Revisiting Nuclear Deterrence Theory

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Introduction

For some 50 years the world has lived under the threat of a catastrophic nuclear weapons exchange between the superpowers. Massive nuclear arsenals are still operational and are still maintained on ready alert. Although the threat of a full-scale exchange has abated in the post-Cold War period, there are rising concerns for nuclear weapons proliferation; nuclear terrorism; and potential attacks on population centers using other weapons of mass destruction, specifically biological and chemical weapons.

The nuclear powers claim their arsenals are necessary for deterring aggression. Presumably, a potential aggressor is deterred by fear of a retaliatory attack that would have unacceptable consequences. The "balance of terror" has been credited, by some, with maintaining peace between the superpowers but scholars differ on that assertion. In any event, deterrence theory remains a central fixture in U.S. national security policy. Deterrence is the primary rationale for maintaining nuclear arsenals indefinitely.

The Third Millennium Foundation raised some "real world" questions about the actual value of deterrence theory in a monograph titled "Rationale For Nuclear Disarmament", Volume II (March, 1995, Library of Congress Catalog Card Number 94-62064). It seems timely to revisit those questions as we begin to anticipate how global peace and security can be enriched in the new millennium. Also, continued reliance on nuclear arms for security (underpinned by deterrence theory) is the principal obstacle to nuclear abolition. Relevant portions of the 1995 monograph are extracted/revised for this document and some new thinking is introduced.

Deterrence Theory

Fifty years of deterrence theory development have generated an array of concepts and interpretative discussions whose magnitude and complexity are daunting. Deterrence theory, itself, is rather convoluted and ill-defined. The conceptual maze has drained credibility from the simple idea of massive retaliation and deterrence thinking has had to make profound adjustments. Two defense policy authorities appearing on ABC's Nightline on April 22, 1982 had this to say about nuclear deterrence:

Henry Kissinger, former Secretary of State: "I started out...criticizing the doctrine of massive retaliation. And I thought maybe limited nuclear war was an option. I must say in fairness, in the 25 years since then nobody has come up with a plausible scenario for limited nuclear war, so I now believe the best policy for the West is to increase its reliance on conventional weapons".

McGeorge Bundy, former Presidential Assistant: "The only durable use for (nuclear weapons) is to prevent their use by others. And conventional threats should be met in other ways for which, if we have the will, we can find the means".

The thrust of their comments in 1982 is that the role of nuclear arms should be limited to deterring nuclear attacks and non-nuclear weapons can better serve security needs. Yet, nuclear deterrence persists as a strong element in U.S. defense policies and expanded roles and missions seem always on the horizon. President George Bush said "Nuclear deterrence continues to play a critical role in U.S. national security strategy...". That

sentiment continues with the current Administration.

One major flaw in deterrent strategy is what deterrence theorists call "self-deterrence". The problem is that retaliatory threats lack credibility when risks to homeland survival are great (the expected case in nuclear war). Threats of nuclear retaliation can have a hollow ring if it is believed actual retaliation would be self-deterred by fears for national survival. Also, empty threats have no security value or can even be counterproductive. A former CIA official once remarked: "I can think of no example where the introduction of nuclear weapons has enhanced that region's security".

An example of the self-deterrent factor at work is the commitment of France and Britain to independent nuclear arsenals, for fear an extended U.S. nuclear umbrella might be withdrawn to protect American citizens in an escalating crisis. France and Britain are also not immune to self-deterrence as should become more evident as nuclear weapons and long-range missile systems continue to proliferate. The deterrent value of nuclear arsenals will continue to plummet as long as nuclear proliferation cannot be effectively stopped. A new corrosive effect on nuclear deterrence credibility is the weapon's spread to unstable regimes. Former Presidential Advisor Paul Nitze observed "The deterrent effect of nuclear arms on (irrational) parties is questionable ... rational thinking is necessary for deterrence to work".

To sum up this brief overview, it is an open question whether nuclear deterrence theory has ever had real credibility after the U.S. lost its nuclear monopoly long ago. Looking deeper into the question, several specific aspects of nuclear deterrence are now examined.

Conventional Attack Deterrence

A key issue on nuclear weapons utility is the specific and meaningful role nuclear weapons might play in deterring conventional attack (in which weapons of mass destruction are not threatened by the potential aggressor). This is a technical as well as policy question and expert assessments are sought, exemplified by the following:

Morton H. Halperin (former Deputy Assistant Secretary of Defense for Arms Control): "Reliance on nuclear threats to deter conventional attacks lacks any credibility it may have had".

