



ANALYSIS

CAN NUCLEAR WAR STAY LIMITED?

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On the one hand, we want the Soviets to think that the situation might get out of hand, while on the other hand we want to persuade them to not let it get out of hand. The Soviets might stop without a major nuclear exchange. I don't believe they have an unlimited urge to escalate. I think they will be looking for excuses not to escalate.¹

~ Henry A. Kissinger

Introduction

One of the major unanswered questions, mercifully, of the nuclear age is whether a nuclear war between two nuclear-armed powers can be limited.² Assuming political leaders have the operational means (e.g., survivable command and control, plans that accurately reflect political intent, etc.), can the “dynamics of mutual alarm,” as Thomas Schelling described them, be contained by the decisions of state leaders?³ Some have answered this theoretical question by saying that limited nuclear war is nearly impossible since there will be immense pressure on leaders to conduct a first strike against the adversary before the adversary does the same. Others say that limited nuclear war will likely escalate eventually to general nuclear war as state leaders are drawn into an ever-shrinking set of available options. Still others say that we do not, and cannot with any certainty, know whether nuclear war can remain limited—but not making the attempt to prepare for limitation only ensures that the conflict ends in one of two ways: surrender or suicide.

The question remains, however, why examine the potential limits of a phenomenon that has not been observed? Why ask whether nuclear war can remain limited when one can just examine the factors that might promote restraint with the caveat that “none of this may be possible” stated at the end? It is important for two main reasons. First, there is a tendency among many Western analysts, and perhaps humans generally, to categorize unlikely and horrible possibilities as simply “impossible”—a type of coping mechanism. As Herman Kahn stated, “I suspect that many in the West are guilty of the worst kind of wishful thinking when,

¹ Emphasis in original. Henry Kissinger, as quoted in, *Memorandum for Mr. Kissinger: Minutes of the Verification Panel Meeting Held August 9, 1973, Subject: Nuclear Policy (NSSM 169)* (Washington, D.C.: National Security Council, August 9, 1973), available at <https://history.state.gov/historicaldocuments/frus1969-76v35/d22>.

² This article draws from Chapter 3 in Matthew R. Costlow, *Restraints at the Nuclear Brink: Factors in Keeping War Limited* (Fairfax, VA: National Institute Press, July 2023), *Occasional Paper*, Vol. 3, No. 7, available at <https://nipp.org/wp-content/uploads/2023/07/OP-Vol.-3-No.-7.pdf>.

³ Thomas C. Schelling, *Arms and Influence* (New Haven, CT: Yale University Press, 2008 edition, first published 1966), Chapter 6.; See also, Robert Jervis, *The Meaning of the Nuclear Revolution* (Ithaca, NY: Cornell University Press, 1989), pp. 87-98.



in discussing deterrence, they identify the unpleasant with the impossible.”⁴ Yet, allowing this mindset to dominate would leave the United States in the worst possible position should the worst possible day arrive—when cool-headed planning and analysis of how to keep nuclear war limited is most needed, it will be in the shortest supply.

The second reason for undertaking this important task is that there is a great risk if the belief takes hold in leaders and analysts that nuclear war cannot remain limited, then that could drive a self-fulfilling prophecy. If political and military leaders believed firmly that limited nuclear war inevitably leads to general nuclear war, then that could motivate them to build first strike nuclear postures and employ them as early as possible, not just in a conflict, but even in a crisis. Therefore, far from the caricature that many critics paint of nuclear “warfighters,” recognizing the possibility that nuclear war could potentially remain limited, and for which preparations should be made, appears to be the more measured approach that seeks to avoid the extremes of forcing a President to choose between surrender or suicide.

This *analysis* proceeds in three parts. First, it examines how nuclear scholars through the decades have approached the topic of whether nuclear war could remain limited. Second, it briefly surveys how political and military leaders, both in the United States and in China and Russia, have perceived the possibility of limiting nuclear war. Finally, it examines some of the assumptions of those who believe limiting nuclear war is unlikely to be possible and thus not worth investing much time or capability in pursuing as an objective.

