A CRITIQUE OF UNITED STATES
NUCLEAR DETERRENCE THEORY

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I. INTRODUCTION

The 1980s have been ushered in with a popular mass movement within the Western democracies, demanding an end to the nuclear arms race between the United States and the Soviet Union. Coincident with the opening of the United Nations Second Special Session on Disarmament on June 12, 1982, the nuclear freeze movement reached its zenith by bringing together approximately 750,000 persons at the United Nations headquarters to protest the nuclear arms race.1 Protests similar to the one held in New York have taken place throughout Western Europe as well. Not since the protests against the war in Vietnam and the proposed ABM defense system has the peace movement been so proliferate.

Regardless of one’s viewpoint on this issue, it is undeniable that the issue of nuclear weapons is with us forever. Since mankind now possesses the terrible knowledge with which to destroy itself, this question will necessarily confront future generations even if nuclear weapons are banned. The genie is out of the bottle, never to return. Whether the recent mass rallies will prove to be merely a passing fad, of course, remains to be seen. However, regardless of the future of such popular outpourings, the future of nuclear arms will remain one generation’s legacy to the next. An understanding of the policies which fuel the development, deployment and possible use of nuclear weapons is therefore essential if we are to remain an involved and educated citizenry. This article is an attempt to contribute to that understanding.

As its title suggests, this article is a critical examination of nuclear deterrence theory from several standpoints—political, moral and legal. It presents the general principles of nuclear deterrence theory, criticizes the theory, and suggests new avenues of inquiry and focus for nuclear deterrence theorists.

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II. General Principles of Nuclear Deterrence Theory

A review of the impressive volume of literature on nuclear deterrence theory\(^2\) leads one quickly to the conclusion that the paramount concern of the nuclear deterrence theorist is the credibility of a proposed deterrent. Theorists use two distinct, yet related, research approaches to measure credibility: the technological-military and the psychological-political. The technological-military dimension of nuclear deterrence theory is concerned with the size of a nation's nuclear arsenal, the arsenal's deployment modes and the nation's capability of executing a successful nuclear attack, even after absorbing a surprise nuclear first strike. The psychological-political dimension deals with questions of perceptions and political will, such as the commitment to confront an enemy and oppose it at every level of nuclear aggression.

A. The technological-military aspect

In determining how a country should deploy and then maintain a credible nuclear deterrent, theorists and policymakers have prescribed minimum military criteria which a nation's nuclear arsenal must satisfy. First, a nuclear arsenal must in some measure be capable of withstanding an enemy's surprise first strike. Thereafter, the arsenal must be capable of being launched in a retaliatory second strike.\(^3\) Strategic stability is enhanced if a country possesses a highly survivable force,\(^4\) for no rational enemy, so the argument runs, would launch a nuclear first strike in the face of certain retaliation. Thus, the first military criterion is pure survivability.

A second set of criteria—command, control, communications and intelligence—is known collectively as the control mechanisms, and in professional jargon as C\(^3\)I.\(^5\) The ability to

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\(^3\) P. Green, Deadly Logic: The Theory of Nuclear Deterrence 4 (1966) [hereinafter cited as Green]; Wohlstetter, The Delicate Balance of Terror, 37 Foreign Aff. 211 (1959); Ikle, Can Nuclear Deterrence Last Out the Century?, 51 Foreign Aff. 267 (1973) [hereinafter cited as Ikle].


have a controlled and well-orchestrated war-fighting capability after absorbing a nuclear first strike is considered critical to the maintenance of a credible deterrent. Although a single commander of a Poseidon nuclear submarine can launch 160 warheads against the cities of the Soviet Union, many strategists nevertheless believe that a credible deterrent exists only when a retaliatory second strike can be centrally controlled and directed. The option of selective response must be preserved if credibility is to be maintained. For that reason, the control mechanisms themselves must be capable of riding out a first strike.\(^7\)

The third military criterion is that the surviving retaliatory force must be capable of retaliating with a certain effect.\(^8\) The exact nature of that effect has been hotly debated in the United States. No fewer than five strategic nuclear deterrence concepts have been identified: (1) minimum deterrence, (2) massive urban/industrial retaliation, (3) flexible response, (4) a nuclear-war-winning capability and (5) denial of a nuclear-war-winning capability to the other side.\(^9\)

Two common threads run through these five strategic nuclear deterrence doctrines. First, deterrence as formulated in each of these five concepts is perceived in terms of offensive capability—"the ability to inflict intolerable damage on the adversary."\(^10\) Second, regardless of the nature of the retaliatory policy, the same issue is raised: Will the policy be credible in the eyes of the enemy? Will it effectively deter the enemy? The more credible the threat, the more effective the deterrent is thought to be.\(^11\)

Minimum deterrence has been identified as "a capacity to

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7. Green, supra note 3, at 10. If control mechanisms are destroyed in a first strike, the possibility of a massive retaliatory second strike is appreciably increased. See Keeny & Panofsky, Mad versus Nuts, 60 Foreign Aff. 287, 295 (1981-82) [hereinafter cited as Keeny & Panofsky].


10. Report of the Secretary-General, supra note 6, at 110.

destroy a few key cities with little if any . . . capacity to attack a hostile nation's military forces" in the event of a nuclear first strike. This level of retaliation is considered to be an adequate deterrent by some theorists, who suggest that the loss of even one major population center would be considered an unimaginable loss by a rational nation and would thereby deter that nation from launching a first strike.13

The second of the five levels—probably the most frequently discussed and debated—is massive urban/industrial retaliation, known commonly as mutual assured destruction and dubbed by its critics with the acronym MAD. It differs from minimum deterrence only in degree: the targeting of cities is the same; MAD merely targets more of them.14 The concept calls for the levelling of a large part of an enemy's industrial base, the destruction of many cities, and the deaths of millions of civilians.15

Until 1974, the United States' declaratory policy—its public pronouncements on strategic nuclear policy—was primarily based on the doctrine of mutual assured destruction.16 Policy makers argued that nuclear retaliation had to be a swift, single, massive strike involving the loss of a major part of the Soviet population and industrial capacity.17 In his first annual fiscal report for 1969, Defense Secretary Robert McNamara summed up this policy:

I would judge that a capability on our part to destroy say, one-fifth or one-fourth of the [Soviet Union's] population and one-half of her industrial capacity would serve as an effective deterrent. Such a level of destruction would certainly represent intolerable punishment to any 20th-century industrial nation.18

A shift in American declaratory policy was announced in 1973 when the Defense Department adopted the flexible response doctrine.19 In that year, declaratory policy shifted from

14. Nitze, supra note 9, at 213.
15. Id.
17. See Ikle, supra note 3, at 268-69.
MAD to NUTS: nuclear utilization target selection.20 This third deterrence option of flexible response—sometimes referred to as counterforce strategy—is designed to give a country the ability to respond in kind to every level of nuclear aggression launched against it. Rather than retaliate with a massive second strike against an enemy's civilian and urban areas, thereby inviting a similar attack against the retaliating country's own civilians and cities, strategists felt it necessary to develop a deterrence strategy which would permit a "surgical" second strike.21 With the deployment of highly accurate delivery vehicles, it was now technologically feasible to launch a surgical strike against select enemy military targets, such as missile silos and other hardened targets. It was feared that a nation, faced with the decision to retaliate with a massive second strike following a limited first strike, might not retaliate at all because of the risk of incurring a massive counter-attack against its own cities.22 The possibilities of an enemy victory and of international extortion were frightening. The capability to retaliate in kind rather than massively was thus thought to constitute a deterrent more credible than an exclusively MAD policy.

On January 10, 1974, Secretary of Defense James Schlesinger announced that the United States intended to adopt a counterforce strategy as a deterrence doctrine.23 The doctrine of flexible response implicitly requires that a nation possess the ca-

20. The acronym NUTS was coined to describe targeting decision-making under the flexible response doctrine. See Keeny & Panofsky, supra note 7, at 289.

21. A "surgical" strike refers to an attack in which highly accurate nuclear missiles are targeted against selected military bases, thereby mitigating collateral damage to nearby cities. Aldridge defines counterforce as "[a] nuclear strategy whereby attack missiles are targeted against the opponent's military emplacements." ALDRIDGE, supra note 5, at 80. This is to be contrasted to a "countervalue" strategy which targets industrial and population centers. For example, if the United States launched a first strike against hardened Soviet military targets, such as ICBM missile silos, the Soviet Union could, under a flexible response option, respond by launching a counterforce strike against United States military targets, sparing densely populated areas. This targeting scheme contrasts with an immediate counter-city (some would say "counter-people") retaliatory second strike. See Nitze, supra note 9, at 223.

