

**Chance, Control, and Choice:
Unpacking the Mechanisms of Schelling's "Threats That Leave Something to Chance"**

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I. Introduction: What is Puzzling About Threats that Leave Something to Chance

In 2020, high in the Himalayas, Indian and Chinese troops labored at lung-screaming elevations to position and reposition themselves along a contested border. While fighting over limited geographical territory, they did come to blows. Reports claimed that when these soldiers bludgeoned each other with bats, they swung with the might of megatons. What happens when two nuclear-armed states, such as China and India, disagree over the status quo in the nuclear age? How can states compete under the shadow of a nuclear war that threatens everyone's survival? These are the big questions that preoccupied economist Thomas Schelling in the early Cold War. Can nuclear threats be credible in the face of assured retaliation?

Schelling proposed an elegant solution to this credibility dilemma: “the threat that leaves something to chance.” His analogy was to those climbers, perhaps Himalayan, whom he assumed to be chained together at the edge of a cliff. One climber cannot credibly threaten to push the other off the cliff, because that would doom them both; just as if one state threatens nuclear war, self-destructive retaliation might ensue. However, as his analogy made clear, the decision is not always so clear-cut. One climber could take a step closer to the edge, stand on one foot, even dance around on the loose gravel below their feet. In this way, the climbers, like their respective states, are engaged in brinkmanship—a competition in risk taking or manipulating risk. Schelling hypothesized that each threat in such a competition of wills between nuclear-armed states left something to chance. The ground can always give way underneath one of them dancing on the edge, plunging both to their death without either side intended such a consequence.

As both climbers move further down the path toward such oblivion by engaging in increasingly risky behavior, rationalist theories predict that whichever actor cares more about the stakes of a nuclear crisis would be willing to stomach more uncertainty, resulting in a greater overall threat of nuclear war. Like in the classic game of chicken, the less resolved actor would always be assumed to give up and concede the stake if the more resolved actor manipulated sufficient risk. Thus, even if one cannot credibly threaten to use nuclear weapons in a crisis, one can still take steps that raise the risk that a crisis might inadvertently or accidentally escalate to strategic nuclear war.

Schelling's theory of “threats that leave something to chance,” introduced in *The Strategy of Conflict* and developed in *Arms and Influence*, is simple and powerful.¹ It purports to explain both how states could stumble into war without intention, as well as provides insight into how and why actors might strategically seek to manipulate risk to achieve advantage. It also shows how their can be strength in vulnerability, since those who take the greatest risk stand to gain the biggest reward. Like most of Schelling's work, the idea was policy relevant, and it was used to explain canonical cases of Cold War crisis behavior, such as the Cuban Missile Crisis.² The theory is also core to the nuclear security studies canon because it rescues the Theory of the Nuclear Revolution from empirical falsification—it permits and explains competition and

¹ Thomas C. Schelling, *The Strategy of Conflict* (Cambridge, MA: Harvard University Press, 1960); Thomas C. Schelling, *Arms and Influence* (New Haven, CT: Yale University Press, 1966).

² Jeffrey Frieden and David Lake, “International Relations as a Social Science: Rigor and Relevance,” *The Annals of the American Academy of Political and Social Sciences* 600, 1 (2005), pp. 136-156.

attempts at coercion between nuclear powers despite the stalemate that their arsenals are supposed to induce.³

But how do “threats that leave something to chance” actually work? In this article, we argue that the field does not fully understand the mechanisms of how chance becomes leverage in nuclear crises. Clearly, states may engage in brinkmanship to communicate capability and resolve through the limited and calibrated use or mobilization of force in crisis. The Cuban Missile Crisis is the archetypal example of brinkmanship, although many other examples exist as well. In that case, Kennedy’s quarantine of Cuba raised the possibility that shots would be fired. So too did limited uses of force by ships at sea, resulting in the higher possibility of more extensive conflict.⁴ The accidental incursion of a confused American U2 pilot into Soviet air space, the actual shootdown of a U2 over Cuba without the permission of Moscow, and multiple false missile warnings all began to make it seem as though the situation were slipping out of control.⁵ Yet within these canonical examples lies a lingering puzzle of Schelling’s insight: These incidents occurred beyond the control of leaders, yet leaders remained in control of the decision to escalate to strategic nuclear war. They retained a *choice*. That is, conventional wisdom on “threats that leave something to chance” sees it as a solution to the problem of *agency* in coercion. If a leader cannot credibly threaten to start a nuclear war, perhaps he can at least signal that the decision is *not up to me*. He can communicate that certain elements of the crisis incorporate chance beyond his control that could go the wrong way. Thus, the coercer would indicate a relative *lack* of control over the decision to start a nuclear war. But that is not how it works in the real world. Sometimes the leader retains choice even when he loses control, as the Cuban Missile Crisis’ U2 examples demonstrate. Thus, there remains an element of choice in chance. Chance may present certain opportunities or challenges, but leaders often still retain an element of choice in how to respond to them.

Thus, there is a missing link in the conventional wisdom of brinkmanship: what makes one climber respond to events that are slipping out of control with an irrational decision to jump off the cliff and another strive to pull the other back from the edge?⁶ Said more generally, how can a leader generate real “chance” when they retain some element of “control” over the risks they are manipulating?

³ On the Theory of the Nuclear Revolution, see Robert Jervis, *The Meaning of the Nuclear Revolution* (Cornell University Press, 1989). For critiques, see Brendan Rittenhouse Green, *The Revolution that Failed* (Cambridge University Press, 2020); Austin Long and Brendan Rittenhouse Green, “Stalking the Secure Second Strike: Intelligence, Counterforce, and Nuclear Strategy,” *Journal of Strategic Studies*, 38 (2015), pp. 1-2, 38-73; Keir A. Lieber and Daryl G. Press, *The Myth of the Nuclear Revolution: Power Politics in the Atomic Age* (Cornell University Press, 2020).

⁴ See Michael Dobbs, *One Minute to Midnight* (New York: Alfred A. Knopf, 2008).

⁵ Sagan, *The Limits of Safety* (Cornell University Press, 1993).

⁶ Counterforce and damage limitation strategies may answer this puzzle by fighting the analogy. Through counterforce and damage limitation one climber aims to cut the rope that ties her fate to the other before pushing them off the cliff. Doing so successfully requires no brinkmanship. But it may not be successful; for example, if the knife is not sharp enough to sever the rope, both climbers can still fall to their fate. We assume, like Schelling, that neither actor possesses a first strike counterforce capability.

This article tackles the challenge posed by this theoretical gap between chance and control in “threats that leave something to chance” by bringing perceptual and emotional variables into conversation with Schelling’s rationalist theory. Schelling was interested in how actors manipulated risk to achieve coercive advantage. By this route, war does not necessarily have to start by accident, but can result from the imperfect process of government decision-making, by mis-estimating chance. *In this way, there is a distinction between the notions of chance and control embedded in the idea of threats that leaves something to chance.* These concepts need greater unpacking. A leader does not have to be crazy to manipulate risk in a way that will replace control with chance. And that risk can lead to inadvertent war.

Specifically, we suggest some critical emotional elements that are central to a complete understanding of threats that leave something to chance but that remain hidden in the original specification. We then explicate the three main mechanisms embedded within Schelling’s notion of threats that leave something to chance: autonomous risk; control of self; and control of others. We discuss the relationship of each to notion of both chance and degree of choice. We also engage with the “madman theory” in our unpacking. We then analyze how our putative emotional elements come into play in each area. In this way, our argument seeks to provide a greater conceptual explication of Schelling’s notion of “threats that leave something to chance” by more fully and explicitly incorporating the critical psychological elements of control and risk into the theory.

