

Permitted for law enforcement purposes but prohibited in the conduct of hostilities: The case of riot control agents and expanding bullets

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Abstract

Riot control agents and expanding bullets are the only two kinds of weapon and ammunition that are used for law enforcement purposes but are explicitly prohibited in the conduct of hostilities. This article justifies this difference in treatment with two arguments. First, riot control agents and expanding bullets have different effects on the human body depending on their specific types and the circumstances in which they are deployed. Second, the issues raised by their use differ according to whether they are employed for law enforcement purposes or in the conduct of hostilities.

Keywords: riot control agents, tear gas, expanding bullets, dum-dum bullets, law enforcement, conduct of hostilities, dosage, ballistics.

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Introduction

To maintain public order, police forces around the world commonly use irritant gases – known as “riot control agents” – and bullets that are designed to flatten and deform on impact, which we shall call “expanding bullets”. Hardly a month goes by without news that a demonstration somewhere has been broken up using tear gas.¹ This practice has been widely documented in the United States, the United Kingdom, Germany and France.² Although less widely reported on in the media, expanding bullets are also frequently used by police around the world, including the New York Police Department,³ Swiss cantonal police forces⁴ and the French national police.⁵ Riot control agents and expanding bullets have a unique attribute in common compared with other weapons and ammunition: although they are widely used by police forces around the world, they are forbidden as a means of warfare in situations of armed conflict.

The banning of riot control agents as a means of warfare can be traced back to the Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (Geneva Protocol) of 1925. Since this treaty prohibits “the use in war of asphyxiating, poisonous or other gases”,⁶ a majority of States have held that the term “other”, which is rendered as “similaire” in the French version of the text (both versions are equally authentic⁷), covers riot control agents.⁸ According to Wil D. Verwey, this interpretation is consistent with both the preparatory work and the context in

- 1 For example, Ian Simpson and Warren Strobel, “Thousands of Police Descend on Baltimore to Enforce Curfew after Riots”, *Reuters.com*, 28 April 2015, available at: www.reuters.com/article/us-usa-police-baltimore-idUSKBN0N11N720150428 (all internet references were accessed in February 2016); Renee Maltezos and Alkis Konstantinidis, “Greek Police Turns to Tear Gas as Tempers Flare over Pensions”, *Reuters.com*, 4 February 2016, available at: www.reuters.com/article/us-eurozone-greece-strike-idUSKCN0VD000; “Swiss Use Tear Gas, Rubber Bullets to Break Up Kurdish Rally”, *Reuters.com*, 8 February 2016, available at: www.reuters.com/article/us-turkey-kurds-swiss-idUSKCN0VH1PV.
- 2 Wil D. Verwey, *Riot Control Agents and Herbicides in War*, Sijthoff, Leiden, 1977, pp. 13–14.
- 3 James R. Gill and Melissa Pasquale-Styles, “Firearm Deaths by Law Enforcement”, *Journal of Forensic Sciences*, Vol. 54, No. 1, 2009, p. 188.
- 4 “Controversy Mounts Over Police Plans to Use Dumdum Bullets”, *Swissinfo.ch*, 26 July 2001, available at: www.swissinfo.ch/eng/controversy-mounts-over-police-plans-to-use-dumdum-bullets/2158044; Adam Beaumont, “Amnesty Takes Aim at New Police Bullets”, *Swissinfo.ch*, 24 August 2006, available at: www.swissinfo.ch/eng/amnesty-takes-aim-at-new-police-bullets/5402856; “Feu vert aux balles expansives en Suisse”, *RTS.ch*, 28 June 2010, available at: www.rts.ch/info/suisse/1112626-feu-vert-aux-balles-expansives-en-suisse.html.
- 5 AFP, “De nouvelles munitions pour la police”, *Lefigaro.fr*, 13 September 2010, available at: www.lefigaro.fr/flash-actu/2010/09/13/97001-20100913FILWWW00526-nouvelles-munitions-pour-police-et-douanes.php; Brendan Kemmet, “Jugées ‘trop dangereuses’, la police change de munitions”, *Franceoir.fr*, 13 September 2010, available at: www.franceoir.fr/actualite/societe/jugees-trop-dangereuses-police-change-munitions-56850.html; “Les nouvelles balles de la police”, *Planet.fr*, 17 September 2010, available at: www.planet.fr/dossiers-de-la-redaction-les-nouvelles-balles-police.29781.1466.html.
- 6 Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, 94 LNTS 65, 17 June 1925 (entered into force 9 May 1926).
- 7 *Ibid.*
- 8 Jean-Marie Henckaerts and Louise Doswald-Beck (eds), *Customary International Humanitarian Law*, Vol. 1: *Rules*, Cambridge University Press, Cambridge, 2005 (ICRC Customary Law Study), pp. 263–264.

