

Discrimination, Indiscriminate Attacks, and the Use of Nuclear Weapons

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Introduction

Nuclear weapons are uniquely devastating in the destruction they cause. At Hiroshima and Nagasaki, these weapons indiscriminately killed soldiers and civilians alike, demonstrating the ease with which their use can violate the rule of distinction, international law's primary vehicle for protecting civilians during wartime. Would nuclear weapons, however, violate this rule in all circumstances? By analyzing the rule of distinction, and its corollary prohibition against indiscriminate attacks, this paper will show that the vast majority of nuclear attacks would indiscriminately harm the civilian population. In addition, evaluating the legality of nuclear weapons within the rubric of the principle of distinction will provide us with a vehicle with which we can thoroughly understand its role within the broader category of international humanitarian law.

Part 1 of this paper will provide a foundation for this analysis by introducing the body of law known as the laws of war, which encompasses the rule of distinction. This Part will discuss the purposes and sources of the laws of war, aiding our understanding of the position of the rule of distinction in this context.

Part 2 will examine the historical development of this body of law, dating back to the Biblical era. The various attempts at codifying these laws illustrate how they have shifted in priority based on historical circumstances. In the wake of the World Wars, which saw innumerable civilian casualties and the development of weapons of mass destruction, the international community recognized that the rule of distinction required reinvigoration.

Part 3 will analyze the contemporary understanding of the rule of distinction, particularly through the lens of the corollary rule against indiscriminate attacks, as formulated by the 1977

Additional Protocol I to the Geneva Conventions.¹ This Part will review the diverse methodologies used to apply this rule, providing the framework for an evaluation of how it is implicated by nuclear weapons. In addition, Part 3 will begin to clarify the role of the rule of proportionality within this context.

Nuclear weapons will be introduced and defined in Part 4. This Part will review the ICJ's analysis of the rule of distinction in its 1996 advisory opinion on the Legality of the Threat or Use of Nuclear Weapons,² and argue that a thorough examination of the rule of distinction for nuclear weapons is particularly significant because of the ICJ's flawed evaluation of this rule.

Part 5 will apply the rule of distinction and the rule against indiscriminate attacks to the use of nuclear weapons. It will isolate each of the potentially indiscriminate aspects of nuclear weapons, demonstrating that due to nuclear radiation and the conflagration caused by nuclear attacks, potentially discriminate uses of nuclear weapons are nearly impossible to identify. In addition, by segregating the various types of damage caused by nuclear weapons, this Part will show that the rule of distinction, rather than the rule of proportionality, should be the primary mechanism for analyzing the indiscriminate effects of nuclear weapons.

Since this paper focuses primarily on the Additional Protocol's formulation of the rule against indiscriminate attacks, it is important to note that some have argued that this rule should not apply to nuclear weapons because it does not reflect customary international law. Thus, Part 6 argues that nuclear weapons violate not only the rule against indiscriminate attacks, but also the basic rule of distinction.

¹ The full name of this convention is Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977, *available at* <http://www.icrc.org/ihl.nsf/WebList?ReadForm&id=470&t=art> [hereinafter Additional Protocol].

² *Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, Reports 1996*, p. 226 (July 8), *available at* <http://www.icj-cij.org/docket/index.php?p1=3&p2=4&k=e1&case=95&code=unan&p3=4> [hereinafter Advisory Opinion].

1. *The Laws of War*

i. **Defining the Laws of War**

The laws of war comprise the body of established law that serves to protect man during armed conflict.³ These laws recognize that warfare is subject to clear limitations,⁴ attempting to balance military necessity with humanitarian principles.⁵ The specific restrictions contained within this body of law are also aptly referred to as the laws of armed conflict.⁶ In addition, because these laws are primarily concerned with minimizing harm to civilians, a modern term for this law is “international humanitarian law.”⁷

The laws of war recognize that excessive violence and destruction are immoral, wasteful and counterproductive to the attainment of a lasting resolution.⁸ Accordingly, this body of law has its foundations in both a sense of idealism and pragmatism: Our basic human compassion dictates that those who can should be saved. Similarly, by refraining from inflicting excessive damage to the adversary, the hope is that the same restraint will be shown in return, fostering the restoration of peace.⁹

There are two principal divisions with the laws of war: the *jus ad bellum* and the *jus in bello*.¹⁰ The *jus ad bellum* govern when a state may justifiably resort to the use of force. The U.N. Charter reflects these principles, authorizing the use of force only in instances of self-

³ Christopher Greenwood, *Historical Development and Legal Basis*, in THE HANDBOOK OF INTERNATIONAL LAW 1 (Dieter Fleck ed., Oxford University Press, 2d ed., 2008).

⁴ HILAIRE MCCOUBREY, INTERNATIONAL HUMANITARIAN LAW: MODERN DEVELOPMENTS IN THE LIMITATION OF WARFARE 1 (Dartmouth Publishing Company Limited, 2d ed., 1998).

⁵ Jill M. Sheldon, *Nuclear Weapons and the Laws of War: Does Customary International Law Prohibit the use of Nuclear Weapons in all Circumstances?* 20 FORDHAM INT’L L.J. 181, 208 (1996).

⁶ MCCOUBREY, *supra* note 4, at 1.

⁷ Greenwood, *supra* note 3, at 1; *see also* Louise Doswald-Beck, *International Humanitarian Law and the Advisory Opinion of the International Court of Justice on the Legality of the Threat or Use of Nuclear Weapons*, INTERNATIONAL REVIEW OF THE RED CROSS, No. 316 (1997).

⁸ Waldemar A. Solf, *Protection of Civilians against the Effects of Hostilities under Customary International Law and Under Protocol I*, 1 AM. U.J. INT’L L. & POL’Y 117 (1986).

⁹ CHARLES J. MOXLEY, JR., NUCLEAR WEAPONS AND INTERNATIONAL LAW IN THE POST COLD WAR WORLD 28 (Austin and Winfield Publishers 2000).

¹⁰ MCCOUBREY, *supra* note 4, at 1.

defense or in U.N. enforcement actions.¹¹ Because the *jus ad bellum* primarily allow for the use of force in self-defense, they also prohibit a state from employing disproportionate or unnecessary armed response in self-defense,¹² and they demand that a state halt its use of force once the threat has been repelled.¹³

The *jus in bello*, with which this paper is primarily concerned, regulate the actual conduct of hostilities once they have commenced.¹⁴ The *jus in bello* have produced a number of rules regulating the conduct of hostilities.¹⁵ Among these rules are four basic principles – necessity, humanity, proportionality, and discrimination.¹⁶ The rule of necessity provides that a state may only use a level of force as is necessary to achieve its military objective. Accordingly, the state must have a specific military objective in mind to justify a particular use of force during wartime.¹⁷ The closely related principle of humanity states that military planners should minimize unnecessary suffering.¹⁸ The rule of proportionality prohibits an attack if the attack's likely effects will be disproportionate to the value of the anticipated military objective.¹⁹ This principle recognizes that there will be casualties and destruction of property in war, but that military planners should balance the needs of the military attack against this collateral damage. Only if the anticipated military advantage outweighs the likely damage should the attack be

¹¹ See MOXLEY, *supra* note 9, at 37.

¹² See *id.*

¹³ See *id.*

¹⁴ See Christopher Greenwood, *The Relationship Between Ius ad Bellum and Ius in Bello*, in HUMANITARIAN LAW 50 (Judith Gardam ed., Ashgate Publishers, 1999).

¹⁵ See Thomas J. Herthel, *On the Chopping Block: Cluster Munitions and the Law of War*, 51 A.F.L. REV. 229, 248-49 (2001).

¹⁶ See *id.*

¹⁷ See MOXLEY, *supra* note 9, at 52.

¹⁸ See Herthel, *supra* note 15, at 248.

¹⁹ See MOXLEY, *supra* note 9, at 40.

carried out.²⁰ Accordingly, the rules of necessity and proportionality are principles of both the *jus ad bellum* and *jus in bello*.²¹

Finally, the rule of discrimination, also known as the rule of distinction, is primarily designed to protect civilians and civilian objects.²² This rule requires that belligerents distinguish between combatants and non-combatants, and between military objectives and non-military objectives.²³ Most basically, it prohibits attacks that are directed against civilians. The principle of distinction is a customary rule of law²⁴ that has been expressed by a variety of military manuals, codes and conventions. Because it is a customary rule of law, all states, even those that have not signed a specific treaty requiring conformity with the rule, are bound by it.²⁵

The rule against indiscriminate attacks is a closely related rule that restricts attacks that cannot accurately distinguish between combatants and civilians.²⁶ Most maintain that this rule is also a part of customary international law.²⁷

ii. Sources for the Laws of War

There are a number of sources that make up the laws of war. According to Article 38 of the Statute of the International Court of Justice, the sources of international law are:

- a. International conventions, whether general or particular, establishing rules expressly recognized by the contesting states;
- b. International custom, as evidence of a general practice accepted as law;
- c. The general principles of law recognized by civilized nations;

²⁰ See Herthel, *supra* note 15, at 248.

²¹ See *supra* notes 11-13 and accompanying text; see also Moxley, *supra* note 9, at 38.

²² MOXLEY, *supra* note 9, at 64.

²³ See Additional Protocol, *supra* note 1, Article 48.

²⁴ See JEAN-FRANCOIS QUEGUINER, THE LEGITIMATE USE OF MILITARY FORCE: THE JUST WAR TRADITION AND THE CUSTOMARY LAW OF ARMED CONFLICT 161-65 (Howard Hensel ed., Ashgate Publishers, 2008); see also 169-172 for Queguiner's argument that distinction is also a *jus cogens*.

²⁵ See NAGENDRA SINGH AND EDWARD MCWHINNEY, NUCLEAR WEAPONS AND CONTEMPORARY INTERNATIONAL LAW 39 (Martinus Nijhoff Publishers, 1989).

²⁶ See Stefan Oeter, *Methods and Means of Combat*, in THE HANDBOOK OF INTERNATIONAL HUMANITARIAN LAW 199 (Dieter Fleck ed., Oxford University Press, 2d ed., 1998). See also Moxley, *supra* note 9, at 64.

²⁷ See *infra* Part 3, vii, for further discussion of this issue.

- d. . . . judicial decisions and the teachings of the most highly qualified publicists of the various nations . . .²⁸

Similarly, the International Military Tribunal at Nuremberg stated that the laws of war consist of treaties, universally recognized state custom and practice, and general principles of justice applied by jurists and practiced by military courts.²⁹ The ICJ Advisory Opinion notes that these “laws and customs of war” comprise “one single complex system” which has now been codified in the Hague and Geneva Conventions.³⁰

The current laws of war can be found within the Hague Regulations of 1899 and 1907, the Geneva Conventions of 1949 and its 1977 Additional Protocols, and the Conventional Weapons Treaty of 1980 with its Protocols.³¹

2. The Development of the Laws of War and the Rule of Discrimination

i. Early Restraints

For millennia, Soldiers and scholars have advocated for restraint in the conduct of warfare. In the Bible, the Israelites were commanded to care for their prisoners of war, and were forbidden from rejoicing when their enemy was killed.³² In the fourth century BCE, Sun Tzu stated in his *Art of War* that armies are obligated to care for prisoners of war and wounded soldiers of the adversary.³³ The Sanskrit poems *Ramayana*, written during the third century BCE, and *Mahabharata*, composed between 200 BCE and 200 CE, contain a series of principles regulating warfare, including prohibitions against the use of barbed, poisoned and blazing

²⁸ LORI F. DAMROSCH, LOUIS HENKIN, SEAN D. MURPHY, HANS SMIT, INTERNATIONAL LAW: CASES AND MATERIALS 55 (West Publishing Co. 5th ed. 2009) (1980).

²⁹ Sheldon, *supra* note 5, at 208 n.192; *see also* MOXLEY, *supra* note 9, at 20-26 (discussing these various sources).

³⁰ MOXLEY, *supra* note 9, at 33-34.

³¹ Herthel, *supra* note 15, at 247.

³² Leslie Green, *What Is – Why Is There – the Law of War?*, in THE LAW OF ARMED CONFLICT INTO THE NEXT MILLENNIUM 146 (Michael N. Schmitt and Leslie C. Green eds., International Law Studies 1998).

³³ Solf, *supra* note 8, at 118.

weapons.³⁴ In 634 CE, when the first Moslem Arab Army invaded Christian Syria, Caliph Abu Bakr prohibited his soldiers from cutting down fruit trees, slaying livestock, mutilating human beings, and killing women, children and monks.³⁵

When Ceaser became a Christian, the Church developed the Just War Doctrine. This *jus ad bellum* dictated that only a proper cause could warrant going to war.³⁶ This Doctrine also developed an early form of the *jus in bello*, the set of regulations for the conduct of hostilities once the war had begun. Included in this *jus in bello* was the rule of discrimination, which demanded that military attacks distinguish between citizens and combatants.³⁷ By the sixteenth century, even Shakespeare was aware of this principle, writing in *Henry V* that Fluellen declared in Agincourt, “Kill the boys and the luggage! ‘Tis expressly against the law of arms.”³⁸

ii. Codification

The laws of war were not formalized until the seventeenth century.³⁹ The Peace of Westphalia had diminished the influence of the Church by recognizing the absolute sovereignty of princes, thereby also reducing the authority of the Just War Doctrine.⁴⁰ In 1625, Hugo Grotius wrote *The Law of War and Peace*, in which he analyzed how centuries of state practice had crystallized into custom.⁴¹ He argued for humanitarian restrictions on the conduct of war, including restraints on unnecessary suffering and limits to killing.⁴²

The eighteenth century saw a drastic upsurge in the extent of warfare. The Napoleonic War and the French Revolution were fought by entire nations in arms. Entire populations were

³⁴ Green, *supra* note 32, at 147.

³⁵ Solf, *supra* note 8, at 118.

³⁶ *Id.*

³⁷ *Id.* at 119.

³⁸ Green, *supra* note 32, at 148.

³⁹ Sheldon, *supra* note 5, at 211.