Section two begins with a brief discussion of some of the previous literature. We then proceed to provide a conceptual unpacking of “threats that leave something to chance,” describing the distinction between chance and control, and introducing crucial concepts in leadership psychology. Section three returns to the Schelling’s original text to categorize the kinds of threats that leave something to chance that he introduced. We distill from his work three distinct mechanisms and compare them through the lens of choice, chance, and control. The final section provides some conclusions about how this unpacking of threats that leave something to chance opens new avenues for research and might revise our understanding of crisis brinkmanship.

II. Chance, Control, and Choice

Situating Our Work in the Literature

“Threats that leave something to chance” purport to solve the problem of threat credibility in coercion. In order for a target to acquiesce to a coercive demand, it must believe that it will actually be punished for defiance. Coercers therefore take great pains to demonstrate both the capability to hurt as well as the resolve to punish if their demands are not met.⁷ Thus, we have

⁷ Alexander L. George, *Forceful Persuasion: Coercive Diplomacy as an Alternative to War* (Washington, DC: United States Institute of Peace, 1991); Alexander L. George and William E. Simons (eds.), *The Limits of Coercive Diplomacy*, 2nd edition, (Westview Press, 1994); Robert J. Art and Patrick M. Cronin (eds.), *The United States and Coercive Diplomacy* (Washington, DC: United States Institute of Peace, 2003); and Barry M. Blechman and Stephen S. Kaplan, *Force Without War: U.S. Armed Forces as a Political Instrument*, (Washington, DC: Brookings Institution, 1978).

several generations of theories about the nature of credibility in military threats that seek to explain how states can signal their resolve over a stake and make their threats credible—costly signaling, such as tying hands and sunk costs,⁸ audience costs,⁹ reputation,¹⁰ and strategies of commitment.¹¹ To this list, we seek to further explicate and expand upon Schelling’s additional means of communicating threat credibility: brinkmanship.¹²

Schelling was the first to clearly explicate the difference between deterrence, trying to get someone to stop doing something you do not like, and compellence, trying to get someone to start doing something you want. Both can be hard and tricky and important, but compellence has received relatively less attention in the literature.¹³ Pathbreaking work on the role of psychology and deterrence examined the role of various psychological and emotional factors in enhancing or undercutting deterrence.¹⁴ But this work has rarely made the leap to study the psychological underpinning of successful or failed compellence. This is likely because, for all his innovative brilliance, Schelling underappreciated the role of psychology in coercion. He assumed that material forces played the bigger part and rested his larger theoretical models on economic assumptions, which rarely (at least at the time) incorporated any psychological element into their causal calculus of human behavior. Because Schelling’s role was both foundational and pervasive, and rightly so, the bulk of the subsequent development of the field tended to overlook the role of psychology in human decision-making¹⁵, disproportionately relying instead on economic models of rational choice, assuming almost robotic behavior on the part of leaders.

In this way, Schelling was right that threats that leave something to chance introduce an important element into human decision making, although not necessarily in the way he assumed. Indeed, other reevaluations and interpretations of “threats that leave something to chance,” mostly disagree with Schelling’s optimism that risk can be manipulated without disaster, or at the very least the very real possibility of disaster. For example, historian Benjamin Wilson

⁸ James D. Fearon, “Domestic Political Audiences and the Escalation of International Disputes,” *American Political Science Review*, 88, 3 (September 1994), pp. 577-592; James D. Fearon, “Signaling Foreign Policy Interests: Tying Hands versus Sinking Costs,” *Journal of Conflict Resolution* 41, 1 (February 1997); Branislav L. Slantchev, “Military Coercion in Interstate Crises,” *American Political Science Review* 99, 4 (November 2005). On signaling in general see Robert Jervis, *The Logic of Images in International Relations* (Princeton University Press, 1970).

⁹ Fearon 1994 and 1997; Kenneth A. Schultz, *Democracy and Coercive Diplomacy* (Cambridge University Press, 2001); Kristopher W. Ramsay, “Politics at the Water’s Edge: Crisis Bargaining and Electoral Competition,” *Journal of Conflict Resolution* 48, 4 (August 2004); Jessica L. Weeks, “Autocratic Audience Costs: Regime Type and Signaling Resolve,” *International Organization* 62, 1 (Winter 2008).

¹⁰ Daryl G. Press, *Calculating Credibility* (Cornell University Press, 2005); Jonathan Mercer, *Reputation and International Politics* (Cornell University Press, 1996); Anne E. Sartori, *Deterrence by Diplomacy* (Princeton, NJ: Princeton University Press, 2005). R. Brutger and J. D. Kertzer, “A dispositional theory of reputation costs,” *International Organization*, 72, 3 (2018): 693-724.

¹¹ Schelling 1960 and 1966.

¹² Schelling 1960 and 1966.

¹³ For exceptions, see James Davis, *Threats and Promises in International Relations*; Todd S. Sechser, “ Militarized Compellent Threats, 1918–2001,” *Conflict Management and Peace Science* 28, 4 (2011): 377–401. Much of this work became subsumed in the study of coercive diplomacy, see footnote 7.

¹⁴ Lebow, Jervis and Stein volume

¹⁵ Jervis work stands as an important exception, particularly Robert Jervis, *Perception and misperception in international politics: New edition* (Princeton University Press, 2017). However, the majority of the field developed from within the original economic paradigm originally put forward by Schelling.

argues that Schelling's confidence in the stability of deterrence, even after shocks to the system, comes not from the game theory to which it is most often ascribed but from his training in Keynesian economic modeling.¹⁶ Schelling conceived of nuclear stability not as a bilateral game, but as a *system*. As Wilson writes of Schelling's confidence, "It was the belief of a Keynesian fine-tuner that a stable system could withstand a shock."¹⁷ And yet this conclusion does not necessarily follow logically from his assumptions outside that economic system. The hidden hand guiding forces toward economic equilibrium does not necessary directly translate into a similar assurance of stability in the area of political conflict in general, and nuclear brinksmanship in particular.

Others raise criticisms of these assumptions from different perspectives. For example, Benoit Pelopidas argues that Schelling inappropriately conflated risk and uncertainty. Risk can be assessed using careful probability theory, calculating value, and offering the possibility of optimizing choice. Uncertainty, by contrast, is neither measurable nor quantifiable.¹⁸ The important distinction rests on whether the relative probabilities associated with various outcomes can be known or ascertained beforehand. With risk, it can, with uncertainty, it cannot.

Finally, the extant costly signaling literature treats threats that leave something to chance as a sunk cost signal. For example, the United States may be assumed to be willing to bear the ex ante risks of accident or unauthorized use associated with forward deployed nuclear weapons in order to make credible claims of extended deterrence.¹⁹ This is not a satisfying construction, however, given how Schelling thought of threats that leave something to chance as a much more dynamic phenomenon that could be much more easily and rapidly manipulated in a crisis. Indeed, there is even confusion in the nuclear strategy literature. Scholars as early as Bernard Brodie offered that "violence between great opponents is inherently difficult to control" but few have tried to explain why.²⁰ Jervis distinguished between two mechanisms of "threats that leave something to chance": intended and unintended escalation.²¹ Halperin uses similar categories of explicit decisions versus unintended "explosions" of violence.²² And these insights are useful insofar as

¹⁶ Benjamin Wilson, "Keynes Goes Nuclear: Thomas Schelling and the Macroeconomic Origins of Strategic Stability," *Modern Intellectual History* (2019): 1-31. Wilson points to an early Schelling RAND paper, "Randomization of Threats and Promises," RAND P-1716 (June 5, 1959), which became chapter 7 of *The Strategy of Conflict*.