Nuclear Scholars and the Question of Limited Nuclear War

For all the differences among most of the major nuclear scholars that have influenced U.S. nuclear policy over the decades, they appear to agree generally on the question of whether nuclear war between two major powers can remain limited at some level. Note that this is distinct from the *likelihood* that nuclear war could remain limited—the former denotes whether it is *possible*, the latter whether it is *likely*.

Among the most confident that nuclear war could, and probably would, stay limited, Herman Kahn wrote consistently about how state leaders would likely seek any chance they could to achieve war termination during a nuclear conflict. He stated, “There is a paradox that occurs in estimates of escalation and the effects of the fear of escalation. It is the fear of eruption that makes it likely that there will be little or no escalation after the first use of nuclear weapons. Both sides are likely to be so frightened—both the attacker and the defender—that they are very likely to agree to some kind of compromise and cease-fire almost immediately after such a use.”⁵ Similarly, Henry Kissinger stated in 1957, “It is often argued that since limited wars offer no inherent guarantee against their expansion, they may gradually merge into all-out war. On purely logical grounds, the argument is unassailable. But it assumes that the major protagonists will be looking for an excuse to expand the war

⁴ Herman Kahn, *On Thermonuclear War* (Princeton, NJ: Princeton University Press, 1960), p. 286.

⁵ Herman Kahn, *On Escalation: Metaphors and Scenarios* (New York: Frederick A. Praeger, 1965), pp. 110-111.

whereas in reality both sides will probably grasp at every excuse, however illogical, to keep a thermonuclear holocaust from occurring.”⁶

Bernard Brodie also believed that state leaders might be able to control the scope and scale of nuclear war. He stated, for instance, “Controlling escalation is really an exercise in deterrence, which means providing effective disincentives to unwanted enemy actions. Contrary to widely endorsed opinion, the use or threat of nuclear weapons in tactical operations seems at least as likely to check as to promote the expansion of hostilities.”⁷ Another nuclear scholar, Albert Wohlstetter, wrote on similar points and stated that there were inherent reasons why political and military planners would look to avoid unnecessary damage during attempts to limit war, for the purposes of both controlling escalation and accomplishing objectives. Wohlstetter wrote in favor of U.S. limited nuclear options, in part because the Soviet Union appeared to be preparing for just such a contingency; thus, as Wohlstetter pointed out, the Soviet leadership could decide for very rational reasons to attempt to limit nuclear warfare:

Letting things get out of their political control, however, control that could decide the life or death of the party and their political order, is quite another matter. It has nothing whatsoever to recommend it in the Bolshevik canon... The Politburo does not encourage spontaneity in the use of nuclear weapons. Nor is there any evidence that, after a few nuclear weapons were used, the Politburo would allow everyone in physical possession of them to fire at will. The Soviets will, of course, use *threats* of uncontrollability. We have seen some outstanding examples. But the threats were quickly followed by a demonstration that the Soviet political leaders had no intention of letting things get out of control.⁸

These examples of Kahn, Kissinger, Brodie, and Wohlstetter—all staunch defenders of sizable U.S. nuclear arsenals to meet their calculation of basic deterrence requirements—demonstrate a common belief that a state’s leadership could rationally pursue attempts to limit nuclear war. But what of the nuclear scholars who viewed U.S. nuclear deterrence requirements as less demanding, requiring fewer nuclear forces?

Perhaps the preeminent nuclear scholar from this school of thought, Thomas Schelling, answered the question directly from an interviewer in 1986 about whether a nuclear war must inevitably escalate, and stated:

Will any nuclear war, no matter how it starts, or where it starts or on what scale it starts inevitably escalate to a huge intercontinental war? Certainly not inevitably. I really think it’s doubtful whether even a nuclear war that began in some theatre would escalate to a large-scale intercontinental nuclear exchange... But, you see, if

⁶ Henry A. Kissinger, *Nuclear Weapons and Foreign Policy* (New York: Harper & Brothers, 1957), pp. 143-144.

⁷ Bernard Brodie, *Escalation and the Nuclear Option* (Santa Monica, CA: The RAND Corporation, June 1965), Memorandum RM-4544-PR, p. vi.