which the Geneva Protocol was adopted.⁹ In the late 1960s and early 1970s, however, this reading was challenged by several States party to the Protocol (Australia, Portugal and the United Kingdom) and by the United States, which, although not a party to the Protocol, applied its provisions.¹⁰ The Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction (Chemical Weapons Convention, CWC) of 1993,¹¹ ratified by 192 States as of 17 October 2015,¹² defines riot control agents as “any chemical ... which can produce rapidly in humans sensory irritation or disabling physical effects which disappear within a short time following termination of exposure”,¹³ and establishes that their use “as a method of warfare” is forbidden.¹⁴ The status of this ban as customary law in both international¹⁵ and non-international¹⁶ armed conflicts is widely accepted. As such, it comprises Rule 76 of the International Committee of the Red Cross (ICRC) study *Customary International Humanitarian Law* (ICRC Customary Law Study).¹⁷

The use of expanding bullets, meanwhile, was outlawed by the Declaration relative to the Prohibition of Bullets which Expand in the Human Body (Hague Declaration), which was adopted in The Hague on 29 July 1899¹⁸ at the close of the First Peace Conference,¹⁹ because of the atrocious wounds they caused. The plenipotentiaries were “inspired by the sentiments which found expression in the Declaration of St Petersburg”.²⁰ In that document, the signatories had considered

that the only legitimate object which States should endeavour to accomplish during war is to weaken the military forces of the enemy; that for this purpose it is sufficient to disable the greatest possible number of men; that this object would be exceeded by the employment of arms which uselessly aggravate the

9 W. D. Verwey, above note 2, pp. 228–239.

10 ICRC Customary Law Study, above note 8, pp. 263–264.

11 Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction, 1975 UNTS 4, 13 January 1993 (entered into force 29 April 1997) (CWC), Art. I(5).

12 Organisation for the Prohibition of Chemical Weapons, *Note of the Technical Secretariat: Status of Participation in the Chemical Weapons Convention as at 17 October 2015*, 17 October 2015, p. 1, available at: www.opcw.org/fileadmin/OPCW/S_series/2015/en/s-1315-2015_e_.pdf.

13 CWC, Art. II(7).

14 *Ibid.*, Art. I(5). In the French text of the CCW, the expression “moyen de guerre” is literally closer to “means of warfare” than “method of warfare”. The English and French texts of the CCW are equally authentic according to Article XXIV.

15 Yoram Dinstein, *The Conduct of Hostilities under the Law of International Armed Conflict*, Cambridge University Press, Cambridge, 2004, pp. 74–75.

16 Eric David, *Principes de droit des conflits armés*, 5th ed., Bruylant, Brussels, 2012, p. 386, para. 2157.

17 ICRC Customary Law Study, above note 8, p. 265.

18 Declaration relative to the Prohibition of Bullets which Expand in the Human Body, 29 July 1899 (entered into force 4 September 1900) (Hague Declaration), in Netherlands Ministry of Foreign Affairs, *The Proceedings of the Hague Peace Conferences*, Martinus Nijhoff, The Hague, 1907, translated by the Carnegie Endowment for International Peace, Washington, DC, 1920, Part I, Annexes, p. 262.

19 *Ibid.*

20 *Ibid.*

sufferings of disabled men, or render their death inevitable; that the employment of such arms would, therefore, be contrary to the laws of humanity.²¹

These considerations reflect the principle of the prohibition against causing unnecessary suffering, which the International Court of Justice (ICJ) has recognized as one of the cardinal principles of international humanitarian law (IHL):

According to the second principle, it is prohibited to cause unnecessary suffering to combatants; it is accordingly prohibited to use weapons causing them such harm or uselessly aggravating their suffering. In application of that second principle, States do not have unlimited freedom of choice of means in the weapons they use.²²

The ban on using expanding bullets is also considered to be a customary rule, applicable in both international and non-international conflicts. It constitutes Rule 77 of the ICRC Customary Law Study.²³

The legitimacy of this state of law has been criticized in a way that calls to mind the position adopted by the ICJ in 1949, namely that “elementary considerations of humanity” are “even more exacting in peace than in war”.²⁴ Following this logic, civil society organizations have denounced the use of expanding bullets by police forces²⁵ on the grounds that projectiles which are banned from the battlefield because they cause inhumane injuries had been or were going to be used by States against their own citizens. During the Ferguson riots in Missouri, the same kind of argument was made against the use of riot control agents.²⁶ Reversing the ICJ’s view, the ban on using these weapons and ammunition as means of warfare in armed conflicts has also been criticized: as riot control agents and expanding bullets are used in peacetime, when standards of humanity are particularly high, then why not use them in war? To justify the use of riot control agents by US forces in Vietnam, Secretary of State Dean Rusk and Secretary of Defence Robert McNamara adopted just that argument on 24 and 25 March 1965, declaring that these weapons could not be regarded as combat gases since they were “recognized weapons used by police units throughout the

21 Annex to Protocol I of the Military Conferences held in Saint Petersburg, “Mémoire sur la suppression de l’emploi des balles explosives en temps de guerre”, *Nouveau Recueil Général de Traités et Autres Actes relatifs aux Rapports de Droit international*, Vol. 18, Göttingen, 1873, p. 460.

