The Legality of Nuclear Arms Under International Law

David M. Corwin
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I. Introduction

Since World War II, the view of some military leaders towards the use of nuclear weapons has changed dramatically. Previously, it was accepted as a given fact that any use of nuclear weapons was an unthinkable proposition. This view has been replaced in the minds of many by a notion that a limited nuclear war is both feasible and winnable. This mentality raises a fundamental question: whether any use of nuclear weapons could receive the imprimatur of international law?

Although there is no international convention that explicitly prohibits all uses of nuclear weapons, the effects of all weapons are governed by numerous conventions and customary international law. A determination that nuclear weapons would violate one or more principles of humanity, as embodied in positive or customary international law, may not be dispositive. When a nation has used a weapon releasing any gaseous substance or has violated the territoriality of a neutral state, that nation has per se violated international law. Several violations of international law, however, including the prohibition against causing unnecessary suffering and indiscriminate harm as between combatants and noncombatants can be excused by the doctrines of military necessity, reprisal, or self defense when the use of nuclear weapons is proportionate to the harm caused.

This Article will examine different uses of nuclear weapons and will assess the legality of these uses under positive and customary international law. It will conclude that any nuclear weapon would be encompassed by the prohibition against gas and other related weapons. In addition, it will conclude that in all but its most limited uses, weapons would cause unnecessary suffering, would fail to discriminate between combatants and noncombatants, and would violate the territoriality of neutrals. Even when defenses to violations of interna-

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* This article is dedicated to the memory of my father, Professor Lawrence M. Corwin.
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tional law are available, this Article will demonstrate that the realities associated with the use of nuclear weapons necessitate the conclusion that any military benefit conferred by such use is inherently disproportionate to the harms caused by any use of nuclear weapons and, therefore, that any use of nuclear weapons is illegal under international law.

II. Applicable Law

The initial inquiry in evaluating the legality of any use of nuclear arms is to determine the appropriate body of law. The Charter of the United Nations counsels that the relevant sources of international law are international conventions, international custom, general principles of law recognized by civilized nations, and scholarly writings. Unfortunately, there exists no treaty or convention that explicitly addresses the legality of all uses of nuclear weapons. Those who argue that international law is inapplicable to any issue of nuclear weapons point to this lack of a comprehensive treaty provision as an indication that the use of nuclear arms is not strictly forbidden by international law. In support of this contention, adherents of this position cite The Lotus Case, an early decision of the World Court. The Lotus Case held, essentially, that a nation is legally permitted to take any action that is not strictly proscribed under the rules of international law. Since no treaty expressly prohibits all uses of nuclear weapons, these scholars argue that use of nuclear weapons cannot be deemed illegal under international law.

The lack of an explicit treaty provision does not warrant the conclusion that international law is impotent with regard to nuclear arms. First, although no convention states that all uses of nuclear weapons are per se illegal, many agreements have addressed the in-


3. This holding is based on the theory that any restriction on the actions of a country must be based on the express or implied consent of that country. Falk, Nuclear Weapons, supra note 2, at 558.

4. Id. at 541.

evitable consequences and effects that would stem from any use of nuclear weapons. Any argument that a convention that antedates the advent of nuclear weapons or does not specifically refer to nuclear weapons did not intend to restrict the use of nuclear weapons and, therefore, may not be interpreted in such a manner, is untenable. When a nation has violated the provisions of a treaty, the treaty has been broken regardless of the source of that infringement unless a provision in the treaty excepts violations from a particular source. In addition, it is precisely the lack of a convention explicitly treating the nuclear weapon issue that necessitates extrapolation of existing treaties to cover situations involving nuclear weapons. That international law permits indiscriminate use of nuclear weapons is neither contended nor would such a result be practically feasible in today's society.

Second, the Statute of the International Court of Justice demands recourse to customary international law. Although the term “customary international law” is an amorphous and somewhat intangible term, evidence of its dictates can be found in statements of international bodies representing the views of individual countries and in unilateral actions by single countries. Determining the “customary international law” regarding nuclear weapons requires the evaluation of judicial precedent and nonbinding resolutions by the United Nations General Assembly.

III. Principles of Humanity

Given the fact that the use of nuclear weapons is nowhere expressly prohibited by international accord, the next inquiry is whether exploding a nuclear weapon would violate the dictates of a convention that does not specifically address the nuclear issue. In determining whether or not a nation's conduct violates an international agreement, the action in question must be viewed against the literal terms of the document. The legality of an action depends solely upon whether or not the action contravenes the terms of a given agreement.

A. Unnecessary Suffering

The international concept of humanity requires combatants to minimize the degree of suffering and destruction caused to opposing forces. The origins of this principle date back to the Declaration of St. Petersburg in 1868. The Declaration was enacted to restrict the
use of a new kind of bullet that caused painful wounds that were
difficult to treat.\footnote{8} This convention was the first document to recog-
nize a limitation on the means available to accomplish military
ends,\footnote{9} stating that combatants may not use weapons to "uselessly
aggravate the sufferings of disabled men."\footnote{10} The principles enunciated
in the Declaration of St. Petersburg were reiterated and ex-
panded upon in the Regulations annexed to the Fourth Hague Con-
vention of 1907. The Regulations reaffirmed that the right of
belligerents to adopt means to injure the enemy was not unlimited\footnote{11}
and that "treacherous killing"\footnote{12} and causing "unnecessary suffer-
ing"\footnote{13} was impermissible.