⁴⁰ Solf, *supra* note 8, at 120.

⁴¹ *Id.*

⁴² Sheldon, *supra* note 5, at 211.

mobilized, with average citizens becoming soldiers, making it increasingly difficult to accurately discriminate between civilians and soldiers. These modern wars made it clear that a codified set of rules that would precisely define the laws of war was necessary.⁴³

Professor Francis Lieber's *Instructions for the Government of Armies of the United States*, promulgated by President Abraham Lincoln during the American Civil War, was the first systematic codification of the restraints on warfare.⁴⁴ Lieber states that "the unarmed person is to be spared in person, property, and honor as much as the exigencies of war will admit . . . Protection of the inoffensive citizen of the hostile country is the rule."⁴⁵ This "Lieber Code" also acknowledged the right to punish what would today be described as war crimes. Thus, "all wanton violence committed against persons in the invaded country . . . are prohibited under the penalty of death."⁴⁶ The Lieber Code was particularly influential because it stated coherent reasons for its rules.⁴⁷ The rules articulated were so consistent with contemporary military practice that Prussia, the Netherlands, France, Russia, Serbia, Argentina, Serbia, Great Britain and Spain all issued comparable manuals.⁴⁸

iii. Early International Efforts at Codification

Despite the influential writings of those like Grotius and Lieber, states did not codify the laws of war in multilateral agreements until the nineteenth century.⁴⁹ The first international effort to control the methods of warfare was the Declaration of St. Petersburg of 1868.⁵⁰ The Declaration implicitly recognized the principle of distinction by stating "that the only legitimate object which States should endeavor to accomplish during war is to weaken the military forces of

⁴³ See Solf, *supra* note 8, at 121.

⁴⁴ Green, *supra* note 32, at 157; see also Solf, *supra* note 8, at 121.

⁴⁵ Green, *supra* note 32, at 157.

⁴⁶ *Id.* at 158.

⁴⁷ Solf, *supra* note 8, at 121.

⁴⁸ Green, *supra* note 32, at 158.

⁴⁹ Sheldon, *supra* note 5, at 212.

⁵⁰ Green, *supra* note 32, at 158.

the enemy.”⁵¹ In addition, the Declaration was the first international agreement specifically forbidding the use of particular weapons.⁵²

The Declaration was especially significant because of its self-recognized lofty motives.

The Preamble states:

Having by common agreement fixed the technical limits at which the necessities of war ought to yield to the requirements of humanity . . . [the parties] declare . . . That the progress of civilization should have the effects of alleviating as much as possible the calamities of war.”⁵³

The Declaration recognized that although damage and death will occur during war, the law should be utilized to temper war’s destructivity by insulating that which can be protected.

Similarly, the Preamble to the Project of an International Declaration Concerning the Laws and Customs of War, composed at the 1874 Brussels Conference, states that nations should agree to limits on warfare for the “re-establishment of good relations, and a more solid and lasting peace between the belligerent states.”⁵⁴

iv. The Hague Regulations, the Geneva Conventions and the Additional Protocols

Two international peace conferences were held at the Hague in 1899 and 1907, at the invitation of the Imperial Russian Government.⁵⁵ At the 1899 Conference, members adopted three conventions covering dispute settlement, and the conduct of maritime and land warfare. At the 1907 Conference, delegates adopted ten new conventions.⁵⁶ The parties to these Conferences

⁵¹ COMMENTARY ON THE ADDITIONAL PROTOCOLS OF 8 JUNE 1977 TO THE GENEVA CONVENTIONS OF 12 AUGUST 1949 ¶ 1863, at 598 (Yves Sandoz, Christopher Swinarski, Bruno Zimmermann, eds., Martinus Nijhoff Publishers, 1987), available at http://www.loc.gov/rr/frd/Military_Law/pdf/Commentary_GC_Protocols.pdf. Green, *supra* note 32, at 159.

⁵² The Declaration prohibited the use of any projectile that weighing less than 400 grams that exploded or contained flammable content. See Sheldon, *supra* note 5, at 213.

⁵³ Green, *supra* note 32, at 159.

⁵⁴ *Id.* at 160.

⁵⁵ Sheldon, *supra* note 5, at 214.

⁵⁶ *Id.*

also drafted regulations establishing principles of war exclusively for the conduct of land warfare.⁵⁷ Article 25 of the 1907 Regulations, which states that the “attack or bombardment, by any means whatever, of undefended towns, villages, dwellings, or buildings, is forbidden,”⁵⁸ is at least partly based on the principle of distinction.

In 1923, the United States proposed that a set of new rules, known as the Hague Rules of Air Warfare, be incorporated into a treaty.⁵⁹ The most important provisions of these rules concern the protection of civilians from indiscriminate aerial bombardment. Significantly, Article 22 attempted to prohibit “aerial bombardment for the purpose of terrorizing the civilian population, of destroying or damaging private property not of a military character, or of injuring non-combatants.” Although these rules were never formally adopted, they are still recognized as having “strong persuasive authority.”⁶⁰

Four conventions were adopted at the Diplomatic Conference for the Establishment of International Conventions for the Protection of War Victims, which convened in Geneva in 1949.⁶¹ Ensuring the protection of prisoners of war, the wounded and sick, and medical and religious personnel were the primary goals of the Geneva Conventions of 1949.⁶² These conventions, however, hardly refer to actual military conduct during armed hostilities.⁶³

⁵⁷ Article 22 sets forth the basic principle that belligerents have a limited right to injure the enemy. Based on Article 23(e), combatants may not use weapons designed exclusively to cause unnecessary suffering. Article 23(a) includes a prohibiting on the use of poison or poisonous weapons. See ELLIOT L. MEYROWITZ, PROHIBITION OF NUCLEAR WEAPONS: THE RELEVANCE OF INTERNATIONAL LAW 8 (Transnational Books, Inc., 1990).

⁵⁸ Hans Blix, *Area Bombardment: Rules and Reasons*, in HUMANITARIAN LAW 191 (Judith Gardam ed., 1999).

⁵⁹ MEYROWITZ, *supra* note 57, at 11.

⁶⁰ *See id.*

⁶¹ *Id.* at 15.

⁶² *See id.*

⁶³ See HECTOR OLASOLO, UNLAWFUL ATTACKS IN COMBAT SITUATIONS: FROM THE ICTY’S CASE LAW TO THE ROME STATUTE 16 (Martinus Nijhoff Publishers, 2008).

The massive number of civilian casualties during both World Wars⁶⁴ illustrated the need for a robust codification of the rule of civilian discrimination during the conduct of hostilities.⁶⁵ There also arose a recognition that the existing laws of war had become inadequate to deal with new weapons and methods of warfare.⁶⁶ In 1968, the United Nations formally reaffirmed the principle of distinction with Resolution 2444. The Resolution stated:

(b) That it is prohibited to launch attacks against the civilian population as such;
(c) That distinction must be made at all times between persons taking part in the hostilities and members of the civilian population to the effect that the latter be spared as much as possible.⁶⁷

In 1971 and 1972, the ICRC sponsored two conferences of government experts to consider two new drafts protocols on the laws of war.⁶⁸ After four sessions in Geneva between 1974 and 1977, the Diplomatic Conference on the Reaffirmation and Development of International Humanitarian Law Applicable in Armed Conflicts officially adopted two Additional Protocols to the Geneva Conventions of 1949.⁶⁹ The Additional Protocol represented the first detailed written formulation of the principle of distinction and the rule against indiscriminate attacks.⁷⁰

This paper will closely scrutinize the Articles in the Additional Protocol that deal with the principle of distinction because the Additional Protocol is the only existing treaty definition of

⁶⁴ See COMMENTARY, *supra* note 51, ¶ 1867, at 598 (noting that the introduction of aerial bombardments from aircraft or airships, along with the increased range of artillery weaponry, led to drastic increases in civilian casualties during the World Wars. In addition, particularly during the Second World War, the use of reprisals meant that “attacks were systematically directed at towns and their inhabitants.”).

⁶⁵ See Olasolo, *supra* note 63, at 15.

⁶⁶ See MEYROWITZ, *supra* note 57, at 16.

⁶⁷ Respect for Human Rights in Armed Conflicts, G.A. Res. 2444, U.N. GAOR, 23rd Sess., Supp. No. 18, U.N. Doc. A/7218 (1969); *see also* Olasolo, *supra* note 63, at 17.

⁶⁸ MEYROWITZ, *supra* note 57, at 18.

⁶⁹ *Id.*

⁷⁰ Olasolo, *supra* note 63, at 17.

these rules.⁷¹ For the purposes of evaluating these rules as they relate to nuclear weapons, utilizing a comprehensive text will aid in the analysis by providing a foundation of articulated law from which we can identify the pertinent legal issues.

3. *The Rule of Distinction*

The rule of distinction does not attempt to prohibit all attacks that may cause civilian casualties.⁷² Instead, parties to a conflict must direct their attacks only against military objectives in an attempt to avoid harm to civilians as much as possible.⁷³ Under the heading “Basic Rule,” Article 48 of the Additional Protocol lays out this fundamental feature of the principle of distinction:

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 combatants⁷⁴ and between civilian objects and military objectives and accordingly shall direct their operations only against military objectives.⁷⁵

⁷¹ Louise Doswald-Beck, *International Humanitarian Law and the Advisory Opinion of the International Court of Justice on the legality of the threat or use of nuclear weapons*, International Review of the Red Cross, No. 316 (1997).

⁷² See Solf, *supra* note 8, at 129.

⁷³ *Id.*

⁷⁴ See Additional Protocol, *supra* note 1, Article 50, defining “Civilian”:

A civilian is any person who does not belong to one of the categories of persons referred to in . . . Article 43 of this Protocol.

1. The civilian population comprises all person who are civilians.
2. The presence within the civilian population of individuals who do not come within the definition of civilians does not deprive the population of its civilian character;

see also, Article 43, which defines “Armed Forces”:

1. The armed forces of a party to a conflict consist of all organized armed forces, groups and units which are under a command responsible to that party for the conducts of its subordinates . . .
2. Members of the armed forces of a party to a conflict . . . are combatants . . .
3. Whenever a party to a conflict incorporates a paramilitary or armed law enforcement agency into its armed forces it shall so notify the other Parties to the conflict.

⁷⁵ See *id.* at Article 52, which defines civilian objects and military objectives:

General Protection of Civilian Objects

1. Civilian objects shall not be the object of attack or of reprisals. Civilian objects are all objects which are not military objectives as defined in paragraph 2.
2. Attacks shall be limited strictly to military objectives. In so far as objects are concerned, military objectives are limited to those objects which by their nature, location, purpose or use make an effective contribution to military action and whose total or partial destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage.
3. In case of doubt whether an object which is normally dedicated to civilian purposes, such as a place of worship, a house or other dwelling or a school, is being used to make an effective contribution to military action, it shall be presumed not to be so used.

The Official Commentary to the Additional Protocol⁷⁶ states that this Article is “the foundation on which the codification of the laws and customs of war rests: the civilian population and civilian objects must be respected and protected in armed conflict.”⁷⁷ This foundation of customary law is the basic presumption that civilians should generally be insulated and protected from military operations.⁷⁸ Article 48 also indirectly confirms the well-known statement of the St. Petersburg Declaration that “the only legitimate object which states should endeavor to accomplish during war is to weaken the military forces of the enemy.”⁷⁹

i. Article 51: Building on the “Basic Rule”

Article 51 of the Additional Protocol elaborates on the Basic Rule by providing more nuanced features of the principle. In order to substantiate the general immunity guaranteed by the Basic Rule, Article 51(2) proscribes intentional attacks on civilians:⁸⁰

The civilian population as such, as well as individual civilians, shall not be the object of attack. Acts or threats of violence the primary purpose of which is to spread terror among the civilian population are prohibited.

By stating that civilians must never be “as such . . . the object of attack” the Article emphasizes that civilians must never be intentionally attacked.⁸¹ This principle is recognized as a fundamental rule of customary international law.⁸²

International and domestic judicial bodies have tried a number of cases for intentional attacks against civilians. These cases demonstrate that there are a variety of official military

⁷⁶ Hereinafter the Commentary.

⁷⁷ COMMENTARY, *supra* note 51, ¶ 1863, at 598.

⁷⁸ *See id.*

⁷⁹ *See id.*; *see also* Respect for Human Rights in Armed Conflict, UNITED NATIONS GENERAL ASSEMBLY, at 18 (7 November 1973).

⁸⁰ *See* COMMENTARY, *supra* note 51, at ¶ 1938, at 618.

⁸¹ *Id.*

⁸² *See* Queguiner, *supra* note 24, 161-65; *see also* Prosecutor v. Martić, Case No. IT-95-11-1, Trial Judgment, ¶ 56 (Mar. 8, 1996), available at <http://www.icty.org/case/martic/4> (stating that the rule of distinction “permeates the laws of war and international humanitarian law”).

operations that can violate this law, including carrying out air raids against civilian villages⁸³ and shelling cities in order to terrorize the civilian population.⁸⁴ In addition, even an intentional attack against a single civilian is classified as targeting “the civilian population as such.” Thus, an individual who fires weapons at a civilian passenger bus,⁸⁵ shoots a single civilian,⁸⁶ or bombs a bank,⁸⁷ has violated this aspect of the principle of distinction.