⁸ Emphasis in original. Albert Wohlstetter, “Between an Unfree World and None: Increasing our Choices,” *Foreign Affairs*, Vol. 63, No. 5 (Summer 1985), p. 986.

you just ask the question, would anybody initiate the use of nuclear weapons on a small scale, if he expected it to escalate, the answer must be 'no.' If you expect it to escalate, you're wasting the opportunity to start the big war on your own terms. You're simply giving the enemy the chance to reciprocate in a manner of his choosing. Therefore the mere use of nuclear weapons, whether by us or by the Soviets, ought to be a pretty convincing demonstration that the war is not expected and not intended to get a whole lot larger. And that should put both sides on notice that we've now got a nuclear war that we're going to have to get stopped.⁹

Schelling made a similar point in one of his earlier writings: "If, though, the force can be made capable of surviving (and, if not, it can probably not seriously threaten retaliation but only threaten to make the enemy take the initiative), then the one-shot retaliatory strike that spends all weapons, and all bargaining power, in a futile act of heroic vengeance—an act so lacking in purpose as to make even the threat a dubious one—can be abandoned for a more serviceable strategy."¹⁰

Finally, Robert Jervis was arguably the least confident that nuclear war could ultimately be controlled; but, even he thought that such a strategy could be rational for a state leader to adopt. For instance, he stated, "A state unwilling to wage all-out war in responding to a major provocation could rationally decide to take actions which it believed entailed, say, a 10 percent chance of leading to such a war... Risk, of course, puts pressure on both sides. But a given level of risk may be acceptable to the defender of the status quo and intolerable to an aggressor; the threat to raise the risk to a given level may be credible when made by the former and not credible when made by the latter."¹¹ Or, as he stated in his classic work *The Meaning of the Nuclear Revolution*, "On the one hand, decision makers do not see a clear line that, once crossed, would definitely produce total war. Thus, the threat to use limited violence has at least some credibility; implementing it is not tantamount to committing national suicide. On the other hand, decision makers could not be sure that escalation would not occur."¹²

This brief survey of some of the leading nuclear scholars indicates that, despite many other differences on matters of deterrence, there is general agreement that it is not inevitable that nuclear war at a lower level must escalate to an all-out unrestrained conflict. Rather, a broad array of respected nuclear scholars agree that there are rational, even existential, reasons why state leaders would seek early on in a nuclear conflict to end it very quickly—again, assuming they have the operational means to do so.

⁹ Thomas C. Schelling, as quoted in, "Interview with Thomas Schelling, 1986," *GBH Archives*, March 04, 1986, available at https://openvault.wgbh.org/catalog/V_5293F77426B84C68A360BD6283ACF4FC.

¹⁰ Thomas C. Schelling, *Controlled Response and Strategic Warfare*, Adelphi Paper #19 (London: Institute for Strategic Studies, June 1965), p. 11.

¹¹ Robert Jervis, *The Illogic of American Nuclear Strategy* (Ithaca, NY: Cornell University Press, 1984), p. 134.

¹² Jervis, *The Meaning of the Nuclear Revolution*, op. cit., p. 81.

Survey of Key U.S. Leaders and Chinese and Russian Nuclear Doctrine

For nuclear war to be controllable to some significant degree, key political and military leaders on both sides likely will need to believe *or act as if they believe* nuclear war can be controlled. Some leaders like U.S. Secretary of Defense Harold Brown, as seen below, may have serious doubts that nuclear war can be controlled, but who believe nevertheless that the United States should still endeavor to do so. For the purposes of promoting restraint during war then, the key is that leaders act, and be seen as acting, in a way that demonstrates they *want* to control the scope of conflict. If both parties believe that control is possible, more desirable than the potential consequences of unrestrained nuclear war, and each party senses its opponent holds the same belief, then there is a chance that nuclear war could remain limited.

U.S. Secretary of Defense James Schlesinger was one of the primary proponents of NSDM 242, which highlighted the need to develop additional limited nuclear options for the President to respond more credibly in a greater number of scenarios, including limited nuclear employment. This effort became public and sparked accusations of “nuclear warfighting” and lowering the threshold for nuclear attack, to which Schlesinger responded in his *Annual Report* to Congress:

Certainly it would be foolhardy to preclude the possibility that a nuclear conflict could escalate to cover a wide range of targets, which is one more reason why limited response options are unlikely to lower the nuclear threshold. But I doubt that any responsible policymaker would deliberately want to ensure escalation, and forego the chance for an early end to a conflict, by refusing to consider and plan for responses other than immediate, large-scale attacks on cities. Surely, even if there is only a small probability that limited response options would deter an attack or bring a nuclear war to a rapid conclusion, without large-scale damage to cities, it is a probability which, for the sake of our citizens, we should not foreclose.¹³

Here, Secretary Schlesinger emphasizes the idea that even if, as some critics believed, the likelihood of escalation restraint is low, the benefits of either deterring attack or ending a nuclear war quickly are so high that making the attempt to control escalation is both prudent and an obligation.