22. President Nixon queried: "Should the President, in the event of nuclear attack, be left with the single option of ordering the mass destruction of enemy civilians in the face of the certainty that it would be followed by the mass slaughter of Americans?" ALDRIDGE, supra note 5, at 6.

23. See SIPRI, supra note 16, at 155. As further noted in that study, "What Schlesinger's announcement signaled is not a change in nuclear strategy but the decision by the U.S. administration to announce what, up to now, was only tacitly admitted and played down in official pronouncements, that is, that the USA has been pursuing a counterforce strategy." Id. at 156.
pability to fight a nuclear war should deterrence fail to prevent its outbreak. 24 The flexible response option as enunciated by Secretary Schlesinger was designed to make the United States deterrent threat a more credible one. 25

In 1977, Defense Secretary Donald Rumsfeld announced a new objective of American strategic nuclear forces: “An important objective of the assured retaliation mission should be to retard significantly the ability of the USSR to recover from a nuclear exchange and regain the status of a 20th-century military and industrial power more rapidly than the United States.” 26 Although this policy was not expressly announced as a war-winning capability, the thrust of Secretary Rumsfeld’s statement was that the United States was to emerge from a nuclear exchange victorious in terms of recovery capacity. Nuclear war-winning capability calls for the deployment of nuclear forces to assure a residual nuclear arsenal sufficient to strike again without comparable return damage. 27 The pronouncement of Secretary Rumsfeld suggested that the United States acquire a war-winning capability in this respect.

The counterforce/flexible response doctrine regained prominence on August 20, 1980, when Secretary of Defense Harold Brown spoke at the Naval War College. In his speech, he elaborated on the Carter Administration’s reliance on flexible response as a key element in United States strategic nuclear policy. 28 Still, the strategic concept of denial-of-a-war-winning capability to the other side, the fifth doctrine, was also evident. The level of retaliation necessitated under this doctrine envisions that, after a mutual exchange of military-targeted missiles, the results are even: this nuclear stalemate thus appears unattractive to any side contemplating a first strike. 29 Referring to this latest permutation in United States declaratory policy as a countervailing strategy, Secretary Brown made the following statement: “The essence of the countervailing strategy is to convince the Soviets that they will be successfully opposed at any

24. Id. at 152.
25. Nitze, supra note 9, at 223.
27. Nitze, supra note 9, at 213. For an alternative view, see Lodal, Assuring Strategic Stability: An Alternative View, 54 FOREIGN AFF. 462 (1976); F. Kaplan, Dubious Specter: A Second Look at the “Soviet Threat” (1977) [hereinafter cited as Kaplan].
29. Nitze, supra note 9, at 213.
level of aggression they choose, and that no plausible outcome at any level of conflict could represent success for them by any reasonable definition of success." Secretary Brown cautioned, however, that it was very likely that the first use of nuclear weapons at any level would inexorably escalate into full-scale nuclear war. With the possible exception of minimum deterrence, then, all of the foregoing nuclear deterrence doctrines have been utilized in United States declaratory policy.

B. The psychological-political aspect

The psychological-political dimension of deterrence theory is concerned primarily with the question of credibility. The utility of any nuclear deterrence doctrine rests on how it is perceived by the other side. The credibility of any given deterrent is dependent on the military means at a country's disposal to implement the declared doctrine.

Strategists have identified five factors upon which the credibility of American strategic nuclear policy depends: strategic forces must be (1) capable of assured destruction, (2) capable of flexible options, (3) equal to those of the Soviet Union, (4) perceived to be equal, and (5) stabilizing.

Of these five factors, the fourth is clearly the most important in the psychological-political context. It is not the objective reality of a given threat which determines its effectiveness, nor is it the real flexibility of weaponry which dictates whether or not hostilities will erupt. Rather, the determining factor is the subjective perception of the credibility of the threat by the other side. If the subjective psychological requirements of deterrence are met, a threat will be credible. A subjective impression de-

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31. Keeny & Panofsky, supra note 7, at 290.
32. REPORT OF THE SECRETARy-GENERAL, supra note 6, at 109. For example, in the opinion of Defense Secretary Schlesinger, flexible response was an attempt to align United States declaratory policy with a credible course of action and thereby improve deterrence. See Nitze, supra note 9, at 223.
34. See Keeny & Panofsky, supra note 7, at 290.
35. See Snyder, supra note 11; REPORT OF THE SECRETARy-GENERAL, supra note 6, at 153.
PENDS primarily on perceptions or misperceptions of a country's political will, rather than on force deployments.\textsuperscript{37}

Nuclear deterrence, in the psychological-political context, is thus a mechanism for information transfer.\textsuperscript{38} Communication is always assumed to be an integral part of deterrence theory.\textsuperscript{39}

How are credible threats best communicated? Should threats bristle with clarity or should they contain a degree of calculated ambiguity? Some theorists argue that ambiguous signals are dangerous because the nuclear threshold might be inadvertently crossed.\textsuperscript{40} However, the barrier against nuclear war is highest when the threshold to be crossed in initiating a nuclear exchange is sharply defined.\textsuperscript{41} Since nuclear wars may be triggered by misperceptions of political will,\textsuperscript{42} ambiguity in the communication of threats may weaken their credibility.\textsuperscript{43}

At least three sources of interference that impede the communication of credible threats have been identified: (1) the failure of the other side to take heed, (2) acts of aggression toward the communicator and (3) the warding off of subsequent exposures to a communication.\textsuperscript{44} A failure to communicate can be further reinforced by (4) inconsistencies between the words and actions of the threatener and (5) the knowledge that the threatener cannot make good its threat.\textsuperscript{45} Serious threats must be few in number if they are to be credible.\textsuperscript{46} Repetitive, identical communications are to be avoided because such cyclical signals are eventually ignored.\textsuperscript{47}

\textsuperscript{38} See Schilling, supra note 33, at 59-60.
\textsuperscript{39} SNYDER, supra note 11, at 46. According to Snyder, an exception to this assumption can be found in Thomas Schelling's \textit{The Strategy of Conflict}. See infra note 64.
\textsuperscript{40} REPORT OF THE SECRETARY-GENERAL, supra note 6, at 133. In addition, one writer has suggested that increasing uncertainty in the enemy's mind may have deleterious effects on the defenders as well, leading to a loss of confidence among allies. See Freedman, \textit{NATO Myths}, 45 FOREIGN POL'Y, Winter 1981-82, at 48, 49-50 [hereinafter cited as Freedman].
\textsuperscript{41} REPORT OF THE SECRETARY-GENERAL, supra note 6, at 133.
\textsuperscript{42} Greenwood & Nacht, supra note 37, at 771.
\textsuperscript{43} At the same time, however, some uncertainty about American intentions prevents the Soviet Union from reaching a high subjective probability estimate as to any possible United States response. See Snyder, supra note 11, at 17.
\textsuperscript{44} Id. at 76.
\textsuperscript{45} Id.
\textsuperscript{46} Id.
\textsuperscript{47} Id. at 75.
In sum, the psychological-political dimension of deterrence theory requires that declaratory policy be commensurate with the military means available to execute the policy. Declaratory policy is the expression of a country's political will. Therefore, if policy is inconsistent with military means, the will to execute a retaliatory second strike may not be perceived as credible.

III. A CRITIQUE OF NUCLEAR DETERRENCE THEORY

Nuclear deterrence theory has enjoyed a pre-eminent position in national security debates within the United States during the past thirty-seven years. Has nuclear deterrence theory been effective? On the one hand, nuclear deterrence could be considered effective since nuclear weapons have not been employed since Hiroshima and Nagasaki. However, this view can be easily countered by arguing that this happy state of affairs is nothing more than a fortuity, in that the risks of nuclear war are essentially independent of any deterrence doctrine. Deductively, of course, nuclear deterrence theory cannot be verified. Thus, nuclear deterrence strategists can at most claim that their theories have neither been entirely discredited nor disproven. However, much doubt has been cast on the continued viability of nuclear deterrence theory.