It is important to note that potentially any weapon can be used in a manner that would violate this primary element of the rule of distinction. Regardless of the weapon’s design or function, if it is targeted at the civilian population then it will violate the rule of distinction. Here, the belligerent’s intent determines whether the attack has violated the principle. In fact, some even argue that once the attack aimed at civilians is launched, the belligerent has violated a war crime, even if the attack does not reach its civilian target.⁸⁸

ii. Indiscriminate Attacks and Weapons

A corollary of the rule of distinction is the prohibition against indiscriminate attacks.⁸⁹ There is significant debate regarding whether this rule is customary,⁹⁰ and the Additional Protocol contains the only treaty formulation of the rule.⁹¹

Article 51(4) and 51(5) define exactly which attacks are to be considered as “indiscriminate.”⁹² Article 51(4) and 51(5) state:

⁸³ ICRC Report, Yemen, 1967, in *HOW DOES LAW PROTECT IN WAR? CASES, DOCUMENTS AND TEACHING MATERIALS ON CONTEMPORARY PRACTICE IN INTERNATIONAL HUMANITARIAN LAW* 761 (Marco Sassoli, Antoine A. Bouvier eds., International Committee of the Red Cross, 1999) [hereinafter *HOW DOES LAW PROTECT IN WAR?*]

⁸⁴ See generally *Prosecutor v. Martić*, Case No. IT-95-11-1, Trial Judgment, ¶ 30 (Mar. 8, 1996), available at <http://www.icty.org/case/martic/4>.

⁸⁵ See generally *Ahmad v. Wigen*, 726 F. Supp. 389 (E.D.N.Y. 1989). In *Ahmed*, the defendant was accused of attacking an Israeli passenger bus with firearms and automatic weapons.

⁸⁶ See *In re Public Prosecutor v. G.W.*, Brussels, Conseil De Guerre (May 18, 1966), in *HOW DOES LAW PROTECT IN WAR?*, *supra* note 83, at 777.

⁸⁷ See *Osman and Others v. Prosecutor*, in *HOW DOES LAW PROTECT IN WAR?*, *supra* note 83, at 767.

⁸⁸ See YORAM DINSTEIN, *THE CONDUCT OF HOSTILITIES UNDER THE LAW OF INTERNATIONAL ARMED CONFLICT* 116 (Cambridge University Press, 2004).

⁸⁹ *Id.*

⁹⁰ See *infra* Part 3, vii, for elaboration on this debate.

⁹¹ Doswald-Beck, *supra* note 71.

4. Indiscriminate attacks are prohibited. Indiscriminate attacks are:
 - (a) those which are not directed at a specific military objective;
 - (b) those which employ a method or means of combat which cannot be directed at a specific military objective; or
 - (c) those which employ a method or means of combat the effects of which cannot be limited as required by this Protocol;
and consequently, in each such case, are of a nature to strike military objectives and civilians or civilian objects without distinction.

5. Among others, the following types of attacks are to be considered as indiscriminate:
 - (a) an attack by bombardment by any methods or means which treats as a single military objective a number of clearly separated and distinct military objectives located in a city, town, village or other area containing a similar concentration of civilians or civilian objects; and
 - (b) an attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated.

Article 51(4) and (5) provide us with the three basic instances of indiscriminate attacks: attacks that are not directed at military objectives, attacks that utilize a “method or means of combat” that cannot be targeted accurately at a military objective, and attacks that utilize a method or means of combat “the effects of which cannot be limited.”

The intent required to violate the rule against indiscriminate attacks is different from that of the basic rule of distinction and Article 51(2). The Basic Rule, as reflected in 51(2), prohibits direct attacks against the civilian population, or those attacks whose object is “the civilian population as such.” The focus there is primarily on attacks whose essential goal is to harm the civilian population.⁹³ The seemingly redundant use of the phrase “as such” is inserted to

⁹² Additional Protocol, *supra* note 1, Article 51(4) and 51(5); *see also* Blix, *supra* note 58, at 199.

⁹³ It should be noted that the attack against the civilian population “as such” need not be “intentional,” *per se*. Rather, individual responsibility requires merely that the attacker was grossly negligent or reckless in his attack. Thus, if the attacker should have known of the risks of this attack, or he was aware of the risk but still disregarded it, he will still be liable under 51(2). *See* Prosecutor v. Galic, Case No. IT-98-29-T, Trial Judgment (Dec. 5, 2003),

emphasize the proscription against attacks that are designed to harm or terrorize the civilian population, but also to reiterate that civilians may be attacked if they are within a legitimate military objective.⁹⁴ For an indiscriminate attack, on the other hand, “the attacker is not actually *trying* to harm the civilian population.”⁹⁵ Instead, injury to civilians is merely “of no concern to the attacker.”⁹⁶

iii. Attacks “Not Directed at a Specific Military Objective” - 51(4)(a)

Article 51(4)(a) classifies attacks “which are not directed at a specific military objective” as a prohibited indiscriminate attack. Like 51(2), this subparagraph contemplates the indiscriminate *use* of a weapon that is otherwise controllable.⁹⁷ While 51(2) prohibits intentional attacks against civilians, 51(4)(a) deals with an attack that becomes indiscriminate because of its recklessness: By launching an attack without a specific, identifiable military objective in mind, the attacker disregarded a known risk that the weapon will strike civilians. For both 51(2) and 51(4)(a), even those attacks utilizing accurate weapon technology can be illegal because of their intended, or unintended, target.⁹⁸

available at http://icty.org/x/file/Legal%20Library/jud_supplement/supp46-e/galic.htm; see generally MOXLEY, *supra* note 9, at 315-337 (comprehensively discussing the issue of *mens rea* in individual liability in international law).

⁹⁴ See Blix, *supra* note 58, at 192.

⁹⁵ See DINSTEIN, *supra* note 88, at 117.

⁹⁶ See *id.* Dinstein seemingly categorizes the prohibition against indiscriminate attacks as one purely of reckless disregard. Since this concept is based on the notion of recognizing and disregarding a known risk, this approach would support the contention that the consequences of an attack must be considered before determining whether it can be deemed indiscriminate. If we recognize that certain attacks or weapons will categorically be indiscriminate, there it is likely that an attacker can intentionally violate this prohibition merely by launching one of these inherently indiscriminate attacks. *But see* Prosecutor v. Martić, Case No. IT-95-11-1, Trial Judgment, ¶ 69 (Mar. 8, 1996), available at <http://www.icty.org/case/martic/4>. In *Martić*, the ICTY Trial Chamber seemingly assumes that by launching an indiscriminate attack, a combatant is actually *trying* to harm civilians. The ICTY states that “indiscriminate attacks . . . may also be qualified as direct attacks on civilians. In this regard, a direct attack against civilians can be inferred from the indiscriminate character of the weapon used.”).

⁹⁷ See Michael M. Schmitt, *War, Technology and the Law of Armed Conflict*, in *THE LAW OF WAR IN THE 21ST CENTURY: WEAPONRY AND THE USE OF FORCE* 140 (Anthony M. Helm ed., International Law Studies, 2006).

⁹⁸ *Id.* (citing Iraqi scud missile attacks against Israeli population centers as the textbook example).

As an illustration of a 51(4)(a) indiscriminate attack, the Additional Protocol provides 51(5)(a). Here, the Additional Protocol forbids as indiscriminate “an attack by bombardment” that “treats as a single military objective a number of clearly separated and distinct military objectives located in a city, town, village or other area containing a similar concentration of civilians or civilian objects.” This prohibition against “area bombardment”⁹⁹ is based on 51(4)(a) because such an attack is not directed only at a “specific military objective.”

iv. Indiscriminate Weapons – 51(4)(b) and 51(4)(c)

51(4)(b) and 51(4)(c) are far more convoluted. In these subparagraphs, the Additional Protocol attempts to define when the use of certain weapons would be indiscriminate.¹⁰⁰

The Additional Protocol provides two tests to determine when a weapon’s use would be indiscriminate.¹⁰¹ 51(4)(b) states the first test, prohibiting attacks “which employ a method or means of combat which cannot be directed at a specific military objective.” Essentially, an attack that “cannot be targeted at a specific military objective,” is inherently indiscriminate because the attacker cannot be sure that his weapon will not harm the civilian population.

Even if a particular weapon can normally be targeted accurately, the specific circumstances of the attack may render it as indiscriminate.¹⁰² For example, the weapon used,¹⁰³ the altitude from which the weapon is fired,¹⁰⁴ the prevailing weather and meteorological

⁹⁹ See Doswald-Beck, *supra* note 71.

¹⁰⁰ See JUDITH GARDAM, *NECESSITY, PROPORTIONALITY, AND THE USE OF FORCE BY STATES* 94 (Cambridge University Press, 2004) (arguing that the complicated definitions contained in these subparagraphs reflect the tension at the Diplomatic Conference between military necessity and a growing interest in protecting the civilian population).

¹⁰¹ Doswald-Beck, *supra* note 71.

¹⁰² See DINSTEIN, *supra* note 88, at 118.

¹⁰³ See Michael N. Schmitt, *Precision Attack and International Humanitarian Law*, 87 *INTERNATIONAL REVIEW OF THE RED CROSS* 445, 456 (2005) (arguing that as precision technology advances, the requirement of 51(4)(b) will become more demanding because it will only become easier for belligerents to utilize weapons that can accurately target).

¹⁰⁴ DINSTEIN, *supra* note 88, at 118. (arguing that the Kosovo air campaigns of 1999 brought to the fore the issue of conducting air raids from extremely high altitudes. Pilots flew at high altitudes to minimize air crew casualties. Yet,

conditions, and the time of day are all factors that would affect whether a belligerent can accurately fire a particular weapon.¹⁰⁵

Most claim that there are certain weapons that, regardless of the context of the attack, will be indiscriminate¹⁰⁶ because these weapons, by design, can never accurately target a military objective. Military manuals and scholars have cited Japanese unmanned “Fu-Go” balloons¹⁰⁷ and German V2 rockets¹⁰⁸ as examples of weapons that would categorically fail the 51(4)(b) test.¹⁰⁹

Subparagraph 51(4)(c) contains the second test. Attacks are prohibited if they “employ a method or means of combat *the effects of which cannot be limited* as required by this Protocol” (my italics). While 51(4)(b) focuses on the controllability of the “method or means” itself, 51(4)(c) hinges on whether the “effects” of that “method or means” can be controlled. As is the case regarding 51(4)(b), this subparagraph is primarily designed to forbid attacks that, based on the particular circumstances, will have uncontrollable effects. For example, resulting fire from a weapon may generally be controllable. Depending on the specific context of an attack, however, including wind and moisture conditions, and the concentration of combustible materials, fire may become an “effect which cannot be limited.”¹¹⁰ The Commentary also lists attacks using biological weapons and poisoning sources of drinking water as violating this subparagraph.¹¹¹

despite precision targeting technology and clear visibility, pilots were unable to distinguish military objectives from civilians.).

¹⁰⁵ *Id.*

¹⁰⁶ See GARDAM, *supra* note 100, at 95.

¹⁰⁷ These balloons carry explosives and are unpowered and unmanned. They explode upon impact and are carried by the wind. See ANNOTATED SUPPLEMENT TO THE COMMANDER’S HANDBOOK ON THE LAW OF NAVAL OPERATIONS, 9.1.2 (1997) [hereinafter NAVAL HANDBOOK].

¹⁰⁸ Blix, *supra* note 58, at 200. These rockets have primitive guiding systems and are considered to be “blind weapons.” See generally Schmitt, *supra* note 97.

¹⁰⁹ See Schmitt, *supra* note 103, at 456. Schmitt also argues that World War II B-17 Bombers had a circular error probability of approximately 3,300 feet, which today would certainly be deemed indiscriminate.

¹¹⁰ COMMENTARY, *supra* note 51, ¶ 1963, at 623.

¹¹¹ *Id.* ¶ 1965, at 623.

What exactly is the difference between these two provisions of the Additional Protocol? How can we determine whether an attack is indiscriminate because of the use of a weapon whose “effects . . . cannot be limited” or because the weapon itself is a “method or means of combat that cannot be directed”? In other words, if a particular uncontrollable effect of a weapon is inevitable, should not that weapon itself qualify as an uncontrollable “method or means of combat?” Should there be a temporal or spatial line from the strike-point of the weapon that would delineate which damage should be considered the weapon’s “effects”? Perhaps the distinction should be based on the damage that the belligerent intended through the use of the weapon? Questions like these force us to recognize that there may be a variety of methods with which we can analyze the distinction between the “method or means of combat” and its “effects.”

The most basic division between these provisions focuses on the “aimability” or “accuracy” of these weapons.¹¹² If the weapon itself cannot land or hit the desired target in the first place, either because of the circumstances of the attack or the weapon’s design, then it would fail 51(4)(b). Based on this approach, any actual damage caused by the weapon should be considered its “effects.” Thus, the Japanese and German weapons listed above would be examples of weapons that would fall within the 51(4)(b) category because, by design, they cannot be accurately targeted to strike an intended target. On the other hand, if the weapon is otherwise aimable, but has uncontrollable effects, then it would violate 51(4)(c).¹¹³ Here, any actual damage caused by the weapon will be classified as its “effects.” Based on this approach, a

¹¹² See COMMENTARY, *supra* note 51, ¶ 1958, at 621 (noting that the weapons relevant to 51(4)(b) are primarily “long-range missiles which cannot be aimed exactly at the objective”); *see also* Schmitt, *supra* note 97, at 140. Schmitt also argues that the term “accuracy” should be used, rather than “aimability.”

¹¹³ See Schmitt, *supra* note 97, at 140.

biological weapon violates 51(4)(c) because even if it can accurately be targeted at combatants, its effects will uncontrollably spread to civilians.¹¹⁴

The dividing line between these tests can also be extended, thereby including damage caused by a weapon to be a feature of the “method or means of combat” itself. In *The Prosecutor v. Milan Martić*, the ICTY analyzed whether Orkan rockets are indiscriminate.¹¹⁵ These weapons are especially pernicious because they are equipped with 288 bomblets, each of which propels jagged bits of metal and 400 small steel spheres in every direction.¹¹⁶ The rockets have an initial explosive damage, and then they cause secondary damage through the propulsion of this shrapnel. Despite this additional damage caused by the shrapnel, the ICTY did not mention 51(4)(c), instead ruling the attacks were indiscriminate because the rockets were a 51(4)(b) “method or means” of combat.¹¹⁷ As opposed to the strict aimability approach, which considers the very blast of the bomb to be its “effects,” the *Martić* Court incorporates the blast, and even secondary damage caused by the rockets, within the “methods or means of combat.”

