

consequence and force.”³⁷ Rebuffed by Ho, Nixon ordered a nuclear alert, hoping to induce Moscow to pressure Hanoi to reach a negotiated settlement. The alert, which lasted for over two weeks, included measures such as standing down combat training flights, increasing the alert rate of strategic bombers, and flying nuclear-armed B-52s in circles over the polar ice cap.³⁸ However, the alert was flawed in two ways. Because it was designed to be visible to the Soviets but invisible to the American public, the alert was so limited that it looked like a bluff.³⁹ More importantly, the nuclear threat was not clearly linked to the compelling demand, leaving the Soviets guessing about its purpose and making compliance nearly impossible.⁴⁰

Excluded Cases

We excluded cases from our list of NCTs for five reasons; Table 2 provides a list of twenty such cases.⁴¹ First, we omitted international crises in which states made neither compelling demands nor nuclear threats, such as the Dien Bien Phu Crisis (1954), the joint U.S.-Belgian intervention in the Congo to rescue foreign hostages (1964), the Soviet invasion of Afghanistan (1979), and the reported Soviet export of MiG-21 fighter jets to Nicaragua (1984).⁴² Second, we excluded a large number of cases where states communicated compelling demands but either made no threats (the United States versus China in 1953 during the Korean War) or only conventional threats (U.S. and allied threats against the Bosnian Serbs, Haiti, and Yugoslavia in the 1990s).⁴³

³⁷ Quoted in Sagan and Suri 2003, 158-59.

³⁸ Burr and Kimball 2003.

³⁹ Ibid., 147; Sagan and Suri 2003, 164.

⁴⁰ Sagan and Suri 2003, 176. Nixon and Kissinger apparently failed to consider the possibility that Moscow might interpret the alert as an implicit U.S. threat to intervene in the concurrent Sino-Soviet crisis. Ibid., 176-79.

⁴¹ Although we lack space to discuss them all here, examples of these cases—and our reasons for excluding them—are explored in detail in the Supplemental Materials.

⁴² Trachtenberg 2013; Kroenig 2013, 154.

⁴³ Although President Dwight Eisenhower and his Secretary of State, John Foster Dulles, later claimed nuclear threats were instrumental in bringing the Chinese to terms, none of the specific ways the threat was supposedly

Third, we also omitted rare instances of the opposite: states that made nuclear threats but failed to issue a clear demand. A possible example is President Truman’s (hastily retracted) statement in November 1950 that the United States was considering using nuclear weapons in Korea—but not for what.⁴⁴ Fourth, we excluded cases of nuclear threats made in support of deterrent demands—as in the U.S. threat against the Soviet Union during the Yom Kippur War. Fifth, we set aside two cases—Israel-U.S. 1973 and Pakistan-U.S. 1990—that consist of nuclear signals directed at a third party in the hope of compelling it to intervene in a crisis.⁴⁵ Such “catalytic” threats are not directed at the adversary, which may not even be aware of them. We omitted these since we are interested in explaining the effect of nuclear compellence in changing an adversary’s behavior.

Table 2. Important Excluded Cases

Sender	Target	Year	Crisis Name	Reason for Exclusion
U.S.	USSR	1948	Berlin Blockade	Deterrence
U.S.	China	1950	Korean War II	No demand; ambiguous nuclear threat
U.S.	China	1951	Korean War II	No demand
U.S.	China	1953	Korean War III	No nuclear threat
U.S.	Viet Minh	1954	Dien Bien Phu	No demand or nuclear threat
U.S.	China	1954	Taiwan Strait I	Deterrence
U.S.	China	1958	Taiwan Strait II	Deterrence
U.S.	North Korea	1968	U.S.S. <i>Pueblo</i>	No nuclear threat
U.S.	India	1971	Bangladesh War	Deterrence
Israel	U.S.	1973	Yom Kippur War	Compellent threat directed at ally (catalytic)
U.S.	USSR	1973	Yom Kippur War	Deterrence
Britain	Argentina	1982	Falklands War	No nuclear threat
Pakistan	U.S.	1990	Kashmir III	Compellent threat directed at ally (catalytic)
U.S.	Iraq	1991	Persian Gulf War	No nuclear threat
China	U.S.	1995	Taiwan Strait IV	Deterrence
Pakistan	India	1999	Kargil War	Deterrence
North Korea	U.S.	2013	North Korea Nuclear V	Deterrence
North Korea	U.S.	2016	North Korea Nuclear VI	Deterrence
North Korea	U.S.	2017	North Korea Nuclear VII	Deterrence
U.S.	North Korea	2017	North Korea Nuclear VII	Deterrence

communicated stand up to scrutiny (Reid 1981, 45; Foot 1990, 178; Foot 1988/89, 104; and Sechser and Fuhrmann 2017, 176-80).

⁴⁴ Betts 1987, 33-35.

⁴⁵ Narang 2014; Colby et al. 2013; Krepon and Faruqee 1994.

Table 1 and our discussion of excluded cases reinforces Sechser and Fuhrmann’s finding that nuclear compellent threats comprise a small share of compellence episodes. Of the fifty compellent threat dyads with a nuclear armed challenger in Sechser and Fuhrmann’s dataset, for example, only six of them (12 percent) contain a nuclear threat as we define it. As Sechser and Fuhrmann write in describing the ten successful compellent threats by nuclear weapons states in the MCT dataset, “threats of nuclear attack were implied” in only two: the Suez and Cuban Missile crises. “The other cases,” they continue, “are noteworthy for the total absence of nuclear threats, implicit or otherwise.”⁴⁶ Nuclear compellent threats are similarly scarce in the two other leading quantitative studies, those by Beardsley and Asal (6 percent) and Kroenig (17 percent).⁴⁷

Aren’t There Invisible Cases?

A reasonable objection is that we have overlooked cases of nuclear compellence because a target could make concessions without the potential compeller ever making a demand and therefore without a crisis even occurring. Anticipating an NCT, a weakly resolved or militarily inferior target could make concessions before the compeller issues its threat. This possibility means that possessing nuclear weapons could generate compellent successes without any trace of a compellent threat or crisis.⁴⁸

⁴⁶ Sechser and Fuhrmann 2017, 94-95. Our research confirms this. We found no evidence of nuclear signaling in 44 of 50 compellent threats.

⁴⁷ See Tables S2-S6 in the Supplemental Materials; and Gavin 2014. One might wonder whether the exclusion of these cases in any way biases our results. Although there is only one possible success among the non-deterrence, non-catalytic cases (Korean War III), we argue that the failures are consistent with our theory. The most common reason is that challenges were made by states with powerful conventional capabilities with non-existential interests at stake. Subsequent nuclear signaling by the compellers was weak, ambiguous, or non-existent. See the Supplemental Materials for more on this issue.

⁴⁸ A different argument holds that states might refrain from issuing NCTs when they estimate that the target is highly resolved—and thus the threat would be likely to fail. This argument implies that observed cases of nuclear compellence could be biased towards success since they are made against weakly resolved targets. We accept that this could create some bias in the set of NCT cases. This is not a serious issue for our study, however, which focuses on the conditions under which NCTs are likely to succeed, not on the probability of success.

We believe that the possibility of anticipatory concessions does not threaten the validity of our study. Such cases would likely occur under a very narrow range of conditions and probably have not actually occurred. If facing a state that accepts the nuclear taboo, the target would not expect nuclear compellent threats over low and medium value issues. Anticipatory concessions would therefore be over issues of large value. Concessions on this scale would be easily observed; we do not know of any examples. In addition, a target that identified a potential future NCT would have incentives to wait until the threat is actually made. The compeller might not actually make the threat, and thus the target could avoid making concessions. Moreover, in most scenarios the target would still be able to concede once the threat is made, thereby avoiding the compeller's nuclear attack. The exception would be a severe crisis or conventional war that the target believed might plausibly escalate to nuclear war even though the compeller did not intend this to occur. But this type of case would occur during a major conflict and therefore would be among the cases we observe. This set of arguments gives us reasonable confidence that we are not overlooking cases of nuclear compellence that were not accompanied by a demand.

Another argument for how nuclear weapons could elicit concessions from adversaries in the absence of explicit threats is that the simple act of acquiring a nuclear arsenal gives states compellent power—a phenomenon referred to as “general nuclear compellence.”⁴⁹ In the scenario most germane to our study, when conventionally weak states obtain nuclear weapons, the drastic increase in the costs of a potential conflict compels more powerful adversaries to make concessions. Three of the four cases offered in support of their argument, however, consist of states gaining concessions from allies, not adversaries. The sole case of a state supposedly compelling an adversary to do something it might not have otherwise is Washington's

⁴⁹ Anderson, Debs, and Monteiro 2019.

recognition of the People's Republic of China and downgrading of its relations with Taiwan after China nuclearized in the mid-1960s. However, there are many other potential explanations, including the U.S. desire to further isolate the Soviet Union.⁵⁰ Just as “proving” that general deterrence dissuaded a state from attacking, establishing causation in cases of general compellence is at best challenging.

When Do Nuclear Compellent Threats Succeed?

At the most basic level, the success of a nuclear compellent threat depends on how the compeller's nuclear capabilities and its interests compare to those of its adversary's—success is more likely when the compeller has larger interests and an advantage in the ability to inflict nuclear damage.⁵¹ In addition, the success of an NCT should depend on the absolute size of the compeller's interests and its nuclear vulnerability. When the compeller's interests are minor or when its nuclear vulnerability is high, the target may believe that the compeller is bluffing because the risks of war far exceed the demanded benefits.