Criticism has been launched against nuclear deterrence theory from at least six fronts. First, critics have charged that nuclear deterrence theory is inconsistent, in that it emphasizes avoidance of war, while it simultaneously stresses weapons deployment. Second, the assumption made by nuclear deterrence strategists that nuclear war is not likely to occur because no rational government would choose to launch a nuclear first strike does not adequately take account of irrational behavior, accidental and limited nuclear war. Third, nuclear deterrence theory, while assuming an air of moral neutrality, is heavily value-laden. This is particularly evident in declaratory policies such as counterforce which are proffered as "humanitarian" strategic nuclear doctrines. Fourth, nuclear deterrence strategists develop doctrine ex post facto in order to accommodate and justify the latest weapons development which are presented as a fait accompli. Fifth, nuclear deterrence theory is undemocratic and antipopular to the extent it has removed strategic nuclear decision making from the national political forum. Finally, nuclear deterrence theory fails to take into account the rules of international law. The following discussion explores these criticisms.
A. Nuclear deterrence theory lacks logical consistency.

Nuclear deterrence theory is arguably schizophrenic; it simultaneously emphasizes offensive capabilities and war-avoidance. Nuclear forces must be sufficiently large to discourage an enemy from striking; at the same time, a country must prepare to fight a war in the event the enemy is not actually discouraged.

Deterrence theory assumes that military policy is concerned only with the prevention of war, not with its outcome. It assumes at the same time, however, that the only military response in the event deterrence fails is the automatic execution of a retaliatory second strike. The following comment by Ted Greenwood and Michael Nacht is paradigmatic of this duality: "The United States should . . . maintain a flexible force to deter the exercise of Soviet strategic options and to respond appropriately if deterrence fails." Deterrence theory is thus to a large extent a double-edged sword. For this reason, it has been charged, "it is by no means proved that nuclear deterrence really provides the great nuclear powers with security."

B. Governments may choose a nuclear war despite the irrationality of such a choice.

Nuclear deterrence theorists posit that no rational government would choose the catastrophe of strategic nuclear war by launching a first strike. This thesis is based on three highly questionable assumptions: (1) that governments act rationally, (2) that the choice of nuclear war is demonstrably irrational and (3) that full-scale nuclear war is unlikely to occur unless it is deliberately chosen. All three assumptions are erroneous.

49. Id. Defense Undersecretary James Wade testified before the House Defense Appropriations Subcommittee that: "We don't want to fight a nuclear war . . . but we must be prepared to do so if such a battle is to be deterred. . . . We must not fear war." Christian Science Monitor, Feb. 1, 1982, at 8.
51. Id.
52. Greenwood and Nacht, supra note 37, at 775.
54. See BULL, supra note 50, at 58.
55. BULL, supra note 50, at 48.
Governments do not always act rationally, but at times succumb to dangerously irrational behavior. The Japanese attack on Pearl Harbor is frequently cited as one instance when a country fell victim to irrationality. Irrationality also manifests itself in the policy-making process. In the world of nuclear deterrence theory, the “bogeyman” view of the diabolical enemy seems to dominate policy considerations. The result is ideological hostility and intellectual rigidity. Nations become preoccupied with self-protection through military means, and the enhanced national security of a hostile nation is perceived as diminished security for one’s homeland. These tensions may spark dangerously irrational acts. A country might also reach short-run and long-run decisions which appear consistent and reasonable in isolation from each other but which fail to dovetail. For example, a policy of research and development expenditures for new weapons systems, which promotes short-run national interest, is inconsistent with long-run arms control negotiations designed to avert a nuclear catastrophe.

Nuclear war as an alternative to some less drastic course of action may not be demonstrably irrational at any one moment in time. It may appear to be the only alternative in the face of some intolerable politico-military defeat, such as a deliberate Soviet attack utilizing chemical warfare on the island of Oahu, Hawaii, or a successful Soviet invasion of the Persian Gulf. In addition, nuclear war could all too easily occur accidentally. A technical mistake attributable to human error—for example, the false alarm on November 9, 1979, of a Soviet missile attack—could result in a nuclear exchange that neither of the superpowers desires. It is unknown whether the Soviet Union has had similar false alarms, but surely the United States has not

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56. Id. The exploits of Colonel Qaddafi in the Mediterranean and North Africa constitutes one contemporary example of international behavior with a very tenuous connection to rationality. Also, modern totalitarian States tolerate dictators who, unchecked by other governmental institutions, make many irrational decisions.

57. Green, supra note 3, at 183.

58. Osgood, Suggestions for Winning the Real War with Communism, 3 J. Conflict Resolution 295 (1959).

59. One writer has recently observed that “Deterrence and the prevention of war . . . are not the same thing. Soviet leaders could be powerfully deterred from war, yet still conclude in the midst of crisis that war will inevitably occur against their will.” Steinbruner, Nuclear Decapitation, 45 Foreign Pol’y, Winter 1981-82, at 16, 27 [hereinafter cited as Steinbruner].

60. Report of the Secretary-General, supra note 6, at 133. Other false alarms were reported by the United States for June 3 and 6, 1980. Id.
cornered the market on human error.

A government might decide to employ tactical nuclear weapons in the genuine belief that such a fateful decision would not lead to the use of strategic nuclear weapons. However, such a belief would probably be nothing more than a vain hope. The use of tactical nuclear weapons would inexorably lead to full-scale nuclear war, in the view of some well-qualified authorities.61 A limited nuclear exchange could all too easily escalate into a full-scale encounter as a consequence of miscalculation rather than conscious planning.62

Hedley Bull aptly summarized why governments behave irrationally:

The decisions of governments on matters of peace and war... do not always reflect a careful weighing of long-range considerations, or a mastery of the course of events.... Governments appear to [the historian]... too preoccupied with surviving from day to day even to perceive the direction in which they are heading, let alone steer away from it.63

To engage in the assumption that governments behave rationally in the context of nuclear war is extremely dangerous. How did this assumption insinuate itself into nuclear deterrence analysis? One source is undoubtedly deterrence theorists who utilize game theory.

Game theorists begin their deterrence analysis using the rational actor model of behavior. This model of human behavior assumes not just intelligent behavior, but also "certain kinds of consistency in the behavior of... hypothetical participants...."64 However, critics charge that game theory is artificial because it is a static representation of human behavior. Consequently, values cannot be qualified dynamically, as the interplay of strategy, policy and tactics demands.65 Another de-

61. It has been observed: "[A]ny actual use of such weapons is extremely unlikely to remain limited." Keeny & Panofsky, supra note 7, at 298.

62. See Maynes, Old Errors in the New Cold War, 46 FOREIGN POL'Y, Spring 1982, at 86, 100.

63. BULL, supra note 50, at 49. Governments exist in a world of crises. They often find themselves attempting to resolve one crisis after another. The danger of a pre-emptive first strike is greatest in such a crisis situation because the calculus seems to be: 'Launching a pre-emptive first strike is preferable to the certainty of being the target of the first strike ourselves.' Id. at 165.

64. T. SCHELLING, THE STRATEGY OF CONFLICT 4 (1963) [hereinafter cited as SCHELLING].

65. GREEN, supra note 3, at 109. One critic has charged: "High sounding instittes
fect of game theory is its bias toward a Hobbesian world of imaginary insecurity. This feature of game theory produces misperceptions of missile gaps, bomber gaps, and windows of vulnerability.66

C. Nuclear deterrence theory is not morally neutral.

Nuclear deterrence analysts, particularly the game theorists, assume an air of moral neutrality when discussing deterrence issues. Deterrence theory, as they postulate it, presumes that no conduct is absolutely prohibited. However, deterrence rationality is not morally neutral because it calls for maximizing one's own interests even if they cause injury to one's opponent.67 Personal safety is more highly valued than cooperation.68 This is clearly an ethical choice.

Apparently unable to avoid making this ethical choice, deterrence theorists go further by making an arguably evil one. Most moral codes forbid treating human life as a mere policy decision. However, deterrence theorists do precisely that, in view of their concept of exchange of hostages.69 The exchange of hostages concept was employed in ancient times to preserve peace between warring kingdoms. In its contemporary manifestation, each of the superpowers holds hostage the civilian populations of the other with its respective nuclear arsenal. This arrange-

Freedman, supra note 40, at 58. Perhaps the leading game theorist in this field is Thomas Schelling. See Schelling, supra note 64. See also Green, supra note 3, at 109.