Other senior U.S. defense leaders, such as Secretary of Defense Harold Brown, were more explicit in their beliefs about the unlikelihood of controlling escalation—but they still believed the goal should remain the same. As Secretary Brown stated before Congress, “... I remain highly skeptical that escalation of a limited nuclear exchange can be controlled, or that it can be stopped short of an all-out, massive exchange. Second, even given that belief, I am convinced that we must do everything we can to make such escalation control possible,

¹³ James R. Schlesinger, *Annual Defense Department Report, FY 1976 and FY 1977* (Washington, D.C.: Department of Defense, February 5, 1975), pp. II-6-II-7, available at https://history.defense.gov/Portals/70/Documents/annual_reports/1976-77_DoD_AR.pdf?ver=5Yhnc5giX2RjfqTsjD-Vw%3d%3d.

that opting out of this effort and consciously resigning ourselves to the inevitability of such escalation is a serious abdication of the awesome responsibilities nuclear weapons, and the unbelievable damage their uncontrolled use would create, thrust upon us.”¹⁴

Or, as Secretary of Defense Caspar Weinberger stated in his *Annual Report* to Congress:

In order to ensure deterrence, we need to think about and plan against possible failures of deterrence. While we cannot predict how a conflict would escalate should deterrence fail, the credibility of our deterrent forces increases as we demonstrate flexibility in our response options and in our forces. That flexibility offers the possibility of terminating a conflict and reestablishing deterrence at the lowest level of violence possible, avoiding further destruction. Although there is no guarantee that we would be successful in creating such limits, there is every guarantee such limitations would not be achievable if we do not attempt to create them.¹⁵

In each of these examples, senior U.S. defense leaders express varying levels of confidence that nuclear war would stay limited, but all expressed a desire, and even an obligation, to try.

It is notable that these thoughts are not restricted to Cold War era U.S. officials. As the 2020 U.S. *Nuclear Employment Strategy* states, “Elements of U.S. nuclear forces, currently in the field or under development, provide flexible, credible, limited, and graduated response options so U.S. leadership has choices beyond inaction or large-scale responses... Limited and graduated U.S. response options provide a more credible deterrent to limited attack against the United States and our allies and partners than relying primarily on the threat of large-scale nuclear responses.”¹⁶

As stated before, assuming political and military leaders on both sides have the required command and control capabilities to retain positive control, the three necessary components for nuclear war staying limited are that both sides believe nuclear war can be limited, that they prefer limited nuclear war to unlimited nuclear war, and that they sense the opponent (through his rhetoric or action) may believe the same.

It is worth examining this last point a little further—that the opponent must demonstrate some desire to also limit nuclear war. Russian nuclear doctrine and military journals indicate that officials have considered the possibility of limited nuclear war and would likely find it far more desirable than unlimited nuclear war. As an historical matter, this was not always the case. The Soviet Union, for instance, resolutely stood by its official position that limited

¹⁴ Harold Brown, *Department of Defense Annual Report, Fiscal Year 1982* (Washington, D.C.: Department of Defense, January 19, 1981), p. 40, available at https://history.defense.gov/Portals/70/Documents/annual_reports/1982_DoD_AR.pdf?ver=2014-06-24-150904-113.

¹⁵ Caspar W. Weinberger, *Report of the Secretary of Defense Caspar W. Weinberger to the Congress* (Washington, D.C.: Department of Defense, February 4, 1985), p. 46, available at https://history.defense.gov/Portals/70/Documents/annual_reports/1986_DOD_AR.pdf?ver=2016-02-25-102404-647.