In addition to these core variables, two other factors could influence the success of an NCT. Normative barriers to the use of nuclear weapons could reduce the credibility of compellent threats to use them, thereby reducing the probability of NCT success. And conventional forces capable of achieving the demanded concession could reduce the credibility of an NCT because the compeller has an alternative option that would be more directly effective and less risky.⁵²

⁵⁰ Anderson, Debs, and Monteiro provide no direct evidence that the nuclearization of China—and hence the increased costs of defending Taiwan—was a factor in the U.S. decision to normalize relations.

⁵¹ On the logic of successful compellence, see Pape 1996, chap. 2.

⁵² Sechser and Fuhrmann 2017.

However, identifying the influence of these variables in NCT cases is greatly complicated by selection effects. Standard crisis bargaining models in the literature argue that states—when considering whether to make a challenge—take their own and the targets’ interests and capabilities into account.⁵³ Because power and interests have already been factored into the decision to challenge, they do not affect the outcome. The implication for nuclear compellence is that this selection process neutralizes the effects of the pre-crisis variables that would otherwise explain NCT outcomes, making it impossible to predict *ex ante* whether the threat will succeed. Rather, in these “standard selection model” cases, intra-crisis bargaining—sending costly signals of resolve—will determine the outcome. The larger or more dangerous the signals the compeller sends, the more likely it will prevail.

The standard model, however, assumes that states take *all* of their adversary’s capabilities into account when deciding whether to challenge. But some cases diverge from this assumption: targets sometimes believe that a challenger’s nuclear weapons are irrelevant to a crisis. For a number of reasons, states may heavily discount the likelihood of a nuclear threat or believe the possibility doesn’t exist at all. In these cases, the shock effect of an NCT is very large and forces the target to suddenly take into consideration the nuclear balance (in fact, the target will often have to reconsider all of the variables discussed earlier). These “nuclear surprise” threats are on balance more likely to succeed.

This section begins by laying out the basic compellence logic and the variables that ought to influence NCT success. Second, it outlines the basic model of selection effects in crisis bargaining. Third, it explains how this model—which we label the “standard selection”—applies to nuclear compellence. Fourth, the section introduces a modification of the standard model in

⁵³ Fearon 1994a, 1994b

which targets—for a variety of reasons—do *not* take all of a compeller’s capabilities—specifically its nuclear weapons—into account, which produces the “surprise” model. Finally, we show how the two models can be combined into a single, broader, framework.

Variables that Influence Nuclear Compellence Success

Nuclear Balance. All else equal, an NCT is more likely to succeed when the compeller can inflict larger costs than the target can in retaliation. In this situation, the compeller will face smaller risks than the target because it would suffer smaller costs if the target refuses its demand and it then carries out its threat. In addition, its nuclear advantage could reduce the risk by increasing the credibility of its compellent threat—because the target would judge that the compeller is more likely to carry out its threat, the target is more likely to make the demanded concessions, which reduces the probability of nuclear war. The probability of success will increase as the compeller’s advantage in the ability to inflict damage increases. The extreme case is when the target lacks nuclear weapons.

We should clarify, however, that relative nuclear cost potential does *not* map directly onto the size of the states’ nuclear forces.⁵⁴ If both states have very large survivable nuclear forces, then the compeller’s possession of a much larger nuclear force would not provide an advantage in relative nuclear damage because the target’s smaller force would already be able to destroy all targets of high value. As a result, when both states possess assured destruction capabilities—that is, in MAD—differences in force size do not translate into significant bargaining advantages⁵⁵ and therefore should not influence the probability that an NCT will succeed.

⁵⁴ On various way to conceptualize meaningful differences in nuclear damage, see Glaser and Fetter 2016, 54-59.

⁵⁵ Here we differ with Kroenig 2013, 2018.

Compeller's Nuclear Vulnerability. Even when not in MAD, the implications of relative advantage in the ability to inflict damage will be mitigated by the absolute damage the compeller would suffer because the costs could be so large compared to the potential benefits. Given the potential costs, the target could reasonably question the credibility of the NCT, thereby reducing its probability of succeeding. Consequently, the probability of NCT success is influenced not only by states' relative abilities to inflict damage, but also by the compeller's absolute vulnerability to nuclear attack: when the compeller's vulnerability to retaliation is lower, the probability of NCT success should be greater.

States' Relative Interests. The success of an NCT will depend on how the two states perceive the relative interests in the demanded concession. For example, when the compeller believes it has larger interests at stake than the target, it should be willing to run larger risks to achieve its objective, which gives it a bargaining advantage. The target, recognizing that the compeller has larger interests than its own, should be more willing to make concessions instead of risking escalation to nuclear war.

The common argument that relative interests determine bargaining advantages in MAD follows directly from this basic logic: because in MAD neither state possesses a significant advantage in the ability to inflict nuclear damage, only relative interests are left to determine bargaining advantages.⁵⁶ This does not mean, however, that in MAD a state that enjoys an advantage in the interests at stake will frequently attempt to compel the target state. Given the enormous risks of nuclear bargaining in MAD, the compeller's interests would have to be large to warrant engaging in nuclear bargaining. Thus, there is not a contradiction in believing both that bargaining advantages can exist in MAD and that nuclear compellent crises will be rare.⁵⁷

⁵⁶ Powell 1990, chap. 2.

⁵⁷ See Jervis 1989.

Compeller's Absolute Interests. The likelihood of an NCT succeeding also depends on the compeller's *absolute* interests. Nuclear compellence is less likely to succeed when the compeller has little at stake in the crisis—regardless of the target's interests. Given the potential costs of nuclear war (if the target has nuclear weapons), the target should judge the NCT to have lower credibility when the compeller's interests are smaller; therefore, the NCT is less likely to succeed.⁵⁸ In contrast, large interests could provide the NCT with greater credibility.⁵⁹

Normative Barriers. Acceptance of normative restrictions on the first use of nuclear weapons could reduce the probability that an NCT will succeed.⁶⁰ The target, knowing that the compeller faces these restrictions, would have greater doubts about the credibility of the NCT, reducing the probability that it would succeed. A state could be influenced by the norm against the first use of nuclear weapons—the “nuclear taboo.” States might adhere to the taboo either because they fear the political consequences they might suffer from violating it or because they believe using nuclear weapons first is simply wrong—inconsistent with the state's values and identity.⁶¹ In addition, a state might be unwilling to use nuclear weapons because it believes the scale of damage it would inflict is out of proportion to the stakes at hand.

However, when a compeller has vital interests at stake—for example, if it has lost strategic territory in a conventional war, or is fighting an adversary seeking regime change—it is less likely to be constrained by these norms and might even believe they do not apply. States

⁵⁸ Closely related, a compeller is less likely to make an NCT when its interests are smaller.

⁵⁹ Figure S1 in the Supplemental Materials classifies cases in Sechser and Fuhrmann's dataset by issue. It shows that in most cases, compellers are unlikely to have large interests at stake and NCTs are more likely when the disputed issue is more important, such as withdrawal of forces or border disputes.

⁶⁰ There is a countervailing argument: in addition to the stronger norm—taboo—against the use of nuclear weapons, there may be a norm against making nuclear threats. To the extent this is true, making an NCT, while known to be sensitive to this restriction, could signal that the compeller has larger interests at stake.

⁶¹ On the nuclear taboo, see Tannenwald 1999. The former relies on the logic of consequences, the latter relies on the logic of appropriateness; see Tannenwald 1999, 437-38. Sechser and Fuhrmann's (2017) argument emphasizes the former.

have little experience with which to judge the impact of nuclear normative barriers when an opposing state has vital interests at stake—nuclear powers have virtually never confronted such circumstances.⁶² We do know that states have been willing to target civilians intentionally when they became desperate to win major wars and to reduce their own large-scale casualties—even when their leaders espoused support for the norm of noncombatant immunity prior to entering the war.⁶³ Recognizing that the stakes involved may trump normative barriers, the target might not significantly reduce its assessment of the compeller’s credibility.

Conventional Military Balance. The conventional balance between compeller and target could influence the success of an NCT in a somewhat counterintuitive way: when a compeller can achieve its objectives at low cost with conventional forces, the target may question whether it would use nuclear weapons instead; this would reduce the credibility of the NCT. This is especially likely because the conventional forces could achieve the compeller’s goals directly, such as taking territory or changing a regime, which nuclear weapons cannot do.⁶⁴

If, however, a compeller would suffer high costs in a conventional war, then a nuclear compellent threat would be more credible, even though the prospects of conventional success were high. A compeller in this situation might turn to an NCT to avoid suffering the costs of conventional war.⁶⁵ This situation would almost certainly arise only when the compeller has large interests; otherwise, it would be unwilling to fight a costly conventional war and therefore would not face this tradeoff. In contrast, a nuclear threat is the only option available to a compeller that has weak conventional forces. As a result, the conventional balance would not undercut the credibility of this state’s NCT.

⁶² The closest example is probably Israel in the Yom Kippur War.

⁶³ Downes 2008.

⁶⁴ Secsher and Fuhrmann 2013.

⁶⁵ A good example of this scenario is the United States facing a conventional invasion of Japan.

In sum, the probability that an NCT will succeed depends on the combination of these variables, with the nuclear balance and states' interests likely to be most important. Very briefly, the greater the compeller's interests are perceived to be by the target, the more credible the NCT and thus the more likely it will succeed. Similarly, if the target judges the compeller's interests to exceed its own, the compeller will have a bargaining advantage. A true nuclear advantage will increase the credibility of the NCT because the compeller will suffer less damage in an all-out war; however, at high levels of mutual damage, supposed differences in nuclear damage may be insignificant compared to the stakes.

Selection and Signaling

The preceding arguments are correct, but apply only under some conditions. They are correct if all else is equal. But because coercive threats are typically made after prior crisis choices, all else is not usually equal.