66. See Green, supra note 3, at 109. That the so-called "window of vulnerability" may indeed be a misperception is to a certain extent underscored by the difficulty which the Reagan administration has had in finding an acceptable deployment mode for the MX missile, a weapon system designed to help close the "window." Although the Reagan administration still maintains that such a window exists, its shifting position on the MX basing reflects the fact that certain powerful circles—particularly Congress—do not share the administration's conviction that a window of vulnerability exists.

67. Green, supra note 3, at 213. The use of euphemisms, such as "countervalue" instead of "counter-people," is some evidence that deterrence theorists are disguising certain moral choices. "Countervalue" involves the targeting of high value, non-military targets, such as populated urban and industrial centers. A "counterforce" strategy, by comparison, involves the targeting of primarily military targets, such as ICBM silos, military airfields and ports, and other military installations of high strategic value.

68. Id. at 215.

69. See Schelling, supra note 64, at 135-37; Panofsky, The Mutual Hostage Relationship Between America and Russia, 52 FOREIGN AFF. 109 (1973) [hereinafter cited as Panofsky].
ment is intended to prevent a nuclear exchange. Should nuclear war erupt, however, deterrence theory first accepts and then condones the indiscriminate killing of innocent persons.\textsuperscript{70}

Deterrence theorists have attempted to blunt criticism of this seemingly dehumanizing analysis by developing purportedly more humanitarian strategies, such as the counterforce and flexible response doctrines. But the counterforce doctrine, an arguably more moral and humanitarian concept because it calls for the destruction of military targets in a surgical strike and avoiding untoward effects on nearby civilian populations, presupposes that the United States can prevail in a counterforce war. If it cannot, or if the Soviet Union refuses to accept the outcome graciously, a countervalue nuclear strike remains in reserve to convince the recalcitrant nation.\textsuperscript{71}

The counterforce doctrine further assumes that a nuclear attack can be genuinely surgical—that it can have sufficiently minimal collateral effects upon surrounding civilian populations, so that the nation absorbing this first surgical strike will not deem it necessary to retaliate against the civilian population of the enemy in a massive second strike. The reality of modern nuclear weaponry demonstrates that no nuclear strike can be truly surgical in the sense outlined above. If a nuclear attack is targeted proximate to an urban area, it will surely have substantial collateral effects on civilians.\textsuperscript{72} Further, two million civilian fatalities—the minimum collateral effect of a surgical strike\textsuperscript{73}—could never be stoically accepted. Thus, the closer one moves to adopting a counterforce strategy, the more likely one is to approach nuclear war. As Secretary of Defense Harold Brown observed, “any actual use of [nuclear] weapons is extremely unlikely to remain limited.”\textsuperscript{74} Because official United States declaratory policy states that a counterforce strategy can keep a nuclear war limited, the adoption of a counterforce strategy notifies an opponent that a first strike is a definite possibility under ap-

\textsuperscript{70} Green, \textit{supra} note 3, at 225. See also Ikle, \textit{supra} note 3, at 279.
\textsuperscript{71} Green, \textit{supra} note 3, at 234.
\textsuperscript{73} Even though Minuteman ICBM sites are located in geographically remote areas, the Congressional Office of Technology Assessment has estimated that such a “surgical” strike would result in two to twenty million fatalities. See Keeny & Panofsky, \textit{supra} note 7, at 295.
\textsuperscript{74} Id. at 298.
propriate circumstances.\textsuperscript{75} Counterforce strategy blurs any distin-
tinction between tactical and strategic nuclear strikes, so that
any tactical nuclear "firebreak" that may exist consequently
disappears.\textsuperscript{76}

The argument in support of the counterforce/flexible re-
response option may be characterized as follows: a surgical strike
will prevent the warring parties from moving up the ladder of
nuclear escalation, so why not use tactical and strategic nuclear
weapons in certain circumstances when our national interests
will be well served? What this doctrine fails to take into account
is the fact that effective protection of civilians is not possible
even under a limited nuclear exchange.\textsuperscript{77} The United States is
faced with an inherently MAD world in which a flexible re-
response/counterforce strategy has no place.

\textbf{D. Nuclear deterrence doctrine is formulated ex post facto in
order to rationalize new weapons systems.}

Critics also charge that technological developments dictate
doctrine.\textsuperscript{78} The Stockholm International Peace Research Insti-
tute (SIPRI) has observed:

\begin{quote}
[N]ew strategic postures have been promulgated in support of
the procurement and deployment of a new weapon system
under development or already developed. This is almost una-
voidable since strategic weapon systems take many years to
develop; therefore, to evolve a strategic posture first, and then
to begin development of the weapon it requires, is all but impos-
ible. Consequently, strategies evolve based on the weapons that
are under development at any one time.\textsuperscript{79}
\end{quote}

\textsuperscript{75} SIPRI, supra note 16, at 159. As Panofsky and Keeny have also observed, the
only meaningful "firebreak" in modern warfare is between conventional and nuclear
weapons, not between tactical and strategic nuclear weapons. See Keeny & Panofsky,
supra note 7, at 298.

\textsuperscript{76} Singer, supra note 36, at 86; Panofsky, supra note 69, at 110-11. (the mutual
hostage relationship is a matter of physical fact, not strategic policy, given the destruc-
tive quality inherent in nuclear weapons); Myrdal, supra note 13, at 130.

\textsuperscript{77} See Keeny & Panofsky, supra note 7, at 298. The current administration still
believes that civil defense is viable. See The Economist, Feb. 13, 1982, at 24; Christian

\textsuperscript{78} See SIPRI, supra note 16, at 157; Doty, Carnesale & Nacht, The Race to Con-
trol Nuclear Arms, in Nuclear Strategy and National Security: Points of View 465
(R. Pranger and R. Labrie, eds. 1977); Report of the Secretary-General, supra note 6,
at 115. It has also been suggested that the risks of nuclear war are independent both of
doctrine and its application. See Keeny & Panofsky, supra note 7, at 287.

\textsuperscript{79} SIPRI, supra note 16, at 157.
Doctrines are promulgated _ex post facto_ to provide a rationale for the _fait accompli_—the latest technological developments and new weapons systems.\(^80\)

A similar relationship exists between the psychological-political and technological-military dimensions of deterrence theory. Although the latter is supposed to be shaped by the tenets of the former, the military side of deterrence theory has taken on its own vitality. Some deterrence theorists posit, for example, that more missile launchers are needed if the United States is to safeguard the “balance of terror.”\(^81\) What these theorists refuse to concede is that military capabilities do not need to be “equal” or “balanced” once the level sufficient to make good a threat of terror and devastation has been surpassed.\(^82\) Deterrence does not require parity in offensive forces in order to be effective. All that is needed is a sufficient threat of unacceptable damage.

This last point highlights the critical importance of the psychological-political dimension of deterrence theory. Concern with strategic “inequality” has focused attention on the static numerical differences between the United States and the Soviet Union with respect to the number of launchers in their arsenals, the throw weight of those launchers, and the number of reentry vehicles each launcher has in its payload.\(^83\) The proper focus ought to be on war-fighting capabilities and war-outcomes—the dynamic features of a strategic nuclear force—rather than on cold tally sheets that indicate the number of MIRVed missiles, nuclear submarines and strategic bombers each nation possesses.\(^84\)

Even when the focus is appropriately on force performance,

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\(^81\) See Myrdal, _supra_ note 13, at 118.

\(^82\) Myrdal, _supra_ note 13, at 118.

\(^83\) As used herein, “launcher” refers to an intercontinental ballistic missile, either land or submarine launched. “Throw weight” and “payload” are used synonymously and have been defined as “[t]he weight of a missile remaining after the last booster rocket has separated.” Aldridge, _supra_ note 5, at 85. The greater the throw weight of a missile, the more warheads it can deliver. A “reentry vehicle,” in the case of ballistic missiles, is the device which encases the nuclear bomb, often referred to as the warhead. Myrdal, _supra_ note 13, at 86.