22 ICJ, *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, 8 July 1996, *ICJ Reports 1996*, p. 257, para. 78.

23 ICRC Customary Law Study, above note 8, p. 269.

24 ICJ, *Corfu Channel Case (United Kingdom of Great Britain and Northern Ireland v. Albania)*, Judgment, 9 April 1949, *ICJ Reports 1949*, p. 22.

25 Adam Beaumont, “Amnesty Takes Aim at New Police Bullets”, *Swissinfo.ch*, 24 August 2006, available at: www.swissinfo.ch/eng/amnesty-takes-aim-at-new-police-bullets/5402856; Robert Wells, “US Police are Killing People with War-Crimes Ammunition”, *Sfbayview.com*, 25 January 2016, available at: <http://sfbayview.com/2016/01/us-police-are-killing-people-with-war-crimes-ammunition/>.

26 Terrence McCoy, “Tear Gas Is a Chemical Weapon Banned in War. But Ferguson Police Shoot It at Protesters”, *Washingtonpost.com*, 14 August 2014, available at: www.washingtonpost.com/news/morning-mix/wp/2014/08/14/tear-gas-is-a-chemical-weapon-banned-in-war-but-ferguson-police-shoot-it-at-protesters/.

world for riot control”.²⁷ An article in *Time* magazine on 2 April 1965 reasoned that, as the use of gas had only temporary effects, it was ultimately more “humane” than lethal weapons such as napalm bombs and white phosphorus shells.²⁸ This line of thinking persisted after the entry into force of the CWC. Defence Secretary Donald Rumsfeld thus declared on 5 February 2003:

In many instances our forces are allowed to shoot somebody and kill them, but they’re not allowed to use a nonlethal riot control agent under the law. ... There are times when the use of nonlethal riot agents is perfectly appropriate, although legal constraints make for a very awkward situation.²⁹

The same position is found concerning expanding bullets in the US Defense Department’s *Law of War Manual* (US Law of War Manual) of June 2015: “Expanding bullets are widely used by law enforcement agencies today, which also supports the conclusion that States do not regard such bullets [as] inherently inhumane or needlessly cruel.”³⁰

This article shall seek to respond to these criticisms and to demonstrate that there is no contradiction between the ban on such weapons and ammunition in the conduct of hostilities and their widespread use in law enforcement. There is a *ratio legis* behind the different legal regimes that we shall explore. Using two quasi-independent but complementary arguments, we shall justify why the use of expanding bullets is permitted in situations of law enforcement and why riot control agents are prohibited as a method of warfare. In the first part, we shall explain that the context in which these weapons and ammunition are used affects their impact on the human body. Thus, riot control agents lose their non-lethal character when used as a method of warfare, as greater amounts are absorbed by the body. As for expanding bullets, they often cause much less serious injuries than the projectiles intended by the Hague Declaration when they are used for law enforcement purposes, because of a difference in kinetic energy. In the second part of the article, we shall develop the complementary argument that, even if these weapons and ammunition were used in the same way for law enforcement purposes and in the conduct of hostilities, the implications of this use would in any case be different. Employing riot control agents as a method of warfare can unleash an escalation to the use of more toxic chemical agents, and the use of expanding bullets in law enforcement complies with certain requirements that do not exist in the rules on the conduct of hostilities. This second argument will also enable us to clarify the boundary between permitted

27 W. D. Verwey, above note 2, p. 13; Kim Coleman, *A History of Chemical Warfare*, Palgrave MacMillan, New York, 2005, p. 98.

28 *Ibid.*, Nick Lewer and Steven Schofield, *Non-Lethal Weapons: A Fatal Attraction?*, Zed Books, London, 1997, p. 65.

29 Michael L. Gross, *Modern Dilemmas of Modern Warfare: Torture, Assassination and Blackmail in an Age of Asymmetric Conflicts*, Cambridge University Press, Cambridge, 2009, p. 77; Kerry Boyd, “Rumsfeld Wants to Use Riot Control Agents in Combat”, *Arms Control Today*, March 2003, available at: www.armscontrol.org/act/2003_03/nonlethal_mar03.