Selection and Crisis Bargaining. In the 1990s, Fearon's model of crisis bargaining precipitated a major change in the field's understanding of the effects of variables like power and interests on crisis outcomes. The model shows that "neither the balance of forces nor the balance of interests has any direct effect on the probability that one side rather than the other will back down once both sides have escalated."⁶⁶ The reason is that "rational states will 'select themselves' into crises on the basis of observable measures of relative capabilities and interests and will do so in a way that neutralizes any subsequent impact of these measures."⁶⁷ In other words, when deciding whether to make a challenge, states take all factors that are observable *ex*

⁶⁶ Fearon 1994a, 578.

⁶⁷ *Ibid.*, 586.

ante into account; because these factors are known and do not change during the crisis, they should not affect the outcome.⁶⁸

Applying the Standard Selection Model to Nuclear Compellence. Surprisingly, most studies of nuclear compellence have not incorporated this basic selection logic into their analyses.⁶⁹ The clear implication of the selection insight is that the causal effects of the variables outlined above should not be evident in a set of historical cases in which crises evolve through a series of strategic interactions.

In a crisis, a compeller considers its adversary's interests and capabilities when making a challenge, and the target then considers whether to comply. If the target does not comply, the compeller decides whether to carry out its threat—which, depending on the scenario, could involve launching a conventional attack, taking actions that indicate that a nuclear attack is becoming more likely, or making a nuclear threat. The target then decides again whether to make concessions. Deciding to resist a challenge sends a costly signal about the state's interests because backing down can be costly and standing firm is risky. Depending on the crisis, there could be many possible paths that lead to a nuclear compellent threat, including one that occurs during a conventional war. At each decision point, both the compeller and the target decide whether to continue the crisis or conflict based on both their own interests and capabilities and their beliefs about the other's interests and capabilities. The states that decide to continue the contest typically have larger interests and/or better military capabilities than those that drop out.

⁶⁸ This claim laid the basis for Fearon's argument that relative audience costs were the decisive factor in crisis bargaining. Fearon also used these insights about selection effects to show that extended immediate deterrence is more likely to fail the stronger the patron's interest in defending its protégé because only highly resolved states would challenge a patron perceived to be strongly committed to its protégé. Fearon 1994b, 2002. The conclusion that such threats should fail does not follow logically, however. Because both defender and challenger have strong interests, the outcome should be a tossup.

⁶⁹ An exception is Fanlo and Sukin 2023.

It is because of this selection into and out of crises and wars that all else is not equal in nuclear compellence.⁷⁰

Consequently, by the time that the compeller makes a nuclear threat, this process will have weeded out target states that do not have large interests and/or substantial (sometimes nuclear) capabilities. This process will tend to produce states that are comparably matched in their compellent, deterrent, or bargaining capabilities, which reflects a combination of their military capabilities and the extent of their interests. Each likely believes that it has reasonable prospects for success and that the other believes this as well. With two well-matched states, we expect a mix of compellent successes and failures.⁷¹ There will not be a high correlation between the variables that influence a state's probability of making an NCT and the probability of its success because selection effects result in the eventual pairing of comparable states. The outcome will be influenced by signaling in the final stage of the crisis, that is, the nuclear stage.⁷² However, we have little evidence against which to test this proposition; in fact, only one case follows this path of extensive escalating interaction.

⁷⁰ This description of state decision-making is entirely consistent with our argument that target states often do not consider the compeller's nuclear weapons. One possibility is that the target assigns essentially zero probability to the branch that includes nuclear escalation. Another possibility is that the target does not even include nuclear escalation in its decision tree, because nuclear use is intuitively implausible.

⁷¹ The percentage of successes would depend on the underlying distribution of target and compeller features; given the small number of actual NCT cases, we see little value in trying to model these selection outcomes.

⁷² Others use the term brinkmanship, which involves "raising the risk that a crisis will spiral out of control and result in a [nuclear] war that neither side would rationally choose," to refer to what we call costly signaling (Sechser and Fuhrmann 2017, 10). We do not use the term, which we understand to have a narrower meaning than costly signaling. In contrast to brinkmanship, costly signaling need not raise the probability of all-out nuclear war via accidents or some other mechanism, nor need the extent of risk be large and/or equally shared (see Schelling 1966, 99-105). On different types of nuclear threats and risks, see Powell 1985.

The Surprise Model

In addition to these arguments, which flow from the “standard” selection argument, we identify a second type of escalation path—one in which the target did not initially know (or almost completely discounted) the compeller’s nuclear weapons. We term this the “surprise” model. We examine it separately because some cases diverge significantly from the model that underpins the standard argument—in which states take all military capabilities into account—and further because in these surprise cases there should be a correlation between the nuclear balance and NCT outcomes.⁷³ We end this section with a still more general type of escalation argument.

In the surprise model, a nuclear threat is made during a conventional crisis or war in which the target did not envision the possibility of a nuclear threat. In the pure version of surprise, the target does not know that the compeller possesses nuclear weapons and therefore cannot take factor them into its decisions. The nuclear threat that the United States made against Japan fits this description, as Japan was unaware of the U.S. nuclear capability before the bombing of Hiroshima. Other versions of the surprise model are more complicated, but contain an important element of surprise. In the Cuban Missile Crisis, Khrushchev believed that the Soviet Union could deploy nuclear weapons without being detected and therefore did not include—or at least heavily discounted—the nuclear balance in his decision to pursue the gambit. Once the United States discovered Soviet plans, Khrushchev faced a very different situation—he had to give full weight to a branch of the game tree that he had previously discounted. Unlike crisis signaling, he was not updating his beliefs about the extent of U.S. interests; nor was he updating his understanding of U.S. capabilities; instead, he was facing a nuclear crisis that he had mistakenly believed he could avoid.

⁷³ Fearon 1994b, 2002.

Because the NCT in the surprise model comes as a shock, the target does not have the opportunity to select out of the crisis in anticipation of a nuclear threat. Consequently, having a nuclear advantage should be correlated with NCT success. However, other variables that increase the probability of nuclear compellent success should not be correlated with success because the states were aware of these at each stage of the crisis. Therefore, at the stage of the crisis that precedes the surprise nuclear threat, states will tend to be well matched in terms of their combination of interests and conventional capabilities.

The shock introduction of nuclear weapons into the crisis can have two effects depending on the nuclear balance. First, if the compeller has a large advantage in arsenal size, an unanticipated nuclear threat would provide it with a bargaining advantage. The surprise entry of nuclear weapons affects the relevant relative capabilities. Second, if both sides have arsenals that are roughly equal in size, or if the compeller has a smaller arsenal than the target, the unexpected injection of nuclear weapons into the conflict would not affect capabilities, but rather would serve as a signal that the compeller has larger interests than the target previously understood. Nuclear weapons provide the opportunity to send this signal because the risks they generate exceed those that were possible during the earlier, non-nuclear phase, of the crisis.

A significant caveat to this logic is that it assumes that the compeller was part of the crisis from the outset and thus that the target selected into/escalated a crisis with it. As we shall see below, however, this is not always true; in some cases, such as the Suez Crisis, the compeller enters the crisis at a later stage. Indeed, sometimes the compeller is hardly involved at all until it makes a nuclear threat. In these cases, there is truly no selection and thus all six variables ought to affect the target's assessment of the threat's credibility.

A Combined Model

Although we have described two ideal types of NCT cases, we should envision them as extremes on a continuum. At the surprise extreme, the target does not know the compeller has nuclear weapons. At the other extreme, which is built on a simplified model in which there is a single war option and all forces are employed in the war, the target is not only aware of the compeller's nuclear weapons, but the full use of nuclear arsenals—all-out nuclear war—is the only use of force that influences states decisions and is fully factored into the states' decisions. A richer model would include greater complexity: in a nuclear crisis or war, there could be many levels of fighting, including a conventional war, a limited nuclear war, and an all-out nuclear war. This model produces different predictions for the correlation between nuclear forces and NCT outcomes and, at extreme values, converges with the two paths we have described.

For example, at the beginning of a crisis involving nuclear powers, both could consider the probability of nuclear war to be very low. As a result, they would take into account the nuclear balance, but would discount it by the probability of nuclear war. If the crisis intensified and a state judged nuclear war to become more likely, it would increase the weight it placed on the nuclear balance. If the compeller makes a credible nuclear threat at a stage when the target still believed a nuclear threat was unlikely, then (across numerous similar cases) there would be some correlation between the nuclear balance and the outcome of the NCT, because the nuclear balance had not yet taken full weight in the target's decision. In contrast, if a crisis or war proceeds to a point where the target expects an NCT (essentially sees it as the only branch forward), then the nuclear balance would have been fully weighted and the correlation between the balance and NCT outcomes should disappear because states with smaller interests would drop out of the crisis before the compeller makes an NCT.

This richer model allows for a somewhat different categorization of the Cuban Missile Crisis case. Khrushchev need not have totally discounted the possibility that his actions would lead to a nuclear crisis. Instead, if he thought there was a high probability that they would not, the same basic result is possible: the nuclear balance would affect the outcome of the crisis because the Soviet Union faced an NCT at a moment in the crisis when it did not expect one.

In the Ukraine War, for instance, both Western leaders and Russian President Vladimir Putin believed Russia could win a quick, low-cost victory against Ukraine. As a result, at the outset of the invasion, few anticipated that nuclear weapons would play much of a role. Once Russia quickly became bogged down, however, nuclear weapons became more significant: given the stakes for Putin, the United States appreciated that Russian use of nuclear weapons was a more likely (if not likely) possibility, an assessment reinforced by Putin's nuclear saber rattling. This realization did not bring consideration of the nuclear balance into play because no one envisioned an all-out nuclear war. But the possibility of limited nuclear use for bargaining arose largely because the war took an unanticipated conventional path.

