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Rethinking the unthinkable – revisiting theories of nuclear deterrence and escalation

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1 Introduction

By the 1970s and especially into the eighties, the ideas of these thermonuclear Jesuits would have so thoroughly percolated through the corridors of power [...] that, at least among fellow members of the congregation, their wisdom would be taken almost for granted, their assumptions worshipped as gospel truth, their insight elevated to an almost mystical level and accepted as dogma. [...] [for they were the men who pondered mass destruction, who thought about the unthinkable, who invented nuclear strategy]. (Kaplan 1983: p. 11)

The people referred to include names such as Bernard Brodie, Albert Wohlstetter, William Kaufmann, James Schlesinger, Daniel Ellsberg, Robert McNamara, Thomas Schelling, and, last but by no means the least, Herman Kahn. The treatment Fred M. Kaplan gave these men and their writings was unfair. They were not “wizards of Armageddon” but only men who undertook the study of a security issue they did not embrace as wholeheartedly as they often are portrayed to. All of them agreed that a thermonuclear war would be an unprecedented catastrophe but one that should still be analyzed to minimize its consequences. As Kahn (1960) wrote, much “depends on how one defines ‘totally catastrophic’; a catastrophe can be pretty catastrophic without being total” (p. 41).

They thought and analyzed things they felt somebody had to, regardless of their personal preferences. A nuclear armed world “would provide a fertile field for paranoiacs, megalomaniacs, and indeed all kinds

of fanatics” (Kahn 1962: p. 213). In such a world, a wish for peace would not create a comprehensive strategy for prosperity or survival. As Kahn (1962), with his usual morbid humor, stated, “While few would wish to be either executioner or victim, most would prefer the first role to the second” (p. 213). Kahn was often considered offensive because he joked about nuclear war and dared to write about it so informally that “perversely you could regard him as an unlikely hipster and applaud him for discussing awful matters irreverently and frankly” (Ghamari-Tabrizi 2005: p. 237).

It is difficult to come up with a point that military and civilian strategists, pro- and anti-nuclear theorists, and other academics would agree on – except for the fact that an all-out nuclear war needs to be averted at any cost. However, ways and means toward this common end are in stark juxtaposition. Even within camps, there are contradictory views concerning the essentials of theory. As an example, we can use the nuclear balance itself. It was famously labeled by Albert Wohlstetter (1958) “the delicate balance of terror”. For Pierre Gallois (1961), nuclear parity could “at least temporarily, create a form of peace that would be more stable – and more advantageous – than any ever known” (p. 167).

The delicacy of the balance of terror needs to be turned into at least relative stability and this requires unceasing work. This can happen by creating deterrence, active and passive defenses, or second-strike capabilities. At some point, equilibrium is possible and “stability is achieved when each nation believes that the strategic advantage of striking first is overshadowed by the tremendous cost of doing so” (Brodie 1959: p. 303). This stability creates the essence of deterrence, but it is precarious and far from permanent. The attempt to uphold stability results in a nuclear arms race. According to Wohlstetter (1958),

the balance is not automatic. First, since thermonuclear weapons give an enormous advantage to the aggressor, it takes great ingenuity and realism at any given level of nuclear technology to devise a stable equilibrium. And second, this technology itself is changing with fantastic speed. Deterrence will require an urgent and continuing effort.

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2 Going ballistic

In the beginning of the nuclear era, the U.S. had nuclear monopoly. The resulting strategy options were different from what they became when the Soviet Union acquired nuclear capability. As Brodie (1946b) wrote, “thus far the chief purpose of our military establishment has been to win wars. From now on its chief purpose must be to avert them” (p. 76). However, it took a while for some to grasp the fundamental change. This inability is exemplified with Teller’s (1962) argument that U.S. must be “fully prepared to exploit the biggest modern power, nuclear explosives. Nuclear weapons can be used with moderation on all scales of serious conflict” (p. viii). There has prevailed a consensus among theorists ranging from hawks to pacifists that moderation is by no means inherent in nuclear war. Nuclear weapons could not be used

except as a last resort in a vital situation or to retaliate against use by others. However, it is important to ask how these nuclear weapons might be used in the event it became necessary; or even more important, how we might react to someone else’s use of nuclear weapons. (Kahn 1965a: p. 138)

The task was to determine how much nuclear capability would be enough. People at RAND calculated that excluding radiation and other long-term effects but using only blast power the U.S. would need to kill one-fourth of the Soviet population of the time and destroy over half of its industry (Pifer et al. 2010: p. 5). Even this was not considered enough, because one had to take into account the effect of possible Soviet first-strike capability. Thus, to ensure survivability of sufficient capabilities, each leg of the strategic triad had, independently of others, to have this capacity (Kaplan 1980: p. 3). The requirement of killing one-fourth of the Soviet population rests on historical experience, since in World War II, the Soviet Union suffered from casualties of 20,000,000 people, but recovered surprisingly fast. The estimations are not exact, but the gigantic numbers involved make them terrifying. “Numbers like ten million dead, which are not completely outside the range of Russian historical experience seem definitely too small; 150 million more than enough. No exact line can be drawn” (Wohlstetter and Rowen 1959).