Robert McNamara (former Secretary of Defense): "It appears to me to be weakly constructed and weakly argued" that nuclear weapons can deter conventional military action by lesser powers - when modern conventional weapons hit targets precisely and overwhelm most opponents.

General Colin Powell, (former JCS Chair): "I think there is far less utility to these (nuclear) weapons than...some think...because what they hope to do militarily...I can increasingly do with conventional weapons, and far more effectively".

Lincoln Wolfenstein (Member, National Academy of Sciences): "The argument that nuclear weapons have prevented global conventional wars is open to serious question".

The consensus is clear. Nuclear arms fail the test as necessary for deterring conventional attacks.

Nuclear Attack Deterrence

The practical value of nuclear arsenals in deterring nuclear attack from a potential aggressor is highly questionable. As mentioned earlier, an alleged retaliation threat (which underlies deterrence) might not be convincing due to the self-deterrence factor. For example, threat of strategic retaliation for a tactical nuclear attack on foreign soil would likely raise self-deterrence questions. Even a limited nuclear terrorist response to threatened retaliation would likely have unacceptable consequences.

International security is, in fact, degraded by continued reliance on nuclear arsenals, e.g., increased risk exposure to terrorist procurement of weapon ingredients, and "have/have not" dichotomy impacts which compromise the nonproliferation regime (including the Non-Proliferation Treaty). Nuclear deterrence to ward-off a nuclear threat does not have convincing mission utility or strategic value.

Minimum Nuclear Deterrence

A popular notion is to excuse nuclear arsenals by claiming their role has been limited to "minimum deterrence". Former Secretary of Defense William Perry asserted: "I strongly support deep reductions in our nuclear arsenal...we are committed to a nuclear posture based on the minimum number of nuclear weapons to meet our security needs". However, when has the Department of Defense (DOD) commitment ever been for other than the minimum arsenal to meet security needs? The statement begs the question of when, in the past, DOD sought more weapons than it needed. If the bureaucratic response is "never", then DOD has always sought a "minimum number" to meet needs. The term "minimum" begs definition, as does the term "needs".

NATO declared in July, 1990 that nuclear armaments were "truly weapons of last resort". But, what is meant by "last resort"? For example, would "last resort" imply a "no first use" policy? Precisely what conditions constitute "last resort"? Given the unpredictability of war, itself, such conditions defy precise definition - or even imprecise definition. Such is a general difficulty with unprovable, untestable deterrence theory and the "minimum deterrence" concept is no exception. Minimum deterrence remains a meaningless concept unless and until it can be given logical, practical, and unambiguous meaning. If the mission of nuclear arsenals is minimum deterrence, then the weapons do not yet have a meaningful mission.

Deterrence Psychology

The threat underlying nuclear deterrence is that aggressive acts will be answered by nuclear weapons retaliation. If that threat lacks credibility, then deterrence is at least uncertain and perhaps impotent or inoperative. Already mentioned is the self-deterrent factor and other factors which compromise and weaken credibility of the retaliation threat. The following discussion views nuclear deterrence credibility from the standpoint of psychological interactions needed to make deterrence work.

If Party "A" is to successfully deter Party "B", certain conditions must be satisfied (unless an ambiguous situation is desired, as discussed later):

(a) Party "A" must understand how Party "B" thinks and behaves so that "A" can determine how to motivate "B" not to act.

(b) Party "B" must actually think and behave consistent with that understood by Party "A".

(c) There must be no possibility for misunderstanding between Party "A" and Party "B" so that "B" knows exactly what acts will provoke retaliation; believes in certain retaliation; and

realizes the consequences would be clearly unacceptable compared to potential rewards from the "prohibited" act.

These three conditions involve human communications, human assessments, and projected human behavior - none of which can be expected to be perfect. At best, deterrence is an imperfect undertaking and is not without risks. In addition, any uncertainty or ambiguity makes those risks incalculatable.

There are several hurdles to overcome in attempting to meet conditions (a) through (c) above for successful deterrence. First, is to resist the temptation to believe that others think and behave as we do. Usually they do not. Thus, one has to accomplish objective and extensive study of another's behavior and then predict the other parties behavior without reference to one's own experience and biases. This is a psychologically impossible task - it is not possible to predict one's own behavior under all conditions with certainty, let alone that of someone else.

A second hurdle to overcome is in thinking critical military decisions are made by one person in isolation. Critical military decisions usually evolve through some process of collective thinking and assessment. Thus, behavior of a decision-making group must be predicted, including the psychological interplay between members of that group. If one person's behavior cannot be accurately predicted, how can a group's behavior be reasonable assessed? Yet, assurance of successful deterrence requires a reasonably accurate prediction.

