

# Nuclear Strategy and Deterrence: An Attempt to Rationalise the Irrational?

Written by James Chisem

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## Nuclear Strategy and Deterrence: An Attempt to Rationalise the Irrational?

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JAMES CHISEM, APR 18 2011

*“So much for a blind obedience to a blundering oracle, throwing stones over their heads behind them, and not seeing where they fell” – Henry Thoreau[1]*

The dropping of the atomic bomb on Hiroshima and Nagasaki in August 1945, and the Soviet atomic test 4 years later, fundamentally altered the nature of International Relations[2]. The advent of the *absolute weapon* appeared to disconnect military force and political purpose – the cornerstone of the Clausewitzian approach to strategy[3]. If the likely outcome of a conflict involving nuclear weapons was mutual annihilation, then the rational utility of such a conflict was to be doubted. Bernard Brodie, in recognition of this dilemma, famously argued that *“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”*[4]. The development of nuclear strategy was thus concerned with reconciling the irrationality of nuclear war with the need to integrate nuclear weapons into a rational system of deterrence.

This essay will demonstrate that there were two distinct, and conflicting, strands of US nuclear strategy during the cold war. The early *Punishment Deterrence* model maintained the inherent irrationality of nuclear war as an instrument of policy. However, later thinking was dominated by attempts to rationalise nuclear war as a strategically viable option, by advancing the idea that it could be limited to achieving political ends.

According to Andy Butfoy, the United States *“is seen as a trendsetter in strategic thinking, and US concepts are often used to frame analyses of strategic issues affecting other states”* [5]. Consequently, this essay will focus primarily on nuclear strategy in a US context. Section one will analyse the emergence of *punishment deterrence*. The subsequent section will examine the concept of *limited nuclear war*.

### **Punishment Deterrence : Massive Retaliation and MAD**

In its simplest form, deterrence is based upon the idea that a potential aggressor can be persuaded not to engage in a certain action, by being threatened with a disproportionate punishment, which is entirely unacceptable to that aggressor[6]. In this sense it is not a new concept; Thucydides conceptualised deterrence in a strategic context writing on the Peloponnesian Wars[7], and most criminal justice systems operate on the principle of deterrence[8]. Nuclear weapons, and the *threat* of nuclear war – in the context of East-West bi-polarity – added an entirely new paradigm to deterrence theory, by raising its stakes to a higher level. The cost of deterrence failing would be catastrophic[9].

Early nuclear strategists were forced, by circumstance, to develop a rational framework for this unwelcome dilemma. In the 1950s, conscious of the superiority of Soviet conventional forces in Europe and fearful of communist expansion, the Eisenhower administration adopted a policy known as *Massive Retaliation*[10]. Ground forces were relegated to serving as a trip-wire *“signalling by their resistance...the fact that a major war had begun”* [11]. In the event of an armed Soviet incursion into the US sphere of influence, the United States would react by unleashing its nuclear arsenal upon Soviet cities and military infrastructure. The logical inference was that the Soviets, performing a simple cost/benefit analysis, would be unwilling to risk complete annihilation and would thus be deterred from

# Nuclear Strategy and Deterrence: An Attempt to Rationalise the Irrational?

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pursuing belligerent actions[12].

As the missile gap closed, and the USSR gained relative numerical parity in terms of warheads, deterrence theory evolved toward a position of *Mutually Assured Destruction (MAD)*[13]. This was reliant on both the Soviets and the Americans retaining the capacity to inflict unacceptable damage on each other, after a nuclear strike had been prosecuted on their respective physicality's. *MAD* implied that neither superpower would risk conventional or nuclear aggression as neither could be sure that the other would not retaliate in kind[14]. Dr Oppenheimer compared this situation to "*two scorpions in a bottle each capable of killing each other, but only at the risk of his own life*" [15]. Strategists and policymakers alike believed that this imbued the international system with a modicum of rational stability[16] – removing the incentive for an American first strike that asymmetrical *Massive Retaliation* provided[17].

The central tenant of *MAD* therefore, was the integration of nuclear weaponry into a rational deterrence system, underpinned by a recognition of the irrationality of nuclear war as a politico-strategic outcome. As Brodie surmised;

*"..deterrence now means something as a strategic policy only when we are certain that the retaliatory instrument upon which it relies will not be called upon to function at all"*[18].