Assessing the Effectiveness of Nuclear Compellent Threats: Brief Assessments

Space precludes us from examining all nine cases of nuclear compellence in detail. Instead, we offer brief assessments of seven of them before exploring the other two—a surprise case (U.S.-Japan) and a selection case (Sino-Soviet Crisis)—in more detail to illustrate the differences in the factors influencing the effectiveness of the two kinds of threats. We encourage readers to consult the online appendix for full treatments of the other seven cases.

Surprise Cases

Four of the ten NCTs in Table 1—Japan, Suez, Cuba, and Yom Kippur—are surprise threats, in which targets did not anticipate a nuclear threat when the crisis or war began.⁷⁴ In these cases, we would not expect the configuration of pre-threat variables to directly affect the outcome given that the target chose to enter/escalate the crisis based on those variables. We would, however, expect the nuclear balance to matter once the threat is made because it was not part of the target's selection process. Two of the surprise cases—Suez and Yom Kippur—do not conform to this ideal type because the compeller was not part of the crisis that led to the nuclear threat; it only entered later. In these cases, because the target did not select into a crisis with the compeller at all, all five variables ought to affect the outcome. The other two cases—U.S.-Japan and the Cuban Missile Crisis—do involve pre-threat selection. They are also the two surprise cases we judge to be NCT successes.

Suez Crisis. Determined to reverse Egyptian President Gamel Abdel Nasser's nationalization of the Suez Canal and drive him from power, Britain, France, and Israel attacked Egypt in late October 1956. The joint expedition, although initially successful militarily, was in trouble politically from the beginning owing to American opposition; it suffered a further blow when Soviet leaders, heretofore preoccupied with crushing the Hungarian uprising, resolved to save Nasser. On November 5, leaders in London and Paris received a letter from Soviet President Nikolai Bulganin demanding that the allies halt their offensive and threatening them nuclear attack if they did not.⁷⁵

Because Moscow had sat on the sidelines until making its surprise threat, British and French leaders had to calculate Soviet credibility from scratch. Soviet interests paled compared

⁷⁴ The Cuban Missile Crisis, as elaborated below, contains elements of both surprise and escalation.

⁷⁵ Bulganin's letter to Israel made the same demand but did not contain a nuclear threat.

to those of the Anglo-French-Israeli alliance and the Soviets lacked the nuclear capability to strike any of the countries they threatened.⁷⁶ On the other side of the equation, Moscow did not have a low-cost conventional option to intervene in the conflict and was not affected by the nuclear taboo. Moscow's low interests and lack of nuclear capability trumped these other factors, however, with the result that the Soviet threat was assessed to be a bluff—a judgment confirmed by sources with access to Soviet records.⁷⁷ British Prime Minister Anthony Eden and his colleagues did not appear overly concerned by the threat and scholars almost unanimously attribute the allied decision to call off the assault to U.S. economic pressure.⁷⁸

Yom Kippur War. The U.S. threat against Egypt during the Yom Kippur War is hard to assess because it was so vaguely worded and so many steps removed from actual nuclear use. Washington clearly had strong interests at stake in the crisis but for the first two weeks was involved only indirectly through its moral and material support for Israel.⁷⁹ As Peter Rodman has forcefully put it, U.S. policymakers viewed the possibility of unilateral Soviet intervention in the region as “absolutely impermissible....It threatened an American vital interest. We had absolutely a requirement to prevent it.”⁸⁰ Egyptian interests were also vital, even existential. Sadat needed to end hostilities with Israel immediately and prevent the destruction of the encircled Third Army, thereby retaining a toehold in the Sinai Peninsula. Perhaps more importantly, Sadat worried that Israel might push its invasion all the way to Cairo and overthrow him. However, unlike “standard” compelling threats, the United States was not asking Egypt to forego these interests, but instead simply to reject one possible approach for protecting them.

⁷⁶ Sechser and Fuhrmann 2017, 135.

⁷⁷ Fursenko and Naftali 2007, 136, 133.

⁷⁸ On Eden's attitude, see Pearson 2003, 161; Kyle 2003, 458. On U.S. economic pressure, see Kunz 1989, 215, 227-31; Kunz 1991, 131-33; Pearson 2003, 162; Fursenko and Naftali 2007, 135-36; Kyle 2003, 464, 467.

⁷⁹ President Nixon authorized the resupply of Israel's military on October 9.

⁸⁰ Quoted in Parker 2001, 202.

Thus, while Egyptian interests were very large, Sadat may have believed that the costs of complying with the U.S. demand were small. In the end, however, the nature of the nuclear threat in this case, with nuclear war so far down the decision tree and depending on numerous decisions by other states, makes it highly unlikely that it influenced Sadat's thinking. The closest thing to direct evidence in the historical record—a second-hand account by Soviet official Victor Israelyan—indicates that Sadat deemed the nuclear alert to be incredible, “cheap blackmail that could not frighten anyone.”⁸¹

Cuban Missile Crisis. The Cuban case is the most complex because it began as a surprise but also included subsequent nuclear signaling. Soviet leader Nikita Khrushchev believed he could sneak nuclear weapons into Cuba and make them operational before Washington discovered them.⁸² Owing to this belief, Khrushchev did not think he was selecting into a nuclear crisis. President Kennedy's nuclear compellent threat thus came as a surprise. Both sides had large interests at stake and although the U.S. had overwhelming conventional and nuclear advantages, these were largely offset by Kennedy's belief that a conventional attack would lead to nuclear war in which the U.S. homeland would suffer damage that dwarfed the interests at stake.⁸³ The configuration of variables at the start of the crisis was thus indeterminate.

Khrushchev initially responded defiantly to Kennedy's speech. During the crisis, however, the United States signaled the extent of its interests by taking steps that increased the probability of nuclear war. Most noteworthy were the U.S. decisions to blockade Cuba, prepare for a conventional attack on the island, and increase the alert status of its nuclear forces, which it

⁸¹ Israelyan 1995, 198.

⁸² Fursenko and Naftali 2007, 435-37, 451.

⁸³ Roberts 2012, xvi; Stern 2005, 67.

did twice during the crisis.⁸⁴ By the morning of October 25, Khrushchev, in the words of Fursenko and Naftali, “was now convinced that the Soviet Union could not keep ballistic missiles in Cuba without going to war,” and further that such a “head-to-head struggle in the nuclear era could only bring defeat and devastation to the Soviet Union”—in other words, it would go nuclear.⁸⁵ Khrushchev thus decided to defuse the crisis, offering to remove the missiles from Cuba in exchange for a U.S. non-invasion pledge. Kennedy’s decision to increase the probability of war—a war that both sides believed would go nuclear—ultimately convinced Khrushchev to withdraw the missiles from Cuba. News of the specific U.S. nuclear threat (the shift to DEFCON 2) did not arrive in Moscow in time to affect Khrushchev’s decision to withdraw the missiles from Cuba. Instead, Khrushchev believed the Americans were poised to invade Cuba and that a conventional war would inevitably escalate to nuclear exchanges.⁸⁶ Fluctuations in Khrushchev’s beliefs about the imminence of the invasion led to fluctuations in his demands.⁸⁷

We agree with Sechser and Fuhrmann, however, that the outcome was not a clear-cut U.S. victory. Not only did Kennedy publicly pledge not to invade Cuba, he also privately agreed to remove U.S. Jupiter missiles from Turkey. In a sense, both leaders were “compelled” to make concessions by their shared belief that conventional war would escalate to nuclear war, which would entail unacceptable damage given the stakes.

⁸⁴ U.S. forces went to DEFCON 3 during Kennedy’s speech on October 22 and then to DEFCON 2 on the night of October 24. Dobbs 2008, 51, 95.

⁸⁵ Fursenko and Naftali 1997, 259, 260.

⁸⁶ Stern 2012, 142; Fursenko and Naftali 1997, 260, 284.

⁸⁷ When Khrushchev made his initial decision to withdraw the missiles on October 25, the Soviet leader believed the crisis would be prolonged and thus he had time to negotiate. When news of the U.S. shift to DEFCON 2 arrived, however, Khrushchev sent his first letter asking only for a U.S. non-invasion pledge in exchange for removing the missiles. When the U.S. continued not to attack, however, Khrushchev decided he had the leeway to ask for more; hence the second letter asking for the withdrawal of the U.S. Jupiter missiles from Turkey. Stern 2012, 142.

Selection Cases

The remaining four cases—Berlin, Sino-Soviet, Vietnam, and Indo-Pakistani—follow the selection pathway, and thus we expect within-crisis nuclear signaling to determine outcomes. We assess that only one of these threats (the second threat in the Sino-Soviet case) succeeded. We omit Nixon’s “madman” threat over Vietnam War peace negotiations because the threat was so poorly implemented that the targets did not know how to interpret it; the case thus provides virtually no insight into the potential effectiveness of NCTs. We discuss the Sino-Soviet case in detail below.

Berlin Crises. In the two Berlin threats, the Soviets initiated the crisis despite the vast U.S. superiority in nuclear weapons. The U.S. signaled its interests by refusing to back down. Moscow kept the crisis going but did little to increase its intensity or signal its resolve. Indeed, Khrushchev did the opposite, repeatedly backtracking from his demands, offering concessions, and extending—and ultimately canceling—deadlines.⁸⁸ Khrushchev also did not sign a treaty with East Germany and thereby dare the United States to try to access Berlin. U.S. officials thus assessed the credibility of Moscow’s threat to be low and stood firm in both instances.⁸⁹

India-Pakistan, 2001-02. In the Indo-Pakistani crisis, which followed a terrorist attack on the Indian parliament, India made a nuclear compellent threat in the face of a Pakistani nuclear arsenal configured for first use. The primary Indian military threat was conventional invasion, signaled by the deployment of 800,000 troops to the Pakistani border. Yet India undercut its conventional threat by letting its forces sit on the border for months after Pakistan counter-deployed. The rhetoric of Indian officials also blunted New Delhi’s nuclear threat

⁸⁸ Press 2005, 82-83; Fursenko and Naftali 2007, 215-17, 223-24.