The ICTY took a similar stance in *The Prosecutor v. Blaskić*. There, the court ruled that attacks utilizing a booby-trapped tanker had employed indiscriminate “means and methods.”¹¹⁸ Based on the aimability analysis, this approach is counterintuitive because a booby-trapped truck can accurately be placed in its desired location. What should render booby-traps, or related landmines,¹¹⁹ indiscriminate is that even if they are accurately placed, they cannot be adequately controlled to limit the damage that they cause, resulting in potentially undiscerning harm to

¹¹⁴ See *id.*

¹¹⁵ See *Prosecutor v. Martić*, Case No. IT-95-11-1, Trial Judgment, ¶ 30 (Mar. 8, 1996), available at <http://www.icty.org/case/martic/4>.

¹¹⁶ *Id.*

¹¹⁷ *Id.*

¹¹⁸ See *Prosecutor v. Blaskić*, Case No. IT-95-14-T, Trial Judgment, ¶ 787 (Mar. 3, 2000), available at <http://www.icty.org/case/blaskic/4>.

¹¹⁹ See *infra* notes 264-69 for further discussion on landmines.

civilians, even distantly into the future.¹²⁰ The *Blaskic* court, however, extends the “methods or means” test to include damage caused beyond the point of the weapon’s initial aimability.

It is apparent that while the Commentary focuses exclusively on aimability, with any damage caused to be its “effects,” the ICTY analyzes a weapon’s uncontrollability based on the weapon’s design and the nature of the weapon’s damage. Even if the weapon can be accurately targeted, if it will inexorably cause a specific type of uncontrollable damage, it will be considered a feature of the “method or means” itself rather than its “effects.”

What, then, would the ICTY consider to be the “effects” of a weapon? If even the Orkan Rockets’ shrapnel is a “method or means,” then at what point does the damage caused by a weapon become its “effects?” If there is no clear dividing line between these tests, then the Additional Protocol could have simply articulated one broad rule to include weapons that are either not aimable or have uncontrollable effects. By specifically including two separate provisions, the Additional Protocol seems to indicate that these two tests should refer to distinct instances of indiscriminate attacks. This is most successfully accomplished by dividing the two tests at the point of aimability.

It is evident that many are still confused about these two tests. Certain military manuals have blurred the line between the two tests, making them even more difficult to conceptualize.¹²¹ Similarly, even some judges may not fully understand the rule against indiscriminate attacks. In *Kablawi v. Canada*, the Canadian Federal Court states that the administrative officer below the court had determined that suicide bombings violate the rule of international humanitarian law

¹²⁰ See COMMENTARY, *supra* note 51, ¶ 1959, at 621.

¹²¹ See, e.g., Ecuador’s Naval Manual, which states “Weapons that are incapable of being controlled in the sense that they can be directed at a military target are forbidden as being indiscriminate in effect.” Here, although the Manual refers to weapons that cannot be aimed at a military target, it classifies it as being “indiscriminate in effect.” This portion of the manual is available at http://www.icrc.org/customary-ihl/eng/docs/v2_rul_rule71; see also, NAVAL HANDBOOK, *supra* note 107, at 9.1, (stating that “weapons which by their nature are incapable of being directed specifically against military objectives . . . are forbidden due to their indiscriminate effect”). Does not this categorization seem to blur aimability with “effects?”

against “indiscriminate attacks . . . which employ a method or means of combat the effects of which cannot be limited.”¹²² This statement illustrates a muddled understanding of these principles. What indiscriminate “effects” does a suicide bombing cause? A suicide bomb is forbidden because of its intended target – the civilian population – not because of any uncontrollable effects. Thus, it should not be classified within the corollary rule against indiscriminate attacks, found in 51(4)¹²³ Instead, a suicide bomber violates the basic rule against distinction found in 51(2), which forbids attacking the civilian population “as such,” or 51(4)(a), which proscribes attacks not directed at a specific military objective.¹²⁴

In their separate opinions to the ICJ Advisory Opinion, a number of judges also do not clearly differentiate between the two tests. For example, Judge Fleischhauer states that nuclear weapons are indiscriminate because they “cannot distinguish between civilian and military targets.”¹²⁵ In the same vein, President Bedjaoui found that nuclear weapons are “a blind weapon” that cannot “distinguish between combatants and non-combatants.”¹²⁶ We are left wondering: do these judges consider nuclear weapons to be an indiscriminate “method or means,” or is it that they result in uncontrollable “effects?” Could it be that these judges believe that nuclear weapons are not aimable? Based on these statements, it is unclear under which test these judges were analyzing nuclear weapons. Because this was the first time that the ICJ had

¹²² See *Kablawi v Canada, Minister of Citizenship and Immigration*, 2010 FC 888, 91 Imm. L.R. (3d) 102 at 27 (2010).

¹²³ A suicide bomb certainly does not violate 51(4)(b) for being inherently incapable of being aimed, since the bomb is strapped to a person, who can fully decide where to explode the bomb. Its “effects” are also no more indiscriminate than that of any other bomb.

¹²⁴ As is the case in *Martic*, the analysis here would be different if we were considering the shrapnel that is often released by suicide bombs. This is not, however, to what the *Kablawi* court refers.

¹²⁵ Advisory Opinion, *supra* note 2, ¶ 2, at 306 (Fleischhauer, J., separate opinion).

¹²⁶ *Id.* 20, at 272 (Bedjaoui, J., declaration).

been called on to analyze in detail the rules of international humanitarian law,¹²⁷ perhaps these judges should have been more explicit in their analysis of the rule of distinction.

While some may argue that once it is clear that an attack is indiscriminate it matters little which test applies, these differing criteria may actually influence which attacks and weapons are considered indiscriminate. For example, by focusing on aimability, the dividing line between “method or means” and “effects” is pulled far closer to the beginning of the attack. The result is that any secondary effects quickly seem to become more attenuated from the attack itself. On the other hand, by extending the analysis of “method or means” to include the inevitable and predictable consequences of the attack, as does the ICTY, it is easier to conceptualize far more remote damage caused by the attack as its “effects.” This outline will prove useful in our analysis of a nuclear weapon’s radiation.

v. The Role of Proportionality

The rule of proportionality prohibits an attack if the attack’s likely effects will be disproportionate to the value of the anticipated military objective.¹²⁸ In determining whether an attack is indiscriminate, what role, if any, does the rule of proportionality have? The Additional Protocol’s definitions of indiscriminate attacks do not contain any requirement of disproportionality, implying that attacks can be indiscriminate without regard to proportionality. Thus, the initiation of certain attacks, regardless of their outcome or the extent of damage to the civilian population, will render these attacks as indiscriminate.¹²⁹

This view is supported by the placement of subparagraph 51(5)(b), which immediately follows the indiscriminate attack tests. 51(5)(b) states that:

¹²⁷ Doswald-Beck, *supra* note 71

¹²⁸ MOXLEY, *supra* note 9, at 40.

¹²⁹ See GARDAM, *supra* note 100, at 94-95.

an attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated” is to be considered indiscriminate.

Here, the rule of proportionality is categorized merely as one type of indiscriminate attack, and not as a distinct requirement for discriminate attacks.¹³⁰

Scholars are sharply divided on the relationship between distinction and proportionality.¹³¹ Based on the Additional Protocol’s outline, some attacks will be intrinsically indiscriminate, regardless of the attack’s actual consequences or its proportionality.¹³² A number of manuals also reflect this approach.¹³³ Thus, one need not undergo a proportionality analysis at the time of the attack to determine discrimination.¹³⁴ Significantly, this would lead to the conclusion that an attack may be deemed indiscriminate even if it does not result in any civilian casualties.¹³⁵ This view reflects the belief that the international community has decided that certain types of attacks or weapons are more than likely to be unacceptable in terms of their indiscriminate.¹³⁶ Rather than allow for combatants to make case by case determinations, or analyze these attacks based on their consequences, certain attacks should simply be prohibited from the start.

What then would be the role of 51(5)(b) in the Additional Protocol? Because proportionality as categorized merely as one “species”¹³⁷ of indiscriminate attacks, then even if

¹³⁰ See *id.* at 94; see also Olasolo, *supra* note 63, at 19; see also Oeter, *supra* note 26, at 168.

¹³¹ GARDAM, *supra* note 100, at 94-96.

¹³² See *id.* at 93; see also Olasolo, *supra* note 63, at 19; see also Doswald-Beck, *supra* note 71.

¹³³ See, e.g., New Zealand’s Military Manual (1992), which states that “weapons which cannot be directed at military objectives or the effects of which cannot be limited are prohibited.” Here, we see no mention of proportionality or of the extent of damage caused by the attack. Rather, the inherent uncontrollability of the weapon, on its own renders it as indiscriminate. This portion of the manual is available at http://www.icrc.org/customary-ihl/eng/docs/v2_rul_rule71; see also, Australia’s Commander’s Guide (1994), for nearly identical language. This is also available at http://www.icrc.org/customary-ihl/eng/docs/v2_rul_rule71.

¹³⁴ Doswald-Beck, *supra* note 71.

¹³⁵ See GARDAM, *supra* note 100, at 95.

¹³⁶ See *id.*

¹³⁷ *Id.*

the attack is not indiscriminate because of the controllability of the weapon and its effects, it still may be indiscriminate because of its disproportionate consequences. Based on the Additional Protocol, a target may be legitimate, the circumstances of the attack and the weapon used will allow the attack to be otherwise discriminate, yet it will become indiscriminate because of disproportionate harm to the civilian population.¹³⁸ The Trial Chamber of the ICTY followed this approach in *Prosecutor v. Kupreskic*, differentiating attacks that are indiscriminate because they use “indiscriminate means or methods of warfare” and attacks that are indiscriminate because they “cause indiscriminate damage to civilians.”¹³⁹ Similarly, the ICTY Trial Chamber stated in *Prosecutor v. Galic* that “attacks that are disproportionate may *per se* qualify as indiscriminate attacks.”¹⁴⁰

At the other end of the spectrum, it is possible that distinction and proportionality must always be used in conjunction.¹⁴¹ Here, proportionality must always be analyzed in order to determine if the attack is discriminate. This view maintains that the clause “. . . as required by this protocol” at the end of 51(4)(c) specifically references the reader to 51(5)(b)’s rule of proportionality.¹⁴² According to this method of analysis, only if the damage that the attack will cause will be disproportionate can the attack itself be considered indiscriminate. This approach reflects the belief that there is no reason to prohibit an attack if it does not actually cause excessive damage to the civilian population.

¹³⁸ See Schmitt, *supra* note 97; see also GARDAM, *supra* note 100, at 95.

¹³⁹ *Prosecutor v. Kupreskic*, Case No. IT-95-16, Trial Judgment ¶ 524 (Jan. 14, 2000), available at <http://www.icty.org/x/cases/kupreskic/tjug/en/kup-tj000114e.pdf>; see also GARDAM, *supra* note 100, at 95; see also COMMENTARY, *supra* note 51, ¶ 1979, at 625.

¹⁴⁰ *Prosecutor v. Galic*, Case No. IT-98-29-T, Trial Judgment (Dec. 5, 2003), available at http://icty.org/x/file/Legal%20Library/jud_supplement/supp46-e/galic.htm.

¹⁴¹ See GARDAM, *supra* note 100, at 95.

¹⁴² *Id.* at 96 (noting that those who maintain that proportionality is not required interpret this phrase as referring to the general principles of distinction, and not to 51(5)(b)); see also Doswald-Beck, *supra* note 71.

A third, middle ground approach, would only apply proportionality to the effects of a weapon's use. This would differentiate between the targeting requirement of 51(4)(b) and the effects requirements of 51(4)(c) by maintaining that proportionality is only relevant to the effects of a weapon. The Swedish diplomat Hans Blix writes that there may be weapons that will inevitably be indiscriminate because they cannot be targeted at specific military objective. Yet, there are also weapons may have uncontrollable secondary *effects*, and "the extent to which this is tolerated" is determined by the rule of proportionality. Thus, "a method or means of warfare would be deemed indiscriminate . . . *if the incidental effects* expected to be caused by it to civilians or civilian objects *would be disproportionate* to the direct military advantage of hitting the military objective" (my italics).¹⁴³

The *U.S. Air Force Pamphlet* seemingly illustrates this approach, stating that:

. . . Particular weapons or methods of warfare may be prohibited because of their indiscriminate effects. . . Indiscriminate weapons are those incapable of being controlled, through design or function, and thus they cannot, with any degree of certainty, be directed at military objectives . . .¹⁴⁴

On the other hand:

Some weapons, though capable of being directed only at military objectives, *may have otherwise uncontrollable effects so as to cause disproportionate civilian injuries or damage . . . Uncontrollable refers to effects which escape in time or space from the control of the user as to necessarily create risks to civilian persons or objects excessive in relation to the military advantage anticipated.* International law does not require that a weapon's effects be strictly confined to the military objectives against which it is directed, but it does restrict weapons whose foreseeable effects result in unlawful disproportionate injury to civilians or damage to civilian objects (my italics).¹⁴⁵

While the *Pamphlet's* language is somewhat vague, it seems to maintain that some weapons are indiscriminate simply because they cannot be directed at military objectives, while others are

¹⁴³ Blix, *supra* note 58, at 201; *see also* GARDAM, *supra* note 100, at 95.

¹⁴⁴ Practice Relating to Rule 71. Weapons that are by Nature Indiscriminate, ICRC, MILITARY MANUALS, http://www.icrc.org/customary-ihl/eng/docs/v2_rul_rule71.

¹⁴⁵ *Id.*

only indiscriminate because of the disproportionate injury their effects may cause.¹⁴⁶ Though this provision discusses weapons that are inherently indiscriminate, the same analysis can be used for individual attacks.