The expression “massive retaliation” emerged into nuclear vocabulary in a speech by John Foster Dulles (1954) who said that “local defenses must be reinforced by the further deterrent of massive retaliatory power. [...] to be willing and able to respond vigorously at places and with means of its own choosing”. There were many retractions and attempts at reiteration over the years, but this idea of responding with any means, up to and including

strategic nuclear weapons, to any local and conventional attacks stood its ground as an official policy (Brodie 1959: pp. 248–249). However, to be effective, any deterrent threat must be credible, and the idea of responding to a Soviet conventional offensive in Europe with an all-out strategic nuclear strike lacked credibility because of the destructiveness of Soviet second-strike capability. Liddell Hart (1960) spoke on behalf of a workable deterrent that could be used as defense against anything less than an all-out attack. According to him, “the better it is potentially as a [defence], in a non-suicidal way, the surer it promises to be as a [deterrent]” (p. 45). The suicidality of massively retaliating to all forms of aggression made the threat incredible and thus simply not feasible.

Officially, the idea of massive retaliation was rejected by McNamara (1968) who argued for a greater number of possible response options: “doctrine of massive retaliation is therefore useless as a guarantee of our security, and must continue to give way to both the theory and the practice of flexible response” (p. xii). Flexible response was first identified as a counterforce strategy but aimed to create an approach that developed a maximum number of alternative options all the way from localized conventional war to the contingency of general nuclear war (Kissinger 1965: p. 11). This attempt, however, was never successful. After having been briefed practically, every U.S. president rejected the idea of being possibly responsible for deaths of millions of people. This in turn led to renewed futile attempts to reinvent the wheel.

Discussion concerning “mutual assured destruction” as an actual policy has been used to decry the idiotism of nuclear strategy when the concept was only used in calculations as a criterion to determine the size of the U.S. strategic nuclear force. It never was a basis for developing actual operational war plans but deterrence (Halperin 1987: p. 21). As long as the purpose is to prevent a war, capability for assured destruction of the enemy is the primary requirement. According to McNamara (1968), it “is the very essence of the whole deterrence concept. We must possess an actual assured-destruction capability, and that capability also must be credible” (p. 52). The paradoxical nature of possible nuclear war is evident in many quotations but rarely as well as in that by Wohlstetter and Rowan (1959) who argued that

Insofar as we can limit the damage to ourselves we reduce his ability to deter us and, therefore, his confidence that we will not strike first. But decreasing his confidence in our not striking increases the likelihood of his doing so, since striking first is nearly always preferable to striking second. And so any attempt to contain the catastrophe if it comes, also in some degree, invites it.

Second-strike capability rather than first-strike capability is the requirement of strategic nuclear deterrence. With nuclear parity, first-strike capability becomes secondary to second-strike capability. As Wohlstetter (1958) wrote, to deter

means being able to strike back in spite of it. It means, in other words, a capability to strike second. In the last year or two there has been a growing awareness of the importance of the distinction between a “strike-first” and a “strike-second” capability, but little, if any, recognition of the implications of this distinction for the balance of terror theory.

In a situation where both states have nuclear weapons, the first-strike capability requires the capability to eliminate the second-strike retaliatory forces. Neither the U.S. nor Soviet Union or contemporary Russia has a first-strike capability against each other. The idea of nuclear stalemate is maintaining the status quo because no nuclear power can allow another one to attain the first-strike capability against it (McNamara 1968: p. 53–55). However, if one created a better method of protecting oneself from the second strike, the feasibility of striking first would grow in proportion. Beaufre (1965) summarized the situation as follows: “capacity for riposte was the key to nuclear deterrence, whereas capacity to reduce the riposte was the key to nuclear initiative” (p. 36).

3 From deterring war to fighting it

Some of the early ideas of what form nuclear war might take were not really plausible. A British statement on defense of 1954 spoke of a “broken-backed warfare” that would follow a period of intense atomic attacks. In this “war”, the opposing sides would try to recover and carry on the struggle with the means at their disposal (House of Commons 1954). There is no way to plan to fight a war that starts with an utter disaster, and there would be no purpose in such a war. In the mid-1950s, Russia altered its rhetoric and terms like “unprecedented destruction” replaced earlier talk of annihilation, and Khrushchev argued that Russia could and would survive a thermonuclear war (Kahn 1960: p. 443). Theories evolved from the idea that just possessing nuclear weapons would ensure peace into thinking how they could be used in warfare.

The Soviets had early on seriously thought about conducting operations in a nuclear environment. Their doctrinal writings focused on it, equipment was suited for it, and training oriented to it (Van Cleave and Cohen 1978: p. 67). They had made the effort of incorporating

the use of nuclear weapons into their doctrines. Kahn (1960) realized that an all-out nuclear war is not an effective deterrent because “If credible, the threat is too dangerous to be lived with. If incredible, the lack of credibility itself will make the defense seem unreliable. Therefore, in the long run the West will need ‘safe-looking’ limited war forces to handle minor and moderate provocations” (p. 155).

The U.S. still seeks to reduce the role of nuclear weapons in deterring conventional, biological, or chemical attacks but has not given up this option (Department of Defense 2010: p. viii). As Schelling (2008) wrote, “brute force succeeds when it is used, whereas the power to hurt is most successful when held in reserve. It is the threat of damage, or of more damage to come, that can make someone yield or comply. It is latent violence that can influence someone’s choice” (p. 3). The power to deter requires that it is not used – but there should always remain the possibility to employ it. This idea, how to wage, control, and terminate a nuclear war, requires a leap of imagination that yet has to be made. Deterrence is easier to study both because it is about peace and not war.