⁸⁹ Trachtenberg 1999, 258, 256. See also Betts 1987, 86. An opposite interpretation is that the Berlin crisis resulted in Germany foregoing nuclear weapons and, therefore was a success for Soviet nuclear compellence; however, authoritative accounts find little support for this interpretation; see Trachtenberg 1999, Chapter 8.

because it was solely deterrent in nature, threatening only to retaliate if Pakistan used nuclear weapons first in the event of conventional war. New Delhi thus earned superficial concessions that Pakistani President Pervez Musharraf soon walked back.

We acknowledge that much about these cases is ambiguous, yet the overall picture that emerges is consistent with our arguments. The cases of surprise threats ended quickly and were decided largely by the configuration of variables at the time the threat was made. In the escalation cases, by contrast, because states chose to initiate and remain in crises despite nuclear threats, the effect of pre-crisis variables was neutralized and did not directly affect outcomes. Instead, nuclear signaling within the crisis usually explained which side prevailed. We now examine a surprise threat and an escalation threat in greater detail to demonstrate the two logics at play.

Assessing the Effectiveness of Nuclear Compellent Threats: The U.S.-Japan and Sino-Soviet Cases

In this section we investigate two cases at greater length: the surprise U.S. nuclear threat against Japan in August 1945, and Soviet nuclear threats against China during the two countries' border crisis in 1969, which followed the selection pathway. We assess that the U.S. threat contributed to Japan's decision to surrender but only the second of Moscow's two threats persuaded Beijing to initiate negotiations over the disputed border.

A Case of Nuclear Surprise: U.S.-Japan, 1945

The U.S. nuclear compellent threat against Japan in August 1945 is the cleanest example of the surprise pathway to nuclear compellence in the historical record because Japanese leaders did not

know that an atomic bomb existed, much less that the United States had one and was preparing to use it against them. On August 6, 1945, the United States destroyed the Japanese city of Hiroshima with an atomic bomb, killing at least 70,000 people in the initial blast. Three days later, Nagasaki was struck by a second nuclear weapon that killed another 35,000. On August 15, the Japanese government accepted the Potsdam Declaration, bringing World War II to an end.

Once the United States dropped the Hiroshima bomb, it was engaged in nuclear compellence against Japan because U.S. President Harry Truman explicitly threatened to continue dropping atomic bombs until Japanese leaders accepted Allied terms. Prior to August 6, the United States had not issued a nuclear threat. Along with Great Britain, the United States had articulated a clear compellent demand to Japan in the form of the Potsdam Declaration on July 26: surrender unconditionally or face “prompt and utter destruction.” The means by which this destruction was to be delivered were left unstated, but Japanese leaders could have reasonably assumed it would take the form of continued conventional firebombing. In his statement issued after Hiroshima, however, Truman warned—in a clear reference to the nuclear attack—that if Japanese leaders “do not now accept our terms they may expect a rain of ruin from the air, the like of which has never been seen on this earth.”⁹⁰ This combination of a compellent demand coupled with a threat to drop more nuclear weapons until Japan complied constitutes nuclear compellence.

In cases of surprise NCTs, we predict that the nuclear balance should affect the target’s decision to concede. In this case, however, because the United States and Japan had been fighting a high-intensity conventional war for three and a half years by the time the *Enola Gay* dropped “Little Boy” on Hiroshima, the other variables in our model should not. For example,

⁹⁰ Quoted in Hasegawa 2005, 181.

both sides had demonstrated the large interests they had at stake in the conflict. For Japan, although the retention of its Asian empire was looking increasingly dubious, the survival of its national polity and imperial system were on the line. The United States, for its part, sought to eradicate Japan's aggressive militarist regime for good. And while the United States was winning the conventional war, the cost of fighting it to a finish gave Japan some hope it could hold out for better terms. Most of the non-nuclear variables in our theory are thus neutralized by the fact that neither side had yet selected out of the war.⁹¹

There is substantial historical debate about how much credit the atomic bombings deserve for compelling Japan's surrender because the Soviet Union invaded Manchuria three days after the bombing of Hiroshima and the same day that the United States attacked Nagasaki.⁹² This debate is unresolved, but one thing is clear: Japanese leaders harbored little doubt about the credibility of U.S. nuclear compellence. By the day after Hiroshima, according to Tsuyoshi Hasegawa, "Most members of the cabinet knew that unless Japan surrendered, many atomic bombs might be dropped on other cities in Japan."⁹³ Belief in the inevitability of further nuclear attacks, however, did not mean that Japanese leaders were ready to surrender: the cabinet remained hopelessly divided until the end. It took Emperor Hirohito's personal intervention—even though he had no actual authority to compel his ministers to implement his will (they did so out of respect and deference to the throne)—to obtain acceptance of Allied terms. Determining which factor—nuclear compellence or the Soviet attack—exerted the *most* influence on the emperor's decision may be impossible, but it seems clear that the atomic bombings played at least a significant role.⁹⁴

⁹¹ The exception is the nuclear taboo, which did not yet exist in 1945.

⁹² For example, compare Hasegawa 2005 and Frank 1999.

⁹³ Hasegawa 2005, 185.

⁹⁴ Frank 1999, 271-72, 345-48; Hasegawa 2005, 185. For a contrary view, see *ibid.*, p. 296.

A Case of Selection: The Sino-Soviet Crisis, 1969

The Sino-Soviet border crisis is the best example of the standard selection pathway to a nuclear compellent threat. On March 2, 1969, Chinese forces ambushed a Soviet patrol on Zhenbao (Damansky) Island in the Ussuri River, killing about thirty Soviet soldiers.⁹⁵ The two sides clashed again on a larger scale on March 15. Apparently intended by Mao only to reestablish Chinese deterrence after previous Soviet border provocations, these clashes profoundly shocked Soviet leaders, who feared a possible large-scale Chinese conventional assault.⁹⁶ In response, to deter further Chinese attacks, the Soviets rattled the nuclear saber, threatening in the military newspaper *Red Star* to inflict “‘a crushing nuclear retaliation’ with ‘nuclear-armed missiles with unlimited destruction.’”⁹⁷ Although Moscow’s initial nuclear threats aimed at deterrence, because Beijing ignored repeated overtures to resume border talks, the Soviets turned to nuclear compellence, demanding that Beijing agree to restart negotiations to settle the ongoing border dispute.⁹⁸

In support of this demand, Moscow made two nuclear compellent threats. First, the Soviets deployed nuclear-capable bombers to the Far East in June, where they engaged in practice bombing runs against mockups of Chinese nuclear facilities.⁹⁹ Beijing, however, continued to stonewall on negotiations, so this threat must be considered a failure.¹⁰⁰ Second, in mid-August, Soviet diplomats approached third parties—communist parties in various countries, their East European allies, and the United States—to gauge their potential reaction to a Soviet

⁹⁵ Yang 2000, 27-29. On the history of the border dispute, see Robinson 1972, 1175-87.

⁹⁶ On Mao’s motives, see Yang 2000, 30. On the Soviet reaction, see Goldstein 2006, 82.

⁹⁷ Quoted in Lewis and Xue 2006, 52. The Soviets made additional nuclear threats in Mandarin-language radio broadcasts. Gerson 2010, 29.

⁹⁸ Notably, the Soviets did not demand substantive concessions on the placement of the border, merely that the Chinese agree to talk about it.

⁹⁹ Whiting 1980, 336; Gerson 2010, 32.

¹⁰⁰ Li and Xia 2018, 253.

nuclear strike on Chinese nuclear facilities.¹⁰¹ Mao was deeply affected when CIA Director Richard Helms leaked news of the Soviet inquiry.¹⁰² Indeed, the evidence that Chinese leaders feared an imminent Soviet nuclear attack is overwhelming.¹⁰³ Shortly thereafter, the Chinese dropped their insistence that the Soviets acknowledge the borders were based on “unequal” treaties and agreed to return to the negotiating table—concessions coded by several scholars as successful nuclear compellence.¹⁰⁴ Beijing subsequently refused to give any ground in the ensuing talks, but the key concession being sought was to negotiate at all.¹⁰⁵

What explains this outcome? Ignoring for the moment the problem of selection, it is useful to consider the variables discussed above that influence the effectiveness of nuclear compellent threats. China appeared to have larger interests at stake and certainly cared more about the border issue, although minor adjustments likely would have satisfied Beijing.¹⁰⁶ Moscow, however, held a large advantage in deliverable strategic nuclear warheads and did not fear China’s diminutive nuclear arsenal, believing it could be destroyed in a first strike.¹⁰⁷ But the Soviets lacked a low-cost conventional option for compelling China. Although Soviet leaders understood their forces were qualitatively superior to China’s, they feared being swamped by their opponent’s quantitative superiority.¹⁰⁸ Finally, while there is some evidence that Soviet leaders were reluctant to use nuclear weapons first, it is unclear how constrained they were by

¹⁰¹ Gobarev 1999, 46; Yang 2000, 34; Gerson 2010, 34-36. The Soviets sent additional nuclear and non-nuclear signals around this time: they appointed the Deputy Commander of the Strategic Rocket Forces as the new head of the Far Eastern Military District (Gerson 2010, 33); ambushed a Chinese border patrol in Xinjiang on August 13 (Yang 2000, 34); and in late August stood down their air forces in the Far East, a step often taken before an attack (Kissinger 1970, 183). Finally, Victor Louis, a Russian journalist with KGB ties published an article in the *London Evening News* on September 16 warning of a Soviet nuclear attack on China (Gerson 2010, 48).