This view third view is premised on the notion that the law should not be as demanding on the indiscriminateness of the effects of the weapon's use. These uncontrollable effects, which may be unpredictable and far removed from the attack itself, whether temporally, spatially or by the intended use of the weapon, should not be forbidden in all circumstances, but only when attackers can anticipate that they will cause disproportionate damage. The weapon that cannot be aimed, on the other hand, should be prohibited in all circumstances because its very design would never allow it to hit its target. Essentially, this view maintains that the risk of firing a weapon that cannot be aimed at all is greater than that of firing a weapon that may have otherwise uncontrollable secondary effects.

vi. Can a Weapon be Indiscriminate in all Instances?

The debate regarding the relationship between distinction and proportionality in attacks is reflected in the divide regarding whether certain weapons are inherently indiscriminate. The first approach mirrors that of the Additional Protocol, in that it maintains that certain weapons are by their nature indiscriminate. Their use is in and of itself an indiscriminate attack, regardless of the likelihood of disproportionate harm.¹⁴⁷ Blix claims that “some weapons are by their construction or necessary or normal use so imprecise that the degree of likelihood of their hitting the

¹⁴⁶ This distinction is also reflected in the *Air Force Manual on International Law*, available at http://www.icrc.org/customary-ihl/eng/docs/v2_rul_rule71, which defines the term “indiscriminate” as referring to:

. . . inherent characteristics of the weapon, when used, which renders (*sic*) it incapable of being directed at specific military objectives *or* of a nature to necessarily cause disproportionate injury to civilians or damage to civilian objects (my italics).

¹⁴⁶ Here again we see an American military manual applying the proportionality analysis to the damage caused by the weapon, but not to the “aimability” of the weapon. *See supra* notes 144-46 and accompanying text.

¹⁴⁷ GARDAM, *supra* note 100, at 95.

identified military objective aimed at must be deemed too low.”¹⁴⁸ Potential examples of these “blind weapons” are biological weapons¹⁴⁹ and poisoned drinking wells.¹⁵⁰

Even within the approach stating that a weapon can be inherently discriminate, there is an additional divide. For some, a weapon can only be categorically indiscriminate if the weapon’s very design does not allow it to be used discriminately.¹⁵¹ Others claim that there may be additional weapons that will always be indiscriminate based on their “normal or typical use.”¹⁵² Even if a weapon has not been designed to attack without distinction, if the history of the use of that weapon shows that its typical use is for indiscriminate purposes, the international community can deem all uses of that weapon to be indiscriminate.¹⁵³

It is also possible that no weapon should be deemed indiscriminate in all circumstances.¹⁵⁴ At the Diplomatic Conference to the Additional Protocol, the Rapporteur states that many believed that 51(4) and (5) were “intended to take account of the fact that means and methods of combat which can be used perfectly legitimately in some situations come, in other circumstances, have effects that would be contrary to some limitations contained in the Additional Protocol, in which event their use in those circumstances would involve an

¹⁴⁸ Blix, *supra* note 58, at 199.

¹⁴⁹ COMMENTARY, *supra* note 51, ¶ 1965, at 623.

¹⁵⁰ *Id.*; see also CONFERENCE OF GOVERNMENT EXPERTS ON THE USE OF CERTAIN CONVENTIONAL WEAPONS, International Committee of the Red Cross, ¶ 31, at 10, available at http://www.loc.gov/rr/frd/Military_Law/pdf/RC-conf-experts-1974.pdf [hereinafter CONFERENCE OF GOVERNMENT EXPERTS] (classifying this debate as between “indiscriminate weapons” and “indiscriminate attacks.” According to the latter, the method of use of the weapon, rather than any indiscriminate properties, determines its legality.).

¹⁵¹ See WEAPONS THAT MAY CAUSE UNNECESSARY SUFFERING OR HAVE INDISCRIMINATE EFFECTS, International Committee of the Red Cross, ¶ 25, 13, available at http://www.loc.gov/rr/frd/Military_Law/pdf/RC-Weapons.pdf [hereinafter WEAPONS THAT MAY CAUSE UNNECESSARY SUFFERING]; see also CONFERENCE OF GOVERNMENT EXPERTS, *supra* note 150, ¶ 31, at 11.

¹⁵² See CONFERENCE OF GOVERNMENT EXPERTS, *supra* note 150, ¶ 31, at 11; see also *supra* note 148 and accompanying text.

¹⁵³ WEAPONS THAT MAY CAUSE UNNECESSARY SUFFERING, *supra* note 151, ¶ 25, at 13 (“Weapons which by their nature are incapable of being directed with any certainty to specific military targets, or which in their typical or normal use are not delivered with any certainty to such targets, are in violation of this principle.”).

¹⁵⁴ Blix, *supra* note 58, at 200.

indiscriminate attack.”¹⁵⁵ Thus, only the specific circumstances of each attack, including the proportionality of its effects, can cause an attack to be indiscriminate.

vii. The Rule Against Indiscriminate Attacks as Customary Law

Commentators have struggled with the difficult task of identifying to what extent a treaty or conventional rule reflects existing customary law.¹⁵⁶ Because the Additional Protocol is the first written, conventional formulation of the rule against indiscriminate attacks, it is not entirely clear whether its formulation of this rule is customary. It can be argued that the customary nature of the rule of distinction only extends to the requirement that belligerents distinguish between civilians and combatants at all times and must never intentionally attack civilians,¹⁵⁷ while the specific prohibitions against “indiscriminate attacks” or “indiscriminate weapons” are new treaty rules created by the Additional Protocols.¹⁵⁸ This approach is based on the fundamental distinction between the calculated intent required to directly target civilians and the lesser “reckless disregard” standard demonstrated by an indiscriminate attack.

It is likely, however, that all of Articles 48 and 51 merely codify principles that have long been part of customary international law.¹⁵⁹ The rule of distinction imposes a persistent requirement to distinguish between civilians and combatants during warfare, so a direct, intentional attack against civilians should not be the only method of violating the rule of distinction.¹⁶⁰

¹⁵⁵ COMMENTARY, *supra* note 51, ¶ 1962, at 622; *see also* CONFERENCE OF GOVERNMENT EXPERTS, *supra* note 150, ¶ 30, at 10.

¹⁵⁶ *See* Oeter, *supra* note 26, at 168.

¹⁵⁷ Doswald-Beck, *supra* note 71.

¹⁵⁸ *See* Singh, *supra* note 25, at 321; *see also* Oeter, *supra* note 26, at 168.

¹⁵⁹ *See* MEYROWITZ, *supra* note 57, at 37.

¹⁶⁰ *See infra* notes 306-308 and accompanying text; *see also supra* note 96, which discusses how the ICTY in *Martic* seemingly equates the intent involved in indiscriminate and direct attacks. If we focus on this parallel, it becomes more difficult to argue that the rule against indiscriminate attacks should be distinguished from the basic rule of distinction.

The ICJ Advisory Opinion and a number of the separate opinions clearly support this claim. In its discussion of the customary laws of war, the Court lists among the “cardinal principles . . . constituting the fabric of humanitarian law” the rules that “states must never make civilians the object of attack and must consequently never use weapons that are incapable of distinguishing between civilian and military targets.”¹⁶¹ Here, the Court equates the use of indiscriminate weapons with the basic rule against deliberate attacks against civilians.¹⁶² Because the Additional Protocol contains the only treaty formulation against indiscriminate attacks, it is significant that the Court specifically refers to the rule as one of customary nature.¹⁶³ In addition, Judge Bedjaoui states in his Declaration that the use of weapons with indiscriminate effects is not only customary, but actually part of *jus cogens*,¹⁶⁴ while Judge Guillaume writes that the prohibition against using weapons that are incapable of distinguishing between civilians and combatants is the only “absolute prohibition” contained within customary international humanitarian law.¹⁶⁵

The ICTY Trial Chamber has also paralleled the rule against indiscriminate attacks and the basic rule of distinction. In *Prosecutor v. Galic*, the ICTY states that “it is well established that indiscriminate attacks . . . may qualify as direct attacks on civilians.”¹⁶⁶ The prohibition against indiscriminate attacks is directly equated with the customary foundation of the rule of distinction, which is restricting direct attacks against civilians.

¹⁶¹ See Advisory Opinion, *supra* note 2, ¶ 78, at 257.

¹⁶² Doswald-Beck, *supra* note 71.

¹⁶³ *Id.*

¹⁶⁴ See Advisory Opinion, *supra* note 2, ¶ 21, at 273 (Bedjaoui, J., declaration).

¹⁶⁵ See Advisory Opinion, *supra* note 2, ¶ 5, at 288 (Guillaume, J., separate opinion).

¹⁶⁶ This statement mirrors the intent analysis put forward by the ICTY in *Martic*. See *supra* note 96 and 160. See *Prosecutor v. Galic*, Case No. IT-98-29-T, Trial Judgment (Dec. 5, 2003), available at http://icty.org/x/file/Legal%20Library/jud_supplement/supp46-e/galic.htm.

viii. Summarizing The Additional Protocol

Before nuclear weapons are introduced in this paper, it will be useful to briefly recapitulate the pertinent aspects of the Additional Protocol's formulation of the rule of distinction.

First, it is important to note that any weapon, conventional or otherwise, can be used in a manner that would violate the rule of distinction. By intentionally targeting civilians and civilian objects, an attacker would breach the "Basic Rule" of Article 48, which requires that belligerents "at all times distinguish between the civilian population and combatants." Similarly, intentional targeting civilians would violate Article 51's prohibitions against attacking the civilian population "as such" and those attacks "which are not directed at a specific military objective."

Second, even those attacks not directly targeted at civilians may be categorized as "indiscriminate attacks" by Article 51. These can be attacks that utilize a "method or means of combat which cannot be directed at a specific military objective." Though this category is primarily focused on weapons that cannot be aimed accurately in the first place, some have applied it to encompass some of the direct damage caused by the attack. Indiscriminate attacks are also those that "employ a method or means of combat the effects of which cannot be limited." This class of attacks will be more relevant to our analysis of nuclear weapons because it is focused on the uncontrollable secondary damage caused by an attack. In order to clearly differentiate between these two tests, it is evident that the aimability analysis is the most useful because it provides a distinct dividing line around which the two tests can be applied. Contradictions in international judicial decisions have demonstrated that it is often quite difficult to determine which of these tests is relevant in evaluating an attack.

It should be reiterated that although there likely are certain weapons that based on their design will always be indiscriminate, even those weapons that would normally not violate these principles may be deemed indiscriminate based on the particular circumstances of their attack.

The potential role of the rule of proportionality in this context also must be considered. Many commentators allege that proportionality and the rules of distinction and indiscriminate attacks are inextricably linked, while others maintain that an attack can be indiscriminate, without regard to whether its results are proportionate. This debate is also reflected in whether certain weapons should be considered to be inherently indiscriminate.

The forthcoming analysis of nuclear weapons will illustrate that in order for the rules of proportionality and distinction to maintain their own unique spheres within the laws of war, proportionality is generally not necessary in evaluating the legality of a nuclear attack.

4. Nuclear Weapons

i. Defined

Nuclear weapons are explosive devices whose energy is the result of fusion or fission of the atom.¹⁶⁷ This process releases immense quantities of heat, energy and radiation.¹⁶⁸

The effects of nuclear explosions that are relevant for this analysis are thermal radiation, blast effects, initial nuclear radiation and radioactive fallout.¹⁶⁹

ii. The ICJ Advisory Opinion

Passed on December 15, 1994, UN General Assembly Resolution posed this question to the International Court of Justice: “Is the threat or use of nuclear weapons in any circumstances permitted under international law?”¹⁷⁰ The ICJ’s Advisory Opinion, issued on July 8, 1996, fails

¹⁶⁷ See Advisory Opinion, *supra* note 2, ¶ 35, at 243.

¹⁶⁸ *Id.*

¹⁶⁹ Sheldon, *supra* note 5, at 186.

¹⁷⁰ See Schmitt, *The International Court of Justice and the Use of Nuclear Weapons*, NWC REVIEW (Spring 1998).

to provide a conclusive analysis of the indiscriminateness of the use of nuclear weapons. This Advisory Opinion is important, however, not only in that it expressly addresses our topic, but also because it was the first time that the ICJ was called upon to analyze in some detail the rules of international humanitarian law.¹⁷¹

In the Advisory Opinion, the ICJ acknowledged the two primary approaches to the application of the rule of distinction to the use of nuclear weapons.

The United States and the United Kingdom maintain that the use of nuclear weapons is subject to the same analysis under the laws of war as are conventional weapons. Thus, these laws are applied to each use of nuclear weapons, with the particular circumstances of the attack determining whether it should be prohibited by a principle of international humanitarian law, such as distinction.¹⁷² Because there are legitimate uses of nuclear weapons under the laws of armed conflict, a *per se* rule prohibiting their use would be inappropriate.¹⁷³

Here, we are confronted with the United States' allegation that there are instances when an attack by a nuclear weapon would not be indiscriminate.¹⁷⁴ The United States argued that:

The reality . . . is that nuclear weapons might be used in a wide variety of circumstances with very different results in terms of likely civilian casualties. In some cases, such as the use of a low yield nuclear weapon against warships on the High Seas or troops in sparsely populated areas, it is possible to envisage a nuclear attack which caused comparatively few casualties. It is by no means the case that every use of nuclear weapons against a military objective would inevitably cause very great collateral damages.¹⁷⁵

¹⁷¹ The only other case in which the laws of war are applied to nuclear weapons was the Tokyo District Court decision in *Shimoda v. The State*. There, the court did not analyze whether nuclear weapons in general are necessarily indiscriminate; instead, the court used the now antiquated law dealing with indiscriminate attacks on undefended cities, determining that the specific attacks on Hiroshima and Nagasaki were indiscriminate. See Doswald-Beck, *supra* note 71.

¹⁷² See Advisory Opinion, *supra* note 2, ¶ 91, at 261.