Peace seems so desirable and war so ridiculous. Everybody prefers to spend his time thinking about the prevention of war by deterrence or negotiation. Not only do they spend little or no time on what the war itself might be like or on the problem of recovering from a war, they usually indulge in wishful thinking, since deterrence or negotiation is after all a psychological rather than an objective thing. (Kahn 1960: p. 553)

However, the relationship between deterrence and war is ambiguous because the dynamic of deterrence uses the threat of war to preserve peace. According to Soviet philosophy, deterrence resided in the ability to fight a war if needed (Kaplan 1980: pp. 18–19). Nuclear war is used as a threat to preserve peace. The threat requires that such a war can be fought. To be a workable solution, as Brodie (1959) put it, “the strategy of deterrence ought always to envisage the possibility of deterrence failing” (p. 292). Thus, one has to think and plan a nuclear war in order to be able to use strategic nuclear deterrence to avoid it. Even today, we still run into the same problem beyond the moment when/if deterrence fails:

We must contemplate some extremely unpleasant possibilities, just because we want to avoid them and achieve something better. Nobody, however, likes to think about anything unpleasant, even to avoid it. And so the crucial problem of thermonuclear war is frequently dispatched with the label “War is unthinkable” – which, translated freely, means we don’t want to think about it. (Wohlstetter 1960)

Kahn wrote of three different types of deterrence. Type I concerned deterrence against the U.S. through the threat of massive retaliation. Type II deterred extremely provocative actions short of an attack against the U.S. of which the most important example was a large attack against Western Europe. The method would be nuclear retaliation. Type III deterrence practically consisted of all other cases such as limited wars and proxy wars (Kahn 1960: p. 282, 1962: p. 109) Type III deterrence was thought to parry enemy moves with slightly sharper countermeasures tit-for-tat and tightening the screw little by little by controlled escalation. However, the deterrence function would still play a role in wartime. According to Brodie (1966),

the control of escalation is an exercise in deterrence. We try first and foremost to deter the opponent from doing that which will oblige us to threaten or resort to any use of arms; if he nevertheless persists and a conflict starts, we try to deter him from enlarging it, or even from continuing it. Deterrence, at any level, thus naturally means inducing the enemy to confine his military actions to levels far below those delimited by his capabilities. (p. 88)

Deterrence does not always work as numerous examples show us. In the case of conflicts between Israel and Egypt, it seems that the feasibility of deterrence was not necessarily an outcome of quantifiable level of deterrence (Stein 1985: p. 79). This does not minimize its importance since “Emperor Deterrence may have no clothes, but he is still Emperor” (Freedman 1981: p. 399).

Deciphering nuclear strategies is not a simple task because of the somewhat paradoxical logic involved. Schelling (1963) called the science of international strategy in the nuclear age “retarded” (p. 3). For Kissinger (1957), it was merely “esoteric” (p. 86). An analyst quickly ran into an old dilemma: there may be a vast difference between the declaratory nuclear policy of a state and the conception of how it would actually use its nuclear weapons. The stated political intention may or may not correlate with the operational war plans (Nitze 1956). There is also a huge gap between stated strategic objectives and actual capabilities a state has. While U.S. and Russia retain sufficient overkill capability to eradicate civilization as we know it, the capabilities of other nuclear states are limited in yields and numbers of warheads. The smaller the capacity of the nuclear power, the more likely it will do some countervalue targeting. Counterforce targeting is more demanding and requires precision. Countervalue targets such as cities, ports, and industrial areas are easy to hit, and the resulting damage would be excruciating (Sloss 1988: p. 6). This used to be the logic

of French nuclear policy: targeting the enemy’s major cities and hoping it would work as deterrence (Sokolski 2016: pp. 6–7). It is thus safe to estimate that regardless of the declared policy, cities are included on the target lists. These issues cause discomfort and thus, “The capacity of Western governments and peoples to indulge in wishful thinking about military problems is almost unlimited” (Kahn 1960: p. 255). It is no longer viable to follow the old Roman maxim about having to prepare for war if one wishes for peace (Vegetius 1985: p. 124). Focus should be on what Liddell Hart (1960) advocated, namely, that “if you wish for peace, understand war” (p. 247).

There is reason to hope that a war of tomorrow may not be nuclear. As McNamara (1968) noted, “no meaningful victory is even conceivable in a third unlimited world war, for no nation can possibly win a full-scale thermonuclear exchange” (p. 159). We are not required to think how a future war may be won, but of how to survive it and especially how to best terminate it. Even if the conflict does not go nuclear, for a small nation any “victory” in a high-intensity war would be so pyrrhic as to be meaningless (Kaplan 1980: pp. 70–71). Even for the unquenchable optimism in Kahn’s thoughts that a nuclear war could and would be controlled, the end result would not be pretty. After calculations of possible contingencies, he argued that the big question would be

“Will the survivors envy the dead?” It is in some sense true that one may never recuperate from a thermonuclear war. The world may be permanently (i.e., for perhaps 10,000 years) more hostile to human life as a result of such war. (Kahn 1960: p. 21)

4 Escalation ladder as a nuclear war metaphor

The reason for creating scenarios of escalation is the same as always: deterrence is not an absolutely fool-proof tool to eliminate war. As Kahn (1965a) wrote, “it is easier for a community to agree on what it is against, even if it cannot agree on what it is for. But we need alternatives other than all-out spasm war or peace at any price – i.e., war or surrender” (p. 14). Kahn was a critic of massive retaliation policies and wanted a system of nuclear weapons use that could be used for a controlled and gradual escalation after the first clash of arms and well short of total war. In his usual macabre humor, he chided officers of the Strategic Air Command in a briefing accusing them of not having actual war plans but because of the massive retaliation

plan only “wargasms” (Ghamari-Tabrizi 2005: p. 238). A plan designed to kill as many citizens of the enemy as possible was not feasible, because it was not rational. Kahn (1960) phrased the problem as, “If the war plans are not sensible, the war will not be sensible” (p. 165).