¹⁰² Goldstein 2006, 79; Lewis and Xue 2006, 56; Gerson 2010, 40.

¹⁰³ Gerson 2010, 40-41; Yang 2000, 36-37, 40-41; Lewis and Xue 2006, 56-64.

¹⁰⁴ Kroenig 2018, 95; Gerson 2010, iv, 46; Burr 2001, 94-95; Gobarev 1999, 47; An 1973, 109.

¹⁰⁵ Nuclear compellence thus achieved its immediate aim in this case, but not its ultimate one. Sechser and Fuhrmann (2017, 216) code the Soviet threat as a failure because of its ultimate outcome.

¹⁰⁶ Robinson 1972, 1180.

¹⁰⁷ Gerson 2010, 43-44; Goldstein 2006, 86-87.

¹⁰⁸ Goldstein 2006, 82.

the nuclear taboo.¹⁰⁹ Overall, it is difficult to determine whether this combination of factors would render Moscow's threat more or less credible.

The selection process in this case, however, makes it impossible to draw a straight line from the pre-crisis values of the variables that influence the effectiveness of nuclear compellent threats to a prediction about which side should prevail. Instead, the evidence points towards intra-crisis signaling as the key factor.

China, for example, launched a conventional attack on Zhenbao Island against a nuclear superior adversary. The Soviets' nuclear advantage thus failed to deter China's aggression. Indeed, it is probable that Mao did not even consider Moscow's nuclear weapons when he ordered the attack because he believed the interests at stake for both sides were so minor that border skirmishes would never touch off a serious crisis. For Mao, the March battles were simply retaliation for prior Soviet attacks on the border; after the March 15 battle, Mao told his forces, "We should stop here. Do not fight anymore!"¹¹⁰ In the language used earlier, Mao assigned a near-zero probability to the nuclear escalation branch on the decision tree—or did not even believe it existed.

Moscow, however, was stunned by China's brazen surprise attack and feared a broader Chinese conventional offensive in which its forces would be outnumbered.¹¹¹ The fact that China had attacked—and the belief that further attacks were imminent in which Soviet forces could be overrun—likely caused Soviet leaders to update their assessment of Chinese interests at stake.

¹⁰⁹ Gobarev 1999, 40; Goldstein 2006, 83-84.

¹¹⁰ Quoted in Yang 2000, 30.

¹¹¹ Goldstein 2006, 82, 91. It is not clear that Soviet fears of being overwhelmed by a Chinese conventional attack were warranted—at least in the short term. In 1969, the force-to-force ratio in troops favored China (roughly 2.1:1 in divisions in the border regions; Goldstein 2003, 76), although Moscow had begun to build up its conventional presence in the Far East. But the Soviets held a qualitative advantage in military technology that largely offset China's advantage in numbers. In a protracted war of attrition, however, China's sheer numbers could have worn the Soviets down.

Rather than choosing to acquiesce, however, the Soviets escalated—first to nuclear deterrence to ward off an immediate attack and subsequently to nuclear compellence to pressure the Chinese back to the negotiating table. We might expect that Moscow’s escalation to nuclear threats would have signaled the seriousness with which the Soviets regarded the situation. However, the Kremlin’s first round of nuclear compellence in June was not persuasive.¹¹² This was likely because Mao strongly believed the Soviets did not attach great importance to settling the border issue. In addition, the Soviets may have undermined their credibility by refusing to acknowledge their threats publicly.¹¹³ In short, Mao refused to back down in the face of Soviet nuclear compellence; in our terms, he selected to remain in the crisis.

At this point, there was simply no way of knowing which side would prevail. While the Soviets had a nuclear advantage, Mao did not believe Soviet nuclear weapons were relevant, and furthermore was skeptical that a few nuclear strikes could be decisive against a large and populous China.¹¹⁴ Moreover, the Soviet nuclear advantage was counterbalanced by China’s conventional advantage—both sides believed that the Soviets would be bogged down in an endless war.¹¹⁵

In the face of China’s refusal to comply with its demand to reenter negotiations, the Soviets escalated further. According to Victor Gobarev, Soviet leaders “concluded that Mao would come to the negotiation table only after he realized that a Soviet nuclear strike against Chinese nuclear installations was imminent.”¹¹⁶ Soviet leaders, having considered the possibility

¹¹² Mao rejected a Soviet proposal on July 26 for high-level meetings. Some analysts contend that Moscow’s June threats triggered war preparations and evacuations of cities, but others argue that serious measures were not taken until after the second round of Soviet threats in August. Compare Lewis and Xue 2006, 54, to Gerson 2010, 40, and Yang 2000, 35-36.

¹¹³ Gerson 2010, 28-29, 32-33.

¹¹⁴ Lewis and Xue 2006, 53. The Soviets agreed; see Goldstein 2006, 91.

¹¹⁵ Gerson 2010, 41, 44.

¹¹⁶ Gobarev 1999, 46.

that making more explicit nuclear threats could lead to a general war, nevertheless chose to send an even stronger signal, most notably probing the United States and other countries regarding how they would react to a Soviet attack on the Chinese nuclear testing facility at Lop Nor.¹¹⁷

The evidence suggests that Moscow's more explicit nuclear threat effectively signaled the extent of Soviet interests and persuaded China to return to border negotiations. Gerson argues that "Beijing's perception of the credibility of Soviet nuclear threats was profoundly influenced by the knowledge that Moscow had floated the idea of nuclear strikes against China's nuclear program with foreign governments."¹¹⁸ On August 27, the same day that CIA Director Helms briefed reporters on Moscow's inquiries, the Chinese Communist Party (CCP) tasked Zhou Enlai with leading a special air defense group charged with "immediately organizing a large-scale evacuation of the Chinese population and main industries from big cities."¹¹⁹ Further, "The CCP leadership also called on workers and residents in big cities to begin digging air raid shelters and stockpiling everyday materials to prepare for a nuclear strike."¹²⁰ The following day, the CCP ordered general military mobilization in the country's border provinces and regions, telling its soldiers, "You should be fully prepared to fight a war against aggression."¹²¹ Recognizing that the "threat of a nuclear attack was very grave indeed," Mao remarked, "It is not good for our Party's top leaders to gather in Beijing as one atomic bomb may eliminate all of us. We should evacuate."¹²²

The first Chinese concession came in early September when Mao agreed to a high-level face-to-face meeting, which took place on September 11 between Aleksei Kosygin and Zhou

¹¹⁷ Yang 2000, 34.

¹¹⁸ Gerson 2010, 39. See also Lewis and Litae 2006, 56; Yang 2000, 34-37.

¹¹⁹ Yang 2000, 37.

¹²⁰ Ibid., 37.

¹²¹ Jian and Wilson 1998, 169. See also Yang 2000, 36-37; Gerson 2010, 40-41; Lewis and Xue 2006, 56-60.

¹²² Yang 2000, 36. See also Lewis and Xue 2006, 57. Chinese leaders eventually evacuated in mid-October.

Enlai at Beijing airport. At this meeting, Zhao's fear of a Soviet nuclear strike was clear and he sought to deter it with the threat of conventional resistance: "You say that you will take preemptive measures to destroy our nuclear facilities. If you do so, we will declare that this is war, and that this is aggression. We will rise in resistance. We will fight to the end."¹²³

Although Zhou and Kosygin agreed in principle that the border conflict ought to be settled by negotiations rather than threats of force, the Chinese side had not relinquished its demand that the Soviets recognize that the borders were based on "unequal treaties" as a precondition for talks.¹²⁴ The September 11 meeting produced a set of confidence-building measures but contrary to Sechser and Fuhrmann's account, Mao had not yet made a decision to reenter negotiations.¹²⁵ The temporary relaxation of tensions, however, did not last: a number of factors convinced the Chinese that Moscow was secretly planning a nuclear surprise attack. Kosygin, for example, never explicitly disavowed the possibility of a nuclear strike during the talks and shortly thereafter told Zhou that the two countries did not need to exchange formal notes confirming the steps upon which they had agreed.¹²⁶ Further, on his return to Moscow, Kosygin's plane was not met by any Soviet officials, prompting the Chinese to suspect that the Politburo did not share his views.¹²⁷ Moreover, according to Yang Kuisong, "Soviet diplomats continuously asserted that a conflict between China and the Soviet Union was inevitable" and Chinese intelligence indicated that the "Soviet strategic nuclear force had already completed

¹²³ Quoted in Yang 2000, 38.

¹²⁴ Burr 2001, 94.

¹²⁵ Sechser and Fuhrmann code China as agreeing to return to negotiations in the September 11 airport meeting. Evidence suggests this is not the case. In concluding his September 18 letter summarizing the points agreed to a week earlier, for example, Zhou wrote, "It is my belief that this agreement, *if it can be reached*, will contribute to the relaxation of the situation on the border between our two countries, *as well as the convening of Sino-Soviet border negotiations*" (italics added). Letter, Zhou Enlai to Alexei Kosygin, September 18, 1969. Luthi (2012, 392) also notes that Zhou, in a meeting with Mao two days after his talks with Kosygin, "advise[d] him [Mao] to accept border negotiations."

¹²⁶ Kosygin's reply dated September 26 to Zhou's formalization of these measures did not even mention them.