In order for *punishment deterrence* to be credible, and thus effective, it required the existence of two determinates. Firstly, a state must be able to a) make potential aggressors aware of exactly what actions it is trying to deter and b) communicate that it possesses the political will to carry out its threats[19]. Secondly, the technical capacity to deliver ones deterrent was key. More specifically, a deterrent force had to be able to survive an enemy strike and be launched in retaliation – causing significant damage to enemy infrastructure[20]. Albert Wohlstetter, a key architect of early nuclear thinking, argued that the *residual capability* of forces far outweighed arsenal size in importance[21]. It was suggested by many in the defence establishment that the *Minuteman* missile programme and the submarine based *Polaris* system, developed in the early 1960s, provided the technological basis for stable bi-polarity[22].

Nevertheless, the effectiveness of *Massive Retaliation* as a credible deterrent was seriously questioned by civilian think tanks. They identified three principle problems which undermined the validity of the US deterrent – communication, extended deterrence and inflexibility.

Deterrence does not exist in a vacuum, it is a relational concept. As such, the perception of the Soviet leadership was integral to the success of the American deterrent[23]. However, there existed several basic communication problems which could lead to its failure. Most obviously, states may not have access to accurate information on which to make calculated, rational judgements[24]. Defensive preparations for instance, enacted to increase the security of *State A*, could be perceived by *State B* as an offensive manoeuvre designed to decrease their security. As a result, *State B* may take unilateral action which thus decreases *State A's* security and so on. This negative feedback loop, known as the *security dilemma*, could have potentially disastrous consequences in the nuclear age[25]. If the United States were to present an ultimatum to the USSR in order to demonstrate the credibility of its deterrent and the clarity of its intentions, this would be tantamount to announcing that a war was imminent – an incentive for the Soviets to engage in a first strike[26]. According to Whitting, the probability of misperception in this system is multiplied by the fact that states are not necessarily unitary rational actors – rather, they are a complex organisation of competing individuals and bureaucracies[27]. Moreover, conceptions of rationality are not ubiquitous, they often have a foundation in divergent ethno-centric value systems. The value that one state places on a certain asset may seem irrational to another[28]. Colonel Semykin, A Russian engineer at the time of the 1962 Cuban Missile Crisis, alleged that "*the Cubans really insisted on using our weapons*" rationalising that "*Cuba will perish, but socialism will win*" [29]. These issues challenged the central rational assumptions of punishment deterrence.

The implication of the US commitment to extended, or Type II deterrence was also questioned by the emerging civilian-strategy nexus. Extended deterrence required the US to employ *massive retaliation* against any attack by the Soviet Union on one of its allies, namely in Western Europe. The credibility of this policy was criticised as being untenable – would a US president be willing to accept the ultimate risk on behalf of other nations, and more importantly could the Soviets be persuaded that he would?[30] It appears that many nations covered by the Type II umbrella were not convinced themselves that the US would sacrifice Washington for Paris or Berlin. Charles De

# Nuclear Strategy and Deterrence: An Attempt to Rationalise the Irrational?

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Gaulle argued that the nature of a nuclear exchange meant “*such risks can be taken for oneself – and not for others, including even close allies*”[31]. This was linked to the unsettling idea that massive retaliation was a binary condition, offering a statesman the option to either ‘*surrender*’ or commit national (or global) suicide. If the US president did not retaliate in response to localised Soviet aggression the credibility of the US deterrent would be completely undermined. If he did, this risked turning the smallest of crises into a full scale nuclear war[32]. The failure of the US to employ massive retaliation in the case of *Korea* and the *Berlin crisis* was used as evidence by its critics to suggest that the whole notion of extended deterrence was deeply flawed[33]. As a consequence, critics caricatured *massive retaliation* as an incredibly rigid doctrine.

In spite of its evident flaws, *punishment deterrence* was a serious attempt to tackle the strategic dislocation caused by the nuclear revolution – maintaining the irrationality of nuclear war as the basis of its credibility .

## Limited Nuclear War : Flexible Response

The election of the John Kennedy as President in 1961 engendered a significant transformation in US nuclear policy. Civilian analysts at the *RAND Corporation* and *Hoover Institute*, who had been critical of the perceived incredibility of massive retaliation, were co-opted by the forward looking Secretary of Defence Robert McNamara to formulate a new strategy for the administration[34]. Concerned with the inflexibility of existing doctrine, McNamara was keen to tailor a *strategy for multiple options*[35] which would, in the words of Herman Kahn, be reliant on “*neither oblivion nor surrender*”[36]. The result was the implementation of *Flexible Response* – an attempt to reconnect the dots between military force and political goals by *rationalising the irrational*;

“*...basic military strategy in a possible general nuclear war should be approached in much the same way that conventional military operations have been regarded in the past*”[37]