¹⁷³ See *id.*

¹⁷⁴ See *id.*

¹⁷⁵ *Id.*

We are reminded of the Additional Protocol's definition of indiscriminate attacks in 51(4). The Additional Protocol classified any attack that cannot be accurately targeted, or that has uncontrollable effects, as indiscriminate.¹⁷⁶ Since the rule of proportionality is merely a distinct form of indiscriminate attack, the Additional Protocol does not concern itself with the actual damages that the attack would cause.¹⁷⁷ In its argument before the ICJ, on the other hand, the United States expressly hinges its argument on the claim that some nuclear attacks would be legal because they would not cause excessive civilian casualties. Apparently, the United States' belief is that an attack can only be indiscriminate if it is also disproportionate. For a nuclear power like the United States, this argument certainly makes sense: By requiring a proportionality analysis, the United States proposes a far more liberal legal regime.¹⁷⁸ Even if the nuclear weapon would have uncontrollable effects, it would not be deemed to be indiscriminate without a tally of actual damage caused.

Others argued to the ICJ that, among other reasons, nuclear weapons should be categorically prohibited because all nuclear attacks would violate the principle of distinction.¹⁷⁹

They stated that:

. . . nuclear weapons would in all circumstances be unable to draw any distinction between the civilian population and combatants, or between civilian objects and military objectives, and their effects, largely uncontrollable, could not be restricted, either in time or space, to lawful military targets. Such weapons would kill and destroy in a necessarily indiscriminate manner, on account of the blast, heat and radiation occasioned by the nuclear explosion and the effects induced . . .¹⁸⁰

Responding to these diametrically opposed opinions, the Court noted that a nuclear weapon:

¹⁷⁶ See *supra* Part 3, iv.

¹⁷⁷ See *supra* notes 100-106 and accompanying text.

¹⁷⁸ Whether such attacks exist is not the focus of this paper. But, by arguing that nuclear weapons can be controlled to the point that there would not be excessive civilian harm, the United States at least leaves open this possibility.

¹⁷⁹ See Advisory Opinion, *supra* note 2, ¶ 92, at 262.

¹⁸⁰ *Id.*, ¶ 35, at 243.

. . . releases not only immense quantities of heat and energy, but also powerful and prolonged radiation . . . These characteristics render the nuclear weapon potentially catastrophic. The destructive power of nuclear weapons cannot be contained in either space or time . . . The radiation released by a nuclear explosion would affect health, agriculture, natural resources and demography over a very wide area. Further, the use of nuclear weapons would be a serious danger to future generations.¹⁸¹

Based on these characteristics, the Advisory Opinion determines that “the use of such weapons in fact seems scarcely reconcilable” with the rule of distinction¹⁸² and would “generally be contrary” to the laws of war.¹⁸³

This conclusion, however, does not follow a thorough analysis of the principle of distinction. Although the ICJ acknowledges the possibility of the “legality of the use of nuclear weapons under certain circumstances, including the ‘clean’ use of smaller, low-yield tactical nuclear weapons,” it fails to provide us with a comprehensive assessment of how the various effects of nuclear weapons implicate the rule of distinction, and how the ICJ actually came to its conclusion.¹⁸⁴ In addition, among the separate written opinions to the Advisory Opinion, a number of ICJ judges do not even mention the rule of discrimination.¹⁸⁵ As discussed previously,¹⁸⁶ even of those judges who do refer to the rule some do not comprehensively evaluate it.¹⁸⁷

Mirroring the Additional Protocol’s approach, some have also faulted the ICJ for failing to separately apply the principles of distinction and proportionality in the Advisory Opinion.¹⁸⁸

¹⁸¹ *Id.*

¹⁸² *Id.*, ¶ 92, at 262.

¹⁸³ *Id.*, ¶ (105)(2)(D), at 266.

¹⁸⁴ *Id.*, ¶ 95, at 262; *see also* Schmit, *supra* note 170.

¹⁸⁵ These include Judges Shi, Vereschetin, Ferrari Bravo, Ranjeva and Oda.

¹⁸⁶ *See supra* notes 125-27 and accompanying text.

¹⁸⁷ According to this author, Judges Higgins, Schwebel and Weeramantry are the only judges who provide us with substantive analyses regarding the application of the rule of distinction to nuclear weapons. Judge Higgins’ and Schwebel’s opinions are discussed in more detail in Part 5. Judge Weeramantry is referenced *infra* in note 254.

¹⁸⁸ *See* Schmitt, *supra* note 170.

Judge Higgins' Dissent represents the most notable of these critiques.¹⁸⁹ For these reasons, there is still no clear answer as to the effect of the rule of distinction on the legality of nuclear weapons.

5. Discrimination and the Damage Caused by Nuclear Weapons

Because the Advisory Opinion does not contain a comprehensive analysis of distinction as it relates to each of the dangers of nuclear weapons, this paper will attempt to address these issues.

i. Aimability

The first test for the rule against indiscriminate attacks is that attacks “which employ a method or means of combat which cannot be directed at a specific military objective” are prohibited.¹⁹⁰ As we have seen, there is some disagreement regarding what exactly this test encompasses,¹⁹¹ but all would agree that at its most basic level it prohibits an attack whose initial delivery system does not allow the weapon to be aimed accurately enough to initially strike a military objective.¹⁹²

Nuclear weapons are not particularly indiscriminate in their aimability.¹⁹³ This point is reflected in U.S. attorney John McNeil's argument before the ICJ that “modern nuclear weapon delivery systems are indeed capable of engaging discrete military objectives.” As with any other weapon, the particular circumstances of the attack and the delivery system used¹⁹⁴ may make it difficult or impossible for the attacker to accurately target the objective, but there is nothing

¹⁸⁹ See Advisory Opinion, *supra* note 2, ¶ 19-20, at 587 (Higgins, J., dissenting).

¹⁹⁰ See *supra* Part 3, iv.

¹⁹¹ See *id.*

¹⁹² See *id.*

¹⁹³ See MOXLEY, *supra* note 9, at 526.

¹⁹⁴ See *id.* at 402 (discussing modern delivery systems and how some are more accurate than others).

inherent in the design of nuclear weapons that would make them categorically indiscriminate in their accuracy.¹⁹⁵

Instead, what make nuclear weapons so uniquely devastating are their effects. In its discussion of some of the potentially indiscriminate aspects of nuclear weapons, the ICJ noted only that the heat, energy and radiation released by these weapons are what render them as “potentially catastrophic.”¹⁹⁶ There is no mention here of any inability to accurately strike a first target with the warhead itself.¹⁹⁷

ii. Thermal Radiation and Shock Waves

The destructiveness of a nuclear weapon is generally measured by “yield,” which refers to the amount of energy released per unit of the amount of energy released by a metric ton of TNT.¹⁹⁸ Nuclear weapons include fission weapons, which have the destructiveness of up to the equivalent of thousands of tons of TNT (kilotons, kt), and fusion weapons, which can be destructive up to the equivalent of millions of tons of TNT (megatons, mt).¹⁹⁹ Like conventional explosive weapons, the blast of a nuclear weapon release intensely destructive heat and shock waves in the vicinity of the explosion. This blast damaged caused by nuclear weapons, however, can be thousands of times greater than that of conventional weapons.²⁰⁰

The detonation of a nuclear weapon produces extreme heat. At ground zero, the detonation produces a fireball that vaporizes everything into a gas.²⁰¹ The explosion also instantaneously releases thermal radiation, shooting outward at the speed of light and causing

¹⁹⁵ See *id.* at 521-31 (analyzing the accuracy of contemporary American nuclear weapons).

¹⁹⁶ See Advisory Opinion, *supra* note 2, ¶ 35, at 21.

¹⁹⁷ In discussing aimability, commentaries nearly always refer to German V2 rockets and Japanese Fu-Go balloons. See *supra* notes 107-08 and accompanying text.

¹⁹⁸ MOXLEY, *supra* note 9, at 397.

¹⁹⁹ *Id.* at 398.

²⁰⁰ *Id.*

²⁰¹ See Singh, *supra* note 25, at 17.

fatally severe burns.²⁰² This radiating heat can also cause third-degree burns thousands of feet from the explosion.²⁰³ For example, thermal radiation has been estimated to have caused twenty to thirty percent of the deaths at Hiroshima and Nagasaki, and burns were recorded at a distance of 7,500 feet from the Hiroshima nuclear explosion, and as far as 13,000 feet at Nagasaki.²⁰⁴

Shock waves created by the explosion follow the thermal radiation. These waves are produced by the escape of compressed gases and cause the wind to reach up to 150 miles per hour²⁰⁵ and can impose over 35 pounds per square inch over a distance of thousands of feet from the explosion.²⁰⁶ Direct blast effects cause deadly internal hemorrhaging, and fatal damage to the lungs, stomach and intestines.²⁰⁷ In addition, the blast wave destroys nearly all buildings within thousands of feet. In Nagasaki, nearly all buildings within 1.6 miles either collapsed or suffered heavy damage.²⁰⁸ The power of the blast violently throws human beings against fixed structures, causes buildings to collapse on the population, and sends glass and other fragments deep into human tissue.²⁰⁹ These blast effects resulted in fifty to sixty percent of the deaths at Hiroshima and Nagasaki.²¹⁰

As with a conventional weapon, if a belligerent attacks a civilian population center with any nuclear or large conventional weapon it will violate the principle of distinction. The attacker would have violated the foundation of the rule by failing to distinguish between civilians and combatants, and employing an attack that is “not directed a specific military objective.”²¹¹

²⁰² *Id.*

²⁰³ MOXLEY, *supra* note 9, at 422.

²⁰⁴ *See* Singh, *supra* note 25, at Appendix 3.

²⁰⁵ *See id.* at 16, 18.

²⁰⁶ *See id.* at 18.

²⁰⁷ *Id.*

²⁰⁸ *See* Shimoda et al. v. The State, Tokyo District Court (December 7, 1963), *available at* <http://www.icrc.org/ihl-nat.nsf/276c23458e6a0d2441256486004ad099/aa559087dbcf1af5c1256a1c0029f14d!OpenDocument>.

²⁰⁹ *See* Singh, *supra* note 25, at 18.

²¹⁰ *See id.* at Appendix 3.

²¹¹ *See* Additional Protocol, *supra* note 1, Article 51(4)(a).

Although *Shimoda et al. v. The State* was decided before the formulation of the Additional Protocols, the Tokyo District Court did determine that the attacks on Hiroshima and Nagasaki were indiscriminate because the attacks were targeted at civilian population centers. Because any potential military targets and the civilian population were close to one another, the blast and heat from the explosion spread uncontrollably from the attacked military targets to kill numerous civilians.²¹²

Assuming that a nuclear weapon is used against a legitimate military objective, could the blast and heat released by that attack render it as indiscriminate? There are certainly conceivable cases in which the heat and shockwaves from the explosion could be controlled so as to only damage the military target. In his dissenting opinion to the Advisory Opinion, Judge Schwebel describes “the use of tactical nuclear weapons against discrete military or naval targets so situated that substantial civilian casualties would not ensue,”²¹³ including the use of nuclear depth-charges to destroy a submarine. A similar analysis is appropriate for Judge Schwebel’s reference to attacking an isolated army in the desert.²¹⁴ The blast and heat damage caused by these attacks would likely be limited to these military targets because of their isolation from the civilian population.

If civilians are, however, close enough to the military objective, then the heat and shockwaves from a nuclear explosion could reach beyond the target and harm the civilians. A crucial question in this context is whether such an attack should fall under the rule of discrimination, proportionality or both. The rule of proportionality is specifically designed to prevent attacks if the probable effects upon non-combatants or civilian objects would be

²¹² See *Shimoda*, *supra* note 208.

²¹³ See Advisory Opinion, *supra* note 2, at 320 (Schwebel, J., dissenting).

²¹⁴ *Id.* at 321.

disproportionate to the value of the anticipated military objective.²¹⁵ Thus, proportionality presupposes *that the attack is targeted at a valid military objective*.²¹⁶ Assuming the target in this instance is legitimate, what role would the rule against indiscriminate attacks have if proportionality will already prohibit any uncontrolled effects of the attack?

Judge Higgins' analysis reflects her belief that these fundamental rules should each have their own "separate existence."²¹⁷ For Judge Higgins, proportionality alone covers this type of attack, writing that "even a legitimate target may not be attacked if the collateral civilian casualties would be disproportionate to the specific military gain from the attack."²¹⁸ How does this relate to the heat, shockwaves, or any of the attack's other effects? In addition, what is the role of the prohibition against indiscriminate attacks in the context of an attack directed at a legitimate military target? For Higgins, only if the weapon is "incapable" of solely damaging a military objective will it be indiscriminate.²¹⁹ Proportionality, on the other hand, will still cover a unique sphere in this context if it relates to attacks that are (i) targeted at a legitimate military objective, and (ii) the weapon used is not indiscriminate to begin with.²²⁰

According to this outline, the possibility that a bullet fired at a combatant will miss its target and strike a civilian, or that an otherwise accurate conventional bomb aimed at a military base will damage a nearby civilian structure, will be covered by proportionality.²²¹ The two tests of the rule against indiscriminate attacks, on the other hand, are designed to evaluate weapons or attacks that are indiscriminate in the first place, regardless of the intended target. Thus, a weapon that can "take on a life of its own," as distinguished from an accurate and controllable

²¹⁵ MOXLEY, *supra* note 9, at 39-40.

²¹⁶ See Doswald-Beck, *supra* note 71.

²¹⁷ See Advisory Opinion, *supra* note 2, ¶ 24, at 588 (Higgins, J., dissenting).

²¹⁸ *Id.* at ¶ 20, at 587.

²¹⁹ *Id.* at ¶ 25, at 589.

²²⁰ See Doswald-Beck, *supra* note 71, at n.16.

²²¹ See *id.*

bomb which may cause some collateral damage, will render the attack as indiscriminate, without any need for proportionality.²²²

This analysis provides a basic framework with which we can analyze these types of attacks: (i) If a belligerent targets a civilian or civilian object, or simply does not have a specific military objective in mind, the attack will be covered by the basic rule of distinction, regardless of the weapon used; (ii) If the attack is aimed a valid military objective and it utilizes a controllable weapon, then it will be evaluated under the rule of proportionality to the extent that the attack causes collateral damage; (iii) If the attack is targeted at a valid military objective and it employs a weapon that will take on a “life of its own”²²³ or is “incapable”²²⁴ of being targeted solely at military objectives will fall under the rule against indiscriminate attacks. As discussed previously,²²⁵ the distinction analysis may or may not also incorporate the rule of proportionality.