\(^84\) Schilling, _supra_ note 33, at 66-68. This point is stressed in Steinbruner, _supra_ note 59, at 17-18, where the author notes that the survivability of command, control, communications and intelligence is a critical element. Compare Keeny & Panofsky, _supra_ note 7, where those authors question the idea that control mechanisms can be adequately protected from a nuclear first strike. The authors note that C³I components remain inherently fragile and easily damaged despite efforts to harden them.
how much post-first strike nuclear capacity is sufficient for deterrence? Some deterrence theorists answer in strictly quantitative terms. Again, critics charge that the calculus must be more psychological-political than military. The crux of deterrence is an assured response of uncertain dimensions, which necessarily involves a qualitative guess as to the intentions of an enemy.

E. Nuclear deterrence theory has an antidemocratic bias.

Critics further submit that deterrence theory is undemocratic and essentially antipopular. The antipopular bias is manifested particularly in theory formulation. One critic has summarized the deterrence theorists' position as follows: "To the extent that the political process affects political decision-making with a serious element of 'irrationality,' national security policy-making must be depoliticized if it is to be 'rational.'"88

Historically, Congress has been deferential to the Executive on deterrence issues. Nuclear deterrence policy formulation has been largely removed from the political arena, thereby excluding the American public from effective participation. The

85. See, e.g., Nitze, supra note 9, at 214.
86. See Myrdal, supra note 13, at 116-17. In the view of McGeorge Bundy, adviser to President Kennedy, one bomb on one city would be a "catastrophic blunder," ten bombs on ten cities would be a "disaster beyond history," and one hundred bombs on one hundred cities would be "unthinkable." Bundy's statement was supported by Herbert York, former Science Adviser to President Eisenhower, who added that "from one to ten are enough whenever the course of events is being rationally determined." Id. at 117. Nevertheless, this notion of minimum deterrence is difficult to define because one cannot know with any certainty exactly what constitutes an intolerable reprisal. See Report of the Secretary-General, supra note 6, at 111. As Myrdal notes, "Of course, there can be no calculus for lunatic decisions." Myrdal, supra note 13, at 117.
87. H. Cleveland, NATO: The Transatlantic Bargain 44-45 (1970) [hereinafter cited as Cleveland]. A difference of opinion exists as to when induced uncertainty in an opponent's calculation is desirable. See Snyder, supra note 11, at 36. Still, deterrence, not surprisingly, is the declared purpose of United States strategic forces. It remains unclear why the United States is not more explicit about its plans and capabilities for producing destruction within the Soviet Union. See Schilling, supra note 33, at 60.
88. Green, supra note 3, at 248.
90. See Mandelbaum, The Bomb, Dread, and Eternity, 5 Int'l Security No., Fall 1980 at 3; Johansen, SALT Was Never Intended to Disarm, in Arms Control 156, 157 (W.P. Lineberry ed. 1979). It is not yet clear what impact the decision of the United States Supreme Court in Weinberger v. Catholic Action of Hawaii, 454 U.S. 139 (1981), will have on public participation in the deterrence debate. The Court there held that there is a national security exception to the requirements of section 102(2)(C) of the
political base for national security policy making, now rather narrow and restricted, should be expanded and broadened. Congress should take a more active part in this area in order to increase public debate on issues involving deterrence.\footnote{91}

The constitutional delegation of authority to Congress in the field of foreign affairs\footnote{92} provides a powerful argument that Congress ought to assume a more prominent role in nuclear deterrence policy formulation. After reviewing the various constitutionally mandated bases of congressional responsibility, Professor Louis Henkin concluded:

\begin{quote}
To the Constitutional Fathers, one might guess, the most important power in foreign relations was the power to declare war, and that was given to Congress. . . . The power to declare and wage war implies power to prepare for war and to act to deter and prevent war: hence, elaborate “peacetime” defense programs entailing not only huge expenditures but detailed regulatory programs, . . . \footnote{93}
\end{quote}

Henkin further argued quite forcefully that the power to declare war “surely includes the power to decide not to go to war, as by a proclamation of neutrality; it must include also the power to determine national policy generally, for these might determine war or peace.”\footnote{94} This last point has obvious bearing on the role of Congress in nuclear deterrence policy formulation.

\footnote{92. Article I, section 8 of the Constitution confers upon Congress powers related directly to foreign affairs. These enumerated powers are: “To regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes;” U.S. Const. art. I, § 8, cl. 3; “To define and punish Piracies and Felonies committed on the high Seas, and Offences against the Law of Nations;” U.S. Const. art. I, § 8, cl. 10; “To declare War, grant Letters of Marque and Reprisal, and make Rules concerning Captures on Land and Water;” U.S. Const. art. I, § 8, cl. 11. Congress also has the general power to tax and spend for the common defense and the general welfare. U.S. Const. art. I, § 8, cl. 1. The treaty ratification power of the Senate under article II, section 2 of the Constitution is also of great importance, as is most recently evidenced by the SALT II debacle. For an excellent work on the constitutional distribution of political power in the foreign affairs area, see \textit{L. Henkin, FOREIGN AFFAIRS AND THE CONSTITUTION} 29-123 (1972) [hereinafter cited as \textit{Henkin}].}
\footnote{93. \textit{Henkin, supra} note 92, at 71.}
\footnote{94. \textit{Id. at 83. See also Bickel, \textit{Congress, the President, and the Power to Wage War}, 48 Chi.[-]Kent L. Rev. 131 (1971).}
Over the past few years, a number of congresspersons have instituted legal actions against the Executive Branch, challenging Executive encroachment on the constitutional prerogatives of the legislature. Arguably, an interested congressperson could bring an action seeking a declaration that the President's policy of a possible first use of nuclear weapons without the prior consultation of Congress is an unconstitutional derogation of Congress' war-making powers.

While congressional-plaintiff lawsuits provide interesting reading in the morning newspaper, congressional recourse to the courts should be viewed as a last resort. Congressional control over federal appropriations is a more attractive and powerful vehicle for shaping nuclear deterrence policy than is litigation. Given the penchant of the judiciary to utilize the political question doctrine to avoid accepting jurisdiction in cases involving national defense policy, it is unlikely that legal challenges by Congress in this area will succeed. Regrettably, in a world of pluralistic politics, the courts appear to be the only available alternative, however futile, for congresspersons whose legislative efforts have been thwarted.

F. Nuclear deterrence theory ignores relevant rules of international law.

A final criticism of nuclear deterrence theory is that it totally fails to account for or incorporate the rules of international law into its premises and postulates. Of particular relevance are the laws of war, the prohibition against the use of force and


97. Although the broader question of the legality of nuclear weapons under international law is beyond the scope of this article, serious doubts in this connection are raised by the use of nuclear weapons as contemplated within the framework of nuclear deterrence theory.
the right of self-defense enunciated in the United Nations Charter. The discussion will address these issues seriatim.98

1. The Laws of War

"Laws of war are the rules of the Law of Nations respecting warfare."99 Customary international law100 recognizes three principles underlying all other rules of warfare: the principles of military necessity, humanity and chivalry.101 Together they form general guidelines for the conduct of hostilities.

The principle of military necessity states that, subject to the principles of humanity and chivalry, a belligerent nation may employ any amount or kind of force in order to realize the complete conquest of the enemy with the least possible loss of time, life and money.102 The principle of humanity prohibits the use of force in excess of that necessary for the conduct of hostilities.103 Lastly, the concept of chivalry forbids resort to "dishonorable means, expedients, or conduct."104 General devastation or a "scorched earth" policy is absolutely prohibited insofar as it

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98. One additional area of international law ignored by nuclear deterrence theorists is the body of law respecting the amicable, non-compulsory settlement of state differences by negotiation, consultation, good offices, mediation, conciliation, arbitration and judicial settlement. See 2 L. OPPENHEIM, INTERNATIONAL LAW §§ 1-251 (7th ed. H. Lauterpacht 1952) [hereinafter cited as 2 L. OPPENHEIM]; 12 M. WHITEMAN, DIGEST OF INTERNATIONAL LAW 894-1152 (1971) [hereinafter cited as 12 M. WHITEMAN]. Of course, nuclear deterrence, as the threat of force to induce or prevent certain conduct, is by definition at odds with the pacific settlement of disputes.

99. 2 L. OPPENHEIM, supra note 98, at § 67.