¹⁷ Wilson, p. 27.

¹⁸ Benoit Pelopidas, "The book that leaves nothing to chance: How *The Strategy of Conflict* and its legacy normalized the practice of nuclear threats," working paper, October 24, 2016. On risk versus uncertainty, see also Mark Blyth, *Great Transformations: Economic Ideas and Institutional Change in the Twentieth Century* (Cambridge University Press, 2002); Mark Blyth, "Great Punctuations: Prediction, Randomness, and the Evolution of Comparative Political Science," *American Political Science Review*, 100, 4 (2006): 493-498; and Peter J. Katzenstein and Lucia A. Seybert, *Protean Power: Exploring the Uncertain and Unexpected in World Politics* (Cambridge University Press, 2018). A world of risk is assumed to be stable and you can make rational calculations about it, but a world of uncertainty is not predictable.

¹⁹ James D. Fearon, "Domestic Political Audiences and the Escalation of International Disputes," *American Political Science Review* 88, 3 (1994): 577-592; Matthew Fuhrmann and Todd S. Sechser, "Signaling Alliance Commitments: Hand-Tying and Sunk Costs in Extended Nuclear Deterrence," *American Journal of Political Science* 58, 4 (2014): 919-935.

²⁰ Brodie quoted in Jervis, *The Illogic of American Nuclear Strategy* (Cornell University Press, 1984), p. 134.

²¹ Jervis, *Illogic of American Nuclear Strategy*.

²² Morton Halperin, *Limited War in the Nuclear Age* (Wiley, 1963).

they articulate how misperception of adversary interests can lead to the miscalibration of military signals. Yet in both instances the core puzzles of “control” and “choice” remain if a leader is intentionally manipulating risk. Relatedly, Powell models autonomous risk; that is, just the fact of being in a crisis creates a risk that increases throughout the crisis.²³ But this operationalization is not quite right because leaders must actually choose to do things to create those risks. Indeed, the valuable literature on organizations, nuclear accidents, and accidental war does not, in our view, solve the puzzle of how threats that leave something to chance might work in practice.²⁴ As we will explain, that the prospect of accidents introduces autonomous risk into a crisis is not in itself a sufficient mechanism to explain the onset of thermonuclear war when choice is involved.

The Distinction Between Chance and Control

To understand “threats that leave something to chance,” and that choices that surround such threats, we argue that we have to think about the relationship between “control” and “chance.” As Schelling wrote, “Where does the uncertain element in the decision come from? It must come from somewhere outside of the threatener’s control. Whether we call it ‘chance,’ accident, third-party influence, imperfection in the machinery of decision, or just processes that we do not entirely understand, it is an ingredient in the situation that neither we nor the party we threaten can entirely control.”²⁵ Certain control over whether and when a nuclear war will break out is understood to be a hindrance to effective brinkmanship.

But “chance” and “control” may not be as contradictory as they appear, or as Schelling thought. One does not have to lose control to threaten to make an irrational choice in crisis. And history shows that many leaders who thought they had and could maintain control were not able to do so when fortune and chance moved against them. For example, leaders responding to the assassination of the Archduke prior to the outbreak of the First World War clearly did not want, or expect, the extent of the conflagration they precipitated. Indeed, many wars start, as well as fail to end the way that instigators anticipated, precisely because central players lost control when chance intervened in an unexpected manner.

In this way, chance and control represent distinct concepts that are too often conflated and should not be, leading to indeterminacy and unnecessary confusion in subsequent analysis. Chance reflects a kind of subjective probability assessment, a sense of how likely it is that a particular outcome might occur. Even when base rate probabilities are known in advance, which they

²³ Robert Powell, *Nuclear Deterrence Theory: The Search for Credibility* (Cambridge University Press, 1990).

²⁴ See Bruce G. Blair, *The Logic of Accidental Nuclear War* (Brookings, 1993); Paul J. Bracken, *The Command and Control of Nuclear Forces* (Yale University Press, 1983); Peter D. Feaver, *Guarding the Arsenal: Civilian Control of Nuclear Weapons in the United States* (Cornell University Press, 1992); Scott D. Sagan, *The Limits of Safety: Organizations, Accidents, and Nuclear Weapons* (Princeton University Press, 1993); Bradley A. Thayer, “The Risk of Nuclear Inadvertence,” *Security Studies* 3, 3 (Spring 1994) and other essays in this volume.

²⁵ Schelling, *The Strategy of Conflict*, p. 188.

cannot be when considering never before seen events like a nuclear war, chance introduces some elements of uncertainty and unpredictability.

Control on the other hand refers to the extent to which a person or leader is able to direct events or believes themselves to be able to do so. The possibility, and indeed the likelihood, that the leader's beliefs could be incorrect provides the area of overlap between chance and control: unpredictability unifies both notions. Chance introduces the possibility that events may not occur as planned; a false sense of control, or overconfidence in the ability to direct events, on the part of a leader allows for the same outcome.

But the fact that these outcomes overlap should not be taken to infer that their causes are the same. Rather, the causal component in chance derives from the probabilistic nature of the universe, while the causal element in control emerges from some combination of power and perception on the part of relevant leaders. Some leaders certainly have more personal skills or resources at their disposal and so are able to have more control over some aspects of various encounters. But some leaders are also more able to perceive the environment accurately, understanding better the nature of their adversary, their own relative strengths, weaknesses and strategic position, all the while acknowledging the possibility that plans may go off the rails. Others may be much more arrogant in their perceptions, overestimating their own skills and positions, failing to take account of others' goals and perceptions, showing less sophistication in their planning, and refusing to accept the possibility that things may not go as planned.

These considerations about the relative roles of uncertainty and control in threats that leave something to chance raise several additional important theoretical questions. Do different kinds of leaders possess different thresholds for how much control is necessary, and how much can be left to chance? Will those preferences exert a noticeable impact on their crisis behavior? What kind of chance provides leverage and what kind of chance reduces freedom of choice? Many things can happen outside a leader's control, not least the actions of adversaries. And some of those actions can happen outside either side's control. To draw on the original analogy, both climbers can dance on the edge of a cliff, but if an avalanche comes along, both can be killed without either making a false move or having any intention of hurting themselves or the other.

Strategically sophisticated actors may seek to generate or leverage chance opportunities, risks or threats; some of these choices may involve the use, or threat, of force. This is precisely what we mean by control: the conscious choice to use force. This moment of decision is key to illuminate the operative mechanism of threats that leave something to chance—a leader does not have to lose control in order to create chance. There may be times where using force is rational in the strictest sense, particularly if a leader believes that she, her regime or her state confront some kind of existential peril. However, there are also many reasons to believe that choosing to use force might not be rational in a particular crisis, and yet it is employed nonetheless. This occurs precisely because chance, control, and threat are not entirely rational processes; they are as much psychological and emotional as strategic, at least at times, such as moments of crisis.