The standard used to determine whether or not the use of a
particular weapon constitutes unnecessary suffering has never been
authoritatively set forth. The inherently pliable term "unnecessary"
can be given several meanings. The most common standard of "un-
necessary suffering" balances the harm caused by the weapon
against the necessity of the military goals sought to be achieved.\footnote{14}
One formulation of this test states that the legality of the use of a
particular weapon hinges upon the "needlessness, the superfluity,
the disproportionality of harm relative to the military result" as opposed
to the degree of destruction and human suffering.\footnote{15} Another com-
mentator, while paying lip service to the balancing process noted
above, places greater weight on the total and indiscriminate nature
of the weapons to determine whether the suffering was
unnecessary.\footnote{16}

An argument can be made that the use of nuclear weapons does
not violate either standard. A nation can point to the necessity of a

\footnotesize{\begin{itemize}
\item \footnote{8} Falk, \textit{Nuclear Weapons}, supra note 2, at 560.
\item \footnote{9} Id. at 559.
\item \footnote{10} St. Petersburg Declaration, 1868, \textit{reprinted in} 1 AM. J. INT'L L. 95-96 (Supp. 1907).
The Declaration provides as follows: "[T]he only legitimate object which states should
endeavor to accomplish during war is to weaken the military force of the enemy; for this purpose
it is sufficient to disable the greatest possible number of men, or render their death inevitable
. . . ." \textit{Id}.
\item \footnote{11} The Hague Convention Respecting the Law and Customs of War on Land, 1907,
art. 22 (annex), 36 Stat. 2277, T.S. No. 539 (effective Feb. 28, 1910) [hereinafter Hague
Convention].
\item \footnote{12} \textit{Id}. art. 23(b).
\item \footnote{13} \textit{Id}. art. 23(e). The Hague Convention specifically states as follows: "[I]t is especially
forbidden: . . . (b) to kill or wound treacherously individuals belonging to the hostile nation or
army . . . (e) to employ arms, projectiles, or material calculated to cause unnecessary suffer-
ing." These principles were updated and inserted in the Geneva Conventions of 1949. \textit{See}
Fried, \textit{supra} note 6, at 100.
\item \footnote{14} For a more complete analysis of the proportionality theory, see \textit{infra} text accompa-
nying notes 46-49.
\item \footnote{15} Weston, \textit{Nuclear Weapons Versus International Law: A Contextual Reassessment},
28 Mc\textit{Gill} L.J. 542, 554 (1983); \textit{see also} Mallison, \textit{The Laws of War and Limited Wars}, 36
GEO. WASH. L. REV. 308, 323 (1967). Mallison states that the suffering must be considered
"in relation to the military advantage to be derived from the use of the weapon." \textit{Id}.
\item \footnote{16} \textit{See} Falk, \textit{Nuclear Weapons}, supra note 2, at 561.
\end{itemize}}
particular usage of nuclear arms using traditional national defense and national security justifications. Although the credibility that can be attached to such a justification obviously depends upon the factual situation involved, the great elasticity of this standard suggests that this defense would be invoked as a matter of course, no matter what degree of destruction was wrought upon a particular population.

Justification of the use of nuclear arms under the "indiscriminate suffering" formulation of unnecessary suffering is more difficult. Most frequently, theoreticians posit that nuclear weapons can conceivably be used in such a manner so as to avoid massive and indiscriminate destruction. This hypothetical usage would be aimed at a limited military target, involve a comparably small weapon and would be fused so as to limit the amount of radioactive fallout. By dint of a cautious and surgical use of nuclear weapons, made possible by technological advancements, it is believed that nuclear weapons could be employed in a way that would be legally indistinguishable from conventional weaponry.17

There are numerous adherents to the position that the use of nuclear arms, in most if not all instances, would cause unnecessary suffering. One commentator did not use either definition of unnecessary suffering, regarding as axiomatic the proposition that nuclear bombs would cause unnecessary suffering. More frequently, commentators claim nuclear weapons contravene the Declaration of St. Petersburg and the Hague Convention under the more traditional notions of unnecessary suffering.18 Though some concede that it is theoretically feasible that a nuclear weapon could be employed without violating this rule,19 the vast majority of possible uses would cause a disproportionate degree of destruction and suffering.

Any weapon that is exploded in the vicinity of a civilian population would cause casualties that are incidental to the military goals sought by such use. Even the smallest of nuclear arms would be inherently incapable of avoiding destruction unnecessary to the military goal. In addition, the long-lasting effect of radioactive fallout from nuclear weapons on the immediate victims and their offspring are certainly unnecessary to any military objective. Finally, in the event of a nuclear attack, victims would be in a heavily contaminated area. Thus, adequate medical care and treatment would be impossible, causing additional suffering that would be termed "unnecessary" under any definition of the word. The position that al-

18. See, e.g., Fried, supra note 6, at 100.
most all uses of nuclear arms would violate the prohibition against inflicting unnecessary suffering has been summarized as follows:

If [the rule of unnecessary suffering] was applied, nuclear weapons and strategy would seem clearly illegal under international law because their manifest effect almost certainly causes unnecessary and excessive human suffering, an extreme instance of adapting a means of warfare, contrary to Article 22, whose character is unlimited. Given the area of total and indiscriminate destruction resulting from the use of nuclear weapons and the residual genetic effect of radioactive fallout, it would be impossible to conclude that the use of nuclear weapons involves only the limited application of proportionate force required to weaken an enemy.\(^\text{20}\)

B. Gas

A second argument that a use of nuclear weapons would violate the principles of humanity involves the Geneva Gas Protocol of 1925.\(^\text{21}\) The Protocol accepts the universal recognition that the use in war of poisonous or other gases and all other related substances are illegal under international law. The traditional defenses available under international law are not available to those nations who violate this principle; the prohibition against using such weapons is absolute. Both the United States and the Soviet Union are parties to this convention, as are a large number of other states.\(^\text{22}\) Because of the great degree of compliance with the Protocol and its broad terminology, the Protocol has become, "without doubt declaratory of the customary law,"\(^\text{23}\) and hence is binding on even nonsignatory nations.