100. Customary international law is "state practices accepted as legally binding by the subjects of international law." G. SCHWARZENBERGER & E. BROWN, A MANUAL OF INTERNATIONAL LAW 558 (1976). Lauterpacht defines customary international law as "a clear and continuous habit of doing certain actions . . . under the aegis of the conviction that these actions are, according to International Law, obligatory or right." 1 L. OPPENHEIM, INTERNATIONAL LAW § 17 (7th ed. H. Lauterpacht 1952). In addition, international custom is defined as a primary source of international law under article 38(1)(b) of the Statute of the International Court of Justice, June 26, 1945, 45 Stat. 1055, 1060 (1945).

101. These three principles, particularly that of humanity, find their source in "principles of the law of nations, as they result from the usages established among civilized peoples, from the laws of humanity and the dictates of public conscience." Geneva Convention of 1949 for the Amelioration of the Condition of the Sick and Wounded, art. 63, para. 2, 6 U.S.T. 3115, 3152, T.I.A.S. No. 3362; 2 L. OPPENHEIM, supra note 98, at § 116a(c). For a discussion of the origins of the laws of war, see 2 L. OPPENHEIM, supra note 98, at §§ 67-68.


103. 10 M. WHITEMAN, supra note 102, at 299-300.

104. Id. at 299.
constitutes an attempt to cause permanent damage to territory.\textsuperscript{105}

Against this background of customary international law, specific conventions have been concluded which regulate the conduct of international hostilities. The most significant developments in the laws of war relevant to nuclear deterrence theory have occurred as a result of the ratification of these conventions. Although there are several important treaties and conventions bearing on the subject of nuclear deterrence,\textsuperscript{106} two of the more significant conventions, the Hague Conventions of 1907,\textsuperscript{107} and the Geneva Conventions of 1949,\textsuperscript{108} will be considered.

The preamble to Hague Convention Number IV of the 1907 provides in pertinent part:

Until a more complete code of the laws of war has been issued, the High Contracting Parties deem it expedient to declare that, in cases not included in the Regulations adopted by them, the inhabitants and the belligerents remain under the protection and the rule of the principles of the law of Nations, as they result from usages established among civilized peoples, from the laws of humanity, and the dictates of the public conscience.\textsuperscript{109}

As a corollary to this general statement of principles, article 22 of the Annex to this Convention states that “the right of belligerents to adopt means of injuring the enemy is not unlimited.”\textsuperscript{110} In addition, article 23 expressly bans the use of poison or poisoned weapons;\textsuperscript{111} article 23(e) prohibits the use of “arms, projectiles, or material calculated to cause unnecessary suffering.”\textsuperscript{112} Article 25 further provides that “the attack or bombard-

\textsuperscript{105. Id. at 389.}
\textsuperscript{109. Hague Convention No. IV of 1907, 36 Stat. 2277, 2279-80, T.S. No. 539.}
\textsuperscript{110. Id. at 2301, T.S. No. 539.}
\textsuperscript{111. Id.}
\textsuperscript{112. Id. at 2302, T.S. No. 539.}
ment, by whatever means, of towns, villages, dwellings, or buildings which are undefended is prohibited."

Article I of Hague Convention No. III, which addresses the issue of the commencement of hostilities, provides that hostilities "must not commence without previous and explicit warning, in the form either of a reasoned declaration of war or of an ultimatum with conditional declaration of war." The systematic violation and wholesale disregard of the Hague Conventions during World War I, followed by the surprise invasions by Germany and the atrocities committed against civilians during World War II, made it painfully clear to most nations that the laws of war needed to be reevaluated. The Geneva Conventions of 1949 were adopted in response to the perceived shortcomings of the then extant laws of war.

The overall theme of the Geneva Conventions is to provide for the humane treatment of civilians and injured combatants. These agreements also signal the first attempt to afford treaty protection to non-combatants. For example, article 13 of the Geneva Convention Relative to the Protection of Civilian Persons in Time of War notes that the Convention is intended to "alleviate the sufferings caused by war;" article 16 requires that the wounded and sick "shall be the object of particular protection and respect;" and article 147 of that Convention defines "grave breaches" as the "willful killing, torture or inhumane treatment" of civilians, "willfully causing great suffering or serious injury to body or health, . . . or extensive destruction . . . of property, not justified by military necessity and carried out unlawfully and wantonly." Article 53 of this Convention similarly prohibits the destruction of property belonging to civilians. Hospi-
tals are also protected from intentional attack under articles 18 and 19.\textsuperscript{119}

While not intended to be an exhaustive exposition on the laws of war, the foregoing discussion has attempted to demonstrate that a primary purpose of promulgating rules of war is to delineate the permissible forms of physical pressure which belligerents may use against one another. In this application, the rules of war represent a dynamic tension between the push of military necessity and the pull toward preservation of civilization.\textsuperscript{120} As one commentator has observed, the laws of war are the only legal restraints which stand between civilization and the most barbarous forms of war.\textsuperscript{121} For this reason alone they should be scrupulously observed and zealously enforced by the world community.\textsuperscript{122}

Against this background we turn to a discussion of these rules of war and their relevance to nuclear deterrence theory. First, the contamination resulting from the use of nuclear weapons, not to mention the inevitable collateral effects on non-combatants resulting from the use of even the least powerful nuclear weapon,\textsuperscript{123} leaves little room for the view that the use of nuclear weapons as contemplated in nuclear deterrence theory comports with the rules of war. This is true even if such weapons were to be directed solely against military targets, as envisioned in limited nuclear war scenarios.\textsuperscript{124} More important, however, nuclear deterrence theorists are not so much concerned with limiting the collateral effects of nuclear weapons as they are with limiting the

\textsuperscript{119} Id. at 3530, T.I.A.S. No. 3365.

\textsuperscript{120} G. SCHWARZENBERGER & E. BROWN, supra note 100, at 160.

\textsuperscript{121} Id. at 162.

\textsuperscript{122} In addition, given the notorious absence of enforceable legal sanctions in the event of a breach of these principles, national self-interest strongly militates in favor of slavish adherence to them.

An effective yet non-compulsory sanction has emerged in the nuclear arms control area where withdrawal from a treaty can be threatened to ensure treaty compliance. See, e.g., Treaty on the Limitation of Anti-Ballistic Missile Systems, May 26, 1972, United States-U.S.S.R., art. XV, para. 2, 23 U.S.T. 3435, 3446, T.I.A.S. No. 7503.

\textsuperscript{123} See A. KATZ, LIFE AFTER NUCLEAR WAR (1982); Keeny & Panofsky, supra note 7, at 294.

\textsuperscript{124} It may be argued, however, that the use of nuclear weapons cannot be regarded as violative of international law in the absence of any customary rule or international convention banning their use. See 10 M. WHITEMAN, supra note 102, at 454. For a brief discussion of the legality of nuclear weapons under international law, see G. SCHWARZENBERGER, THE LEGALITY OF NUCLEAR WEAPONS 47-49 (1958).
attack itself, a dubious proposition indeed.\(^{125}\)

Nuclear deterrence concepts such as mutual assured destruc-
tion necessarily envisage killing millions of non-combat-
ants, destroying private property, churches, hospitals and cul-
tural centers, and ultimately causing general devastation. The
effects of nuclear weapons would be simply too indiscriminate
not to cause the deaths of innumerable civilians as well as gen-
eral devastation.\(^{126}\) The United States policy shift from mutual
assured destruction to flexible response can be viewed as an at-
tempt to reverse the public antipathy for a strategic nuclear pol-
icy, which called for the annihilation of an entire nation.

Lastly, deterrence concepts such as launch on warning\(^ {127}\)
preclude an unequivocal warning, declaration of war or ultima-
tum as required by the Hague Convention Number III prior to
commencement of hostilities.\(^ {128}\) An attack plan of preemptive
first strike is defective for the same reason. In conclusion, a
strong argument can be made that the laws of war, while gener-
ally ignored by nuclear deterrence theorists, are nonetheless rel-
evant in the context of nuclear deterrence theory.

What of the use of nuclear weapons in self-defense or repri-
sal? One could argue that nuclear deterrence strategists threaten
only the first use of nuclear weapons, but that the actual use of
nuclear weapons would be reserved exclusively for a retaliatory
second strike in self-defense or reprisal. Whether and to what
extent this is permitted under international law calls for an ex-
amination of the use of force and self-defense under the United
Nations Charter.