30 General Counsel of the US Department of Defense, *Department of Defense Law of War Manual*, 12 June 2015 (US Law of War Manual), p. 325.

and prohibited uses of these weapons and ammunition depending on the different issues raised.

Different effects

Riot control agents and expanding bullets have different effects on the human body depending on whether they are used in the conduct of hostilities or in the maintenance of public order. We shall first demonstrate that the toxicity of riot control agents differs depending on the context in which they are employed and that they can easily lose their “non-lethal” character if used in combat operations. Secondly, we shall explain that, in the context of law enforcement by police forces, the cartridges used for bullets that are designed to flatten and deform on impact are often different from military rifle cartridges, and therefore do not inflict the same wounds as in the conduct of hostilities.

The toxicity of riot control agents

The CWC defines riot control agents as any chemical “which can produce rapidly in humans sensory irritation or disabling physical effects which disappear within a short time following termination of exposure”.³¹ It also establishes that these agents cannot be diluted formulae of other types of chemical weapons.³² The designation as “riot control agents” has been used in the past, however, to pass off lethal methods of chemical warfare as non-lethal. We shall start by defining some basic concepts of toxicology before explaining the importance of the dosage of riot control agents.

Some basic concepts of gas toxicology

The amount of a chemical in the gaseous state or in droplets suspended in the air that is absorbed by a human body is given in terms of its dosage or concentration-time product (Ct). This value depends both on the concentration of the chemical in the air that the person is breathing and the length of time that he or she is exposed to the chemical. It is therefore expressed in “milligrams divided by cubic metres multiplied by minutes”, or “milligrams multiplied by minutes divided by cubic metres” (mg-min/m³).³³ This means that a chemical will have the same effect on a person if he or she is exposed to a given concentration for a given time or to a concentration ten times lower for ten times longer. Each toxic chemical has a dosage above which it has certain effects on the body. It thus has an incapacitating dosage (Ct I), after which the victim is unable

31 CWC, Art. II(7).

32 Walter Krutzsch and Ralf Trapp, *A Commentary on the Chemical Weapons Convention*, Martinus Nijhoff, Dordrecht, 1994, p. 36.

33 Claude Meyer, *L'arme chimique*, Ellipse, Paris, 2001, p. 136.

to continue what he or she was doing, and a lethal dosage (Ct L), after which it causes the victim's death. All individuals are affected differently by a given chemical. This is why the dosage beyond which the chemical has the studied effect on 50% of people exposed to it is generally taken as the statistical value. This gives us the incapacitating dosage for half the population concerned (Ct I₅₀, hereafter the incapacitating dosage) or the lethal dosage for the same proportion of the population (Ct L₅₀, hereafter the lethal dosage).³⁴ The lower this latter value, the more toxic the chemical. Yperite (or mustard gas) has a lethal dosage of 1,500 mg-min/m³, while the neurotoxic agent sarin has a lethal dosage of 70 mg-min/m³.

Under the CWC, the States Parties are obliged to declare which types of riot control agents they hold.³⁵ As of 31 December 2015, 138 States Parties had made such declarations, mainly concerning tear gas.³⁶ It transpires from these that the most commonly used agents are CS (o-chlorobenzylidene malononitrile), CN (chloroacetophenone) and capsaicinoids (pepper gas). Although these substances act on the human body via different mechanisms, they all have in common that they produce a burning sensation in the eyes, the respiratory tract and the skin that is sufficiently unpleasant or painful as to cause those targeted to flee or be temporarily incapacitated.³⁷ It is estimated that the incapacitating dosage of CS ranges from 0.1 to 10 mg-min/m³ and of CN from 20 to 40 mg-min/m³, depending how the gas is dispersed.³⁸ According to the studies cited,³⁹ the estimated lethal dosage of CS ranges from 25,000 to 60,000 mg-min/m³ and that of CN from 8,500 to 11,000 mg-min/m³. Thus, even taking the narrowest bracket, the lethal dosage of CS is 2,500 times higher than the incapacitating dosage. The risk of overdosage is therefore in theory very low. By way of comparison, the lethal dosage of sarin is just double the incapacitating dosage (70 and 35 mg-min/m³ respectively).⁴⁰ However, the very existence of a lethal dosage shows that riot control agents are not intrinsically non-lethal. They are only non-lethal if they are dosed accordingly, even allowing for a fairly wide margin of error.

The importance of dosage

Using riot control agents as a method of warfare creates conditions in which the lethal dosages are more likely to be reached, despite the safety margin between

34 *Ibid.*, p. 137.