A third hurdle is in rejecting the expectation that the deterred party will always be wise, rational, and prudent in its decision making. Such an expectation can lead to the belief that deterrence will not fail, yet that could be misleading and dangerous in a situation of rapidly escalating tensions. That expectation could produce miscalculations resulting in catastrophe. It should be expected that decision making on the brink of nuclear war would be in a high stress, emotionally-charged environment not conducive to cool-headed, rational thinking.

A fourth (and not necessarily final) hurdle is accepting the fact that the best deterrence will be less than perfect. Deterrence will always be degraded because condition (c) above can never be 100% assured. For example, one never knows how other persons would balance consequences with rewards or would calculate risks. Even worse, the degree of degradation is beyond accurate estimation. Therefore, a nation that chooses to depend on nuclear deterrence should understand that such deterrence is not dependable. Deterrence psychology is not compatible with assured protection.

Additional considerations in deterrence psychology are two real-world phenomena:

(1) Mutual assured destruction (MAD) preempts any significant military response to aggressive acts, i.e., the specter of nuclear war is too horrible and the risks of nuclear escalation too great to chance military confrontations. The nuclear umbrella tempts any mischief short of direct hostilities between nations coupled by MAD. An actual illustration of this phenomenon was the U.S. response to the 1979 Soviet invasion of Afghanistan, when the U.S. meekly declined to participate in the Moscow Olympic games. Nuclear deterrence was not operative in this case and the U.S.S.R. was able to act with virtual impunity, under the protection of mutual assured destruction. Other historical examples are the Soviet invasions of Poland and Hungary in 1968 and 1956 respectively.

(2) Actual use of nuclear weapons in combat is so morally reprehensible that such use is preempted for all practical purposes. A recent illustration was the 1990 Desert Storm coalition's refusal to authorize nuclear weapon use in the Persian Gulf. Nuclear arsenals did not deter Saddam Hussein from invading Kuwait nor did they deter China from entering North Korea in the 1950s or supporting North Vietnam in the 1960s. General Colin Powell has observed: "...The monstrous devastation and radioactive pollution created by nuclear weapons render them useless to achieve any rational military objective".

Nuclear arsenals do not necessarily inhibit aggressive acts, but can have the opposite psychological effect: removing inhibitions to aggression. Aggressive acts can be committed with relative impunity because an opponent will refrain from a military response that might escalate to hostilities which invite nuclear disaster. Practical reliance on nuclear arsenals for valid protection is more a matter of fantasy than of reality.

An Intellectual Dilemma

The intellectual constructs within deterrence theory are responsible for at least one unshakeable dilemma, examined here.

Two positive attributes of deterrence credibility are frequently cited: the virtues of certainty and the virtues of ambiguity. The principle behind certainty is that deterrence works best if the potential aggressor understands clearly and fully the unavoidable consequences of a retaliatory response. There is no room for ambiguity . The principle behind ambiguity is that deterrence works best when the aggressor is confounded by uncertainties in enemy response, which frustrate attack planning and contingency planning. Risks are incalculable in the presence of total ambiguity.

Both principles have obvious values but are mutually-exclusive and contradictory. They cannot exist simultaneously and the defending nation must decide which principle is to prevail. In any given situation, how is a choice made between principles? Now comes an unavoidable snare. Any criteria selected for making the choice, whether explicit or implicit, must be either universal (applicable to any situation) or non-universal (situation-dependant). The consequences of each approach are now examined.

Universal criteria must be robust and inclusive to handle any situation. Otherwise, a bad decision could result. First, all possible situations must be envisioned to avoid military surprises and ensure universal applicability. Any subset of possibilities, such as "most likely situations", is destined to leave residual uncertainty whether deterrence will work. Second, all possible situations must be analyzed in a satisfactory manner to determine the design of truly universal criteria.

Both the first and second tasks are impossible. There is no guarantee that every possible situation has been anticipated and the database of human experience will not support the analysis of even one situation. There has not been one nuclear attack since Nagasaki and there is no human history to guide analysis of the complex interactions of an actual failure in nuclear deterrence which results in nuclear aggression.

Turning to non-universal criteria, another trap is encountered. Either unique criteria must be designed for each and every situation or pseudo-universal criteria must be defined for specified classes of situations. Neither prospect is hopeful for approximately the same reasons that universal criteria are unattainable. Pseudo-universal criteria have an additional hurdle of requiring the design of a superset of criteria for deciding which class is appropriate to any given situation.

To summarize the dilemma, there is no reliable way to determine whether ambiguity is best or certainty is best. This dilemma undercuts the very roots of deterrence theory.