¹²⁷ Yang 2000, 40; Gerson 2010, 48.

preparations for conducting a surprise attack against China.”¹²⁸ Finally, in an article published in the *London Evening News* on September 16, Victor Louis, who the CIA had determined was a Soviet agent, wrote that “there was not ‘a shadow of a doubt that Russian nuclear installations stand aimed at Chinese nuclear facilities.’”¹²⁹

Although some of these signals may have been inadvertent, they evidently persuaded Chinese leaders that the Soviets still meant to attack. Emergency war preparations thus intensified and China conducted two nuclear tests in late September, perhaps hoping to deter Moscow with the threat of Chinese nuclear retaliation.¹³⁰ After a feared Soviet nuclear surprise attack failed to materialize on October 1 (China’s national day), Chinese leaders formally agreed to return to the border negotiations unconditionally on October 7.¹³¹

Sechser and Fuhrmann, however, conclude that “the events of the 1969 crisis offer little support for the view that nuclear weapons are useful tools of coercion.” Although Sechser and Fuhrmann concede that Soviet nuclear signaling “succeeded in creating a credible threat of nuclear attack,” they contend the threat gained the Soviets precious little. “Ultimately,” they conclude, because the Chinese went on to stonewall Moscow in the talks when they resumed, “If the 1969 crisis is a success for nuclear coercion, it is a feeble one.”¹³²

It is true that Moscow, not Beijing, made the bulk of the concessions in the ensuing border talks. But Soviet nuclear compellence, having achieved its immediate objective, ceased in October 1969. One cannot count China’s refusal to make concessions as a failure of nuclear compellence when nuclear compellence was not attempted. The objective of the nuclear threat in

¹²⁸ Yang 2000, 40.

¹²⁹ Quoted in Gerson 2010, 48.

¹³⁰ Lewis and Xue 2006, 57; Gerson 2010, 49.

¹³¹ CIA 1969, 10; Burr 2001, 94. Even after this concession, which included giving up their prior insistence that Moscow recognize that the existing borders were based on “unequal treaties,” Chinese leaders continued to prepare for a surprise attack until the day the negotiations opened on October 20.

¹³² Sechser and Fuhrmann 2017, 217, 217-18, 216.

this case was to compel China to return to the bargaining table. In that objective, it succeeded. As Gerson concludes, “Faced with the credible prospect of a nuclear strike if tensions continued, Beijing agreed to meet. The Soviets had successfully coerced—or, more precisely, compelled—China to come to the negotiating table.”¹³³

A possible alternative explanation for China’s decision to back down is that in the midst of the crisis Beijing received news from Romanian diplomats that the United States was seeking to normalize relations with the People’s Republic. According to Hyun-Binn Cho, “Nixon’s message validated internal Chinese assessments that resuming border talks with Moscow would facilitate closer ties with Washington.”¹³⁴ Cho nevertheless admits that the second Soviet nuclear threat “had an immediate impact on Beijing” and prompted emergency preparations for war.¹³⁵ Moreover, Cho’s article contains no direct evidence from Mao or his inner circle, instead relying heavily on reports by four Chinese marshals commissioned by Mao to analyze the current situation.¹³⁶ Finally, Chinese notes from the key meeting with the Romanians neglect to mention Nixon’s message.¹³⁷

The Sino-Soviet case illustrates three of our key points. First, although both sides possessed nuclear weapons, the crisis did not begin as a nuclear crisis.¹³⁸ Second, pre-crisis values of relevant factors did not directly affect the outcome whereas intra-crisis signaling did. Soviet nuclear superiority, for example, failed to deter China from initiating conventional hostilities at Zhenbao Island, and Moscow’s initial nuclear compellent threat achieved nothing.

¹³³ Gerson 2010, 46.

¹³⁴ Cho 2021, 563.

¹³⁵ *Ibid.*, 559.

¹³⁶ *Ibid.*, 562, 564-66.

¹³⁷ *Ibid.*, 562 n62. Others have argued that U.S. opposition to a Soviet attack on China deterred Moscow from striking (Goldstein 2000, 107), but this argument cannot explain why China gave in, since the likelihood of U.S. intervention should have steered China’s resolve.

¹³⁸ Gerson 2010, 55.

As long as Mao believed that the border crisis was of minor importance—that is, that the Soviets had limited interests at stake—he paid little heed to the nuclear balance or nuclear threats. Once Moscow signaled the intensity of its interests in August, however, Mao finally gave greater weight to the Soviet nuclear threat. This demonstrates a third point: that the significance of nuclear weapons and the nuclear balance can increase as a crisis intensifies.¹³⁹

Our conclusion that Soviet nuclear threats compelled China to return to negotiations should not be misconstrued as supporting the claim that nuclear superiority is decisive. After all, Soviet nuclear superiority had no effect on Chinese calculations for six months. Rather, nuclear signaling clarified the extent of Soviet interests and increased the credibility of the Soviet threat, which caused the Chinese to consider the nuclear balance.

Conclusion

The existing debate on nuclear compellence is polarized between those who believe nuclear weapons enhance the likelihood of compellence success versus those who think they do not. In this paper, we find that nuclear compellence rarely—but sometimes—succeeds. Using a dataset of cases in which states made compellent demands *and* nuclear threats, we find that NCTs have contributed to compellence success about 30 percent of the time. Our main goal, however, is to identify *when* NCTs succeed or fail. To that end, we argued that when exploring actual cases, states select into and out of crises. This in itself explains why there is no general—that is, unconditional—answer to the question of whether nuclear compellent threats succeed. The probability that an NCT will be effective depends on the context in which the threat is made because selection into crises can play an important role in determining which variables influence

¹³⁹ Ibid., v, 54-55.

outcomes. In cases that follow this selection process, an NCT is made between well-matched states, and we expect some mix of successes and failures; the outcomes will not be correlated with the pre-crisis values of the variables that influence whether a potential compeller makes an NCT—including the nuclear balance. In contrast, when NCTs come as a surprise, compellers with a significant nuclear advantage are more likely to succeed because targets, not anticipating the possibility of a nuclear threat, did not have the opportunity to select out of the crisis.

Our findings provide a more nuanced understanding of nuclear compellence than exists in the current literature. NCTs will sometimes, but not always, succeed. Success depends on the pathway that leads to such threats and the configuration of the variables we have identified. While our findings do not support the full-throated calls for nuclear superiority and anti-proliferation of the coercionists, neither do they support the relaxed stance towards proliferation offered by skeptics.

Our findings offer a warning for states that underestimate a nuclear adversary's resolve in a high stakes confrontation. For example, a defender that believes it possesses sufficient conventional capabilities to prevent an adversary from acquiring territory the adversary values may believe it has an adequate deterrent. The adversary may nevertheless launch a conventional war—even absent a favorable conventional balance—if its interests are much greater than the defender's. If the adversary is losing the war, it may make a nuclear compellent threat that is reasonably credible, even in the face of possible nuclear retaliation, leaving the defender to choose between major concessions or nuclear war. A similar situation could occur if an attacker believes it has the capability to quickly overwhelm a defender but fails and ends up in a costly and protracted war.

A future crisis over Taiwan could generate the former scenario. Suppose that China attacks Taiwan and the United States intervenes to defend it. If the United States—contrary to China’s expectations—succeeds in defeating a Chinese invasion, Beijing might threaten to use nuclear weapons against U.S. military forces, U.S. allies, or even the U.S. homeland if Washington refuses to withdraw from the conflict. Despite a much larger U.S. nuclear arsenal, the Chinese threat might be sufficiently credible to make the United States back down and if it did not, China might be willing to start a limited nuclear war. The effectiveness of China’s threat would likely hinge on nuclear signaling during the crisis itself, which could reveal China’s stakes were even greater than the United States had anticipated.

The current war in Ukraine exemplifies the scenario in which a nuclear-armed attacker, expecting a quick and decisive victory in a conventional war, is instead stalemated and pushed back. If Russia’s fortunes continue to decline, Vladimir Putin might make a nuclear compellent threat in an attempt to settle the war on his terms. This threat could enjoy some credibility given the extent of Russian (or Putin’s) interests. Contrary to existing theories, even then Russian nuclear superiority would not guarantee success because Ukraine has already signaled its tremendous resolve by resisting an invasion by a nuclear power. Our theory suggests that much would depend on Russian signaling, i.e., observable preparations (or lack thereof) to launch a nuclear weapon and to actually use one. This case is further complicated by Western support for Ukraine, which means Russia would have to factor in the possibility of a massive NATO conventional response or even American nuclear retaliation. But it is not out of the question that an NCT could compel Ukraine to make at least limited concessions.

References

- An, Tai Sung. 1973. *The Sino-Soviet Territorial Dispute*. Westminster Press.
- Anderson, Nicholas D., Alexandre Debs, and Nuno P. Monteiro. 2019. "General Nuclear Compellence: The State, Allies, and Adversaries." *Strategic Studies Quarterly* 13(3): 93-121.
- Art, Robert J. 2003. "Coercive Diplomacy: What Do We Know?" In *The United States and Coercive Diplomacy*, edited by Robert J. Art and Patrick M. Cronin. United States Institute of Peace Press.
- Beardsley, Kyle, and Victor Asal. 2009a. "Winning with the Bomb." *Journal of Conflict Resolution* 53(2): 278-301.
- Bell, Mark S., and Julia Macdonald. "How to Think about Nuclear Crises." *Texas National Security Review* 2 (2): 41-64.
- Betts, Richard K. 1987. *Nuclear Blackmail and the Nuclear Balance*. Brookings Institution.
- Burr, William. 2001. "Sino-American Relations, 1969: The Sino-Soviet Border War and Steps Toward Rapprochement." *Cold War History* 1(3): 73-112.
- Burr, William, and Jeffrey P. Kimball. 2003. "Nixon's Secret Nuclear Alert: Vietnam War Diplomacy and the Joint Chiefs of Staff Readiness Test, October 1969." *Cold War History* 3 (2): 113-56.
- Cho, Hyun-Binn. 2021. "Nuclear Coercion, Crisis Bargaining, and the Sino-Soviet Border Conflict of 1969." *Security Studies* 30(4): 550-77.
- CIA. 1960. "Khrushchev on Nuclear Strategy." Office of Current Intelligence, January 19, 1960.
- Colby, Elbridge et al. 2013. *The Israeli "Nuclear Alert" of 1973: Deterrence and Signaling in Crisis*. Center for Naval Analyses.