2. The United Nations Charter

Before considering the principles of self-defense under the
United Nations Charter, a brief description of customary inter-
national law\(^ {129}\) predating the Charter will provide some enlight-
ening background. The position of customary international law
concerning the use of force in self-defense may be summarized
as follows: the need for self-defense must be compelling and in-

\(^{125}\) See supra text accompanying notes 71-77.
\(^{126}\) See A. Katz, supra note 123, passim; Kesey & Panofsky, supra note 7, at 295.
\(^{127}\) "Launch on warning" refers to a pre-emptive, hair-trigger nuclear attack plan
under which strategic nuclear weapons would be launched immediately after the discov-
ery of an imminent attack by one's nuclear opponent.
\(^{128}\) See supra text accompanying note 114.
\(^{129}\) See supra note 100.
stant, and the measures of self-defense may comprise any action necessary to repel any imminent or present invasion. Customary international law thus permits the use of force in anticipatory self-defense.

Closely related to self-defense is the concept of reprisal, also recognized under customary international law. The difference between the two principles is that while resort may be had to self-defense in order to eliminate an immediate threat, reprisals are designed to redress unlawful acts long since committed by an enemy. Atrocities were not permitted, however, as an act or reprisal. Reprisals are thus acts in retaliation against a preceding illegal act.

The shift to a legal regime within which the permissible use of force was substantially circumscribed was a revolutionary one, heralded by the adoption of the United Nations Charter. Under articles 2(4) and 51 of the Charter, forcible reprisals are illegal. Any other threat or use of force except in self-defense against an armed attack is likewise prohibited. Many commentators therefore believe that, unlike the situation under customary international law, a defending country must be under armed attack before resorting to self-defense.

130. G. Schwarzenberger & E. Brown, supra note 100, at 150.
131. Reprisals in time of war, according to Lauterpacht, "occur when one belligerent retaliates upon another, by means of otherwise illegitimate acts of warfare, in order to compel ... to abandon illegitimate acts of warfare and to comply in future with the rules of legitimate warfare." 2 L. Oppenheim, supra note 98, at § 247 (citation omitted).
132. 10 M. Whiteman, supra note 102, at 312; 2 L. Oppenheim, supra note 98, at §§ 33-37.
133. 10 M. Whiteman, supra note 102, at 339.
134. For a further description of this shift, see 12 M. Whiteman, Digest of International Law 5-6 (1971); 2 L. Oppenheim, supra note 98, at §§ 52fe-52l.
135. "All members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any manner inconsistent with the purposes of the United Nations." U.N. Charter art. 2, para. 4.
136. "Nothing in the present Charter shall impair the inherent right of individual or collective self-defense if an armed attack occurs against a Member of the United Nations, until the Security Council has taken the measures necessary to maintain international peace and security. ..." U.N. Charter art. 51. For a further discussion of the subjects of collective security and the role of the Security Council under Chapter VII of the U.N. Charter in resolving international conflicts, see 2 L. Oppenheim, supra note 98, at §§ 25b-25ge.
The use of force in self-defense under the United Nations Charter must also be proportionate. In this connection, commentators have noted that, discounting the question of the legality of nuclear weapons per se, the use of nuclear weapons in any situation must be intended to retaliate in kind against a prior nuclear attack.

Not only does the United Nations Charter prohibit the use of force, but it also directs member states who are parties to any dispute which endangers peace to "first of all, seek a solution by negotiation, enquiry...." Members are further directed to "settle their international disputes by peaceful means in such a manner that international peace and security, and justice, are not endangered," such as by negotiation, mediation or judicial settlement, or by recourse to the United Nations Security Council.

What about anticipatory self-defense? The principle of present danger would permit preventive action in order to eliminate an imminent threat or danger of attack. However, a restrictive reading of article 51 of the Charter counsels that intervention under the present danger principle is beyond the ambit of article 51. Any other interpretation invites countries to interpret "armed attack" as including the threat of attack, thereby weakening the system of collective security conceived of under the United Nations. Wary of giving a nation wide latitude in interpreting for itself precisely what an "armed attack" is, several commentators have expressed the view that article 51 does not permit anticipatory self-defense. One author has written that

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140. See 10 M. WHITEMAN, supra note 102, at 492-93.
141. U.N. CHARTER art. 33, para. 1.
142. Id. at art. 2, para. 3.
143. Id. at art. 33, para. 1.
144. Id. at art. 24, para. 1.
145. See 12 M. WHITEMAN, supra note 134, at 44-45. A pre-emptive nuclear first strike is one instance of where the principle of present danger is employed.
146. Id.
147. See, e.g., I. BROWNLIE, INTERNATIONAL LAW AND THE USE OF FORCE BY STATES 275-79 (1963). Compare 12 M. WHITEMAN, supra note 134, at 52-55. For a discussion of this issue in connection with the Cuban missile crisis, see Meeker, Defensive Quarantine and the Law, 57 AM. J. INT’L L. 515 (1963); Wright, The Cuban Quarantine, 57 AM. J. INT’L L. 546 (1963); MacChesney, Some Comments on the "Quarantine" of Cuba, 57 AM. J. INT’L L. 592 (1963). See also Badr, supra note 138, at 11, where the author noted that "an axiom of legal interpretation [is] that where a general prohibitive norm is established, any permissive exceptions to it must be provided for explicitly."
there can only be self-defense "against the illegal use of force, not against other violations of the law." Members of the United Nations International Law Commission have often stated unequivocally that under the Charter, self-defense is permitted only against armed attack and that no reserved right of self-defense exists under customary international law.

In summary, in order for a State successfully to invoke self-defense under article 51 of the United Nations Charter, two elements must exist: a prior armed attack against the State and an immediate, proportionate response by that State. Reconsidering the prior discussion of pre-emptive first strike and massive retaliation, it would appear that nuclear deterrence theory is inconsistent with the Charter's proscription on the use of force and self-defense. Minimally, nuclear deterrence theorists fail to mention these considerations in their writings, thus indicating a blind spot regarding articles 2(4) and 51 of the Charter. Moreover, by its very nature, nuclear deterrence is the threat of the use of force; thus, deterrence theory runs afoul of the proscription in article 2(4).

Although nuclear deterrence theory has evolved in its declaratory manifestations from mutual assured destruction to counterforce and flexible response, thereby reflecting a movement toward a more lawful policy vis-à-vis the United Nations Charter, as Keeny, Jr. and Panofsky have observed, we live in an inherently MAD world. Escalation to total nuclear war is inevitable once the first nuclear weapons are used, throwing into serious doubt whether proportionality is meaningful in the context of nuclear deterrence theory. The intrinsic fragility of communication systems and the entire C3I network makes the execution of a controlled, limited nuclear war a technological

150. One perhaps coincidental parallel between nuclear deterrence theory and the international law of self-defense is the concept of proportionality. The flexible response doctrine in part postulates the use of nuclear attacks in terms of proportionate responses to the nuclear attacks of the Soviet Union.
151. The perennial nuclear posturing of United States leadership is arguably contrary to the prohibition in article 2(4) as well.
152. See supra text accompanying notes 71-77.
nullity. As a result of this technological impediment, as well as the other factors which make it inherently difficult to initiate and maintain a limited nuclear war, mutual assured destruction is our ultimate nuclear deterrence policy. MAD not only lacks proportionality, but it also smacks of reprisal, which is prohibited by the United Nations Charter.

Finally, the refusal of the United States to renounce the first use of nuclear weapons is also contrary to the requirement of proportionality. This is especially so in a situation where nuclear weapons are threatened in response to an outbreak of conventional hostilities in Western Europe, as is presently contemplated by American defense strategists.

IV. Conclusion

In this writer's view, there has been an inordinate reliance on nuclear deterrence theory as a source of national security. Deterrence theory needs to be put in proper perspective. For too long it has been a case of the tail wagging the dog. A better focus—and one that would provide greater security to both superpowers—ought to be on a world order premised on confidence-building among nations, where resort to force or threat of force is abjured. The establishment of mutual confidence between the superpowers is an essential prerequisite for arms control and disarmament.

Altruism need not be the motivating force for such a focus either. Rather, national self-interest demands it. In the words of Stanley Hoffman, "It is in our interest to see to it that the balances of might and influence and the bonds of solidarity that world order requires be preserved and strengthened. . . . We are, as the globalists tell us, all in the same boat."