The broad phraseology of the Protocol renders it susceptible to many interpretations. Proponents of the view that atomic weapons are not within the purview of the Geneva Gas Protocol claim that to

\(^{20}\) Id.

\(^{21}\) Protocol Prohibiting the Use in War of Asphyxiating, Poisonous or other Gases, and of Bacteriological Methods of Warfare, June 17, 1925, 94 L.N.T.S. 67 [hereinafter Geneva Gas Protocol]. The convention states in pertinent part as follows:

The undersigned Plenipotentiaries, in the name of their respective Governments:

Whereas the use in war of asphyxiating, poisonous or other gases, and of all analogous liquids, materials or devices, has been justly condemned by the general opinion of the civilized world . . . .

To the end that this prohibition shall be universally accepted as a part of International Law, binding alike the conscience and practice of nations;

Declare:

That the High Contracting Parties, so far as they are not already Parties to Treaties prohibiting such use, accept this prohibition, agree to extend this prohibition to the use of bacteriological methods of warfare and agree to be bound as between themselves according to the terms of this declaration.

\(^{22}\) See Weston, supra note 15, at 560.

\(^{23}\) Brownlie, Some Legal Aspects of the Use of Nuclear Weapons, 14 INT. & COMP. L.Q. 437, 444 (1965).
compare the weapons that the Protocol was meant to prevent with revolutionary nuclear weapons is a dubious proposition. The chemical weapons addressed by the Geneva Gas Protocol have a "general aspect" that distinguishes them from modern weaponry.\textsuperscript{24} Second, from a scientific standpoint, radioactive fallout from nuclear weapons only effects external portions of the body and therefore cannot be considered poisonous under the meaning of the Protocol.\textsuperscript{25} In addition, there is support for the position that fallout loses its radioactivity very rapidly and any harm caused would be negligible. Finally, it has been argued that these weapons are designed to produce a minimal amount of fallout, with "most" deaths resulting from the weapon's blast effect.\textsuperscript{26}

Despite these arguments, nuclear weapons appear to be covered by the prohibition contained in the Geneva Gas Protocol. The argument that the Protocol does not apply to weapons that were not within the contemplation of its drafters is countered by the argument that, when a statute is phrased in general terms, it must be applied broadly. To restrict its application would be analogous to interpreting older traffic statutes in such a way as to confine the word "vehicle" to the horse and cart.\textsuperscript{27}

Second, the position that nuclear weapons cannot be categorized as having poisonous effects because they do not cause destructive effects inside the body has been vigorously disputed.\textsuperscript{28} Further, the broad language of the Protocol, prohibiting "poisonous or other gases" and other analogous substances, suggests that such a narrow interpretation of the convention was not intended by its framers. Thus, one commentator has concluded as follows:

This Protocol is so comprehensive in its prohibition that it would include any weapon whose effects were similar to that of poison gas or bacteriological warfare. Because the characteristics of a weapon determine whether it is prohibited the effects of radioactive contamination would appear to make nuclear weapons illegal regardless of whether radiation is treated as a gas, liquid, or solid. Here again, a strong case exists for the proposition that human exposure to radiation or radioactive fallout produces symptoms and results indistinguishable from the effects of a poison, and in some respects more seriously, including delayed disease and genetic distortion.\textsuperscript{29}

\textsuperscript{24} Id.
\textsuperscript{26} See Lee, \textit{supra} note 17, at 520.
\textsuperscript{27} See Brownlie, \textit{supra} note 23, at 444.
\textsuperscript{28} Lee, \textit{supra} note 17, at 520.
\textsuperscript{29} Falk, \textit{Nuclear Weapons, supra} note 2, at 563.
Finally, the argument that the effects of radioactive fallout would be "minimal" or "negligible" is irrelevant. The Protocol outlaws the use of any substance covered by its terms regardless of the degree of harm caused. The damage that the weapon would cause is therefore not an appropriate inquiry in determining whether an actor has violated the Protocol.

C. Combatant and Noncombatant Distinction

Another principle of humanity that would be endangered by the use of nuclear weapons is the distinction between combatants and civilians. It is a well established precept of international law that noncombatants are immune from enemy attack. In 1923, the Hague Draft Rules on Aerial Warfare stated that only military targets are permissible, and then only if the raid can be achieved without indiscriminate bombing of civilians. This principle was recently included in the 1977 Geneva Protocol on Humanitarian Law Applicable in Armed Combat. The United States government, however, has taken the position that incidental civilian casualties caused by bombings of military targets are permissible.

In support of the U.S. position, it should be noted that the Draft Rules of Aerial Warfare are not binding. In addition, the countries with nuclear capacity have not yet ratified the 1977 Protocol, and the United States and the United Kingdom both signed the Protocol with the stipulation that it would not apply to nuclear weapons. The Soviet Union had also signed but not ratified the 1977 Geneva Protocol. Finally, even assuming that a nuclear strike against a military target near a populated area would be unlawful, there still remains the theoretical possibility of a limited strike with limited fallout that would not offend the Draft Rules of Aerial Warfare or the 1977 Protocol.