¹⁶ U.S. Department of Defense, *Report on the Nuclear Employment Strategy of the United States—2020* (Washington, D.C.: Department of Defense, 2020), p. 4, available at https://www.esd.whs.mil/Portals/54/Documents/FOID/Reading%20Room/NCB/21-F-0591_2020_Report_of_the_Nuclear_Employment_Strategy_of_the_United_States.pdf.

nuclear war was impossible and that even the smallest U.S. nuclear strike would cause a massive Soviet response.¹⁷ After the Cold War, Soviet officials admitted that this rhetoric was simply meant to strengthen deterrence and, in general, they did not know how Soviet political leaders would react to a U.S. limited nuclear strike, other than to convene and discuss options.¹⁸

Currently though, the authors of perhaps one of the most authoritative reviews of Russian military doctrine and literature on limiting escalation conclude that the documents include discussions of, "...demonstrative measures intended to manage escalation during the crisis phase, and various approaches to inflicting damage that Russian military thinkers believe will manage an escalating conflict, or result in de-escalation."¹⁹ Russia's latest official explanation of its nuclear policy, outlined in its 2020 *Basic Principles of State Policy of the Russian Federation on Nuclear Deterrence*, states that, "In the event of a military conflict, this Policy provides for the prevention of an escalation of military actions and their termination on conditions that are acceptable for the Russian Federation and/or its allies."²⁰

China's nuclear doctrine is less explicit than Russia's, yet even here there is some evidence in its military writings and force posture changes that Chinese officials consider limited nuclear war to be a real possibility. Christopher Twomey, for instance, cites a passage in the 2004 authoritative Chinese text *Science of Second Artillery Campaigns* that discusses holding nuclear forces in "reserve" for future operations—indicating that Chinese officials may believe limited nuclear war could be possible.²¹ Noted commentators of Chinese nuclear strategy, Fiona S. Cunningham and M. Taylor Fravel, disagree with this particular interpretation, but interestingly note that, "A tactical nuclear weapons capability would provide strong evidence that China's nuclear posture had been influenced by the view that nuclear escalation could be controlled."²² This, indeed, appears to be the course China is pursuing. Then-Commander of U.S. Strategic Command, ADM Charles Richard, testified "The PLA is developing and fielding precision strike nuclear delivery systems such as the dual use DF-26 intermediate-range ballistic missile (IRBM) and... the redesigned H-6N is capable of carrying a nuclear capable air-launched ballistic missile (ALBM) and conducting air-to-air

¹⁷ John G. Hines, Ellis M. Mishulovich, and John F. Shull, *Soviet Intentions 1965-1985, Vol. 1: An Analytical Comparison of U.S.-Soviet Assessment During the Cold War* (McLean, VA: BDM Federal Inc., September 22, 1995), pp. 37-38, available at https://nsarchive2.gwu.edu/nukevault/ebb285/doc02_I_ch3.pdf.

¹⁸ Loc cit.

¹⁹ Michael Kofman, Anya Fink, and Jeffrey Edmonds, *Russian Strategy for Escalation Management: Evolution of Key Concepts* (Arlington, VA: CNA, April 2020), p. i, available at <https://www.cna.org/reports/2020/04/DRM-2019-U-022455-1Rev.pdf>.

²⁰ Vladimir Putin, "Basic Principles of State Policy of the Russian Federation on Nuclear Deterrence," *MID.ru*, June 2, 2020, available at https://www.mid.ru/en/foreign_policy/international_safety/1434131/.

²¹ Christopher P. Twomey, "China's Nuclear Doctrine and Deterrence Concept," chapter in, James M. Smith and Paul J. Bolt, eds., *China's Strategic Arsenal: Worldview, Doctrine, and Systems* (Washington, D.C.: Georgetown University Press, 2021), p. 55.

