

## Understanding Nuclear Deterrence

### Background

In general, deterrence refers to the attempt to create risks that lead the opponent to not engage in a certain policy or action. For deterrence to work, the risk must be disproportionately higher than any possible gain.

The very purpose of deterrence is to deter a nuclear/ conventional war between the two or more states. How it is done and will it work in all circumstances is a question that still remains unanswered. One particular kind of threat might work in one case to deter an enemy from undertaking aggression but it might fail when dealing with another kind of enemy with different culture, mind set and psychological makeup.

Here lies an incisive point as what the aggressor believed and what he actually implement. Similarly, it is also relevant to the recipient of the threat as to how, the aggrieved state respond to the aggressor-will it compromise- will it respond in same coin- Here I would like to quote Henry Kissinger who once remarked, “Deterrence occurs above all in the mind of men”. Thus, psychological framework of deterrence decides the behavior of the deferrer and the deferred.

**Ladies and Gentlemen**, my lecture primarily focuses on Nuclear Deterrence however; I will also make an effort to discuss the deterrence as a concept which includes conventional deterrence.

### Understanding Deterrence; Theoretical Framework

Before I move on, I would like to know your understanding as to what do you understand about the term deterrence?

As pointed out in introductory remarks, in general, deterrence refers to the attempt to create risks that lead the opponent to not engage in a certain policy or action. For deterrence to work, the risk must be disproportionately higher than any possible gain.

Let me also explain you the term deterrence from another perspective, Deterrence arises from a basic and permanent factor about **behavior which has always had a part to play in the management of human relationship**

Let me explain it to you in a most simple manner and build the case to understand the complexities of the term deterrence.

**A -----B     two person residing in neighborhood (Developed enmity).**

**A-----is adamant to teach a lesson to B**

**A-----enjoys good relations with C who is very strong and also lives close by.**

**A-----also enjoys good relations with D who lives away in another village but have the capability to come in and play its both positive as well as negative role.**

**Bernard Brodie's** famous dictum after the advent of nuclear weapons that the "chief purpose of our military establishment has been to win wars. From now on its chief purpose must be to avert them. It can have no other useful purpose".

In the similar pattern, during as early as 1945, the UK PM, **Mr Attlee** sited that, "the need to avert war rather than have to wage it, has acquired a new and special category".

While the **deterrence theory is centered upon NWs** however as indicated earlier on, they **have to rest ultimately** on the simple paradigm of human behavior.

During the Cold War period the two superpowers continued to rely on the concept of deterrence theory. As explained by **Schelling** (1966) who views that the impact of the development of nuclear power was a key contributor to the increased prominence of deterrence theory in the post Cold War period. He views that extreme pain and damage through nuclear weapons are now the primary instruments of coercive warfare which can be applied to intimidate or deter another state.

The nuclear deterrence has been referred as a policy and as a situation. It has the capability of not only preventing a war but also limit the war to certain theaters/ areas. Thus the conflict is contained with the boundaries of threats.

**Glenn Snyder** also defines deterrence as "the power to dissuade." **Alexander George** and **Richard Smoke** define it as, "simply the persuasion of one's opponent that the costs and/or risks of a given course of action . . . outweigh its benefits." Thomas Schelling calls deterrence "a threat . . . intended to keep an adversary from doing something." **Bernard Brodie**, in his seminal chapters on nuclear strategy in *The Absolute Weapon* in 1946, made the expectation of "huge devastation of . . . peoples and territories" one of the central tenets of deterrence.

**Ladies and Gentlemen** the risk would be at its highest when bitter conflict had already broken out at lower level. War prevention needs therefore to operate on all levels of military conflict between nuclear capable states.

**Let me make you understand the difference between Deterrence and Defence:**

The deterrence denotes policy dissuasion based on threatening results that would outweigh the benefits hoped for. Whereas defence is a policy of dissuasion based on counter posing forces, so that an attack would fail. Defence comes into play when war begins and deterrence has failed.

So what is lesson learnt, one must have a perfect defence so that the attacker should think 10 times before taking initiatives in his own hands.

A perfect defence can only come when the defender has matching response- conventional verses conventional – nuclear verses nuclear.