In opposition to the view that the Draft Rules and the 1977 Protocol do not constrain the actions of nations, some commentators have noted that despite the lack of binding force of either conven-

30. See Fried, supra note 6, at 100
32. See Geneva Protocol I Additional Relating to the Protection of Victims of International Armed Conflicts (1977) [hereinafter 1977 Geneva Protocol]. The Protocol states as follows: "In order to ensure respect for and protection of the civilian population and civilian objects, the Parties to the conflict shall at all times distinguish between the civilian population and combatants and between civilian objects and military objectives and accordingly shall direct their operations against military objectives."
33. Dept. of the Air Force, AFP 110-31, International Law: The Conduct of Armed Conflict and Air Operations 6-5 (1976). The treatise states that "the immunity of the civilian population does not preclude unavoidable and incidental civilian casualties which may occur during attacks against military objectives."
34. See Weston, supra note 15, at 566.
35. Id. at 566.
tion, it is “probable” that both documents reflect the present state of customary international law.\textsuperscript{36} If the conventions are declaratory of customary law, then the provisions are binding despite the parties’ failure to ratify these provisions. With regard to the 1977 Protocol, international law, as manifested in the Vienna Convention, requires that countries that have signed but have not ratified an international agreement must refrain from acts that would defeat the agreement’s object and purpose.\textsuperscript{37} Thus, neither the United Kingdom, the United States, or the Soviet Union is free to simply ignore the dictates of the 1977 Protocol.

Although some claim that it is theoretically possible to use nuclear weapons so as to avoid indiscriminate harm among casualties, it is unlikely that such usage would occur in reality. Even assuming that such a use was feasible, it is uncontested that the vast majority of nuclear strikes would violate this principle.

D. Inviolability of the Territoriality of Neutrals

The use of nuclear weapons would also intrude upon the territory of nonparticipating states. International law has long recognized two related principles: first, that belligerent countries may not extend the field of combat onto the territory of a neutral party, and second, that neutral states have a right to exclude belligerents who enter their territory.\textsuperscript{38} The prohibition against violating a neutral state’s territoriality is absolute; it cannot be excused by invoking any of the traditional defenses available under international law. A logical extension of these rules suggests that customary international law would support the position that “the use of nuclear weapons in circumstances in which the user knows that it is bound to injure neutral states, must be considered as a violation of international law and, if it involves the killing of innocent neutrals, a clear war crime.”\textsuperscript{39} The Hague Convention embodied these principles within its text, stating as follows: “The territory of neutral Powers is inviolable.”\textsuperscript{40}

Because of the size and the immense destructive powers of nuclear weapons, proponents of their legality must argue that nuclear technology has advanced to a stage at which a nuclear strike could be confined to a limited region and would not transgress upon the territorial boundaries of neutrals. Even assuming such an attack would be possible, however, international law would prohibit any nuclear strike that was not confined to the territories of the conflicting

\textsuperscript{36} See, e.g., Falk, Nuclear Weapons, supra note 2; Weston, supra note 15, at 566-67.
\textsuperscript{38} Id. at 559.
\textsuperscript{39} N. SINGH, NUCLEAR WEAPONS AND INTERNATIONAL LAW, 106 (1981).
\textsuperscript{40} Hague Convention, supra note 11, art. 1.
parties. The Hague Convention is phrased in general and mandatory terms; no invasion of a neutral's territory is permissible. Thus, only the most limited potential uses of nuclear weapons are even theoretically lawful, and the vast majority of potential uses clearly would violate customary international law and the Hague Convention.\(^4\)

IV. Defenses

The conclusion that a nuclear strike violates some aspect of international law is not necessarily determinative. Even when international law has been violated, a nation can be excused for its actions if the actions are justified under one of the defenses recognized by international law. These defenses, however, are not universally available. When a nation has violated the prohibitions against gas weaponry or the territoriality of a neutral state, the actions are illegal, regardless of any justification. When an action results in unnecessary suffering or fails to discriminate between combatants and noncombatants, these defenses are considered in determining the legality of the action.

A. Military Necessity and Proportionality

Perhaps the most frequently invoked defense is that of military necessity. Military necessity has been defined as the "necessity of those measures which are indispensable for securing the ends of war, and which are lawful according to the modern law and usages of law."\(^42\) Governments have often seized this concept and tried to exempt their nation from legal sanctions by claiming that their actions were required by the necessities of the country's military situation.

The doctrine of military necessity, however, is by no means unlimited. It is universally recognized that international law places constraints on military necessity. The mere presence of a military objective does not in itself permit unlimited destruction. During the Nuremberg war trials, a United States Military Tribunal rejected the defendants' military necessity defense for acts committed in an

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41. This Article does not provide an exhaustive list of the arguments that a nuclear strike would violate the principles of humanities as recognized under international law. For example, the 1977 Geneva Protocol prohibits weapons or tactics that would cause long-term and widespread damage to the natural environment. 1977 Geneva Protocol, supra note 32, art. 35(3). Without doubt, widespread or even limited usage of nuclear weapons would violate the terms of the Protocol. In addition, article 6(c) of the Nuremberg Charter states that the extermination of a population, in whole or in part, is a crime against humanity. See Falk, Nuclear Weapons, supra note 2, at 566. It would seem that a nuclear strike against any area inhabited by civilians would contravene the dictates of the Charter.

The court held as follows: "the destruction of property to be lawful must be imperatively demanded by the necessities of war. Destruction as an end in itself is a violation of international law. There must be some reasonable connection between the destruction of property and the overcoming of the enemy forces."44

The extent to which international law places limitations on the doctrine of military necessity is subject to debate. Several commentators have suggested that if an action violates a rule of international law, the doctrine of military necessity will not excuse the act.45 This restriction on military necessity, however, seems overbroad. It is unlikely that any military campaign that a country would be able to completely avoid contravention of international law. For example, although conventional bombardment of a city may violate certain principles of humanity, it has been sanctioned by the international legal community. Conventional bombings, like a nuclear strike, undoubtedly cause casualties on an indiscriminate basis. A strong argument can also be made that some of the suffering caused by such tactics is unnecessary. Since conventional bombings have achieved widespread acceptance and use, it appears that although a particular action may be violative of some aspect of international law, this factor is not dispositive.