- Dobbs, Michael. 2008. *One Minute to Midnight: Kennedy, Khrushchev, and Castro on the Brink of Nuclear War*. Vintage.
- Downes, Alexander B. 2008. *Targeting Civilians in War*. Cornell University Press.
- Fanlo, Abby, and Lauren Sukin. 2023. "The Disadvantage of Nuclear Superiority." *Security Studies*.
- Fearon, James D. 1994a. "Domestic Political Audiences and the Escalation of International Disputes." *American Political Science Review* 88 (3): 577-92.
- _____. 1994b. "Signaling versus the Balance of Power and Interests: An Empirical Test of a Crisis Bargaining Model." *Journal of Conflict Resolution* 38 (2): 236-69.
- _____. 2002. "Selection Effects and Deterrence." *International Interactions* 28(1): 5-29.
- Foot, Rosemary. 1988/89. "'Nuclear Coercion and the Ending of the Korean Conflict,'" *International Security* 13(3): 92-112.
- _____. 1990. *A Substitute for Victory: The Politics of Peacemaking at the Korean Armistice Talks*. Cornell University Press.
- Frank, Richard B. 1999. *Downfall: The End of the Imperial Japanese Empire*. Random House.
- Fursenko, Aleksandr, and Timothy Naftali. 1997. *"One Hell of a Gamble": Khrushchev, Castro, and Kennedy, 1958-1964*. Norton.
- _____. 2007. *Khrushchev's Cold War: The Inside Story of an American Adversary*. Norton.
- Gavin, Francis. 2014. "What We Talk About When We Talk About Nuclear Weapons." <https://issforum.org/forums/2-what-we-talk-about-when-we-talk-about-nuclear-weapons#>.
- Gerson, Michael S. 2010. *The Sino-Soviet Border Conflict: Deterrence, Escalation, and the Threat of Nuclear War in 1969*. Center for Naval Analyses.
- Glaser, Charles L. 1990. *Analyzing Strategic Nuclear Policy*. Princeton University Press.

- Glaser, Charles L., and Steve Fetter. 2016. "Should the United States Reject MAD? Damage Limitation and U.S. Nuclear Strategy toward China." *International Security* 41 (1): 49-98.
- Gobarev, Viktor M. 1999. "Soviet Policy Toward China: Developing Nuclear Weapons, 1949-1969." *Journal of Slavic Military Studies* 12 (4): 1-53.
- Goldstein, Lyle J. 2006. *Preventive Attack and Weapons of Mass Destruction*. Stanford University Press.
- Gorst, Anthony, and Lewis Johnman. 1997. *The Suez Crisis*. Routledge.
- Hasegawa, Tsuyoshi. 2005. *Racing the Enemy: Stalin, Truman, and the Surrender of Japan*. Belknap Press.
- Horowitz, Michael. 2009. "The Spread of Nuclear Weapons and International Conflict: Does Experience Matter?" *Journal of Conflict Resolution* 53(2): 234-57.
- Huth, Paul K., and Bruce Russett. 1984. "What Makes Deterrence Work? Cases from 1900 to 1980." *World Politics* 36(4): 496-526.
- Israelyan, Victor. 1995. *Inside the Kremlin during the Yom Kippur War*. Pennsylvania State University Press.
- Jervis, Robert. 1989. *The Meaning of the Nuclear Revolution: Statecraft and the Prospect of Armageddon*. Cornell University Press.
- Jian, Chen, and David L. Wilson. 1998. "New Evidence on Sino-Soviet Rapprochement." *Cold War International History Bulletin* 11: 155-75.
- Kapur, Paul. 2007. *Dangerous Deterrent: Nuclear Weapons Proliferation and Conflict in South Asia*. Stanford University Press.
- Kennedy, John F. 1962. "Radio and Television Address to the American People on the Soviet Arms Build-up in Cuba." October 22, 1962.

- Kissinger, Henry. 1979. *White House Years*. Little, Brown.
- Krepon, Michael, and Mishi Faruquee, eds. 2014. *Conflict Prevention and Confidence-Building Measures South Asia: The 1990 Crisis*. Occasional Paper No. 17. Stimson Center.
- Kroenig, Matthew. 2018. *The Logic of American Nuclear Strategy: Why Strategic Superiority Matters*. Oxford University Press.
- _____. 2013. "Nuclear Superiority and the Balance of Resolve: Explaining Nuclear Crisis Outcomes." *International Organization* 67(1): 141-71.
- Kunz, Diane B. 1989. "The Importance of Having Money: The Economic Diplomacy of the Suez Crisis." In *Suez 1956: The Crisis and Its Consequences*, edited by Wm. Roger Louis and Roger Owen. Clarendon Press.
- _____. 1991. *The Economic Diplomacy of the Suez Crisis*. University of North Carolina Press.
- Kyle, Keith. 2003. *Suez: Britain's End of Empire in the Middle East*. I.B. Tauris Publishers.
- Lewis, John, and Xue Litai. 2006. *Imagined Enemies: China Prepares for Uncertain War*. Stanford University Press.
- Li, Danhui, and Yafeng Xia. 2018. *Mao and the Sino-Soviet Split, 1959-1973*. Lexington Books.
- Luthi, Lorenz. 2008. *The Sino-Soviet Split: Cold War in the Communist World*. Princeton University Press.
- Narang, Vipin. 2014. *Nuclear Strategy in the Modern Era: Regional Powers and International Conflict*. Princeton University Press.
- Nitze, Paul H. 1956. "Atoms, Strategy, and Policy." *Foreign Affairs* 34(2): 187-98.
- Nixon, Richard M. 1973. "Backchannel Message from President Nixon to Egyptian President Sadat," October 24, 1973. In *FRUS, 1969-1976, Vol. 25, Arab-Israeli Crisis and War*.

- Norris, Robert S., and Thomas B. Cochran. 1996. *Nuclear Weapons Tests and Peaceful Nuclear Explosions by the Soviet Union*. New York: National Resource Defense Council.
- Pape, Robert A. 1996. *Bombing to Win: Air Power and Coercion in War*. Cornell University Press.
- Parker, Richard B., ed. 2001. *The October War: A Retrospective*. University of Florida Press.
- Pearson, Jonathan. 2003. *Sir Anthony Eden and the Suez Crisis: Reluctant Gamble*. Palgrave Macmillan.
- Powell, Robert. 1985. "The Theoretical Foundations of Strategic Nuclear Deterrence." *Political Science Quarterly* 100 (1): 75-96.
- _____. 1990. *Nuclear Deterrence Theory: The Search for Credibility*. Cambridge University Press.
- Press, Daryl G. 2005. *Calculating Credibility: How Leaders Assess Military Threats*. Cornell University Press.
- Reid, Escott. 1981. *Envoy to Nehru*. New York: Oxford University Press.
- Roberts, Priscilla Mary. 2012. *Cuban Missile Crisis: The Essential Reference Guide*. ABC-CLIO.
- Robinson, Thomas W. 1972. "The Sino-Soviet Border Dispute: Background, Development, and the March 1969 Clashes." *American Political Science Review* 66 (4): 1179-1202.
- Sagan, Scott D., and Jeremi Suri. 2003. "The Madman Nuclear Alert: Secrecy, Signaling, and Safety in October 1969." *International Security* 27(4): 150-83.
- Schelling, Thomas C. 1966. *Arms and Influence*. Yale University Press.
- Sechser, Todd S. 2011. "Militarized Compellent Threats, 1918-2001." *Conflict Management and Peace Science* 28(4): 377-401.

- Sechser, Todd S., and Matthew Fuhrmann. 2017. *Nuclear Weapons and Coercive Diplomacy*. Cambridge University Press.
- _____. 2013a. "Crisis Bargaining and Nuclear Blackmail." *International Organization* 67(1): 173-95.
- Snyder, Glenn H. 1961. *Deterrence and Defense: Toward a Theory of National Security*. Princeton University Press.
- Stein, Kenneth W. 1999. *Heroic Diplomacy: Sadat, Kissinger, Carter, Begin and the Quest for Arab-Israeli Peace*. Routledge.
- Stern, Sheldon. 2005. *The Week the World Stood Still: Inside the Cuban Missile Crisis*. Stanford University Press.
- Talmadge, Caitlin. 2017. "Would China Go Nuclear: Assessing the Risk of Chinese Nuclear Escalation in a Conventional War with the United States." *International Security* 41 (1): 50-92.
- Tannenwald, Nina. 1999. "The Nuclear Taboo: The United States and the Normative Basis of Nuclear Non-Use." *International Organization* 53 (3): 433-68.
- Trachtenberg, Marc. 1999. *A Constructed Peace: The Making of the European Settlement, 1945-1963*. Princeton University Press.
- _____. 2014. "Audience Costs in 1954?" H-Diplo|ISSF Forum No. 1.
- Whiting, Allen S. 1980. "Review Article: Sino-American Détente." *China Quarterly* 82: 334-41.
- Yang, Kuisong. 2000. "The Sino-Soviet Border Clash of 1969: From Zhenbao Island to Sino-American Rapprochement." *Cold War History* 1 (1): 21-52.