35 CWC, Art. III(1)(e).

36 Organisation for the Prohibition of Chemical Weapons, *Report of the OPCW on the Implementation of the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction in 2015*, 30 November 2016, p. 12, para. 1.49, available at: www.opcw.org/fileadmin/OPCW/CSP/C-21/en/c2104_e_.pdf.

37 Eugene G. Olajos and Woodhall Stopford, "Introduction and Historical Perspectives", in Eugene G. Olajos and Woodhall Stopford (eds), *Riot Control Agents: Issues in Toxicology, Safety, and Health*, CRC Press, London, 2004, p. 1.

38 Woodhall Stopford and Frederick R. Sidell, "Human Exposures to Riot Control Agents", in *ibid.*, pp. 202, 206.

39 W. D. Verwey, above note 2, p. 44; C. Meyer, above note 33, p. 193; Eugene G. Olajos and Woodhall Stopford, "Acute Sensory Irritation" in E. G. Olajos and W. Stopford (eds), above note 37, p. 69.

40 C. Meyer, above note 33, p. 136.

the incapacitating and lethal dosages. US troops in Vietnam deployed riot control agents as a method of warfare, and in such a way that they became lethal, by passing off as riot control agents chemicals that were no longer used for this purpose by the police, and using riot control agents in confined areas or delivering them using artillery and air power.

Numerous irritant gases were used during the First World War, in particular BA (bromoacetone) and DM (adamsite).⁴¹ An estimated 12,000 tonnes of irritant gases were used during that conflict⁴² – one tenth of the total amount of gas used.⁴³ This is one of the arguments of those who consider that, from 1925, the Geneva Protocol prohibited the use of riot control agents in war,⁴⁴ as they contributed to the horror of the “Great Chemical War”.⁴⁵ Used for a time as a riot control agent in the interwar years, DM was gradually replaced by CN and abandoned for that purpose because it was too dangerous.⁴⁶ It was nonetheless used by US forces in Vietnam. Verwey reports that soldiers serving in Vietnam were instructed not to use agent DM “in an operation where deaths were not acceptable”,⁴⁷ at the same time as Secretary of Defence Robert McNamara declared that the chemical agents used in Vietnam were no different from those commonly used by police forces around the world.⁴⁸

Even when relatively safe agents were used, such as CS, this was often done in a manner that was at variance with recommendations for limiting the risk of overdose. Riot control agents are not designed for use in confined spaces, but CS was nonetheless used in Vietnam to flush out the occupants of tunnels and bunkers. To spread the chemical agent, US soldiers used M7 tear gas grenades and the M106 “Mity Mite” sprayer, derived from civilian equipment for spraying pesticides on crops.⁴⁹ The soldiers using these weapons rarely knew the size of the underground system they were supposed to saturate with gas in order to dislodge the occupants, and the dosage was decided on by guesswork. Taking the lowest estimate of the lethal dosage of CS of 25,000 mg-min/m³, Verwey calculated that this dosage was reached in under two minutes when an M7 tear gas grenade was launched into a 10 m³ shelter, and in one minute when an M106 sprayer was used in a 200 m³ tunnel.⁵⁰ Working in Vietnam from 1965 to 1967, Dr. Alje Vennema had one day to treat some twenty to thirty people who had been exposed to high concentrations of CS six to eighteen hours earlier. Half the patients died from pulmonary oedema attributed to CS poisoning.⁵¹ The military

41 E. G. Olajos and W. Stopford, above note 37, pp. 5–8.

42 W. D. Verwey, above note 2, p. 233.

43 C. Meyer, above note 33, p. 38.

44 W. D. Verwey, above note 2, p. 233.

45 Olivier Lepick, *La grande guerre chimique*, Presses Universitaires de France, Paris, 1998.

46 Sydney A. Katz and Harry Salem, “Synthesis and Chemical Analysis of Riot Control Agents”, in E. G. Olajos and W. Stopford (eds), above note 37, p. 26.

47 W. D. Verwey, above note 2, p. 35.

48 K. Coleman, above note 27, p. 98.

49 W. D. Verwey, above note 2, p. 53.

50 *Ibid.*, p. 55.

51 *Ibid.*, p. 57; W. Stopford and F. R. Sidell, above note 38, pp. 213–214.

use of these gases thus means that they can be categorized with the “asphyxiating” gases referred to by the Geneva Protocol, if one refers to the “ordinary meaning”⁵² of the term “asphyxiating”. Given that the oedema caused by these gases results in a “serious slowing or cessation of breathing which can result in death”,⁵³ it is hard to see how they could not be characterized as “asphyxiating”.