A more useful concept for evaluating the lawfulness of wartime conduct under the military necessity doctrine is the principle of proportionality. Proportionality is the fundamental concept that balances the legitimacy of military ends against the means used to achieve these ends.46 Under this test, as one commentator has suggested, the relevant inquiry is not whether a particular weapon violates international law but instead whether the destruction caused by a weapon is proportionate to a legitimate military objective.47

The concept of proportionality provides a useful framework for evaluating the lawfulness of all military tactics. Regarding the widespread acceptance of a conventional bombardment on a defended city that attempted to destroy legitimate military targets, it is apparent that the degree to which the principles of humanity are violated

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44. Id.
45. See Paust, The Nuclear Decision in World War II — Truman's Ending and Avoidance of War, 8 INT'L LAW. 160, 172 (1974); see also U.S. Dep't of the Army, Field Manual No. 27-10, The Law of Land Warfare (1956) [hereinafter Army Field Manual], which states that “[m]ilitary necessity has been generally rejected as a defense for acts forbidden by the customary and conventional laws of war inasmuch as the latter have been developed and framed with consideration for the concept of military necessity.”
46. See, e.g., O'Brien, supra note 5, at 7.
47. Id.; see also Army Field Manual, supra note 45, which offers the following formulation of the concept of proportionality: “loss of life and damage to property must not be out of proportion to the military advantage to be gained.”
is relatively small compared to a legitimate military objective. If a belligerent were to employ the tactic of saturation bombing a civilian area with conventional bombs, the likelihood that such actions would be deemed illegal under the proportionality test would increase. The use of nuclear weapons is obviously even more difficult to justify under this standard.

The legal consequences of some uses of nuclear weapons are easier to evaluate than others. It would be difficult to find support for the notion that the annihilation of a large city, predominantly inhabited by civilians, would be lawful, notwithstanding other military objectives. Conversely, other theoreticians envision a situation in which a single nuclear warhead, fused to limit fallout, is used against a legitimate military target in an area where there are no noncombatants. This, they argue, would be a lawful use of nuclear weapons.48

Within the infinite range of possible scenarios that may lead to the use of nuclear weapons, many exist which defy simple categorization. Herein lies the greatest flaw with the proportionality test. Like any balancing test, the final determination is based in a highly subjective interpretation of the data. Absent a numerical standard with which to judge the relative importance of violations of humanitarian concerns and military needs, the final determination of whether conduct is legal or illegal under international law will vary greatly. The practical consequence of such a flexible standard is that a nation can always claim that its use of nuclear arms is proportionate to the end it seeks to achieve.49 Thus, although proportionality provides a helpful guide to judging the legality of instances in which nuclear weapons are used, it is potentially a source of abuse.

In the hands of other nations and international legal scholars, proportionality can be an equally effective tool to condemn any use of nuclear weapons. In all but its most limited uses, nuclear weapons possess a destructive capacity exponentially greater than conventional bombs. Necessarily, an attack on a single target by a nuclear weapon would cause a proportionally greater degree of destruction to people, property and the environment than would its conventional counterpart. In addition, the element of radioactive fallout gives these weapons an inhumane quality that contravenes several principles of international law. The cumulative effect of these destructive properties lead to the conclusion that, except in very limited circumstances, no degree of military necessity would justify using nuclear

48. See, e.g., Lee, supra note 17, at 524-25.
49. The atomic bombings of Hiroshima and Nagasaki by the United States are a perfect illustration of this problem. The United States endeavored to exempt its conduct from international condemnation by invoking the principle of military necessity. See infra notes 67-76 and accompanying text.
weaponry.

B. Reprisals and Self-Defense

A second doctrine that may excuse a use of nuclear weapons that would otherwise be unlawful is reprisal. Reprisals have been defined as "actions which are in themselves unlawful, but which become lawful when taken in response to unlawful actions by the other side."\textsuperscript{50} Lawful reprisals, however, are limited to actions that are proportionate to their antecedent provocation.\textsuperscript{51} In other words, the harm caused by a retaliatory attack must be in proportion to the original attack. The purpose of permitting retaliatory actions is to deter the aggressor from future transgressions by informing the aggressor that any attack will be met by an equally destructive response.\textsuperscript{52}

There are two possible sets of circumstances that could lead to the use of nuclear weapons as an act of reprisal: a conventional attack and a nuclear attack. It is difficult to conceive of a nuclear reprisal that would be proportionate to a conventional attack. The vast capacity for destruction possessed by nuclear weapons far exceeds the damage that can be caused by conventional means, and it is therefore unlikely that this defense would be accepted by the international community under these circumstances.

The use of nuclear weapons in response to a nuclear strike would, at first glance, fare much better in the eyes of international law, provided that the response was proportionate in scope to the original attack. The United Nations Charter, however, in articles 2(4) and 51, condemn forcible reprisals. Article 2(4) forbids a nation from threatening or using force against another state. Article 51 provides an exception to the general rule provided in Article 2(4), but it is limited to actions taken in self-defense. Since the purpose of reprisals is not to defend but to retaliate, article 51 does not cover such actions.

Even greater legal problems are encountered in analyzing the scope of the related doctrine of self-defense. Self-defense differs from reprisal in that its objective is not to deter future attacks by the en-

\textsuperscript{50} See Fried, supra note 6, at 113. An often quoted decision, rendered by an arbitration panel in 1928, defined reprisal as "an act of self-help . . . corresponding after an unsatisfied demand to an act contrary to the law of nations . . . . They would be illegal if a preliminary act contrary to the law of nations had not furnished a reason for them . . . ." See R. HENCKIN, INTERNATIONAL LAW, p. 889 (1980). In addition, the decision states that the use of force could only be justified by necessity. \textit{Id.} For purposes of analysis of the legality of nuclear weapons, Fried's definition is more useful. The arbitration panel's requirement of an "unsatisfied demand" is unrealistic, given the very limited time within which a country may respond to the information that it is the target of a nuclear strike by a belligerent country.