Improving Upon Schelling with the First Image

Chance is Schelling's proposed solution to the problem of nuclear threat credibility: to remove the actor themselves from the equation. But this is not always possible. After all, the actor may be the one imposing or inserting chance into an equation with particular choices, decisions or behaviors. Indeed, removing the actor is not the only solution; indeed, if the actor cannot be entirely removed, she retains some degree of choice that must be explained. In this way, uncertainty can enter into the calculus via the emotions of the decisionmaker. Emotions may be under the control of most leaders most of the time, and some people certainly have greater emotional awareness and ability to exert greater emotional regulation and control than others.²⁶ However, even economists might be forced to acknowledge that some people will not be able to control such feelings as the desire for vengeance in the face of an attack completely and consistently. But the desire for revenge, as universal as it may be, is not the only emotion that might plausibly exert a decisive effect over a leader's decision-making calculus. Desire for status, envy over particular resources, or even lust might create such an effect.

We are not claiming that the rational element of Schelling's argument is wrong. Instead, we are building upon it by adding additional aspects that are crucial to an accurate understanding of the operative mechanisms behind threats that leave something to chance. There are at least two areas in which Schelling's original economic notions neglected the operative and universal aspects of human psychological architecture. First, Schelling wrote that "to inflict suffering gains nothing and saves nothing directly; it can only make people behave to avoid it."²⁷ This was, after all, his basic premise in unpacking the diplomacy of violence. There are a few things that are psychologically and biologically naïve about this construction. Anyone who has reveled in the misfortune of another, or anyone who had felt the adrenaline rush that follows winning a physical fight knows that there is much that can be gained from inflicting suffering on others, particularly if those others have somehow harmed you. The German word for this feeling, *schadenfreude*, is well intuited by most. It is also important to note that the physical rush that often accompanies a victorious fight, even if it is verbal and not physical in nature, is automatic, immediate and endogenous.²⁸ A person does not have to try to get the feeling, nor can they go buy it somewhere, nor can the feeling be tamped down easily or without effort. There is a long evolutionary history that primes an entire suite of downstream hormonal reinforcements that follow successful combat. Victory feels great; defeat feels awful. Those who win like the feeling and want to fight again; those who lose are less inclined to try again.²⁹ Those who have obtained

²⁶ J. J. Gross, "Emotion regulation: Affective, cognitive, and social consequences," *Psychophysiology*, 39, 3 (2002): 281-291.

²⁷ Schelling, *Arms and Influence*, p. 2.

²⁸ P. H. Mehta, A. C. Jones, and R. A. Josephs, "The social endocrinology of dominance: basal testosterone predicts cortisol changes and behavior following victory and defeat," *Journal of personality and social psychology*, 94, 6 (2008): 1078.

²⁹ B. A. Gladue, M. Boechler, and K. D. McCaul, "Hormonal response to competition in human males," *Aggressive Behavior* 15, 6 (1989): 409-422; M. Elias, "Serum cortisol, testosterone, and testosterone-binding globulin responses to competitive fighting in human males," *Aggressive Behavior*, 7, 3 (1981): 215-224; P. H. Mehta, and R.A. Josephs, "Testosterone and cortisol jointly regulate dominance: Evidence for a dual-hormone hypothesis," *Hormones and Behavior*, 58, 5 (2010): 898-906; P. H. Mehta, and R.A. Josephs, "Testosterone change after losing predicts the decision to compete again," *Hormones and Behavior*, 50, 5 (2006): 684-692.

victory often learn to like the taste of blood; anyone who doubts this need only look at the difficulty of successfully reincorporating men with long combat histories into civilian society. High suicide rates tell only part of the story. High rates of violence tell the other side of it. Indeed, rather than seek to avoid suffering at Schelling predicted, many who are successful at inflicting it become addicted to the experience.

More significantly for our purposes, Schelling's statement fails to account for the perceived emotional and psychological value of retaliation, and the strong and instinctual drive for revenge against those who harm, or seek to harm, us. McDermott et al. have argued that "the human psychology of revenge explains why and when policymakers readily commit to otherwise apparently 'irrational' retaliation" such as that envisioned by second strike nuclear forces.³⁰ Indeed, invocations of vengeance-driven punishments can be observed in Schelling's favorite passage from *Henry V*. King Henry's threat to sack the French town of Harfleur is contingent upon his men becoming vengeful; and if they do, Henry calculates he will lose control:

We may as bootless spend our vain command
Upon the enraged soldiers in their spoil
... Therefore, you men of Harfleur,
Take pity on your town and of your people,
Whiles yet my soldiers are in my command...

- (Act 3, Scene iii)

Here, the king makes a choice to take a chance at losing control in order to generate the emotional charge in his fighters that will coerce his enemy. Indeed, military commanders may find it useful to stir up such emotions in combat and crisis, as Henry V does in rallying his soldiers to "summon up the blood" and "disguise fair nature with hard-favour'd rage" (Act 3, Scene i). James Baker also relied on an explicit invocation of emotion to deter Saddam from using chemical weapons in a 1991 meeting with Tariq Aziz: "If the conflict starts, God forbid, and chemical or biological weapons are used against our forces, the American people would demand vengeance."³¹

A second way in which Schelling's neglect of psychology was unsatisfying was in his observation of the value of irrationality. Schelling wrote, "Another paradox of deterrence is that it does not always help to be, or to be believed to be, fully rational, cool-headed, and in control of oneself or of one's country."³² *How* a coercer might manipulate this perception was left

³⁰ Rose McDermott, Anthony C. Lopez, and Peter K. Hatemi, "Blunt Not the Heart, Enrage It': The Psychology of Revenge and Deterrence," *Texas National Security Review* 1, 1 (2017): 68-88.

³¹ Quoted in Sagan, "The Commitment Trap."

³² Schelling, *Arms and Influence*, p. 37.

clouded by his use of economic models that assume humans are rational. Indeed, the quoted claim embeds an assumption that rational behavior is the default. Yet clearly not all actors, even leaders, are always rational, even in the cost-benefit economic sense of rationality Schelling implied. Hitler provides the classic example; his hatred of the Jewish people led him to keep using the railroads to ship them to concentration camps for extermination when it would have been much better for his military prospects, especially at the end of the war, to use that transport to ship men to the front, rather than moving individuals from the outskirts to the center.³³ Regardless, Schelling's argument here that loss of control, or the appearance of such a loss of control, may be useful for bargaining in deterrence may not be empirically correct. Roseanne McManus, for example, shows empirically that a reputation for madness hurts more than it helps in coercive bargaining.³⁴ Indeed, it appears to be worst for general deterrence outcomes. However, Little and Zeitzoff disagree and show through a rational choice model that "irrationally tough" types can achieve better bargaining outcomes.³⁵ But the operative question remains as to whether leaders are understood to adhere more closely to economic or psychological models of human nature. Each assumption leads to very different implications regarding decision-making.