A conventional defence even if it is too strong cannot match with other side which has combination of both.

That means, the situation would invite arms race- because other side that feels threatened would like to create matching capability so as to enhance deterrence capability against the aggressor thus, entails prompting of development of nuclear weapons.

**Deterrence and Defence are interrelated**

Strong defence with matching response, the deterrence is likely to work because of the dire consequences

Strong defence that lacks matching response is likely fail.

Even if it has matching response, it might still fail under certain circumstances (Accidental war- misunderstood by other side- fear of pre-emptive strike etc).

Unfortunately, nuclear weapons can deter but cannot defend.

Thus, the **Central Problem** of nuclear deterrence is that its consequences of failure are devastating and therefore, not acceptable.

**When** the nuclear deterrence fails because of any reason including the internal and external factors, **crisis management and escalation control** then become paramount factor. Nonetheless, there is no reliable playbook for escalation control once a crisis transitions to hostilities between nuclear-armed states. Fortunately, despite trust deficit between the US and former Soviet Union, a credible nuclear triad was seen as a guarantor of deterrence and stability and accordingly, considerable investment was dedicated to that triad of forces throughout the Cold War to ensure there could be no single point of failure. Thus, despite the repeated crises including the “Cuban Missile Crisis”, nuclear deterrence remained intact through the 20<sup>th</sup> Century

**Thus, Deterrence would work when it is stable/ balanced**

**But** phrase deterrence stability is a theoretical concept which can't be measured in tangible terms. The military deterrence cannot operate only by means of NWS. Its effects whether in war in deterrence works as a package not as a stack of sealed boxes. A combatant failing to get his way at one level would always be able to consider his options at another level. Thus, **various levels of military forces** are therefore **complementary and interdependent**, all can contribute to deterrence. Therefore, stability factor is linked with a number of other tangible and intangible factors including the existing level of conventional forces and security doctrines of the two rival nuclear states.

If the **security doctrine** is designed to fight a conventional war, may it be limited in nature as envisaged by India through its proclaimed Cold Start strategy; it will have implications for nuclear deterrence and regional peace and stability.

Ladies and Gentlemen, it may be appropriate to highlight at this stage that **Harman Cohen's famous theory of 44 rungs of escalation ladders** controls seems primarily linked with the environment that finally leads to nuclear show down. In order to have a flexibility and cushion of 44 rungs escalation control ladders, one need to have all these measures to ensure that war stops well before the nuclear factor may come in.

## **Deterrence is grounded on Four Conditions**

Theoretically, if nuclear deterrence/stability is to succeed, certain physical and psychological preconditions have to be fulfilled:

### **Capability**

A threatening nation has to be capable and willing to use its nuclear weapons. The **capability** must be:

Sustainable; the strategists call this "second strike capability," that is the retaliatory force should be protected from destruction through a first strike, that means it should be able to deliver nuclear capability under all circumstances. That means, "The state engage in deterrence must have the capability to ensure and make the political adversaries believe that she will profit less by going to war than by reframing from war".

### **Credibility**

An effective deterrence undoubtedly requires that the adversary perceives the capability and of general will to use it if necessary and the cost he would find unacceptable. **That** means the opposite side believes that whatever you say you mean it. *(That was in fact the one of the key reasons why the East/West deterrence standoff in Europe proved so secure- despite the fact that the Iron Curtain was deeply unpleasant)*

To be a credible state, the threatening nation must have the plans and the readiness necessary to demonstrate that it can deliver on its "message" by conveying willingness to use retaliatory nuclear forces. Most importantly, both nations must believe that there is a real probability that the threatening nation will indeed perform the promised action, if required.