²² Fiona S. Cunningham and M. Taylor Fravel, "Dangerous Confidence? Chinese Views on Nuclear Escalation," *International Security*, Vol. 44, No. 2 (Fall 2019), p. 88.

refueling for greater range and flexibility.”²³ These new capabilities, plus the Department of Defense’s view that Chinese strategists are increasingly discussing the utility of limited nuclear options, indicates that Chinese officials are at least open to the possibility that nuclear war could stay limited.²⁴

Examining the Logic Behind Nuclear War Being Uncontainable

There is a certain logic, at least on the surface, behind the belief that nuclear war is, or is likely to be, uncontrollable in the end. Once state leaders begin employing the “ultimate weapon,” the logic goes, the perceived pressures for other state leaders to limit their nuclear response in an attempt to signal a willingness to end the conflict will inevitably be lost in the fog of war, leading to a final desperate act of vengeance or vainglory. Among some of the more notable critiques, Herbert Scoville Jr., wrote:

The procurement of new counterforce weapons generates pressures for escalation since both sides will know that unless they preempt a major element of their force could be wiped out. While it may be possible to limit a conflict if nuclear weapons were only used in the battlefield situation, it would seem very unlikely, if not impossible, for it to be controlled once even a few strategic weapons were exploded on the homeland of either the U.S. or the Soviet Union. Even a limited nuclear strike would result in millions of casualties and the pressure to retaliate would be tremendous. A flexible strategic capability only makes it easier to pull the nuclear trigger.²⁵

Such strikes, according to Scoville, would likely result in unexpected damage and lead to mixed signals to the adversary leadership.

Desmond Ball, for his part, identified the likelihood of uncontrolled escalation as attributable to a number of areas, both technical (specifically the vulnerability of command and control) and political:

The notion of controlled nuclear war-fighting is essentially astrategic in that it tends to ignore a number of the realities that would necessarily attend any nuclear exchange. The more significant of these include the particular origins of the given conflict and the nature of its progress to the point where the strategic nuclear exchange is initiated; the disparate objectives for which a limited nuclear exchange would be fought; the nature of the decision-making processes within the adversary

²³ Charles A. Richard, *Statement of Charles A. Richard, Commander, United States Strategic Command* (Washington, D.C.: Senate Armed Services Committee, April 20, 2021), p. 7, available at <https://www.armed-services.senate.gov/imo/media/doc/Richard04.20.2021.pdf>.

²⁴ U.S. Department of Defense, *Military and Security Developments Involving the People’s Republic of China* (Washington, D.C.: Department of Defense, November 29, 2022), pp. 98-99, available at <https://media.defense.gov/2022/Nov/29/2003122279/-1/-1/1/2022-MILITARY-AND-SECURITY-DEVELOPMENTS-INVOLVING-THE-PEOPLES-REPUBLIC-OF-CHINA.PDF>.

²⁵ Herbert Scoville Jr., “First Use’ of Nuclear Weapons,” *Arms Control Today*, Vol. 5, No. 7/8 (July/August 1975), p. 2.

governments; the political pressures that would be generated by a nuclear exchange; and the problems of terminating the exchange at some less than all-out level. Some of these considerations are so fundamental and so intemperate in their implications as to suggest that there can really be no possibility of controlling a nuclear war.²⁶

Bruce Blair made similar points, stating, "... the unrealistic assumptions made about the cool logic of decision-making, the accuracy of intelligence on the nuclear strikes and their consequences, and the ability of both side [sic] to maintain command and control under conditions of nuclear attack... both the United States and the Soviet Union would quickly lose control over their nuclear arsenals in wartime, rendering all the notions of exploitable intra-war blackmail totally academic."²⁷ Such thinking is not confined to the scholarly realm; Senator Dianne Feinstein summarized her position, "Let me be crystal clear: There is no such thing as 'limited use' nuclear weapons..."²⁸

Assessing the Criticisms

Yet, using some of the same assumptions that critics of limited nuclear options hold, there appear to be a number of logical gaps in their arguments. Specifically, there is the issue of their relative certainty that nuclear war will not come about because of the mutual fear of escalation—and yet, should a limited nuclear conflict occur nevertheless, that same overriding fear of escalation no longer appears to have the expected effect on leaders. It is unclear why, according to critics' logic, the failure of deterrence must result in the overwhelming pressure to escalate and not have the opposite effect, i.e., seeing the prospect of uncontrolled nuclear escalation more clearly after limited nuclear use may potentially dispel any expectations leaders had of victory at a tolerable cost, thus promoting restraint. As explained in a paper by the Joint Chiefs of Staff in 1977, "Enemy realization of the enormous destructive power available to be used after a limited exchange should serve to convince political leaders to stop and negotiate. These concepts were promulgated as Presidential guidance in NSDM 242."²⁹ In short, if the prospect of uncontrollable escalation is what deters escalation prior to conflict, the fact that conflict has broken out should not negate the possibility of deterrence serving to constrain further escalation.