Nonetheless, Schelling was of course more often right than wrong, and he was correct about threats that leave something to chance in profound ways that he did not fully unpack. We argue that the most important of these lies in the distinction between chance and control. These concepts are not entirely synonymous, nor should they be. This matters because humans in general are very uncomfortable with lack of control, or with feeling powerless in the face of someone else's control over them, but are often willing to take chances when they believe the odds are in their favor. Robert Trivers, for example, points out that human males have a strong tendency toward overconfidence and illusions of control, whereby they believe they have more control than they do. He notes that this tendency offers a strong evolutionary advantage, since those who can bring more people to their side of a fight are more likely to win. And leaders can bring more people to their side if they project a strong likelihood of victory. But people can often tell when enthusiasm is lacking; therefore, lying to oneself about one's prospects for victory is the surest way to prevent behavioral leakage, recruit more followers, and thus in fact be more likely to win a fight. But such illusions do not come without negative consequences. Illusions of control can result in illusory pattern recognition, and perceiving patterns that do not exist, including prospects of others submitting when in fact their past acquiescence may have resulted from entirely unrelated factors and present indicators do not actually suggest surrender.³⁶

³³ Y. Pasher, *Holocaust Versus Wehrmacht: How Hitler's "Final Solution" Undermined the German War Effort* (University Press of Kansas, 2014).

³⁴ McManus *BJPS* 2019; McManus *Security Studies* 2019. McManus argues that only "situational" (not dispositional) madness, i.e. scoped to one category of demand, can help by communicating limited aims. For further pessimism on the madman theory, see also Danielle L. Lupton, *Reputation for Resolve* (Cornell University Press, 2020), p. 151.

³⁵ Andrew T. Little and Thomas Zeitzoff, "A Bargaining Theory of Conflict with Evolutionary Preferences," *International Organization*, 71, 3 (Summer 2017): 523-557.

³⁶ Trivers, *The Folly of Fools*, pp. 22-23. Trivers' main argument is that humans have evolved to lie to ourselves the better to lie to others.

There is additional work in psychology validating Schelling's notion that unpredictable threats bear more heavily on us. For example, Paul Slovic has noted the importance of risk perception in understanding the nature of the threats we confront. Specifically, he notes that humans are most scared of so called 'dread' risks, or those we feel we cannot control, or that appear to be harbingers of unpredictably worse things yet to come that we cannot fully understand or appreciate before the actual experience. Specifically, Slovic uses nuclear war as an example of an existential fear outside of most people's control, helping to explain, at least in part, the dread nature of the risk.³⁷

III. Unpacking Schelling's Mechanisms: How "Chance" Becomes Leverage

The fact that chance incorporates some element of uncertainty and unpredictability does not mean that it cannot still be used strategically to one's advantage. How might this be done in a way that still maintains some element of control? This ability, after all, is the essence of strategic bargaining behavior.

The chart below summarizes the mechanisms that Schelling put forward. These are the means by which chance becomes leverage in crisis. The list involves a degree of expansion and extrapolation, as Schelling did not always fully explain each mechanism in his explication of the concept of "the threat that leaves something to chance" in *Strategy of Conflict*. The chart also states whether or not the mechanism purports that someone (anyone) must make a decision to begin a strategic nuclear war—jump off the cliff. This gets at the core question of this article: If the leader makes a choice to do so, could we really say "chance" was involved? Finally, the chart also indicates our explanation of the relationship between each mechanism of chance and control of the decision-making in crisis.

In sum, as explicated in detail below, we posit three mechanisms of risk in Schelling's work: (1) autonomous risk, (2) a lack of self-control, and (3) the transfer of decision-making to others. The categories may bleed together in the real world, but they are deductively distinct.

³⁷ Paul Slovic, "Perception of Risk," *Science* 236 (1987), pp. 280-285.

Mechanism	What is mentioned in <i>Strategy of Conflict</i>	Is there still a moment of decision? A choice?	Relationship to control
Autonomous Risk	Accident	No	The decider does not have agency; no one does.
	Mechanical failure	No	
I am not in control of myself.	Panic	Yes	The decider is in control but cannot control themselves.
	Madness	Yes	
	False alarm	Yes	The decider is in control but acts on misperception.
	Misapprehension of enemy intentions (or a correct apprehension of the enemy's misapprehension of ours)	Yes	
I am not in control of others.	Mischief	Yes, but by whom?	The decider does not have agency, a third party or unauthorized decider does.
	Limited war as a generator of risk	Yes	The decider is in control but does not have agency over the decision for nuclear war, the adversary does.

The first—autonomous risk—is the most straightforward and commonly intuited category. The specific mechanisms mentioned by Schelling are: accidents and mechanical failure. Both are types of inadvertence, whereby the threat can be carried out without a decision from the decider. Something escalatory in crisis is expected to happen despite the best intentions of the belligerents—an accidental launch, a mechanical failure that causes a mis-aimed warning shot or two planes to collide in the air. The shutdown of civilian airliners during moments of heightened tensions are all too common examples: Korean Air Lines Flight 007 shot down over the Soviet Union in 1983, Iran Air Flight 655 shot down by a U.S. guided missile cruiser in the Persian Gulf in 1988, Malaysia Airlines Flight 17 shot down over Ukraine in 2014, Ukraine International Airlines Flight 752 shot down over Iran in 2020, and many more. The fog of war ensures that target selection cannot be perfect. The Clinton administration's 1999 accidental bombing of the Chinese embassy in Belgrade provides another example. The longer the crisis goes on, the more likely these unexpected events are to happen. Schelling conceived of it as a kind of iterated Russian Roulette. Indeed, literature on “normal accidents” suggests that eventually these kinds of events always will happen.³⁸ Thus, all crises have some baseline risk, and such risk can be manipulated by leaders who seek to increase it by mobilizing more military forces, placing them on ever higher alert, forward deploying them, ordering them to operate in

³⁸ Charles Perrow, *Normal Accidents*; Scott D. Sagan, *The Limits of Safety*.

close proximity to the enemy (e.g. buzzing airplanes), devolving or pre-delegating authorities on the use of force down the chain of command, etc.

The second category is that of losing self-control, within which we see two subcategories. First, Schelling mentioned specifically panic and madness as potential mechanisms. The risk of war comes from within the system, not outside of it. The decider may choose war, but irrationally.

Second, Schelling mentioned false alarm and the misapprehension of enemy intentions (or a correct apprehension of the enemy's misapprehension of ours). Here the decider still chooses war themselves but based on incorrect information or misperception about the enemy's intentions and actions. The mechanism seems most affected by Schelling's notion of "the imperfect process of decision" whereby governments, as groups of imperfect units, fail to move information to where it need to be on time.³⁹

The third category of mechanisms is that of a decider losing control because others make the choice for war without their input or knowledge. Here again we see two subcategories. First, Schelling mentioned specifically mischief as a means of war onset. Someone else (perhaps irrational but he left that unsaid) makes the choice for war instead of the leader. One might conceive of this as a principal-agent problem, whereby the principal loses control of an agent. In the military domain it has been more specifically theorized as a lack of civilian control over military forces.⁴⁰ An overzealous local commander with the ability to use nuclear weapons fits the bill. This is the Dr. Strangelove scenario that Schelling was so fond of. But short of nuclear war, military commanders have routinely exceeded or stretched the purview of their offensive missions beyond the authorization of civilian leaders—the 1982 Israeli invasion of Lebanon, General MacArthur's Yalu bombing campaign in the Korean War, Patton's attempt to go after the Soviet Union after the defeat of Germany, or the German navy's submarine campaign during WWI all exceeded to some extent their operational intent.⁴¹ Second, Schelling mentioned specifically limited war as a generator of risk. This would seem to be the "inadvertent escalation" category—a state with the intention of avoiding strategic nuclear war but in an attempt to signal resolve or fight a conventional war might inadvertently threaten the other side's nuclear forces and so cross a red line that triggers the enemy to misperceive his intentions and thus choose to launch a damage-limitation opening salvo of a nuclear war.⁴² This second sub-category is distinct because the decider is fully in control of his own forces and himself, the only "chance" is that he will cross one of the adversary's lines without knowing it.