The heat and blast from a nuclear explosion spread in a predictable fashion that is generally proportionate to the distance from the explosion.²²⁶ Therefore, if we were to analyze only the damage against civilians caused by heat and shockwaves released from an attack against a legitimate military target, the rule against indiscriminate effects is not required because of the essential controllability of these effects. Instead, this will be considered the “collateral damage” to be evaluated under the rubric of the rule of proportionality.

It is important to reiterate that proportionality is only used for an attack that utilizes a weapon that is not indiscriminate in the first place.²²⁷ For this reason, isolating heat and

²²² *See id.*

²²³ *See id.*

²²⁴ *See* Advisory Opinion, *supra* note 2, ¶ 24, at 589 (Higgins, J., dissenting).

²²⁵ *See supra* Part 3, v, analyzing the various approaches to applying the rule of proportionality.

²²⁶ *See* Singh, *supra* note 25, at 17.

²²⁷ *See* Doswald-Beck, *supra* note 71.

shockwaves and analyzing them under proportionality is essentially theoretical because the radiation from the explosion may render the attack as a whole indiscriminate.

iii. Fire

While the heat waves released by a nuclear explosion have already been discussed, a nuclear explosion can also create deadly fires.²²⁸ Should the rule of discrimination treat fire any differently from the heat and blast effects of a nuclear explosion?

Unlike thermal radiation or shockwaves, which cause damage in a spatially predictable fashion,²²⁹ fire may escape from the control of the belligerent and spread uncontrollably.²³⁰ Many argue that the “self-propagating character” of fire renders the entire class of incendiary weapons indiscriminate because they are beyond the control of the user.²³¹ During a nuclear attack, the combination of heat and blast waves cause fuel storage tanks to explode and the intense winds and heat push fires together into a single raging conflagration.²³² Many human beings who would survive the thermal radiation and shock waves will be killed by these fires, either by direct contact or by asphyxiation.²³³ Thus, depending on the wind conditions and the concentration of structures and combustible materials, the fire caused by a nuclear explosion may spread uncontrollably, rendering the attack as indiscriminate. In addition, it can be argued the normal use of these weapons has demonstrated that, in general, incendiary weapons are used indiscriminately.²³⁴

There are, however, conceivable attacks in which fire would not spread uncontrollably.

Judge Schwebel’s references to nuclear attacks underwater or in the desert, and the potential use

²²⁸ See Singh, *supra* note 25, at 18.

²²⁹ *Id.* at 17.

²³⁰ See COMMENTARY, *supra* note 51, ¶ 1962, at 622.

²³¹ See CONFERENCE OF GOVERNMENT EXPERTS, *supra* note 150, ¶ 101, at 31.

²³² MOXLEY, *supra* note 9, at 422.

²³³ *Id.*

²³⁴ *Id.*; see also *supra* notes 152-53 and accompanying text (discussing how some will consider a weapon to be indiscriminate based on its normal or typical use).

of these weapons in space,²³⁵ all come to mind. For these, the isolation of the military objective from civilians or the lack of combustible materials would mean that the attacker can predict that the fire will remain limited. Thus, although fire would spread irrepressibly in many nuclear attacks, fire can certainly be more controllable than nuclear radiation.²³⁶

iv. Radiation

Nuclear weapons are uniquely devastating because of the radiation they release.²³⁷ All existing weapons emit radiation when they are detonated,²³⁸ and it is estimated that approximately 15% of the energy a nuclear weapon releases is in the form of nuclear radiation.²³⁹ The explosion instantaneously releases nuclear radiation, which can result in serious damage to living tissue.²⁴⁰ Nuclear radiation disrupts the combination of atoms in the body, killing cells and leading to serious illness or death.²⁴¹ Exposure to radiation can also result in cancer, serious blood disorders, genetic mutations and birth defects.²⁴² The immediate radiation hazard does not extend beyond the range of blast and heat.²⁴³

Even after the initial effects of the explosion, fission products continue to emit beta particles and gamma radiation.²⁴⁴ Radioactive isotopes are lifted by the rising clouds of an explosion and dispersed by the wind.²⁴⁵ This radioactive material can be carried into the atmosphere, settling slowly back down onto earth as “fallout”²⁴⁶ or in the form of radioactive

²³⁵ Robert A. Ramey, *Armed Conflict on the Final Frontier: The Law of War in Space*, 48 A.F.L. REV. 1, 19-22 (2000).

²³⁶ See *infra* Part 5, iv, for a full evaluation of the rule of distinction and nuclear radiation.

²³⁷ See Advisory Opinion, *supra* note 2, ¶ 35, at 243 (“The phenomenon of radiation is said to be peculiar to nuclear weapons” and “render the nuclear weapon potentially catastrophic.”).

²³⁸ MOXLEY, *supra* note 9, at 414.

²³⁹ The Energy From a Nuclear Weapon, ATOMIC ARCHIVE, <http://www.atomicarchive.com/Effects/effects1.shtml>.

²⁴⁰ See Singh, *supra* note 25, at 16.

²⁴¹ *Id.* at 123.

²⁴² MOXLEY, *supra* note 9, at 407; see also Sheldon, *supra* note 5, at 189.

²⁴³ See Singh, *supra* note 25, at 123.

²⁴⁴ *Id.* at 16.

²⁴⁵ MOXLEY, *supra* note 9, at 417.

²⁴⁶ Singh, *supra* note 25, at 16.

rain.²⁴⁷ Thus, wind direction and the prevalent meteorological conditions have a distinct effect on the course and reach of the fallout.²⁴⁸

Radioactive fallout is particularly noxious if the explosion occurs near the ground. Then, the fireball can carry massive amounts of dirt, to which radioactive nuclei have been attached, into the atmosphere.²⁴⁹ According to the 1955 report by the International Commission on the Effects on Human Health of Atomic and Hydrogen Bomb Explosions, the area of contamination from radioactive fallout from a large nuclear explosion could be between 100 and 150 thousand square miles.²⁵⁰ The radioactive particles from fallout can remainder deadly for months and years after the explosion.²⁵¹

Radioactive fallout is especially relevant for the rule of distinction because fallout can take on “a life of its own,”²⁵² even harming non-combatants at great distances from the initial explosion. It is estimated that a 335 kt warhead could deliver a possibly lethal dose of radiation for as far as fifty miles from the explosion.²⁵³ The fallout produced by the twenty megaton bomb tested by the United States at Bikini in 1954 affected an area of approximately 100,000 square miles, in which some fifty percent of the population would be likely to die.²⁵⁴ The Additional Protocol provides that an attack, “the effects of which cannot be limited,” are inherently indiscriminate.²⁵⁵ In fact, the Commentary to the Additional Protocols states that delegates at the Diplomatic Conference had nuclear weapons specifically in mind when debating this

²⁴⁷ *Id.* at 124.

²⁴⁸ *Id.* at 22.

²⁴⁹ MOXLEY, *supra* note 9, at 417.

²⁵⁰ *See* Singh, *supra* note 25, at 23-24.

²⁵¹ *See id.* at 124.

²⁵² Doswald-Beck, *supra* note 71.

²⁵³ MOXLEY, *supra* note 9, at 418.

²⁵⁴ *See* Singh, *supra* note 25, at 21; *see also* Advisory Opinion, *supra* note 2, at 499 (Weeramantry, J., dissenting) (arguing that “the radiation it releases over immense areas does not discriminate between combatant and non-combatant”).

²⁵⁵ Blix, *supra* note 58, at 199.

provision.²⁵⁶ Based on these statistics alone, it is certainly clear that the radiation released by a nuclear explosion could render the attack indiscriminate.

While there may be limited circumstances in which the radiation from a nuclear attack would likely not harm non-combatants, these are few and far between. Some have argued that nuclear weapons use in space would not create any harmful fallout.²⁵⁷ In addition, as previously mentioned, Judge Schwebel lists certain underwater nuclear attacks as ones which would likely not cause substantial civilian casualties.²⁵⁸ While this would certainly not release vast quantities of radiation into the atmosphere, can the attacker be sure that the underwater radiation will not eventually harm civilians? After American nuclear tests in the Pacific, fish caught in various parts of the ocean as long as eight months after the explosion were still contaminated and found unfit for human consumption.²⁵⁹ While this case may not be typical, it certainly illustrates the difficulty an attacker would have in controlling the radioactive effects of a nuclear explosion.

The effects of a nuclear weapon may be so uncontrollable that even those who are not alive at the time of the attack will suffer because of it. The ICJ recognized that nuclear fallout can cause “untold human suffering” including “damage to future generations.”²⁶⁰ Many will be rendered sterile by exposure to nuclear radiation, but a significant percentage of offspring from those who can reproduce will die prematurely or have significant disabilities.²⁶¹ In addition, the Mayor of Nagasaki stated in his testimony before the ICJ that descendants of the atomic bomb’s survivors will have to be monitored for several generations because of potential genetic defects

²⁵⁶ COMMENTARY, *supra* note 51, ¶ 1966, at 623.

²⁵⁷ See generally Ramey, *supra* note 235.

²⁵⁸ See Advisory Opinion, *supra* note 2 at 320 (Schwebel, J., dissenting).

²⁵⁹ See Singh, *supra* note 25, at 124.

²⁶⁰ See Advisory Opinion, *supra* note 2 ¶ 35, at 21-22.

²⁶¹ See generally Singh, *supra* note 25, at 25 (discussing how nuclear radiation can cause genetic damage to those exposed and their offspring).

caused by exposure to the weapon's radiation.²⁶² These multi-generational effects give significant force to those who maintain that nuclear weapons cannot be controlled "in space or time."²⁶³ Thus, even if a nuclear weapon could theoretically be controlled so that only military personnel were exposed to its radiation, would not the potentially deadly or disabling effects on any civilian descendants of these soldiers render this attack as indiscriminate?

It is useful to compare the radiation effects of nuclear weapons to landmines. Many argue that landmines are inherently indiscriminate because of their uncontrollability.²⁶⁴ While the intended purpose of a landmine may be to protect a legitimate military location, a civilian, potentially years after the conflict, may inadvertently be killed by the landmine. If the location of the landmine is forgotten, or a civilian wanders into a minefield, its effects become uncontrollable and indiscriminate.²⁶⁵ Thus, as with nuclear weapons, a landmine can harm even future generations.

The potentially indiscriminate nature of landmines has led to strict restrictions on their in the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed To Be Excessively Injurious or to Have Indiscriminate Effects.²⁶⁶ This Convention prohibits the indiscriminate placement of mines and the use of certain mines which remain capable of exploding after the conflict.²⁶⁷ In addition, combatants must use all possible

²⁶² Testimony of Mr. Takashi Hiraoka, Mayor of Hiroshima, and Mr. Iccho Itoh, Mayor of Nagasaki, before the International Court of Justice 36, 7 November 1995, *available at* http://www.nuclearweaponslaw.com/Hiroshima_Nagasaki.doc.

²⁶³ *See* Advisory Opinion, *supra* note 2, ¶ 92, at 262.

²⁶⁴ *See* CONFERENCE OF GOVERNMENT EXPERTS, *supra* note 150, ¶ 248, at 69.

²⁶⁵ *See* Herthel, *supra* note 15 for a similar analysis regarding unexploded cluster munitions.

²⁶⁶ CONVENTION ON PROHIBITIONS OR RESTRICTIONS ON THE USE OF CERTAIN CONVENTIONAL WEAPONS WHICH MAY BE DEEEMD TO BE EXCESSIVELY INJURIOUS OR HAVE INDISCRIMINATE EFFECTS, ICRC, at 23, *available at* http://www.icrc.org/eng/assets/files/other/icrc_002_0811.pdf. [hereinafter CONVENTION ON PROHIBITIONS].

²⁶⁷ *Id.* at Article 3, at 26.

precautions to protect civilians from the mines, including maps,²⁶⁸ fences, signs and monitoring.²⁶⁹

Nuclear radiation and fallout are even less controllable than landmines. While it is clear that mines are potentially indiscriminate, combatants are also quite capable of controlling their effects.²⁷⁰ By keeping accurate records of their placement and diligently segregating them from civilians, their effects can be minimized.²⁷¹ Nuclear radiation, on the other hand, is not nearly as controllable. The United States and others have argued that certain factors can be controlled to tailor the radioactive effects of a nuclear attack. As John McNeil argued before the ICJ, by regulating the height at which the explosion takes place, the yield of the weapon, and the timing of the attack based on climatic and atmosphere conditions, the nuclear explosion may have relatively limited fallout effects.²⁷² The United States also argues that there are “plausible scenarios, such as a small number of accurate attacks by low-yield weapons against an equally small number of military targets in nonurban areas.”²⁷³ The United States, however, has presented no substantive evidence verifying these claims and demonstrating that a nuclear attack can be tailored to limit its radioactive effects on non-combatants.²⁷⁴

Even if a belligerent could drastically reduce the radiation released by the explosion, whatever radiation is released is inherently incapable of being controlled by the attacker, taking on a “life of its own.”²⁷⁵ Unlike a landmine, which remains in place, radiation “is not limited to the place where the destructive force of the explosion takes effect but can extend through air or

²⁶⁸ See CONFERENCE OF GOVERNMENT EXPERTS, *supra* note 150, ¶ 239, at 69.

²⁶⁹ See CONVENTION ON PROHIBITIONS, *supra* note 266, Article 7, at 30.

²⁷⁰ See CONFERENCE OF GOVERNMENT EXPERTS, *supra* note 150, ¶ 249, at 70.

²⁷¹ See CONVENTION ON PROHIBITIONS, *supra* note 266.

²⁷² MOXLEY, *supra* note 9, at 126; *see also* Advisory Opinion, *supra* note 2, ¶ 91, at 261.