For their operations in Vietnam, US forces were not only issued with individual weapons (grenades and sprayers) for saturating underground shelters with riot control agents. CS was also loaded into 155 mm artillery shells such as the XM631 and fired from a howitzer with a 15 km range, and into bombs like the XM925 and dropped from a helicopter.⁵⁴ Such munitions let off huge concentrations of chemical agents. A single XM925 bomb releases on impact 36 kg of CS, and the four cylinders of an XM631 shell are each filled with 2.2 kg of CS. In the immediate vicinity of the point of impact, the lethal dosage is reached within one minute and the effects of the gas make all escape impossible.⁵⁵ Although used in the open air, the concentrations of CS produced by these weapons are on an altogether different scale from those released by the tear gas grenades used by police forces to disperse a crowd. It should be recalled that, under the CWC, in order not to be regarded as chemical weapons, the types and quantities of toxic chemicals intended for law enforcement purposes must be consistent with those purposes.⁵⁶ According to Walter Krutzsch and Ralf Trapp, this means that it is prohibited to fill artillery shells or bombs with riot control agents.⁵⁷ It is therefore particularly worrying that some fifteen States and arms manufacturers are continuing to develop weapons that can generate a high concentration of riot control agents.⁵⁸ According to Michael Crowley and Dana Perkins, in addition to the risk that such weapons will then be used unlawfully, whether for law enforcement purposes or in the conduct of hostilities, such weapons programmes may also be used to conceal schemes to develop chemical weapons.⁵⁹

We have thus demonstrated that using riot control agents in military operations creates a context that is more likely to result in an overdose of these agents in such proportions that they lose their non-lethal character. The same chemical, for instance CS, will not have the same effects if it is delivered using tear gas grenades or 155 mm shells. This same line of reasoning will lead us to relativize the harm caused by expanding bullets when they are used for law

52 Convention on the Law of Treaties, 1155 UNTS 354, 23 May 1969 (entered into force 27 January 1980), Art. 31(1).

53 Centre National des Ressources Textuelles et Lexicales, “Asphyxie”, available at: www.cnrtl.fr/definition/asphyxie.

54 W. D. Verwey, above note 2, pp. 58–59.

55 *Ibid.*, p. 60.

56 CWC, Art. II(1)(a).

57 W. Krutzsch and R. Trapp, above note 32, p. 42.

58 Michael Crowley and Dana Perkins, *Beyond the Horizon: “Wide Area” Riot Control Agent Means of Delivery and their Relevance to the CWC, BWC and UNSCR 1540*, Biochemical Security 2030 Project, University of Bath, 2014, pp. 7–13.

59 *Ibid.*, pp. 3–4.

enforcement. Although designed to flatten and deform on impact, the bullets habitually used by police forces do not cause the same atrocious wounds as military bullets which have the same design but are prohibited.

Expanding bullets and wound ballistics

Expanding bullets appeared at the end of the nineteenth century and were prohibited by IHL very soon afterwards. In order to understand how these bullets can cause such serious injuries to the human body, some background knowledge of ballistics and the context in which they were banned is, in our view, indispensable. This will then enable us to explain why the use of expanding bullets for law enforcement purposes is justified.

The design and prohibition of expanding bullets

In the late nineteenth century, the British noted that their Lee-Metford rifle, which fired a .303 British cartridge, was relatively ineffective compared with earlier weapons. The bullet passed through the body of the first target it hit, leaving a fairly clean wound and often failing to do sufficient damage to put the adversary *hors de combat*. As rebellions spread in British India, the ammunition factory near Dum Dum, outside Calcutta, modified the .303 British bullets by cutting the hard metal jacket at the tip of the bullet, thus exposing the softer lead core so that it deformed on impact and pushed aside the flesh.⁶⁰ British colonial troops saw the carnage wrought by these modified bullets in the ranks of their adversaries during several campaigns to put down indigenous uprisings.⁶¹ This change to the .303 British cartridge was retained in its later versions, which were also called “dum-dums”.⁶²

Some knowledge of ballistics is necessary to understand how expanding bullets work. Ballistics, the “science of projectiles and their behaviour”, can be subdivided into internal ballistics, external ballistics and terminal ballistics.⁶³ The first studies the behaviour of the projectile in the gun barrel, the second during its flight, and the third – which interests us in particular here – when it hits its target. Terminal ballistics is called wound ballistics when the target is a living one.⁶⁴ One formula is common to all ballistics: $E_k = \frac{1}{2}mv^2$, where E_k is the kinetic energy of the projectile expressed in joules, m its mass in kilograms and v its velocity in metres per second. Thus, the kinetic energy of a projectile is equal to

60 ICRC, *Weapons that may Cause Unnecessary Suffering or Have Indiscriminate Effects: Report on the Work of Experts*, Geneva, 1973, pp. 30–31, para. 80.