³⁹ Robert Jervis had a more psychological interpretation of the "imperfect process" of policymaking. He connected it to the idea that "the workings of machines and the reaction of humans in time of stress cannot be predicted with high confidence." This article builds on his insight. Jervis, *Illogic of American Nuclear Strategy*.

⁴⁰ Military organizations have a preference for offensive operations, sometimes without the approval of civilians. See Barry R. Posen, *Inadvertent Escalation* (1990); Stephen Van Evera, "The Cult of the Offensive and the Origins of the First World War," *International Security* 9, 1 (Summer 1984), pp. 58-107; Jack Snyder, "Civil-Military Relations and the Cult of the Offensive, 1914 and 1984," *International Security* 9, 1 (Summer 1984), pp. 108-46.

⁴¹ Posen 1990, p. 18-19. Standard Operating Procedures also famously exceeded civilian intent during the Cuban Missile Crisis. Graham T. Allison, "Conceptual models and the Cuban Missile Crisis," *American Political Science Review* 63 (1969), pp. 689-718.

⁴² Posen 1990; Caitlin Talmadge, "Would China Go Nuclear? Assessing the Risk of Chinese Nuclear Escalation in a Conventional War with the United States," *International Security* 41, 4 (Spring 2017), pp. 50-92.

Next, we unpack each of these concepts using a psychological lens. Doing so helps us to understand exactly why and how each mechanism of brinkmanship works.

The explanatory limits of autonomous risk

As we have suggested, autonomous risk can only go so far to explain the source of leverage in a crisis. It does not dispatch with the problem of *choice*. After an accident or mechanical failure causes an inadvertent escalation of a crisis, in order for a nuclear war to begin, one leader or another must *decide* based upon the chance event to launch first. Autonomous risk does not itself eliminate leaders or their credibility deficiencies from the equation. Leaders can increase the odds for such risks based on prior behavior such as forward deployments; they can also choose not to respond to provocations that result from transgressions. Thus, even if the leader doesn't have control over the event, he may still have control over his response to it.

Moreover, two established psychological biases suggest that leaders will downplay the significance of autonomous risk in their crisis decisionmaking. First, the "illusion of control" may plague leaders in crisis. Actors atop hierarchies tend to overestimate their own control of events.⁴³ Leaders also often suffer from overconfidence in ways that risk expanding conflict.⁴⁴ Second, Jervis argues that leaders tend to overestimate the adversary's unity and control. They see the behavior of others as more centralized, disciplined, and coordinated than it actually is.⁴⁵

Autonomous risk begs another solution to the puzzle of agency or choice and therefore must work in tandem with the other mechanisms of brinkmanship.

How (and how not) to lose self-control

Schelling's notion of the rationality of irrationality rests on the idea that getting others to believe that you are irrational, and might do something crazy or unpredictable, may sometimes prove to be a rational strategy if it gets the adversary to back off or back down without a fight. This is a strategy to win without incurring the costs of fighting if a leader can pull it off. In this way, irrationality operates as a kind of strategic manipulation.

There are various ways that such a strategy might be pursued, and one of the most noteworthy is the so-called "madman strategy." The madman approach can be understood as a sub-type of the larger rationality of irrationality notion. These types often overlap in form and strategy but are, and should remain distinct, conceptually. This idea became famous because of Richard Nixon's use of it in trying to drive the North Vietnamese leadership to the negotiating table during the

⁴³ Langer 1975; Jervis 1976.

⁴⁴ D. D. Johnson, *Overconfidence and war* (Harvard University Press, 2004); D. D. Johnson and J. H. Fowler, "The evolution of overconfidence," *Nature* 477, 7364 (2011): 317-320.

⁴⁵ Hypothesis 9 in Jervis "Hypotheses on Misperception." Hypothesis 10 is related: because a state gets most of its information about other states via the other state's foreign office, it tends to assume the foreign office's position is exactly that of the other state. I.e. we assume no rifts or disagreements within the other state.

Vietnam war. The most authoritative account of this interaction comes from Nixon's White House Chief of Staff. Bob Haldeman's memoirs:

The threat was the key, and Nixon coined a phrase for his theory which I'm sure will bring smiles of delight to Nixon-haters everywhere. We were walking along a foggy beach after a long day of speech writing. He said, "I call it the Madman theory, Bob. I want the North Vietnamese to believe I've reached the point where I might do anything to stop the war. We'll just slip the word to them that, 'for God's sake, you know Nixon is obsessed about Communism. We can't restrain him when he's angry—and he has his hand on the nuclear button'—and Ho Chi Minh himself will be in Paris in two days begging for peace."⁴⁶

Nixon in fact instructed Kissinger to "shake his head" in a meeting with the Soviet Ambassador and say, "I am sorry Mr. Ambassador, but Nixon is out of control."⁴⁷ In this way, Nixon thought he could game the Soviets and North Vietnamese by getting them to believe he was crazier than in fact he was, or at least crazier than he believed himself to be. The problem arose, however, because the North Vietnamese absolutely understood Nixon to be a strategic actor who was trying to manipulate them. They saw him as being crazy like a fox more than crazy like a loon. As vice minister of foreign affairs and a top aide to Le Duc Tho in his negotiations with Kissinger in Paris later reported, "he would like to show to the Vietnamese that he was a changeable [unpredictable] person, that he can surprise—how to say, a big stick surprise. But this backfired on Nixon, because we saw that Nixon could not have a big stick, because of the step-by-step withdrawal of American forces. That means the stick becomes smaller and smaller."⁴⁸

Despite its lack of success, Nixon employed this strategy widely, never fully backing down from it and continuing to believe that it would produce the diplomatic results he desired. As Kimball writes:

the madman theory lay at the heart of the president's strategy for dealing with foreign adversaries, such as North Vietnam and the Soviet Union. This striking phrase, Haldeman reported, was Nixon's alternative name for the "principle of a threat of excessive force." Nixon thought that military force was an essential component of diplomacy because of its coercive power, but its coercive power, he believed, could be enhanced if his opponents could be convinced that he was capable of or intent upon using extreme force, since this would suggest that he possessed one or more of the interrelated qualities of madness....he meant to convey his supposed madness as irrationality, unpredictability, unorthodoxy, reckless risk-taking, obsession, and fury."⁴⁹

⁴⁶ H. R. Haldeman with Joseph DiMona, *The Ends of Power* (New York: Times Books, 1978), p. 83. See also Schelling, *The Strategy of Conflict* (1960); Scott D. Sagan and Jeremi Suri. "The Madman Nuclear Alert: Secrecy, Signaling, and Safety in October 1969." *International Security* 27, 4 (2003): 150-83.

⁴⁷ U.S. Department of State, *Soviet and American Relations: The Détente Years, 1969-1972*. (Washington, DC: U.S. Government Printing Office, 2007), p. 87. Quoted in Fuhrmann and Sechser, "The Madman Myth: Trump and the Bomb," H-Diplo/ISSF Policy Series, March 2017.

⁴⁸ Kimball, pg. 286.

⁴⁹ Kimball, pg. 15.

In these instances, Nixon incorrectly believed that he could control the other side's perception of him and thus chance itself. And, in the most crucial case of the North Vietnamese, he was wrong. Ironically, his belief that he could trick the enemy into believing he was unpredictable and irrational produced the exact opposite effect: it merely served to convince them that he was completely in control and trying to manipulate them, causing resentment and blowback and making them more entrenched in their opposition to him.