**Ladies and Gentlemen, there is yet another important factor that another enhances or lowers the credibility factor of the NWs. It is basically clarity of thoughts whether or not the NWs are war fighting machines as a last resort or just a weapon for deterrence which will never be used. If the later thought dominates, it will lose its credibility because weapons deter by the possibility of their use and by no other route.**

Therefore, in brief whatever ultimate decision makers may envisage, in the privacy of their own thinking, a structure of deterrence cannot be built upon a state policy of absolute non-use or without genuine concept of its possible use. Therefore, a **Convincing readiness to fight the nuclear war at any level is essential to ensure such Credibility.**

**Some of the historical events that led to the breakdown of the deterrence were mostly visible over the crises in Korea-1950, Cuban Missile Crises-1962- Falkland Iceland 1982- Kuwait -1990 and to a certain extent Vietnam War that frustrated the US to think to use NWS. In Indo-Pakistan context, Pakistani side has already indicated it's redlines which are exactly they would regard as intolerable.**

Remember that the more seriously the possessor is believed capable in extremis of using the armory, the less likely it that other will cause or allow circumstances to arise challenging its use. And the converse is also true.

But you may agree that deterrence cannot be too timid to lose credibility or too vigorous to promote war. The state of readiness beyond certain level would invite accidental and inadvertent war that must be avoided.

Professor Thomas Schelling writes of "manipulation of credibility as a means towards greater deterrence"

### **Communication**

**Third**, communication which means the opposite side is told in clear terms that if you don't behave in certain manner, the consequences would be serious. The threatening nation must successfully communicate to the opponent the price it will have to pay for attempting to achieve an unacceptable objective.

Michael Quinlan opines that **timely communication** by whatever means ought always to be recognized. He says deterrence does not require precise specification of what form the non-compliance will take. It requires only to be made plain that objectionable action will not be allowed. To stand that there is a power to prevent it doing so and there is a resolve to use robustly from within the range of capability available.

With regards to the **clarity of communication**, Quinlan says that the essence of deterrent message however communicated should be simply that we will do whatever we find necessary to achieve our aim – preferably the minimum necessary but not less.

In the final analysis, successful deterrence depends on psychological components: communication and perception. In simple terms, X can deter Y by threatening to use nuclear weapons if Y creates serious security problems for X. The concept relies on the idea of mutually assured destruction provided both sides possess nuclear weapons.

But who will guarantee that the deterrence would work if Y decides not to take the threat seriously, and undertake adventure on the self created perceptible that X will not be allowed to implement the threat. Therefore, if deterrence stability is to be achieved, both sides need to very be articulate and rationale in their approach and behavior. And more importantly, a balance must be maintained to that would deter both from undertaking adventures.

### **Rationality-verse-Irrationality**

Deterrence is a concept for **operating upon the thinking of others**. Therefore, for nuclear deterrence to succeed, rational behavior of the leaders of the nuclear states is very important. They are supposed to make rational calculus of cost and benefit of their policies. The mutual deterrence thus, should force the two sides to refrain from undertaking adventures.

Thus, deterrence operates on the rational fear that the adversary will act less than rationally once it has suffered severe losses that mean, irrespective of the further consequences, it will react in second strike mode even if the other side has the strength and will to sustain the losses.

If it is assumed that rationally opponent would not respond with retaliatory second strike if deterrence has failed, is an absolute wrong assumption because if the carrying of the threat was irrational, and there is a assumption of rationality thereafter, then the threat will not deter, deterrence would fail in those circumstances.

Thus, deterrence operates on the rational fear that the adversary will act less than rationally once it has suffered severe losses that mean, irrespective of the further consequences, it will react in second strike mode even if the other side has the strength and will to sustain the losses.

Therefore, it is assumed that no rational decision maker would provoke a nuclear war because there do not seem to be any conceivable objectives of a state that can be achieved by the use of nuclear weapons. If the message is communicated clearly, it can help avoiding nuclear war.

The question of how, when and why to use nuclear weapons remains a matter of conjectures (Opinion of confirmation made on incomplete information).

Huth (1999), another renowned theorist explains four key factors for consideration under rational deterrence theory being 1] the military balance; 2] signaling and bargaining power; 3] reputations for resolve; and 4] national interests at stake.

There is another strong argument that the prevention of crises of wars is not the only aim of deterrence. In addition, defending states must be able to resist the political and military demands of the opposing side preparing to impose war on a country trying to defend its nation.

Avoidance of conflict at the price of diplomatic concessions to the maximum demands of the potential attacking nation under the threat of war can't be claimed that deterrence has succeeded.