In our contemporary world, everything happens at an elevated pace when compared to the 1960s. There is even less time for anything, and the pressure to make decisions has increased. Thus, miscalculations, misevaluations, and pressurized political decisions may intensify a crisis. Kahn (1962) called this kind of accidental war a “war by miscalculation” and claimed that it might

result from the process generally called “escalation.” A limited move may appear safe, but set into motion a disastrous sequence of decisions and actions. One may readily imagine some intensifying crisis in which neither side really believes the issue is big enough to end in war, but in which both sides are willing to accept some small risk of war. (p. 47)

To illustrate how a political confrontation could lead to nuclear war, Kahn designed a mental construct that he called “escalation ladder”. It was a metaphorical device that provided an illustration of the many possible options facing a strategist in two-sided conflict situation.

The escalation ladder is a heuristic tool to aid imagination, designed to help to conceptualize the possible dynamics of conflict, and Kahn’s text is full of caveats inserted to verify that the reader does not interpret his train of thought on escalation as the one and only true version. A crisis does not necessarily develop through every rung of the ladder in turn, but there are many different paths escalation could take (Kahn 1965a: p. 37). The risk embedded in the escalation ladder as the metaphor is the suggestion of the ability to climb one by one with the option of pausing and descending at will at any given time. That, of course, is the ultimate purpose of escalation control, but it is by no means certain that it would work. With all its dangers and intuitive arguments, as Gray (1988) depicted it, “On Escalation is a book that needs to be written only once – or once in a generation, perhaps” (p. 62). Many other escalation scenarios are plausible but lack the comprehensive nature of Kahn’s ladder (Quester 2006: pp. 24–52). For example, Beaufre (1965) envisioned only eight separate levels of escalation (p. 74).

The early theorists agreed that a nuclear war would be a short one. The less the options for limited use of nuclear weapons, the more rapid the war was perceived to be. Brodie (1946b) went to the extreme at the time when yields of nuclear weapons were still in kiloton range, claiming that “the atomic bomb will be introduced into the conflict only on a gigantic scale. No belligerent would be stupid

enough, in opening itself to reprisals in kind, to use only a few bombs. The initial stages of the attack will certainly involve hundreds of the bombs, more likely thousands of them” (p. 88). This type of an initial attack or massive retaliation to it would not lead to a drawn-out conflict. The less restricted the use of nuclear weapons, the more plausible the claim that “thermonuclear wars are likely to be short – lasting a few hours to a couple of months at most” (Kahn 1965a: p. 168; Brodie 1946a: p. 71)

Within a decade, Brodie’s vision of massive use became obsolete, but the unanswered question remains: how can we curb the speed of escalation? One of the problems was the need to ensure that employment of a tactical nuclear weapon anywhere would not automatically lead to use of strategic nuclear weapons or uncontrolled escalation. Kahn (1965b) argued that

To many people escalation connotes an automatic rise in the scale of warfare from the level of an incident to the level of catastrophic nuclear exchange. But to more and more students of military strategy and tactics, it has also come to describe the kind of calculated risk taking that is an established factor of limited conflict in the nuclear age. (p. 18)

Calculation and the attempt to limit the conflict as much as possible were keywords in Kahn’s idea of controlling escalation or de-escalating the conflict. Both escalation and de-escalation have their positive and negative aspects and consequences. If one is forced to accept de-escalation, one might lose too much in the process. If escalation continues, one risks literally losing everything. A lot of focus in both the U.S. and Russia currently is on de-escalatory processes just because the possible dangers involved in escalation are so terrifying.

The inevitability of escalation is the bogey of the nuclear disarmers and public opinion. The same threat of escalation is the essential argument of the protagonists of nuclear deterrence. In general, ideas on escalation remain highly subjective and vague; they must not be allowed to develop into an irrational or fatalistic creed. There are two possible types of escalation: spontaneous escalation resulting from action on the spot, and escalation resulting from decisions taken at the responsible level. (Beaufre 1965: p. 66)

For controlled escalation, Kahn (1965b) distinguished three different ways. First, one could increase intensity by attacking logistics, using nuclear weapons, or attacking cities. Second, one can widen the area of conflict by violating a local sanctuary. The third option is to compound escalation by violating a central sanctuary or attacking other allies (pp. 5–9). The controllability relies fundamentally on the ability of soldiers, politicians, and states to

act rationally. This may not be the case in such a chaotic situation and thus ways of curbing and halting escalation temporarily or permanently are important to decipher as means of de-escalation. To quote Fuller (1946),

A mad war can only lead to a mad peace, and to fight a war is such a way that an unprofitable peace is a certainty is clearly idiotic. It is this idiocy which, throughout history, has made the military mind so dangerous an instrument of government, for the warrior takes to destruction like a duck takes to water – chaos is his element. (p. 208)