²⁶ Desmond Ball, *Can Nuclear War Be Controlled?* (London: International Institute for Strategic Studies, Autumn 1981), *Adelphi Paper #169*, p. 36.

²⁷ Bruce G. Blair, "The Folly of Nuclear War-Gaming for Korea and South Asia," *Global Zero*, April 30, 2003, available at https://www.globalzero.org/wp-content/uploads/2019/03/BB_The-Folly-of-Nuclear-War-Gaming-for-Korea-and-South-Asia_04.30.2003.pdf.

²⁸ Dianne Feinstein, "There's No Such Thing as 'Limited' Nuclear War," *Washington Post*, March 3, 2017, available at https://www.washingtonpost.com/opinions/theres-no-such-thing-as-limited-nuclear-war/2017/03/03/faef0de2-fd1c-11e6-8f41-ea6ed597e4ca_story.html.

²⁹ U.S. Joint Chiefs of Staff, *Nuclear Weapons Employment Doctrine (U)* (Washington, D.C.: Joint Chiefs of Staff, May 9, 1977), p. 4, available at https://www.esd.whs.mil/Portals/54/Documents/FOID/Reading%20Room/Joint_Staff/99-A-0177_Nuclear_Weapons_Employment_Doctrine_9-May-1997.pdf.

For instance, Desmond Ball wrote, “Given the impossibility of developing capabilities for controlling a nuclear exchange through to favourable termination, or of removing the residual uncertainties relating to controlling the large-scale use of nuclear weapons, *it is likely that decisionmakers would be deterred from initiating nuclear strikes no matter how limited or selective the options available to them.*”³⁰ This may be true in some cases, but if Ball is right that the deterrence effect of unlimited escalation works before nuclear employment, then he should not so quickly dismiss the deterrence effect after, for example, limited nuclear employment. Those same fears that affected state leaders before conflict would likely not disappear once a limited conflict breaks out—far from diminishing, in fact, they may increase in effect the more real the possibility of uncontrolled escalation becomes.

There is another apparent gap in the logic of believing that nuclear war likely would be uncontrollable: the survival instinct. True, as critics point out, the basic human instinct to survive may cause some state leaders to employ military options against their adversaries in a desperate attempt to escape destruction; but, that same instinct that underlies the “fight or flight” response may also prompt them to choose, however reluctantly, to exercise some restraint for fear of further destruction, i.e., to be deterred. As Herman Kahn pointed out, even those leaders seemingly most willing to take risks may find themselves on the precipice of destruction and change their minds: “Many have a feeling that thermonuclear war must be all-out and uncontrolled. This is a naïve point of view for two distinct reasons: first, it is not sensible, and second, it may not be true. Even if one tries to be uncontrolled, he may find himself being threatened so persuasively by an enemy that he will control himself at the last moment.”³¹

Indeed, Kahn notes repeatedly in his works that political leaders are likely to understand the point that if they have any ambitions or goals, they must, at the most basic level, survive: “The first and most important of the attacker’s objectives is *to limit damage to himself*... In all likelihood, the highest priority objective of the attacker will be to survive in some acceptable fashion. He might even be willing to choose damage-limiting tactics at the cost of seriously compromising his chances of victory.”³² This latter point is very important in studying the possibility of nuclear war remaining limited; except for the leader who is simply beyond deterrence, most political leaders have ambitions beyond those of the battlefield, not to mention the self-preservation instinct.³³

Kahn, in his book *Thinking About the Unthinkable* further explains this point, writing, “But it is irrational for an attacker to ignore his own priority of interests in order to hurt the defender. The attacker is usually not nearly so interested in hurting the defender as he is in

³⁰ Emphasis in original. Ball, *Can Nuclear War Be Controlled?*, op. cit., p. 37.

³¹ Herman Kahn, *Thinking About the Unthinkable* (New York: Horizon Press, 1962), p. 72.

³² Emphasis in original. Kahn, *On Thermonuclear War*, op. cit., p. 165.