There is another interesting approach to deterrence theory explained by a Chinese scholar Sr Col Yao Yunzhu who views that for a state adopting a no-first-use policy and intending not to waste too much money on unusable weapons, dependence on **opaqueness (Unclear-Vague)** to bring about greater deterrent value is a wise choice. He further explains that one can achieve deterrence through the certainty of prospective costs outweighing prospective gains, as well as through the uncertainty in cost/gain calculations.

Deterrence works not only to reverse the enemy's original intention, but also to prevent him from forming such an intention for lack of information. He says, "Comparing China with the US, one sees that the former places more emphasis on taking advantage of uncertainty in implementing deterrence, while the latter realizes more deterrence value by a show of force".

To summarize, it seems appropriate to quote David Krieger who views that "in the world of nuclear deterrence theory, beliefs are everything. What the leaders of a country perceive and believe is far more important than the reality".

Introduction of Ballistic Missile Defense (BMD) system indicates that nuclear deterrence might not work. In such like arrangements if country A believes that it has a perfect defense against country B, then country B may also believe that it has lost its deterrent capability against country, the BMD maintained by one country is likely to trigger new arms races as the BMD increases instability and move the world in the wrong direction. The Cold War period has seen accumulation of over 70,000 warheads held by the US and former Soviet Union by mid 1980s and the status quo was maintained till the time the Soviet finally worn down by the economic burden of the struggle. It was because of the concerns for growing instability of nuclear deterrence to the point where it might break down that led the US and Soviet to agree in 1972 to place limits on defensive missile forces in the Anti-Ballistic Missile (ABM) Treaty. It is this treaty that the US is now seeking to amend or unilaterally abrogate in order to build a national ballistic missile defense needed to protect itself against so-called "rogue" states.

And finally, it is also important to highlight that there are many scholars who don't subscribe to the concept of nuclear deterrence as a sole cause of prevention of wars between the states. Despite expectations to the contrary, the US nuclear monopoly in the four years after World War II did not yield significantly greater diplomatic influence and the Soviets were very tough in post-war negotiations, culminating in the 1948 showdown over access to Berlin. The history proves that nuclear weapons couldn't give their possessors a decisive military advantage in war that includes the US- Soviets both. The case of Israel is particularly striking that couldn't deter wars in Middle East despite having nuclear weapons. In fact, they failed twice: neither Anwar Sadat, the leader of Egypt, nor Hafez al-Assad, the leader of Syria, was deterred.

### **Nuclear Deterrence- Cold War Era**

While the presence of nuclear weapons with the US and the former Soviet Union could help stabilizing the world during the Cold War period. As neither side could afford to make a desperate decision, but in the changed strategic security environments, the deterrence theory might not work effectively due to a number of factors especially in the context of South Asia and Korean Peninsula. India's Cold Start strategy that contemplates fighting conventional war under nuclear overhang is detrimental to the concept of "deterrence stability".

Asymmetry in conventional forces which is further growing in India's favor is becoming a serious threat to the existing level of deterrence stability in South Asia which is forcing Pakistan to lower its nuclear

threshold. And you will agree that lowering the nuclear threshold can invite other problems attached to the risks involved in handling with NWs leading to accidental or inadvertent use of NWs by either side.

There two neighboring countries do not have the flexibility to use Europe as a battleground if deterrence so failed. 7 to 8 minute flight time would never give a chance to other o take rational decision even if the leadership is too wise and intelligent. Therefore,

As pointed out earlier, Bernard Brodie's magisterial injunction at the dawn of the nuclear era seems still valid even in 21<sup>st</sup> century security challenges that rules out war fighting and winning and suggests that the chief purpose of a military establishment from now must be to avert the war that means nuclear deterrence must work.

We must remember that political, economic which is globally linked, moral and psychological barriers to any use of NWs are unquestionably very high especially after 60 years of its non-use. But one must not forget that while attack by NWs would certainly be one way of rendering a nuclear state desperate, but it does not mean that other side by any rational supposition would not respond with whatever means it may have at its disposal.

As highlighted earlier, it is not only the NWs or the military means that helps deterring the adversary, political, economic social, judicial and eve religious and cultural ones can also some time make a contribution.