That sense of control in chance is the key distinction we highlight. But this conundrum also raises the key internal inconsistency in Schelling's notion: Do you get greater bargaining leverage by leaving something to chance, or does the risk of such chance obviate its ostensible benefit? Does ambiguity buy you leverage? Is it stabilizing or destabilizing? As Nixon feigned in negotiating with the North Vietnamese—the original “madman” bluff—he assumed that if they believed he was crazy, they would fear he could do anything, including use nuclear weapons. Nixon wrongly assumed that this strategy would drive them to greater levels of acquiescence to American demands. He incorrectly believed that if the North Vietnamese thought he had no reason to spare them, they would give in. Here it remains noteworthy that there exists a true difference between those who might feign madness for purposes of strategic leverage, real or imagined, and those who may be genuinely mentally ill, or unable to control or manage their feelings or behavior. An additional complication arises when leaders suffering from severe mental illness may believe they are completely rational; whether or not others see their limitations may depend, at least in part, on the skill of their advisers in hiding the worst manifestations of illness. And it may not always be obvious to the target if they are confronting someone who is genuinely crazy, or simply a leader pretending to be beyond reason.

An assurance argument has also been used to explain why a madman's threats, often expressed by personalistic dictators, fail: they are unpredictable, so they may punish you regardless of your behavior.⁵⁰ If a target believes that no benefit can reliably follow from concession, but costs are certain, then there is no clear benefit to acquiescence. It stands to reason that “threats that leave something to chance,” if they succeed, must function by a different mechanism than unpredictability because the target must believe that compliance will lead to benefit. That mechanism likely lies in the emotional domain neglected by Schelling and ignored by most rational models of choice. Specifically, trust can secure what cannot be guaranteed, but depends on a relationship that builds over time through iterated interactions of increasing value. This takes time and as everyone should recognize from the mirror of introspection, trust can take a long time to develop and can vanish in an instant. The trope suggests that where you have trust, you do not need agreements and you cannot have agreements without trust. But here again the key to success lies in the inversion: it is not merely the opponent's trustworthiness that matters for success, but one's own as well. And this is where self-deception can undermine chance as well as control in making choices about what is best and what is possible.

⁵⁰ McManus *BJPS* 2019; McManus *Security Studies* 2019.

How emotion complicates my own control

Nixon's oft-quoted description of the "Madman Theory" was explicitly emotional in nature, suggesting that anger could trigger a vitriolic response. The message he wished to send was "We can't restrain him [Nixon] when he's angry — and he has his hand on the nuclear button."⁵¹

Here Schelling's insights are both illuminating and confounding. On the one hand, his core concept of tacit bargaining through the diplomacy of violence rests on his observation that "to inflict suffering gains nothing and saves nothing directly; it can only make people behave to avoid it."⁵² On the other hand, Schelling himself documented how leaders violate his principles. "Since any use of force tends to be brutal, thoughtless, vengeful, or plain obstinate, the motives themselves can be mixed and confused," wrote Schelling.⁵³ He recounted how in 1099 when crusaders breached the walls of Jerusalem, "pent up emotions found an outlet in murder, rape and plunder, which discipline is powerless to prevent."⁵⁴ Wanton cruelty is a lamentably common occurrence in warfare, from Alexander's siege of Tyre to the Pacific islands of WWII.⁵⁵ Yet it, "like fire, can be harnessed to a purpose," said Schelling.⁵⁶

The critically important aspect of this insight relates directly to the role of emotion in motivation. But this interaction is not exactly as Schelling described. Rather, his notion depends on the stereotype that emotions are out of control and unpredictable and can only cause harm and detriment. While this may sometimes be the case, more recent examinations of neuroscience based on brain lesion studies in particular clearly demonstrate that emotion is necessary for any form of rational decision-making to take place.⁵⁷ So how is it possible to reconcile the notion of decisionmaking resting on emotion with the intuition that emotional arousal can get people into trouble? The solution is rather straightforward if not exactly along the lines that Schelling inferred. Emotion is necessary to generate motivation,⁵⁸ without it, people tend not to possess the will to expend energy and take action. We only spend precious resources on things we care about, and emotion is what tells us what is important to care about if we are to maximize our chances for survival. Those instincts may not align with what classical economics tells us is "rational" but does rest on millennia of natural selection instilling instinctual tendencies that maximize the chances for survival over time. In this way, emotions that look irrational from a modern standpoint may serve us well in ways that are not normatively appealing or acceptable, especially from an economic standpoint. For example, the best way to protect oneself from an enemy may in fact be to annihilate the entire group; that assures that future trouble from that adversary may not be forthcoming, and indeed appears to have been a common strategy even in

⁵¹ H.R. Haldeman with Joseph DiMona, *The Ends of Power* (New York: Times Books, 1978), 83.

⁵² Schelling, *Arms and Influence*, p. 2.

⁵³ Schelling, *Arms and Influence*, p. 5.

⁵⁴ Schelling quotes Montross on the siege of Jerusalem. Schelling, *Arms and Influence*, p. 9. On the Pacific War, see Dower, *War Without Mercy*.

⁵⁵ *Ibid.*

⁵⁶ *Ibid.*

⁵⁷ Bechara, Antoine, Hanna Damasio, Daniel Tranel, and Antonio R. Damasio. "Deciding advantageously before knowing the advantageous strategy." *Science* 275, no. 5304 (1997): 1293-1295.

⁵⁸ Cosmides, Leda, and John Tooby. "Evolutionary psychology and the emotions." *Handbook of emotions* 2, no. 2 (2000): 91-115.

the early modern era. In the age of nuclear war, such a strategy becomes much more dangerous, and threats that leave something to chance risk much wider global annihilation.

Importantly, different emotions entrain different perceptions of risk. For example, anger makes people more risk seeking, and they are more likely to downplay the nature of the risks they confront. Conversely, fearful people have more pessimistic risk assessments and are more risk averse in their choices and behaviors.⁵⁹ Gender differences emerge in these tendencies as well. For example, anger predicts more support for punitive political policies and men are much more likely to be angry and to support such policies. By contrast, empathic people are much more likely to support rehabilitative types of policies and women tend to be more empathic.⁶⁰

In the current environment characterized by misinformation, it is also important to note that depressed people appear to have a more accurate perception of reality than happy people. So called positive illusions appear to be protective for some aspects of mental health, but they do so at a cost of accurately perceiving the nature of threat.⁶¹

These emotional mechanisms serve clear functions in everyday life that often help facilitate productive day to day lives. But they may also put leaders at risk for overestimating their control, underestimating the probability that chance might go against them, misperceiving their own and others' abilities and intentions, and displaying overconfidence in the choices.

When someone else is actually in control (or events are out of my own control)

Finally, another problem at the intersection of chance and control arises when leaders believe that there is much less unpredictability in a situation than actually exists. This problem can become particularly acute when others are actually in control, or when third party actors are involved, and remain at least partly outside the control of central leaders. Here again the role of emotion can calibrate motivation differently for those at the center versus those at the periphery of a fight, as indeed occurred with Nixon, the United States and the North and South Vietnamese governments.