\textsuperscript{52} See Fried, supra note 6, at 113.
enemy, but to prevent harm to a country's territory and its inhabitants. Customary international law places significant limitations on when self-defense can be invoked. Generally, self-defense is restricted to instances in which the need for self-defense is "instant, overwhelming, and leaves no choice of means, and no moment for deliberation." In addition, any action taken in self-defense is, like reprisal, limited by the concept of proportionality. The United Nations Charter also recognizes the right of self-defense when a nation is the object of an armed attack.

The interpretation of these general principles, however, can vary greatly. The analysis of the legality of nuclear weapons used in self-defense revolved principally upon three scenarios. The first hypothesis would occur when a nation had been attacked with conventional weapons. The proportionality principle mandates that the force used, even in a defensive posture, must be proportional to the quantum of force used by the aggressor. Because of the vast disparity in magnitude between any nuclear weapons and any conventional means of warfare, it is difficult to conceive of a proportionate nuclear defense to a conventional attack.

The second scenario involves a nuclear response to an actual nuclear attack. This situation presents the strongest case for permitting a nuclear strike in some capacity. Still, it is difficult to ascertain what degree of response is appropriate. The doctrine of self-defense is applicable only to prevent further damage to citizens and territories. The right to self-defense does not include the right to an armed attack for retaliatory purposes; that is the domain of the reprisal defense. Any attack on the civilian population would be unlawful, since it would not further a "defensive" objective. Defending against the

53. See R. Henckin, supra note 50, at 890 (quoting Letter from Mr. Webster, U.S. Sec. of State to Lord Ashburton, British Minister (Aug. 6, 1842)). The correspondence was in response to the massacre of thirty-three Americans by a group of armed British citizens. Webster claimed that the circumstances permitting self-defense "were not present in that issue."


55. U.N. Charter, art. 51. The article states as follows:
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 Counsel has taken measures necessary to maintain international peace and security. Measures taken by Members in the exercise of this right of self-defense shall be immediately reported to the Security Counsel under the present Charter to take at any time such action as it deems necessary in order to maintain or restore international peace and security.

56. See Falk, Nuclear Weapons, supra note 2, at 567-58.

57. For support for the proposition that nuclear weapons are an inherently disproportionate means of defense against a conventional attack, see Kennedy, supra note 54, at 10; see also 12 M. WHITEMAN, DIGEST OF INTERNATIONAL LAW 492-93 (1971); but see Falk, Nuclear Weapons, supra note 2, at 568. It should be noted, however, that even if the self-defense argument is unsuccessful, an aggressor nation can alternatively pursue either reprisal or military necessity as a defense.
threat of additional nuclear attack could only be achieved by a counterforce strike against the aggressor's available nuclear weapons. Either military strategy would result in a violation of international law: a full scale assault on all of the aggressor's nuclear forces would doubtless result in incalculable destruction and would therefore be disproportionate to all but an all-out assault; a more limited counterforce strike would not achieve the objective of self-defense; to eliminate the aggressor's nuclear forces and, hence, to prevent the aggressor from inflicting additional damage. Therein lies the flaw with nuclear responses in self-defense to a nuclear attack: the degree of force needed to effectively defend against future attacks is inherently disproportionate to the destruction that it would necessarily cause, particularly given the fact that there is no guarantee that the aggressor would launch additional weapons.

The third scenario contemplates anticipatory self-defense or the use of nuclear weapons in order to prevent an imminent attack. Article 51 of the United Nations Charter restricts the use of force in self-defense to reactions against armed attack. Several commentators have proffered reasons why Article 51 should be interpreted to sanction anticipatory self-defense. First, it is argued that the definition of an armed attack must be altered to take account of the advent of nuclear weapons. Because of the enormous potential for destruction caused by one or more nuclear weapons, it is imperative that such an attack be prevented if it is, in fact, imminent. A second argument is based on the traditional assumptions underlying the right of self-defense. The concept of self-defense has always been predicated on the notion that an attacked country will be able to respond to the attack of the aggressor. With the development of nuclear weapons, this assumption no longer holds true. For self-defense to retain its effectiveness, the argument concludes, Article 51 must be interpreted to allow a proportionate armed strike in anticipatory self-defense.

Despite the above arguments, article 51 by its terms limits the right of self-defense to instances of armed attack. In addition, equally strong policy arguments support the thesis that the advent of nuclear weapons necessitates the limitation of the right of self-defense. First, the massive potential for destruction of nuclear weapons renders it even more important that the nations involved not initiate the use of nuclear weapons. Any doctrine that purports to broaden a

58. U.N. Charter, art. 51.
nation's right to first use should therefore be avoided. Second, any unilateral determination that it is the imminent target of a nuclear attack may be based on unreliable or inaccurate information. Third, it would be unwise to offer a nation an opportunity to employ nuclear weapons using self-defense as a pretext for outright aggression. Since there is no uniformly accepted standard as to when a threatened attack is sufficiently imminent to warrant a preemptive strike, a nation intending to employ nuclear weapons could adopt a broad view of anticipatory self-defense to justify its future conduct.

C. Other Considerations in Applying the Proportionality Test

In each of the three hypotheticals presented above, a complete evaluation of the harms caused as a result of a nuclear assault must go further than a theoretical calculation of the casualties suffered and the property damaged in an ideal attack. To accurately assess whether a nuclear strike is proportional, consideration must be given to other factors. Perhaps the most important concern of nuclear weapons, particularly a first use of nuclear weapons, is a "Pandora's Box" concept; that is, the idea that once nuclear weapons are used, escalation and incalculable destruction would inevitably result. A large number of commentators have expressed the sentiment that it is unrealistic to expect military superpowers to restrain their use of nuclear weapons. The theory that parties to a nuclear war would be able to contain its use appears even more implausible upon realization that it is highly unlikely that either side would permit itself to be placed at a decided military disadvantage as a result of a nuclear attack. As one commentator wryly noted, it is unlikely that the two nuclear combatants would be able to restrict themselves "as if somehow governed by the rules of the Marquess of Queensbury."