*Flexible Response* was underpinned by the concept of escalation control. This postulated that there were identifiable ladders of *escalation* (*conventional, theatre nuclear war, counter-force and counter-value*) which could be used to limit a nuclear exchange[38]. It was suggested that these ladders would be conducive to the maintenance of rational behaviour patterns in the event that nuclear weapons were utilised in a conflict, as they introduced lucid demarcations between conventional war and strategic nuclear war[39]. Contextually, if Soviet forces invaded Western Europe using conventional forces the US would escalate to a *counterforce strategy* – limiting nuclear strikes (initially of a tactical yield) to military targets. Avoiding population centres had two principal strategic advantages. Firstly, the threat of future strikes encouraged mutual limitation – the Soviets not desiring an escalation, would tacitly recognise the new rules of engagement[40]. Secondly, the creation of *counter-value* hostages would keep the instruments of state bureaucracy in tact and thus provide an impetus for bargaining and war termination[41]. Related to this was the notion of escalation dominance. The United States would pursue technical and numerical superiority in all areas of nuclear strategic force, in order to persuade the Russians that they would be at a disadvantage at every level of nuclear escalation[42]. The deterrent threat therefore, was perceived to be more credible as it became more stratified. By incorporating nuclear weapons into a rational *warfighting* plan (and the modifying nuclear cost/benefit ratio) the US was able to avoid a *surrender or suicide* scenario, greatly increasing not only the credibility of extended deterrence, but also the ability of the US to effectively deter localised aggression and respond to minor crises[43].

Although *flexible response* became the official NATO strategy until the end of the cold war, the idea of limited nuclear exchange remained a controversial one[44]. Serious reservations were expressed concerning the ability of either side to rationally calculate and control the escalation process. It was argued that ladders of escalation existed only on paper and were an attempt to impose order on a situation which would have none. Keeping nuclear war limited required a clear operational distinction between counterforce and counter value-targets – in reality, it was questionable that one existed[45]. The densely populated nature of Western Europe, combined with the destructive range of tactical nuclear weapons, meant that mass casualty collateral damage was all but certain in counterforce strikes. Kristan Stoddart provides a key example of the blur between the two target sets – one of NATO’s counterforce objectives in the Ukraine was the military headquarters, located in the centre of Kiev[46]. It is very likely that such an attack would have been interpreted as an escalation by the Soviets. Indeed, even attacks on Russian

# Nuclear Strategy and Deterrence: An Attempt to Rationalise the Irrational?

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delivery capabilities could be confused with a strategic first strike[47]. In such an environment, defined by confusion, the ability of leaders to engage in war termination through diplomatic channels would be severely compromised. According to Thomas Schelling, aside from general communication difficulties (with the enemy as well as within US military structures), “reasonable bargaining would become more difficult as escalation progressed”[48].

In addition to these concerns, the existence of independent nuclear deterrents in France and Britain threatened to undermine the ability of the US to control escalation. A limited tactical strike on British military infrastructure for instance would be perceived in a different context by the British government comparative to that of the US. What would be a limited theatre nuclear war in Europe for the US and USSR, would be a strategic nuclear war for Britain or France. As such these nations may indirectly force an escalation through necessity[49]. Another major critique of limited nuclear war suggested that by positing the idea that a nuclear war could be rational and strategically viable it actually had the opposite effect of what it intended – it undermined the credibility of deterrence itself. By decreasing the perceived cost of aggression for both sides it encouraged risk taking[50].

Although flexible response introduced new destabilising elements into the strategic fold, plagued by contentious assumptions and situational problems, its primary precept was to rationalise the prosecution of nuclear war therefore enhancing the credibility and effectiveness of the US nuclear deterrent.

## Conclusion

Nuclear strategy developed as a means to create a rational framework of deterrence for the seemingly irrational nature of nuclear war. *Punishment Deterrence* accepted that nuclear war, although not necessarily the possession of nuclear weapons, was contrary to rational political interests and could only lead to mutual destruction. In essence, as Jervis points out, early strategy postulated that nuclear war “could be threatened but never fought”[51]. In response to the perceived incredibility of this model, *flexible response* endeavoured to rationalise nuclear war by demonstrating that it could be fought and limited – thus establishing a rational link between political goals and the use of nuclear weapons. These two conflicting approaches, reliant on subtly different conceptions of rationality, defined the complexities of cold war nuclear strategy and continue to define it in the present.

Ultimately, rationality is a subjective concept. The awesome destructive power of thermonuclear warheads has reinforced this fact. Rational individuals may only be so when they exist in a rational context. Once placed in an irrational situation, reacting to the irrational actions of seemingly irrational individuals, it is questionable as to whether a person, or an organisation could continue to act in a rational manner – especially if the outcome of that rationality is not guaranteed to be met with a rational response. This dialectic challenged the greatest minds of the twentieth century and will likely continue to challenge the greatest minds of the twenty first century.

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