One cannot allow a nuclear confrontation to escape control and become chaotic. Intensifying or subjugating a conflict at will requires “escalation dominance”. According to Kahn (1984), to possess escalation dominance ensures that the enemy will “always consider conciliation to be preferable to continued conflict and escalation” (p. 79). One has to have control of tools, assets, options, and capabilities that can intensify the conflict and take it just that one step further, if required. The threat of escalation can be used to de-escalate as well. Here we enter the realm of psychology since no single threat can be guaranteed to work. As Kahn (1965a) depicted it,

In a typical escalation situation, there is likely to be a “competition in risk-taking” or at least resolve, and a matching of local resources, in some form of limited conflict between two sides. Usually, either side could win by increasing its efforts in some way, provided that the other side did not negate the increase by increasing its own efforts. [...] Therefore, the fear that the other side may react, indeed over-react, is most likely to deter escalation, and not the undesirability or costs of the escalation itself. It is because of this that the “competition in risk-taking” and resolve takes place. (p. 3)

Escalation or de-escalation depends on the credibility and plausibility of taking bigger risks than the enemy is willing to tolerate or on the ability to falsely convince the enemy of one’s willingness and resolve to let the risk actualize. This competition is a game in which one should never have to play his trump card, but the enemy may call the bluff. One wins when the enemy “no longer is willing to endure these risks. In the nuclear age, this is likely to be the greatest factor in de-escalation” (Kahn 1965a: pp. 32–33).

Kahn continued to develop the possible scenarios of nuclear war throughout his career. If *On Thermonuclear War* wished to prove that the U.S. would survive such a war through how civil defense measures it, later books strived to explain how such a war might develop and how it could be controlled. In *Thinking about the Unthinkable*, Kahn rolled out a draft of the escalation ladder he would ultimately refine in *On Escalation*. The early version had

only 16 rungs, while the more refined and elaborated 44-rung ladder can be found in Appendix.

16. Aftermath
15. Some kind of ‘All-Out’ War
14. ‘Complete’ Evacuation
13. Limited Non-Local War
12. Controlled Local War
11. Spectacular Show of Force
10. Super-Ready Status
9. Limited Evacuation
8. Intense Crisis
7. Limited Military Confrontations
6. Acts of Violence
5. Modest Mobilization
4. Show of Force
3. Political, Diplomatic, and Economic Gestures
2. ‘Crisis’
1. Subcrisis Disagreement (Kahn 1962: p. 185)

Trying to put this version of ladder into some context, rungs 1–6 describe a crisis that has not yet turned into open conflict but ranges from “politics-as-usual” and exerting pressure into what might today be called hybrid warfare. Armed conflict or traditional war starts at rung 7, while nuclear war becomes a possibility on any of the rungs 11–15. “Aftermath” concerns itself with trying recover as well as possible. Rung 11 is interesting, since there limited (non-nuclear) war can go nuclear either through “controlled reprisal” or nuclear show of force. From this point of first use of nuclear weapons, the fears of uncontrolled escalation generally begin.

Kahn (1965a) saw two harmful biases in the U.S. use of force: “an unwillingness to initiate the use of moderate levels of force for limited objectives, and a too-great willingness, once committed, to use extravagant and uncontrolled force. Both biases are potentially dangerous and should be guarded against” (p. 17). It was this controlled and gradual use of force with calculated results Kahn strived to attain. Strategists can assist the creation of policy by “developing a maximum number of stages between total peace (which may mean total surrender) and total war” (Kissinger 1957: p. 136).

When one looks at the latter 44-rung version of the escalation ladder in comparison, it is easy to notice where the emphasis on avoiding excessive use of force lies. Only the lowest 14 rungs of the ladder do not include the use of nuclear weapons. On rungs 15–20, the threat of going nuclear is implied directly or indirectly. That is, from the very initiation of intense crises, i.e., conventional war, the option is open and the “unthinkable nuclear war becomes credible”.

This may occur already after rung 9. Today, we have globally more or less crossed this threshold, since a wide consensus seems to exist that nuclear war is credible again. As Kahn (1965a) explains, the exact point where the hypothetical nuclear stockpiles are perceived as “real” threats cannot be pinpointed and it depends on a “specific course of events” (p. 43). Rung 18 might well be the first stage when nuclear weapon is used as a “spectacular show of force”. It would not necessarily have to cause any damage to soldiers, civilians, or property but instead be a warning or set a firebreak for enemy escalation. Such use could be “harmless” and “arresting” while simultaneously “intimidating”, and thus, it has been called a “shot across the bow” (Kahn 1962: p. 213; Schelling 1965: pp. 178–179). At best, it might arrest aggression, and by creating a spectacle, it could even theoretically preempt further use of nuclear weapons and serve to strengthen the nuclear taboo (Quester 2006: p. 65).

However, there are also advocates of the idea that this spectacular show of force could be conducted against the conventional forces of the enemy. Among them, Beaufre (1965) wrote that nuclear weapons could be used “sparingly with the psychological object of demonstrating determination to resist and acceptance of the risk of escalation. Very limited use of nuclear weapons may produce important operational results if judiciously employed, in other words if used at a decisive time and place” (p. 116). The prospect of “judicious use” to avoid escalation is a dangerous one. In conventional military jargon, the idea of “decisive time and place” is usually found where the main body of enemy forces is. Thus, the “sparing” use is much more escalatory than a harmless signal of determination to go nuclear as escalation continues.