61 Robin M. Coupland and Dominique Loye, “The 1899 Hague Declaration concerning Expanding Bullets: A Treaty Effective for More than 100 Years Faces Complex Contemporary Issues”, *International Review of the Red Cross*, Vol. 85, No. 849, 2003, p. 139.

62 Beat P. Kneubuehl (ed.), *Wound Ballistics: Basics and Applications*, Springer-Verlag, Berlin, 2011, p. 328.

63 Johan Warry and José Serrano, “Plaies balistiques”, in Guy Magalon and Romain Vanwijck (eds), *Guide des plaies: Du pansement à la chirurgie*, John Libbey Eurotext, Montrouge, 2003, p. 129.

64 Marc Pirlot, André Chabotier, Fernand Demanet and Jean-Pol Beauthier, “Balistique lésionnelle”, in Jean-Pol Beauthier (eds), *Traité de médecine légale*, De Boeck & Larcier, Brussels, 2008, p. 260.

half its mass multiplied by its velocity squared: the heavier and faster a projectile, the more energy it carries.

Modern wound ballistics explains why the early versions of the .303 British cartridge were ineffective. The key factor in determining the capacity of a projectile to cause injury is not the total energy it carries when it hits its target, but how much of that energy it transfers to the target.⁶⁵ If its mass remains constant, the more a bullet decelerates as it passes through its target, the more kinetic energy it transmits. When a bullet is held up by living tissue, the transmission of energy from the bullet to the tissue causes temporary cavitation: the bullet violently thrusts aside the tissue in its track, opening a large cavity, which then narrows after a few milliseconds to leave only a smaller permanent cavity.⁶⁶ This phenomenon of temporary cavitation causes the destruction of the living tissue, which is very seriously damaged by the initial compression.⁶⁷ Some organs, such as the liver, are particularly sensitive to this.⁶⁸ Maximum destruction of the tissue is attained when the bullet does not pass through its target but remains lodged in the body: the projectile's entire kinetic energy is then used to inflict injury, and none is left for it to continue its trajectory.⁶⁹

The first versions of the .303 British bullet retained their ogival form on impact and transferred only 20% of their kinetic energy as they travelled through the target. The dum-dum bullets flattened and "mushroomed" on impact. They were thus slowed down much more by the tissue in their track and deposited about 80% of their kinetic energy in the target's body. This resulted in very large temporary cavitation and atrocious wounds.

At the International Peace Conference held in The Hague from May to July 1899, the Swiss delegation, referring to the dum-dum bullets whose use in India was known in Europe, asked "whether it would not be well to prohibit projectiles which aggravate wounds and increase the sufferings of the wounded".⁷⁰ Declaration IV.3 concerning the prohibition of the use of bullets which expand or flatten easily in the human body, such as bullets with a hard envelope which does not entirely cover the core or is pierced with incisions, was adopted in plenary conference on 21 July 1899 by twenty-two votes in favour, two against (the United States and the United Kingdom), and one abstention (Portugal).⁷¹

65 B. P. Kneubuehl (ed.), above note 62, pp. 9–10; Vincent J. M. Di Maio, *Gunshot Wounds. Practical Aspects of Firearms, Ballistics, and Forensic Techniques*, 2nd ed., CRC Press, Washington, DC, 1999, p. 171; Eric Prokosch, "The Swiss Draft Protocol on Small-Calibre Weapon Systems: Bringing the Dum-dum Ban (1899) Up to Date", *International Review of the Red Cross*, No. 307, 1995, p. 412.

66 J. Warry and J. Serrano, above note 63, p. 130.

67 B. P. Kneubuehl (ed.), above note 62, p. 87.

68 M. Pirlot, A. Chabotier, F. Demanet and J. P. Beauthier, above note 64, p. 261.

69 V. J. M. Di Maio, above note 65, p. 58.

70 Netherlands Ministry of Foreign Affairs, above note 18, Part II, p. 332.

71 *Ibid.*, Part I, p. 87.

The importance of cartridge type

The use of expanding bullets by law enforcement forces is not considered illegal under international law⁷² and, as stated in the introduction to this article, is common, even though the “elementary considerations of humanity” which led to the prohibition of these projectiles in armed conflicts should be “even more exacting in peace than in war”.⁷³ However, although they remain “bullets which expand or flatten easily in the human body”,⁷⁴ the expanding bullets used by the police are, in terms of the kinetic energy they carry, very different from the dum-dum bullets of the end of the nineteenth century and do not cause the same injuries.