A second consideration is the predictability of nuclear weapons. Since modern nuclear weapons have never been used under actual combat conditions, it is not unlikely that in a nuclear bombardment a weapon would not be delivered with ideal precision. The likelihood of misguided weapons increases with the number of weapons employed in a nuclear attack. In addition, the unpredictability of weather and wind conditions could exacerbate the effects of a nuclear strike. Radioactive fallout can be carried hundreds of miles by air currents; a sudden change in these conditions could have un-

61. See, e.g., Fried, supra note 6, at 110 (unrealistic to expect a superpower nuclear war to remain limited); Kennedy, supra note 54, at 61 (escalation inevitable after first nuclear weapon used); Lee, supra note 17, at 580 (first use would virtually guarantee retaliation).
62. See Weston, supra note 15, at 581. In addition, the inherent fragility of communications between countries would make it unlikely that any conciliatory communications would be possible after an initial nuclear exchange. See Kennedy, supra note 54, at 61-62.
63. See Weston, supra note 15, at 581.
predicted and devastating effects, most notably on neutral states.

Another element that must be considered in determining the proportionality of a nuclear attack is the incalculable effects of radioactive fallout. It is self-evident that in a major nuclear war, the effects of fallout would harm millions in present and future generations. In Nagasaki, where only one atomic bomb was dropped, people are still experiencing the effects of genetic damage. The widespread and far-reaching effects of the Hiroshima and Nagasaki bombings underscore the fact that even a small dose of radiation can induce harmful mutations.

These factors must all be considered in determining whether a particular use of nuclear weapons survives the proportionality test. The cumulative effect of these considerations point to the conclusion that any use of nuclear arms, no matter how limited, would contravene international law.

V. Other Sources of Evidence for Determining Customary International Law

Since the advent of nuclear weapons in the 1940s, various sources of international law have provided some evidence as to whether the use of these weapons is against customary international law. Perhaps the most useful sources of evidence are the international conventions discussed above. Another important source for determining customary international law is international judicial precedent. There has been only one instance in which a tribunal has rendered judgment as to the legality of first use of nuclear weapons. In 1963, the District Court of Tokyo decided The Shimoda Case, in which it assessed the legality of the atomic bombings of Hiroshima and Nagasaki by the United States. In Shimoda, five Japanese plaintiffs brought an action against the Japanese government, claiming that the government had violated their constitutional rights by waiving the rights of its nationals to pursue claims against the United States government that arose from the bombings. As an element of their claim, the plaintiffs asserted that the United States government violated both positive and customary international law by its use of atomic weapons. The plaintiffs claimed that the bombs

64. See Fried, supra note 6, at 102.
65. See Ragone, supra note 42, at 708.
66. Id.
69. Id. at 761.
caused indiscriminate and unnecessary suffering, constituted a poisonous gas, and failed to distinguish between combatants and non-combatants, all in violation of various international agreements. The court, while holding that the plaintiffs had no legal basis for recovering damages from the Japanese government, agreed with plaintiffs' contention that the atomic bombings contravened international law.\textsuperscript{70}

The court's opinion focused not on the general issue of the legality of atomic weapons, but instead on whether the particular bombings of Hiroshima and Nagasaki by the United States violated international law.\textsuperscript{71} Although the court noted that a new weapon is legal until prohibited by international law, it averred that an international convention need not be direct or express to be applicable.\textsuperscript{72} The court then examined the present state of international law and concluded that the weapon employed by the United States was within the penumbra of earlier prohibitions.\textsuperscript{73} Specifically, the court upheld the plaintiffs' claim that the bombings did not discriminate between military and nonmilitary objectives,\textsuperscript{74} caused unnecessary suffering, violated prohibitions against poison gas,\textsuperscript{5} and was not justified by military necessity.\textsuperscript{76}

The United Nations General Assembly has provided an additional source of evidence as to the state of customary international law. Since its inception, the General Assembly has endeavored to reach a common ground between nations as to the legality of the use of nuclear weapons.\textsuperscript{77} Despite early difficulty in creating a unified position, the international legal community gradually recognized a need to prevent proliferation of atomic weapons. In response to this sentiment, the General Assembly adopted Resolution 1653(XIV), an unequivocal statement condemning the use of nuclear and thermonuclear weapons.\textsuperscript{78} The Resolution was passed by a vote of fifty-five to twenty, with twenty-six abstentions.\textsuperscript{79} The Resolution itself declared "[t]hat the use of nuclear and thermonuclear weapons is contrary to the spirit, letter and aims of the United Nations and, as such, a di-

\textsuperscript{70} Id. at 759.  
\textsuperscript{71} Id. at 769.  
\textsuperscript{72} Id. at 771.  
\textsuperscript{73} Id. at 770 n. 22. The plaintiffs invoked, inter alia, the Declaration of St. Petersburg, the Hague Convention of 1907, and the Geneva Gas Protocol of 1925. See Falk, Nuclear Weapons, supra note 2, at 775.  
\textsuperscript{74} Falk, supra note 68, at 773.  
\textsuperscript{75} Id. at 775.  
\textsuperscript{76} Id.  
\textsuperscript{77} Falk, Nuclear Weapons, supra note 2, at 575. The General Assembly created the Commission of Atomic Energy in 1946 in an attempt to reach an international agreement with regard to atomic weapons.  
\textsuperscript{79} See Brownlie, supra note 23, at 438.
rect violation of the United Nations Charter . . . " The Resolution also specifically stated that the use of nuclear and thermonuclear weapons "is contrary to the rules of international law and to the laws of humanity." 81