Another example of this comes from a defeat suffered by the British at the 1757 surrender of Fort William Henry during the Seven Years' War. Commanding British officers responsible for the 2,300-man garrison reached terms of surrender with French General Louis-Joseph de Montcalm and readied a retreat to nearby Fort Edward. Outside of the walls, however, British columns were harassed by France's multitribal native allies, resulting in dozens of casualties. The "massacre," thereafter embellished in British and then American lore,⁶² was later used to justify vicious retaliations against First Nations. But rather than a coordinated deception, the

⁵⁹ J. S. Lerner and D. Keltner, "Fear, anger, and risk," *Journal of personality and social psychology* 81, 1 (2001): 146.

⁶⁰ B. A. Gault and J. Sabini, "The roles of empathy, anger, and gender in predicting attitudes toward punitive, reparative, and preventative public policies," *Cognition & Emotion* 14, 4 (2000): 495-520.

⁶¹ S. E. Taylor and J. D. Brown, "Illusion and well-being: a social psychological perspective on mental health," *Psychological bulletin* 103, 2 (1988): 193.

⁶² James Fenimore Cooper, *The Last of the Mohicans: A Narrative of 1757* (H.C. Carey & I. Lea, 1826).

bloody morning of August 10, 1757 had been the result of a chaotic disagreement between the French and their native allies over the legitimacy of British surrender. Native warriors, who had canoed thousands of miles to join the fight for no other compensation than the plunders of war, felt legitimately betrayed out of their earned spoils.⁶³ “They could not fathom French behavior in wasting their victory and protecting their enemies from their allies,” writes historian Ian Steele, “They resented the European conspiracy, which had defrauded them of their agreed share of the loot in the fort.”⁶⁴ Coordination between French officers and the tribes had always been fitful.⁶⁵ Montcalm’s attempt to convey the terms of surrender to assembled chiefs and translators had clearly failed. During the British retreat, a chaotic scuffle culminated in short-lived but brutal violence after someone let loose a “dreaded war whoop that was an intertribal signal to attack.”⁶⁶ The French lost control.

IV. Conclusion and Further Questions

By distinguishing between “chance,” “control,” and “choice,” this article has elevated the long-hidden psychological and emotional elements that are central to a complete understanding of “threats that leave something to chance” in nuclear crises. We distilled three distinct mechanisms for how chance becomes leverage in crisis: autonomous risk, control of self, and control of others. Critically, these sources of chance do not have to wrest control away from leaders to generate leverage in crises. Psychological and emotional variables enter as a source of risk when leaders retain the choice to use nuclear weapons. The brink is not equally abhorrent to all leaders in all crises. Said another way, the point of decision does not have to be eliminated for risk of catastrophic destruction to remain. Because often leaders cannot accurately assess the chances they take, the extent to which they can control chance, or how often they overestimate their ability to force compliance on the part of opponents.

By illuminating the mechanisms of “threats that leave something to chance,” our work enables several avenues of further research. First, future work might fruitfully investigate how emotions influence nuclear threats in general. This piece has emphasized the role of emotions and psychological factors in brinkmanship, but a larger conversation might prove useful.⁶⁷ Predictable emotional responses might, for instance, hinder the strategic utility of the much debated “escalate to deescalate” doctrines.⁶⁸

Second and related, the field lacks a full account of when and why leaders embrace (or not) changes to nuclear doctrine to manipulate risk. One perspective might suggest that leaders can tie

⁶³ Ian K. Steele, *Betrayals: Fort William Henry and the “Massacre”*, (Oxford University Press, 1990), pp. 82, 113.

⁶⁴ Steele, p. 113.

⁶⁵ Steele, p. 104.

⁶⁶ Steele, p. 117.

⁶⁷ In conversation with Todd S. Sechser and Matthew Fuhrmann, “Crisis Bargaining and Nuclear Blackmail,” *International Organization* 67 (Winter 2013), pp. 173–95; Matthew Kroenig, “Nuclear Superiority and the Balance of Resolve: Explaining Nuclear Crisis Outcomes,” *International Organization* 67, 1 (2013), pp. 141-71.

⁶⁸ Ankit Panda, “What’s in Russia’s New Nuclear Deterrence ‘Basic Principles’?” *The Diplomat*, June 9, 2020, <https://thediplomat.com/2020/06/whats-in-russias-new-nuclear-deterrence-basic-principles/>.

their hands by loosening their control over nuclear forces in crisis, for instance, through deploying tactical nuclear weapons, preparing flexible response options, and pre-delegating launch authority. This raises the fascinating question of whether one can really say that an operator was fully in control if their system is designed to “fail-deadly.” On the other hand, leaders have historically resisted devolving control in this fashion. The United States, which consistently planned to fight and win a nuclear war against the Soviet Union,⁶⁹ resisted the introduction of limited options into its war plans.⁷⁰ It is debated how much Pakistan is prepared to loosen control over its tactical nuclear forces in crisis.⁷¹ It is possible that leaders’ dispositional characteristics may be associated with more or less risk acceptance in command and control procedures.

Third, how do different command and control systems make the tradeoff between chance and control? Some leaders may wish to convey ambiguity about whether a commander would launch without centralized authority. But leverage should come from the *ability* to use nuclear weapons, not the *authority* to use them. Chance seems to be able to come from either a failure of positive control or a failure of negative control.⁷² How the effects of these failures differ is a question for further research. For instance, some may aim for an automaticity akin to a “dead hand” launch mechanism but in fact such a system would introduce certainty, not ambiguity, since the response would be certain contingent on particular behavior, and likely advertised to operate as such in order to deter aggression.

Finally, some limited studies on “threats that leave something to chance” conclude that they are empirically rare because leaders seem to seek to maintain control in crisis. Fuhrmann and Sechser go so far as to call it “the brinkmanship myth.”⁷³ This article suggests that scholars are looking for evidence in the wrong place and that this absence of evidence is not evidence of absence. Indeed, evidence of leaders attempting to exert control in crisis may be indicative of all of the ways in which they may lose control. Moreover, chance may have been embraced earlier in the decision-making chain during planning or doctrinal development. Talmadge’s observation of military U.S. planners perhaps embracing inadvertent escalation risks in the development of “AirSea Battle” doctrine may be a manner of baking a “threat that leaves something to chance” into future crises or limited war.⁷⁴ Chance can be all around us, even though we may try to exert control over our choices.

⁶⁹ Austin Long and Brendan Rittenhouse Green, “Stalking the Secure Second Strike: Intelligence, Counterforce, and Nuclear Strategy,” *Journal of Strategic Studies*, 38 (2015), pp. 1-2, 38-73; Keir A Lieber and Daryl G. Press, *The Myth of the Nuclear Revolution: Power Politics in the Atomic Age* (Cornell University Press, 2020).

⁷⁰ Scott D. Sagan, “SIOP-62: The Nuclear War Plan Briefing to President Kennedy,” *International Security* 12, 1 (Summer 1987), pp. 22-51.

⁷¹ David Arceneaux, “Beyond the Rubicon: Command and Control in Regional Nuclear Powers,” PhD dissertation, Syracuse University, 2019.

⁷² Feaver 1992.

⁷³ Todd S. Sechser and Matthew Fuhrmann, “The Madman Myth: Trump and the Bomb,” H-Diplo/ISSF Policy Series, March 2017.

⁷⁴ Caitlin Talmadge, “Would China Go Nuclear? Assessing the Risk of Chinese Nuclear Escalation in a Conventional War with the United States,” *International Security* 41, 4 (Spring 2017), pp. 50–92.