²⁷³ Charles J. Moxley Jr., John Burroughs, and Jonathan Granoff, *Nuclear Weapons and Compliance with International Humanitarian Law and the Nuclear Non-Proliferation Treaty*, 34 *Fordham Int'l L.J.* 595, 660 (2011).

²⁷⁴ *See id.* at 648-49.

²⁷⁵ Doswald-Beck, *supra* note 71.

contaminated waters to other locations.”²⁷⁶ In particular, something as seemingly insignificant as the “changing direction of the wind” renders nuclear fallout “unpredictable” and “uncontrolled.”²⁷⁷ Thus, it immediately escapes from the control of the attacker in an unpredictable and uncontrollable fashion.²⁷⁸ As mentioned above, even if this radiation can be limited to harm only military personnel, it may still cause severe harm and death to future generations.²⁷⁹

This fact makes nuclear radiation far more akin to bacteriological or chemical means of warfare. These weapons, once released, uncontrollably spread to harm combatants and non-combatants alike, leading the Commentary to note that they “by their very nature have an indiscriminate effect.”²⁸⁰ In the context of the applicability of the 1925 Geneva Gas Protocol, the United States has attempted to distinguish radiation from these weapons by arguing that radiation is only a side effect of the intended blast and heat effects of a nuclear weapon, while the deadly effects of gas are the intended use of these weapons.²⁸¹ There is, however, nothing within the prohibition against indiscriminate attacks that would prevent its applicability to the unintended or secondary consequences of an attack. In fact, the broad reference in 51(4)(c) to any “effects which cannot be limited,” without further qualification, indicates that the provision was specifically formulated with these types of unintended effects in mind.²⁸²

The debate regarding the role of proportionality in determining whether an attack is indiscriminate also plays a crucial role in this context. As stated above, it is likely that an attack can be indiscriminate without any regard to its actual consequences. If the weapon cannot be

²⁷⁶ MEYROWITZ, *supra* note 57, at 44.

²⁷⁷ See Singh, *supra* note 25, at 22.

²⁷⁸ See MEYROWITZ, *supra* note 57, at 44.

²⁷⁹ See *supra* notes 260-63 and accompanying text.

²⁸⁰ COMMENTARY, *supra* note 51, ¶ 1965, at 623.

²⁸¹ Moxley, *supra* note 274, at 657.

²⁸² This is confirmed by the Commentary, which notes that a number of delegates had nuclear weapons specifically in mind with regard to this provision. See COMMENTARY, *supra* note 51, ¶ 1966, at 623.

directed, or its effects cannot be limited, it will inherently be indiscriminate upon its use. This view would severely constrain the use of low yield and mini-nukes because even if it is likely that the radiation would not cause any civilian damage, the radiation's uncontrollable escape from the point of attack will violate 51(4)(c). If this were the case, then the attack as a whole would be rendered indiscriminate, and a proportionality analysis, which would normally also be necessary to analyze the heat and blast of the attack, would also be irrelevant.²⁸³

v. Uncontrollable Escalation?

Even if the initial attacker can guarantee that the use of nuclear weapons would not violate the rule of distinction, how would the knowledge that the attacked party will retaliate with a nuclear weapon implicate the rule of distinction?

A number of commentators have focused on the potentially disastrous consequences of a first use of nuclear weapons.²⁸⁴ Although the likelihood of the use of nuclear weapons against civilian populations has drastically decreased since the decline of the "Massive Retaliation" policy,²⁸⁵ it is certainly still possible that a nuclear attack would motivate the other party to respond with nuclear weapons against the civilian population.

The relevant legal argument would proceed as follows: Just as an attacker would violate the rule against indiscriminate attacks by launching an attack with the knowledge that the released radiation may endanger civilians, so too would an attacker violate this prohibition by launching an attack with the knowledge that it will lead to indiscriminate escalation. The United States has implied that the risk of escalation can be considered in determining the application of international humanitarian law, stating that:

²⁸³ See Doswald-Beck, *supra* note 71.

²⁸⁴ See MEYROWITZ, *supra* note 57, at 73.

²⁸⁵ See *id.* at 57.

The argument that international law prohibits, in all cases, the use of nuclear weapons appears to be premised on the incorrect assumption that every use of every type of nuclear weapon will necessarily share certain characteristics which contravene the law of armed conflict. Specifically, it appears to be assumed that any use of nuclear weapons would inevitably escalate into a massive strategic nuclear exchange, resulting automatically in the deliberate destruction of the population centers of opposing sides.²⁸⁶

In terms of the rule of distinction specifically, there is little in the academic literature that this author has found to support the contention that knowledge of escalation will render the initial attack indiscriminate. In addition, the Commentary specifically analyzes the prohibition against indiscriminate attacks in terms of the particular weapons used, without regard to the political or military consequences of such an attack.²⁸⁷ Although the Additional Protocol does take “effects” of an attack into account in determining indiscriminateness, there must be some line after which liability can no longer attach. In this case, the fact that the other party needs to make an independent decision to launch an indiscriminate attack should supersede any liability on the first-strike attacker.²⁸⁸

vi. Per Se Prohibition

While the Advisory Opinion does not directly define the scope of a *per se* rule, its conclusion suggests that a *per se* rule prohibiting all uses of nuclear weapons is only appropriate if it can be shown that all uses would violate international law. The Court states that since there may be certain legitimate uses of nuclear weapons, potentially including attacks with “smaller, low-yield, tactical nuclear weapons,” it would not impose a categorical prohibition on the use of

²⁸⁶ MOXLEY, *supra* note 9, at 280.

²⁸⁷ See generally COMMENTARY, *supra* note 51, ¶ 1951-66, at 620-23.

²⁸⁸ The rule of proportionality may be better suited to address retaliation, to the extent that it is likely to occur. Article 57 of the Protocol lists the “Precautions in Attack” that a belligerent must consider before launching an attack. It puts forward a standard formulation of the rule of proportionality, requiring a combatant to refrain from launching an attack if it “may be expected to cause incidental loss of civilian life, injury to civilians . . . which would be excessive in relation to the concrete and direct military advantage anticipated.” Thus, even if we presume that escalation is not an uncontrollable “effect” of a nuclear attack, perhaps it may be considered as “incidental loss of civilian life” within the rubric of the rule of proportionality. See Additional Protocol, *supra* note 1, Article 57.

nuclear weapons because it could not conclude “with certainty that the use of nuclear weapons would *necessarily* be at variance” with the laws of war (my italics).²⁸⁹

This approach confirmed the view taken by the United States. John McNeil argued to the ICJ that nuclear weapons should not be prohibited because “nuclear weapons, as is true of conventional weapons, can be used in a variety of ways . . . and their use may be lawful or not.”²⁹⁰ Based on this approach, even if the vast majority of nuclear attacks would violate the laws of war, the fact that there may be some scenarios that would allow for legal uses of nuclear weapons should prevent the establishment of a *per se* rule.

Judge Shahabuddeen, on the other hand, would seem to be willing to impose a *per se* prohibition against nuclear weapons even if there may be some legal uses. He argues that “in judging the admissibility of a particular means of warfare, it is necessary . . . to consider what the means can do in the ordinary course of warfare, even if it may not do it in all circumstances.”²⁹¹ For Judge Shahabuddeen, a *per se* prohibition would be appropriate if the “ordinary” use of nuclear weapons would violate international law. This sharply contrasts with the language in the Advisory Opinion, discussing whether nuclear attacks would “necessarily” violate these laws.²⁹²

Judge Shahabuddeen’s approach conforms to the practices of many of the world’s legal systems, which categorically prohibit certain activities even though they would not be illegal in all circumstances.²⁹³ *Per se* rules in these instances are primarily applicable in instances in which it would be difficult to distinguish between the lawful and unlawful varieties of the activity.²⁹⁴ This application of *per se* rules serves a valid purpose; If another law, distinction in

²⁸⁹ See Advisory Opinion, *supra* note 2 ¶, 95, at 262.

²⁹⁰ MOXLEY, *supra* note 9, at 125.

²⁹¹ See Advisory Opinion, *supra* note 2, at 418 (Shahabuddeen, J., dissenting).

²⁹² See *id.* ¶ 95, at 262.

²⁹³ See MOXLEY, *supra* note 9, at 255.

²⁹⁴ See *id.*

our case, would prohibit the activity in all circumstances anyway, then establishing a *per se* rule would be superfluous. If, however, there are a number of difficult to identify legitimate instances of the activity, a *per se* rule is appropriate in that it extends the general illegality to prevent accidental violations, or to ensure that the prohibition against the vast majority of uses is respected.

Here, until nuclear weapons technology advances, all nuclear weapons emit radiation upon detonation. Any potentially discriminate uses of nuclear weapons are currently so difficult to identify that it would be nearly impossible, in advance, to determine whether the use would be discriminate. A *per se* prohibition, therefore, is appropriate based on the rule of distinction's general prohibition of nuclear attacks.

6. *Analyzing Nuclear Weapons Without the Additional Protocol*

Although the Additional Protocol contains the only treaty formulation of the rule against indiscriminate attacks,²⁹⁵ it is possible that in analyzing nuclear weapons we should be restricted to the basic rule of distinction.

The Additional Protocols are not applicable as treaty law to the use of nuclear weapons.²⁹⁶ During the negotiations at the Diplomatic Conference in Geneva, there was serious controversy regarding whether the new Additional Protocol should cover nuclear weapons.²⁹⁷ The ICRC stated that the Additional Protocol should not influence nuclear weapons and most NATO allies conditioned their consent to the Additional Protocol on the basis that it would only cover conventional weapons.²⁹⁸ The United States signed the Additional Protocols, but stated:

²⁹⁵ Doswald-Beck, *supra* note 71.

²⁹⁶ See Oeter, *supra* note 26, at 168.

²⁹⁷ *Id.*

²⁹⁸ *Id.*

It is the understanding of the United States of America that the rules established by this Protocol were not intended to have any effect on any do not regulate or prohibit the use of nuclear weapons.²⁹⁹

Since the Additional Protocol does not refer to nuclear weapons as treaty law, any provisions creating new international restrictions will not restrict the use of nuclear weapons.³⁰⁰ Instead, only those rules within the Additional Protocol that accurately reflect existing customary international law will apply. For our purposes, the Additional Protocol's formulation of the rule against indiscriminate attacks will only regulate the use of nuclear weapons to the extent that it accurately reflects customary international law.³⁰¹

As discussed above,³⁰² some scholars maintain that the Additional Protocol's formulation of the rule against indiscriminate attacks is not part of customary international law. Based on that view, 51(4) and 51(5) should only be applied to nuclear weapons "with caution."³⁰³ If, on the other hand, 51(4) and 51(5) accurately reflect customary law, then they should readily be applied to nuclear weapons.

Regardless of this specific restraint, however, even the most basic formulation of the rule of distinction may prevent certain nuclear attacks. The United States recognizes that it is customary law that "distinctions must be made between combatants and noncombatants, to the effect that noncombatants be spared as much as possible."³⁰⁴ Similarly, none contest that Article 48, which states that "the parties to the conflict shall at all times distinguish between the civilian population and combatants," is also customary law.³⁰⁵ If civilians are to "be spared as much as possible," then unless a nuclear weapon is absolutely necessary, an attack that releases

²⁹⁹ Blix, *supra* note 58, at 222; *see also* Fleck, p. 166 for a similar German declaration.

³⁰⁰ MEYROWITZ, *supra* note 57, at 37.

³⁰¹ Oeter, *supra* note 26, at 168.

³⁰² *See supra* notes 156-58 and accompanying text.

³⁰³ Oeter, *supra* note 26, at 168.

³⁰⁴ NAVAL HANDBOOK, *supra* note 107, at 10.2.1.

³⁰⁵ Oeter, *supra* note 26, at 168.

uncontrollable nuclear radiation would not be sparing civilians “as much as possible.” It could also be argued that knowledge that radioactive fallout would harm civilians would qualify as targeting the civilian population “as such,” which would certainly violate the basic rule of distinction.³⁰⁶ In addition, if radioactive fallout will endanger civilians, even days or weeks after the actual attack, then it can be argued that the attacker has not “at all times” distinguished between combatants and civilians.

Conclusion

As far back as at least the seventh century, military men have recognized the basic principle that belligerents should focus their hostilities against only those who have taken up arms. In the face of the vast destructive capabilities of nuclear weapons, this principle has only become more pressing, and the corollary rule against indiscriminate attacks has been developed partly in response to the far-reaching effects of today’s weapons. Despite any arguments to the contrary, the rule of distinction and the rule against indiscriminate attacks prohibit nearly all uses of today’s nuclear weapons. It is evident that the nuclear fallout caused by a nuclear weapon would render these attacks as indiscriminate because of their general uncontrollability. In addition, in many instances of nuclear attack, the uncontrollable conflagration would on its own indiscriminately harm the civilian population. While the question of whether a *per se* rule is significant in theory, the scope of the rule of distinction makes it nearly impossible for a belligerent to conclusively identify a nuclear attack that would not violate these rules.

The array of deadly effects resulting from a nuclear attack also presents an opportunity to analyze the nuanced applications of the laws of war. Because of nuclear weapons’ uncontrollable effects, nearly all uses of these weapons should violate the rule against indiscriminate attacks, regardless of the actual consequences of the attack. Based on this

³⁰⁶ See MOXLEY, *supra* note 9, at 68.

analysis, it is apparent that the rule of proportionality is better suited for conventional weapons, which are relatively controllable in relation to nuclear weapons. Thus, for most conventional attacks directed at military targets, the rule of proportionality, and not the rule against indiscriminate attacks, should be the first rule applied.

As nuclear weapons technology advances, the applicability of the rule of distinction will have to be reevaluated. If “clean” nuclear weapons are developed, or it is somehow proven that nuclear radiation can be fully controlled, then nuclear weapons will essentially have become extremely large conventional explosive devices. If this occurs, and the heat and blast effects remain predictably controllable, then the indiscriminate nature of nuclear weapons will be limited merely to any uncontrollable resulting conflagration.