Commentators have expressed differing views as to the significance of the Shimoda case and U.N. Resolution 1653. The significance of Shimoda is limited by three factors. First, the part of the opinion devoted to the issue of whether the use of the atomic weapons by the United States was not essential to the holding of the case and was therefore dicta. Second, the court's holding was narrowly circumscribed and did not extend beyond the factual situation involved. Third, the court rendering the opinion was under the sovereignty of the country that was the target of the weapon. 82

Despite the existence of factors tending to diminish the import of Shimoda, other factors strengthen its potential as valuable precedent. The opinion was a thorough and apparently impartial analysis of the issue presented. The appearance of impartiality is further supported by the court's reliance on several well-qualified experts in international law. In addition, since Shimoda is the only case addressing the legality of a use of nuclear arms, in the absence of more authoritative standards, it provides an initial model for handling such a matter. Finally, it should be noted that the true importance of Shimoda lies not in its strength as binding judicial precedent, but as a possible basis or building block that may contribute to the creation of a more uniform worldwide view of the legality of nuclear weapons. It is this potential universal condemnation that may act as a powerful deterrent to future use of nuclear arms. 83 Such condemnation may, in time, undermine internal support for policies that espouse the threat or use of nuclear arms and render such policies politically unfeasible.

The principal drawback with the U.N. Resolution is that it lacks binding force. One commentator has opined that a consensus among a majority of member states in the United Nations is not declaratory of customary international law unless such a custom has actually been established. 84 Nevertheless, a strong argument can be made that the absence of any use of a nuclear weapon since the United States bombings of Hiroshima and Nagasaki suggest that such a policy has become "customary." Even conceding this point, however, the fact that fifty-five countries supported the position that

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80. U.N. Resolution, supra note 78.
81. Id. The Resolution cited the indiscriminate suffering and destruction to mankind as support for this conclusion. Id.
82. See Lee, supra note 17, at 523.
83. See Falk, supra note 68, at 782.
84. See Bright, supra note 25, at 28-29.
any use of nuclear weapons is unlawful certainly presents cogent evidence as to the present state of customary international law. Like the Shimoda decision, perhaps the most significant aspect of the Resolution is its contribution towards establishing a uniform vision in the international community that any use of nuclear weapons is inconsistent with international law.85

VI. Conclusion

Despite the lack of a binding international convention specifically outlawing the use of any nuclear weapon, many strong arguments exist that any such use would be contrary to positive and customary international law. In all but its most limited uses, nuclear weapons could certainly violate one or more of the principles of humanity. The determination that one or more of these principles have been offended does not necessarily warrant the conclusion that the use of all nuclear weapons are prohibited under international law. For most violations, a country may exempt itself from a determination that its conduct was unlawful by successfully invoking the defenses of military necessity, reprisal, or self-defense. The success of these defenses rests on a determination that the degree of the violations is proportionate to the military objective sought to be achieved.

These defenses, however, are not available to all violations of international law. When a country has employed a weapon releasing poisonous or other gases and where a country has violated the territorial rights of a neutral state, these offenses constitute a per se violation of international law. The broad language of the Gas Protocol indicates that its terms should be extrapolated to cover the radiation present in nuclear weapons. The vast majority of potential uses of nuclear weapons would interfere with the territoriality of other countries. Even with a limited use of a nuclear weapon, there is no guarantee that adverse weather conditions or technological error would not result in a violation of a neutral country's territorial right. These two prohibitions warrant the conclusion that any use of nuclear weapons would violate positive international law.

Despite the availability of various defenses to excuse a nuclear strike, it is difficult to envision a situation in which the harm caused

85. This aspect of the Resolution's significance was summarized by Falk, Meyerowitz and Sanderson:

As evidenced by the actions of the General Assembly over the years, it is clear that a legal consensus has been emerging which considers the use and possession of nuclear weapons to contradict the fundamental humanitarian principles upon which the international law of war was erected . . . . In sum, [the Resolution] inherently realize[s] that global survivability is so elemental to the international law of war that a prohibition on the use of nuclear weapons can be reasonably inferred.
Falk, Nuclear Weapons, supra note 2, at 578.
in such an attack would be proportionate to the military objective. Again, the vast majority of conceivable uses, particularly attacks on civilian centers and responses to conventional attacks, would not meet the proportionality test. Even when a nuclear strike has been employed so as to minimize the concomitant destruction and suffering, it is still unlikely to survive the proportionality test. An accurate calculation using the proportionality test must consider all the realities that are inherently associated with the use of nuclear weapons, including the following: the likelihood that the use of a nuclear weapon will commence a spiral of escalation, the possibility that lack of control over nature and the weapons themselves may cause unforeseen damage, and the probable failure, when reprisal or self-defense is claimed, of nuclear weapons to achieve the purposes that make such defenses permissible. The combination of these many factors renders it unlikely that any use of nuclear weapons would pass a test of proportionality.

The Shimoda decision and the General Assembly Resolution 1653 reenforce the claim that any use of nuclear arms violates both positive and customary international law. Although neither source is binding on the international community, their import goes beyond the mere opinion that the use of nuclear arms is illegal. While neither Shimoda nor the Resolution are necessarily declaratory of international law, they provide evidence that the emerging consensus in the international community is that the catastrophic consequences of a nuclear war are not tolerable, regardless of the justification. These sentiments support the contention that no use of nuclear arms would receive the imprimatur of international law; and instead, it would be soundly condemned.