Many of the thresholds Kahn included into his metaphor are somewhat arbitrarily placed, but this does not lessen their importance as evidence that because of some action taken, war has escalated to another level. As a threshold, nuclear first use is relatively clear but its boundaries may be blurred somewhat. Brodie (1966) spoke of first nuclear detonation in war as a “firebreak” signifying a barrier between the use and nonuse of nuclear weapons (p. 103). Crossing each threshold needs to be turned into a tough decision to make under political and civil society pressure. The nuclear taboo has been recognized, respected, and strengthened over the decades commendably. To break, it would mean letting the genie out of the bottle for good. Yet, the credibility of deterrence relies on the possibility of use of nuclear weapons. The option must be open in operational plans.

Setting “trip-wires” is one way of creating additional firebreaks or thresholds where the enemy needs to make

a conscious decision, including all the necessary calculations, before crossing them. For Brodie (1959), the North Atlantic Treaty Organization (NATO) divisions had the double function of “signaling by their resistance, however brief, the fact that a major war had broken out, as well as of obliging the enemy to send enough troops to make the aggression unequivocal” (p. 253). Schelling (1965) claimed that there is no need to set troop levels in Europe to adhere to standard all-out conventional defense, since much smaller trip-wire troops could set a “level significantly short of the level at which full-scale conventional attack could be reliably stopped” (p. 176). The trip-wire function was to both increase deterrence by forcing the Soviets to reevaluate the costs of aggression and, should it fail to deter, win time for more allied troops to be deployed before the aggressor made sufficient gains. Trip-wire troops were part of setting the stage for deterrence. Their deployment meant rigging the trip-wire by incurring obligation from the enemy and settling down to wait for overt Soviet action (Schelling 1966: p. 71).

The number of NATO troops in Europe has shrunk drastically since the peak of the Cold War era, but the multinational troops today situated in the Baltic states and Poland retain their deterrent function. The reasoning is that the troop contributing nations “could not fail to be involved if we had more troops being run over by the Soviet Army than we could afford to see defeated” (Schelling 1966: p. 47). Troops of today are smaller, and ultimately, their function, should deterrence fail, is that “they can die. They can die heroically, dramatically, and in a manner that guarantees that the action cannot stop there. They represent the pride, the honor, and the reputation of the United States government and its armed forces” (Schelling 1966: p. 47). The desired end-state of course is not to get these soldiers killed. Their purpose is to deter the potential aggressor from irrevocably committing itself by engaging these troops since when the trip-wire is sprung, the nations concerned will have to commit themselves to the conflict, and this would be a major escalatory step.

5 When the going gets weird, the weird turns pro – the bizarre war and beyond

The path up the escalation ladder seems very short, especially as from rungs 15 onward, we enter the speculative realm of the unknown. Kahn’s rungs 21–25 are

labeled as “Bizarre Crisis”. Here the logic begins to get weird. “Bizarre Crises” are for Kahn (1965a) the phase when nuclear warfare truly begins, and “now we move wholly into what many consider an entirely bizarre range of possibilities, the very limited and restrained use of nuclear weapons” (p. 45). In the past and present, the theories of escalation control and actual nuclear warfighting have mostly focused on this level, since the use of nuclear weapons is still limited and restrained to some degree as nuclear weapons would be used to either signal resolve or support fight for limited military objectives. However, descriptions of rational ways to ascend on these rungs lack credibility and should the political decision-makers believe that such very limited use is possible, the escalatory possibilities are frightening. After nuclear first use, the idea of control is rather an illusory hope that the escalation ladder metaphor with its discernible stages supports.

The rungs 26–44 describe three different ways to employ nuclear weapons in warfighting. Rungs 26–31 concern themselves with “Exemplary Central Attacks”, that is, demonstrative attacks and their counterattacks against the interior area of the state, its military, its property, and its population. What makes these attacks shocking is the violation of “central sanctuary”. The heartland of the superpower in question is affected. Prior to this level in Cold War, exemplary scenarios of limited use of nuclear weapons would have occurred on either European soil or some satellite state elsewhere. While excessive destruction is not the aim of exemplary attacks, even as messages of resolve to intensify the war they would initiate a new stage of escalation by violating an important threshold. As Kahn (1965a) wrote,

None of the thresholds is completely objective and unambiguous; and I have already noted that we can, if we wish, confuse the difference between nuclear weapons and conventional weapons. We can also violate the central sanctuary by degrees. But the nuclear threshold and the central sanctuary are possibly the two most salient and objective of the thresholds. (p. 133)

Any first use of nuclear weapons to break the nuclear taboo and taking the nuclear war to enemy’s home territory, i.e., violating the central sanctuary, are the clearest existing fire-breaks. However, as argued, the rungs 26–31 are considered exemplary and thus moderate. Rungs 32–38 describe “military central wars” when there is less restriction to the level of force used, but the unifying factor is that in all of them, the military forces and installations would constitute the target list for nuclear use. This is the counter-target phase. There would naturally be damage to

industrial sites, which are considered legitimate military targets, as well as cities, but only in those cases when an important military target is close enough to a city to cause collateral damage.