What is the role of international law in this connection? As has been previously observed, no nation may lawfully threaten the use of force against another nation. At the same time, however, no supra-authority exists which is empowered to enact and enforce effective rules of international conduct, let alone to arbi-

153. As Badr has written, supra note 138, at 23: "When it comes to the confrontation between nuclear powers . . . second-strike capability has been effective . . . in deterring a first nuclear strike. In this context, in particular, the incalculable risks involved in the erroneous notion of anticipatory self-defense boggle the imagination."

154. See Bundy, Kennan, McNamara & Smith, Nuclear Weapons and the Atlantic Alliance, 60 FOREIGN AFF. 753 (1982).

trate state differences. Although a weak and vague proscription in article 2(4) of the United Nations Charter prohibits the threat or use of force, putting some muscle on this bare-boned article has been neither easy nor uncontroversial. The absence of a supra-authority has surely complicated matters. Regrettably, a universally embraced legal code has not attained ascendency in international law.

Unlike the situation typically found in domestic law, the parameters of proscribed conduct are not nearly as well defined in the nuclear deterrence and international context. There are no express rules of behavior and no universally accepted code of impermissible international conduct applicable to the threat of or use of force. Not only is such conduct only vaguely proscribed in article 2(4), but the precise nature of the punishment to be imposed is not as certain as it is in the domestic context. The legal axiom, "Nullum crimen sine lege, nulla poena since lege," has no analogue in the international context.

This marked lack of clarity in both proscription of conduct and the range of punishment characterizing international aggression in general, and nuclear deterrence specifically, reflects the absence of a universally recognized legislative body empowered to declare certain conduct to be unlawful and to prescribe sanctions. Today the rules of international conduct between nations are broad, vague and at times merely hortatory. There are few, if any, bright lines, short of a massive nuclear first strike, to signal when the nuclear threshold has been or is likely to be crossed. The absence of sharp lines and the resulting ambiguity could all too easily produce an unintended nuclear exchange.

While the author is critical of the international system of world order because of its inability to check aggression effectively, much, if not most, of the blame for this weakness must be laid at the feet of the nuclear powers. As publicists Schwarzenberger and Brown have perceptively noted:

156. "No crime or punishment without a law so providing." Translation by the author.

157. For example, how would the United States respond if the Soviet Union invaded Western Europe using only conventional weapons or a combination of conventional and tactical nuclear weapons? Or what if the Soviet Union invaded the Persian Gulf, seizing its oil fields? Can the Soviet Union do any better than hazard a guess as to possible United States responses in each instance? This ambiguity may nevertheless perform a preventive function by forcing the Soviet Union to guess, which would have an inhibitory effect.
The possession of hydrogen bombs and delivery systems with global reach enable a few Powers to indulge in megaton diplomacy. . . . The implications of the possession of the super-weapons of our age for international law and organisation are far-reaching. . . . As distinct from formal equality between sovereign States, nations which are able to manufacture such super-weapons or are relatively immune from their application are alone sovereign in the political sense.\textsuperscript{168}

The foregoing discussion has shown that international law is highly relevant in the context of nuclear deterrence. If taken into consideration, in fact, international law could have a significant impact on the formulation of the postulates of nuclear deterrence theory. Regrettably, however, the role of international law in shaping nuclear deterrence theory is virtually nonexistent. Nuclear deterrence theory, through its failure to take the rule of law in international dealings into account, assumes ascendency over the law, rather than subservience to it. Thus, the rule of law makes no contribution to the formulation of nuclear deterrence theory. It is not at all clear, however, that the rule of law does not contribute, at least to some extent, to the maintenance of world order.

The preceding discussion has also attempted to demonstrate that deterrence theory is a shaky foundation upon which to build a secure world order. It has further attempted to show that deterrence theory, standing alone, cannot explain why the world has not been ended by a nuclear holocaust. However, if this state of affairs is not attributable to deterrence, what does in fact prevent the superpowers from entering into overt hostilities with each other? One answer may center on the perceived legitimacy of the present world order. An example drawn from the domestic arena may be illuminating. It should be obvious that if every taxpayer stopped paying taxes, there is little the Internal Revenue Service could do about it. Nevertheless, we continue to pay our taxes dutifully each April 15. Why? One answer may be that we recognize, first, the government’s legitimate interest in collecting taxes and, second, that chaos would otherwise be visited upon our society. Apropos in this context is the following statement by James Brierly in his work *The Law of Nations*:

The ultimate explanation of the binding force of all law is that

\textsuperscript{158} G. Schwarzenberger & E. Brown, supra note 100, at 309-10.
man, whether he is a single individual or whether he is associated with other men in a state, is constrained, in so far as he is a reasonable being, to believe that order and not chaos is the governing principle of the world in which he has to live.\textsuperscript{159}

The superpowers may have kept their figurative fingers off the nuclear button so far because they tacitly recognize the legitimacy of the present world order that resulted from the Yalta Conference in 1945.\textsuperscript{160} Whether the rule of law has made any contribution to this state of affairs, however, is another question.

Given the inordinate reliance on deterrence theory as a source of national security, this writer has argued that ultimately, the more appropriate focus should be on the perceived legitimacy of the world order and how those perceptions can be engendered, strengthened and maintained.\textsuperscript{161} Preservation of the status quo seems hardly attributable solely to nuclear threats. The issue of legitimacy deserves greater research and emphasis. In this connection, some useful insights can be gleaned from criminal deterrence theory, especially the latter's lessons regarding the inhibitory and habituating effects of the criminal law. One such lesson immediately suggests itself: a society tends to be law-abiding because it recognizes the legitimacy of the existing social order and the benefits that can be obtained from that order, rather than because of fear of apprehension and punishment for transgressions of the criminal law.

While the foregoing points to at least one long-term strategy for increased world security, in the short term, other more immediate steps should be explored as alternatives and supplements to nuclear deterrence. One area which could be particularly fruitful is the psychological dimension of deterrence theory.\textsuperscript{162} For example, an exchange of "peace hostages," i.e., So-

\textsuperscript{161} Hedley Bull has written that nations interested in arms controls and disarmament ought to direct their energies to international rather than national security as the starting point for arms control. H. Bull, The Control of the Arms Race (2d ed. 1965). As noted in the Report of the Secretary-General, supra note 6, at 147, "It is almost axiomatic that the level of international security is adversely affected when a superpower becomes uncertain about its own security."

\textsuperscript{162} Query whether the thirty-five year old nuclear regime has engendered an unconscious inhibition against crossing the nuclear threshold? Is the effectiveness of nuclear deterrence attributable in part to unconscious and emotional fears and aspirations,
viet and American nationals with whom the political and military leaders of the two superpowers have strong emotional ties, merits examination. Clearly, erecting higher psychological barriers against the thought of a nuclear first strike in the minds of American and Soviet leaders is an important starting point toward enhanced national security for both nations. Social-psychological deterrence, rather than nuclear deterrence, should thus be more closely considered.

Can nuclear deterrence be characterized as effective? Nuclear deterrence theorists defend the utility of their theory by pointing out that a nuclear exchange has not occurred over the past thirty-seven years. Deductively, however, deterrence theory can neither be verified nor disproved. But even though deterrence theory has not been disproven, as the foregoing discussion has attempted to show, much doubt has been cast on its continued viability. It has been said that “[n]uclear strategy has reached a dead end.” Nuclear deterrence theory contains no provision for its own resolution short of continued escalation, a pre-emptive first strike, or accidental war. Nor does it tell us where to proceed once the ideal state of mutual deterrence has been attained. It is time to abandon nuclear deterrence theory in favor of a more secure basis for building national and, ultimately, world security.

as seems to be the case in criminal deterrence? Although any conclusion on this point is extremely speculative, some observers agree that the specter of a nuclear holocaust has prevented the two superpowers from squaring off and colliding militarily. See Keeny & Panofsky, supra note 7, at 288.

163. Such an exchange could take the form of sending the children, grandchildren and other close relatives of the Soviet and American power elite (including, ideally, the children, grandchildren and close relatives of the President of the United States and the Premier of the Soviet Union) to the other's capital and major cities for educational and cultural purposes. With such an exchange in place, the leaders of the superpowers would know that they would be directly killing members of their own families if they initiated a nuclear first strike.

164. Some would argue that this happy state of affairs is nothing more than a fortuity, in that the risks of nuclear war are essentially independent of any deterrence doctrine. See Keeny & Panofsky, supra note 7, at 287-88.

165. Freedman, supra note 40, at 67.