³³ Some political leaders in history could not be deterred, even with the most seemingly credible and destructive threats. For a few examples that span ancient to modern history, one need only look at the Melian dialogue, Adolf Hitler in his final months, and Fidel Castro and Che Guevarra during the Cuban Missile Crisis. For more on these examples and their relation to deterrence theory, see, Keith B. Payne, *The Fallacies of Cold War Deterrence and a New Direction* (Lexington, KY: The University of Kentucky Press, 2001).

the dual objects of achieving his military objective and escaping destruction himself.”³⁴ The survival instinct, in other words, can cut both ways in a nuclear conflict. It can, according to some critics, place pressure on political leaders to believe their best chance for survival is through intra-war coercive bargaining with nuclear strikes on the adversary (with the possibility of uncontrolled escalation); or, the survival instinct can influence political leaders to reconsider their goals in light of new circumstances and choose to be deterred. Analysts can differ on which impulse will likely be stronger in a given situation, but by their own logic, critics of limited nuclear options should acknowledge the latter as a real possibility.

Conclusion

The question of whether nuclear war can remain limited is, thankfully, theoretical at this point—but informed speculation on the answers is certainly better than none at all. Some may be reluctant to discuss the factors that go into the planning process for nuclear escalation, perhaps for fear of sounding too provocative, but failing to do so may in fact make nuclear escalation more likely—whether by accident, misperception, or inadequate preparation. In effect, failing to prepare for limitation may facilitate the worst possible outcome. The stakes of escalation control are so high that even if informed speculation can only slightly increase the chances for success, then it is worth the effort.

A diverse range of nuclear scholars spanning the Cold War to today have written on their belief that nuclear war need not be uncontrolled and that there are rational reasons why political leaders will seek to limit the size and scope of their attacks in attempts to signal their limited political goals. There is no guarantee, each scholar acknowledges, that such signaling will work as intended, but there are at least reasons why each side would prefer a constrained war over an unconstrained war. Indeed, as stated by two noted scholars on the subject, “A progression of offers by each side is thus essential to ending the war short of the damage that would result if both sides refused to make any concessions and instead fought until one side could no longer continue. Both sides should prefer the outcome of this restrained war to that of an all-out war.”³⁵

There are three necessary components for nuclear war staying limited, assuming both sides have the requisite operational positive control capabilities over their forces: both sides must believe nuclear war can be limited, they must prefer limited nuclear war to unlimited nuclear war, and they must sense the opponent (through his rhetoric or action) may believe the same. These components may be necessary but not sufficient, given the fog and friction of war, and especially nuclear war, but they are important to note nonetheless. Senior U.S. defense leaders from the Cold War through today have agreed that limiting nuclear war is a possibility, even if there were differences in opinion over its likelihood. Russia’s nuclear doctrine appears to assume nuclear war can be limited in some sense while China’s nuclear

³⁴ Kahn, *Thinking About the Unthinkable*, op. cit., p. 61.

³⁵ Andrew J. Coe and Victor A. Utgoff, *Restraining Nuclear War* (Alexandria, VA: Institute for Defense Analyses, 2011), p. 6, available at <https://apps.dtic.mil/sti/pdfs/ADA575230.pdf>.

doctrine (and forces) appear to be in a great state of flux—although, even here, there are indications limited nuclear war is not deemed impossible.

Those who are skeptical that nuclear war can stay limited often present wholly valid points about the potential frailties of command and control structures, the stress of political pressure and military necessity, and the impact of emotions and fear on decision-making. Yet, many of these factors—far from agitating for escalation in all cases—may indeed promote restraint, thus presenting a gap in critics' logic. Rational thought, plus emotions, need not inevitably lead to escalation pressures only, since the basic human instinct for self-preservation may overwhelm even the strongest political and military logic for escalation. There is no guarantee, of course, but recognizing the possibilities and preparing appropriately may increase the prospects for limitation and help lead to improved tailored deterrence threats.

Ultimately, if leaders of nuclear-armed states decide nuclear war can stay limited, should stay limited, and can credibly communicate that belief through word or action, and retain positive control over their nuclear forces, there may be a chance to stave off escalation. As in all matters of statecraft, there is no guarantee of success, but the possibility itself should motivate analysts and decisionmakers all the more to prepare accordingly.

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