Another place to set a trip-wire is before premeditated countervalue attacks on cities and other purely civilian targets. If escalation can be even to some degree controlled and slowed, as Kahn (1965a) argued, “it would require a great and momentous decision to begin attacks on a large number of cities” (p. 168). At the latest, on rungs 39–44, the mind boggles, because they primarily target the civilian population and once the “city targeting threshold” is crossed, the warfighting escapes from the restraints of any military logic. Kahn (1960: p. 171) was optimistic that this would not happen since “even if military advantages were not to be had by deliberately limiting attack to counterforce targets, I suspect that most governments would still prefer to observe such limits. Almost nobody wants to go down in history as the first man to kill 100,000,000 people”.

Kahn’s civil defense programs were intended to drastically reduce the number, but in the 1960s, the most pessimistic estimations concerning an unprepared U.S. ran up to 160,000,000 casualties (Wohlstetter and Rowen 1959). Schelling (1965) protested the tendency to compress entire strategies into catchwords since for example counterforce strategies are often implied to as “no-cities strategies”. They become popular shorthand and there will be no shared understanding of their contents and implications (p. 170). It feels ghoulish that the nuclear strategists at RAND discussed the life and death of millions and millions of people but it was a worthwhile task to attempt to mitigate the disaster. As Wohlstetter and Rowen (1959) blatantly wrote, “Just what, it may be asked, is the difference between two such unimaginable disasters as 60 and 160 million Americans dead? The only answer to that is ‘100 million’”. One part of our contemporary dilemma is that with massive growth of population and increasing urbanization, these already staggering numbers of predicted casualties would have to be multiplied. As Kahn (1965a) argued, “cities are no longer urgent military targets. They may be destroyed in a strategic war, but there is no military reason to do so, or to do so quickly” (p. 49). This does not mean that they would be safe.

In the words of Schelling (1966), “the power to hurt is bargaining power. To exploit it is diplomacy – vicious diplomacy, but diplomacy” (p. 2). This idea forms the core of all deterrence. “Civilian central wars” are not the wars anybody would wish to fight. From the military

perspective in mutual exchanges of nuclear weapons on cities, there is no “set of positive national objectives that could be realized in such a war by the side that was ‘victorious’” (Brodie 1959: p. 305). Paradoxically, the initial attack on a city might be such a drastic escalatory move that some have theorized that it could de-escalate the conflict if used by the losing side. “Against a numerically superior opponent, the sensible strategy would be to shock him into stopping his attack while some forces remain, by attacking objectives of great value to him – such as cities” (Kissinger 1965: p. 15). Would the decision to attack one since scare the enemy to halt its aggression? Or would it escalate the situation further should passions guide the enemy to retaliate in turn? Would a counter city salvo bring the desired outcome of de-escalation? Or bring Armageddon closer? These are the types of questions Kahn had to ask himself, and the possible outcomes are as bizarre as the questions.

Thus, rung 39 would be “a war of resolve (see rung 33) carried to an ultimate form – ‘city trading’” (Kahn 1965a: p. 50) and rung 40 a modified version of this when several cities are attacked simultaneously with a salvo of nuclear warheads. “City trading” may be the uppermost level where a perceptive notion by Schelling (2008) still remains valid. He contrasted nuclear war to previous types of warfare as

not so much a contest of strength as one of endurance, nerve, obstinacy, and pain. It appears to be, and threatens to be, not so much a contest of military strength as a bargaining process – dirty, extortionate, and often quite reluctant bargaining on one side or both – nevertheless a bargaining process. (p. 6)

In city trading, there still would exist the reciprocity and the contest of wills with the objective of making the enemy back down. After that the war focuses on sheer destruction. Thus, rung 41 is “a counterforce attack deliberately modified to obtain as a ‘bonus’ as much collateral counter-value damage as could be achieved without diverting significant resources from the military targets”, and rung 42 “an effort to destroy or gravely damage the enemy’s society, distinguished from spasm war only by its element of calculation and the fact that there may be some withholding or control”. On rung 43, Kahn proposed that there could be “some other kinds of controlled general war”, but the meaning of “control” is difficult to fathom. “Spasm or insensate war” is the final and uppermost rung. What it entails is the most Armageddon-like version of a central war in which “there is only a ‘go-ahead’ order; all the buttons are pressed, and the decision-makers and their staffs go home – if they still have homes; they have done their job” (Kahn 1965a: p. 50). It is the penultimate

extreme on a broad spectrum of conflicts. It would be, as Enthoven (1965) argued, “a mistake to apply reasoning based on this extreme to all kinds of armed resistance to aggression and injustice” (p. 133). The vision of civilian central wars is horrifying, but

If the only alternatives are between the all-out mutually homicidal war and the city exchange, bizarre and unpleasant as the city exchange is, it is not as bizarre and unpleasant as complete mutual homicide – even if a more confusing and obsolete doctrine seems to make the latter the more conventional response. (Kahn 1962: p. 134)

It is the task of strategists to make sure that choice is not forced on any government. As our world has become more and more urbanized with the majority of population living in the cities, a war in which they would be devastated in turn would be almost as disastrous as a spasm war, but the key word is “almost”. As long as there is any qualitative difference, the issue is important. Only by ensuring through all possible intellectual and imaginative means that such scenarios become impossible through de-escalation of any other means, we can actually make then undoable instead of merely unthinkable.

These types of “warfare” are not viable options to any polity. Nevertheless, they might still be the ultimate outcomes if the resolve for all belligerents is too high for any to consider de-escalation or escalation escapes control. If we take the logic of warfighting, there are no natural impediments to using nuclear weapons, because they essentially only compress the violence or war in time and place (von Moltke 1993: p. 24). In the words of Kahn (1965a), “the restraints on the outbreak of large-scale violence in nuclear war are therefore chiefly intellectual, ethical, or doctrinal ones” (p. 121). Logic may not necessarily help us all the way, and we need to search for “illogical” restraints to limit war and de-escalate conflict. Again, in the paradoxical and retarded logic of nuclear strategy, “limited war must, almost by definition, be artificial, and the higher the degree of artificiality, the clearer – and perhaps the more reliable – the inhibitions on raw violence” (Kahn 1965a: p. 121). The huge question to address is that violence, up to and including full-scale war, is an unpleasant topic for contemplation. Gray (1988) has dryly noted that the theory of limited war “focused more on limitations than it did on war; [...] commentaries on arms control have been far more fascinated by ideas for control than on the strategic purposes served by arms” (p. 65). To preserve peace, nuclear war studies need less emphasis on the nuclear and more understanding of war. If deterrence fails, if no one in military, academia, or government

can describe how the war can be terminated in terms of meaningful policy objectives, the resulting clash of arms is not a war but rather “a process of destruction for no purpose” (Cimbala 1988: p. 157).

Perhaps the basic problem of strategy in the nuclear age is how to establish a relationship between a policy of deterrence and a strategy for fighting a war if deterrence fails [...]. Deterrence is greater when military strength is coupled with the willingness to use it. (Kissinger 1957: p. 114)

The strength (and simultaneously the weakness) of the metaphor of escalation ladder is that it consists of and contains multiple hypothetical scenarios without grounding in real historical events. No scenario is an accurate depiction of future events. Aron (1970) called Kahn’s work “strategic fiction” (p. 30), but as Kahn (1962) claimed,

it is hard to see how there can be a sure divorce from a reality which does not yet exist. Imagination has always been one of the principal mean for dealing in various ways with the future, and the scenario is simply one of many devices useful in stimulating and disciplining the imagination. (p. 145)

His scenarios were intuitive models in which realism was rejected to include improbable but critical events for the comprehensiveness of the scenario. Kahn understood that the scenarios could be manipulated endlessly and parameters altered, and he carried all his anxieties about undetectable errors into his texts as endless caveats and compulsively inserted qualifiers like “more or less”. Ghamari-Tabrizi (2005) called Kahn’s work the “intuitive science of thermonuclear war” (pp. 81, 137–141). The essence of analysis of nuclear strategy and warfighting has not changed. Fortunately, it still remains the realm of data-free analysis; even if there are some test data, there are no combat data (Kaplan 1980: p. 41). We still rely on abstract calculations and intuitive reasoning in creating possible worlds and scenarios to provide political leaders options and incentives on how escalation could be curbed under conditions of increased pressure and accelerated decision-making. As Liddell Hart (1960) argued, “Time presses in the Atomic Age” (p. 235), and this age will not end by wishful thinking.

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Appendix

An escalation ladder

— — — AFTERMATHS — — —

44. Spasm on insensate War
43. Some other kinds of Controlled General War
42. Civilian Devastation Attack
41. Augmented Disarming Attack
CIVILIAN CENTRAL WARS
40. Countervalue Salvo
39. Slow-Motion Countercity War

(CITY TARGETING THRESHOLD)

38. Unmodified Counterforce Attack
37. Counterforce-with-Avoidance Attack
36. Constrained Disarming Attack
35. Constrained Force-Reduction Salvo
MILITARY CENTRAL WARS
34. Slow-Motion Counterforce War
33. Slow-Motion Counter-“Property” War
32. Formal Declaration of “General” War

(CENTRAL WAR THRESHOLD)

31. Reciprocal Reprisals
30. Complete Evacuation (approximately 95 per cent)
29. Exemplary Attacks on Population
28. Exemplary Attacks Against Property
EXEMPLARY CENTRAL ATTACKS
27. Exemplary Attack on Military
26. Demonstration Attack on Zone of Interior

(CENTRAL SANCTUARY THRESHOLD)

25. Evacuation (approximately 70 per cent)
24. Unusual, Provocative, and Significant Countermeasures
23. Local Nuclear War – Military
BIZARRE CRISES
22. Declaration of Limited Nuclear War
21. Local Nuclear War – Exemplary

(NO NUCLEAR USE THRESHOLD)

20. Peaceful World-Wide Embargo or Blockade
19. “Justifiable” Counterforce Attack

18. Spectacular Show or Demonstration of Force
17. Limited Evacuation (approximately 20 per cent)
16. Nuclear “Ultimatums”
15. Barely Nuclear War
14. Declaration of Limited Conventional War
INTENSE CRISIS
13. Large Compound Escalation
12. Large Conventional War (or Actions)
11. Super-Ready Status
10. Provocative Breaking Off of Diplomatic Relations

(NUCLEAR WAR IS UNTHINKABLE THRESHOLD)

9. Dramatic Military Confrontations
8. Harassing Acts of Violence
7. “Legal” Harassment – Retortions
TRADITIONAL CRISIS

6. Significant Mobilization
5. Show of Force
4. Hardening of Positions – Confrontation of Wills

(DON’T ROCK THE BOAT THRESHOLD)

3. Solemn and Formal Declarations
2. Political, Economic, and Diplomatic Gestures
SUBCRISIS MANEUVERING
1. Ostensible Crises

— — — -DISAGREEMENT – COLD WAR – — — —

(Kahn 1965, p. 39)