The weapons used by police forces (pistols, revolvers and submachine guns) have cartridges that are fairly similar to each other in terms of the bullet’s kinetic energy.⁷⁵ This energy is, however, much lower than that carried by a military rifle bullet.⁷⁶ For example, the modified .303 British bullet carried 3,136 joules energy on leaving the barrel, whereas the energy carried by a bullet from a 9 × 19 mm cartridge, which is used by many police forces, is only 490 joules on exit from the pistol barrel.⁷⁷

Robin M. Coupland and Dominique Loye summarize the differences between these two types of ammunition as follows:

The rifles that were being used at the end of the nineteenth century fired a bullet which delivers a maximum of approximately 3,000 joules energy. The ammunition for police handguns and machine pistols carry approximately 500 joules energy. ... A bullet carrying 500 joules simply does not have the energy to cause a wound as large or as serious as one carrying 3,000 joules. ... [I]f surgical care is available, the mortality from a 500 joule abdominal wound is in the order of 12%, whereas the mortality of 3,000 joule abdominal wounds is above 50% and may be nearer to 90%.⁷⁸

In the work of expert groups convened by the ICRC, mortality rate has been widely accepted as one of the factors for determining the severity of “suffering” or “injury”.⁷⁹ Beat P. Kneubuehl arrives at conclusions similar to those above, noting that handgun bullets carry on average four to six times less kinetic energy than the bullets of military rifles and stating that “one cannot compare handgun bullets with deforming rifle bullets”.⁸⁰ The bullet of a 7.62 × 51 mm NATO cartridge has a

72 Y. Dinstein, above note 15, p. 64.

73 ICJ, *Corfu*, above note 24, p. 22.

74 Hague Declaration, in Netherlands Ministry of Foreign Affairs, above note 18, Part I, Annexes, p. 262.

75 B. P. Kneubuehl (ed.), above note 62, pp. 44 and 61.

76 ICRC Customary Law Study, above note 8, p. 270.

77 B. P. Kneubuehl (ed.), above note 62, pp. 350–351.

78 R. M. Coupland and D. Loye, above note 61, pp. 140–141.

79 ICRC, above note 60, pp. 28–29, paras 68–72; ICRC, *Conference of Government Experts on the Use of Certain Conventional Weapons*, Report (Lucerne, 24 September–18 October 1974), Geneva, 1975, p. 8, para. 23; R. M. Coupland, *The SirUS Project: Toward a Determination of Which Weapons Cause “Superfluous Injury or Unnecessary Suffering”*, ICRC, Geneva, 1997, p. 24.

80 B. P. Kneubuehl (ed.), above note 62, p. 103.

kinetic energy of 3,272 joules on leaving the barrel, and is therefore quite similar to the old .303 British cartridge.⁸¹ Although some military rifle cartridges developed in the twentieth century fire a bullet that delivers less than 3,000 joules, this has but limited impact on the distinction that can be made between rifle and handgun cartridges. Thus, 7.62×39 mm and 5.45×39 mm cartridges (used in different versions of the Kalashnikov) and 5.56×45 mm NATO cartridges (used in most assault rifles carried by NATO armies) all carry an energy greater than 1,400 joules on leaving the barrel.⁸² On studying the ICRC's surgical database, Robin M. Coupland observed that in proper, but not optimal, conditions of treatment (with competent health personnel, but who gained access to the wounded only after a few hours), the mortality of an abdominal injury caused by a kinetic energy transfer of under 1,100 joules remained below 20%, but mortality increased very rapidly when the kinetic energy transfer exceeded this value, reaching 60% for a 1,400-joule wound and 80% for 1,500-joule wounds.⁸³

This clear difference between the ammunition used by police forces and that prohibited at The Hague in 1899 is, in our view, the most convincing argument reconciling the prohibition under IHL with the practice of the police forces of the world. The expanding bullets used by law enforcement forces simply cannot cause the atrocious wounds which the plenipotentiaries at the First Peace Conference sought to prevent. These bullets, while they violate the letter of the Hague Declaration (they expand easily in the human body), respect its spirit (they do not cause the same atrocious wounds as dum-dum bullets). The hypothesis that bullets could be expanding but not cause superfluous injury was moreover put forward at the First Peace Conference by a member of the US delegation. In a plenary session held on 21 July 1899, Captain Crozier criticized the text of the Declaration, as he had done one month earlier within the Commission:⁸⁴ “[The Declaration] forbids bullets which expand. Now, it is quite possible that a bullet may be invented that expands uniformly and that consequently would not produce needlessly cruel wounds. It would not be necessary, then, to forbid its use.”⁸⁵

This position is still defended today by the US Law of War Manual. While it is not inconsistent with the different points made above, a problem arises when it is used to deny outright that the prohibition of expanding bullets is part of customary IHL,⁸⁶ even if this has so far only been done to justify the use of expanding bullets for handguns. Thus, in 2015, the Defense Department launched a competition to replace the pistol currently used by US troops with one capable of firing expanding bullets.⁸⁷ Certainly, since some expanding bullets do not cause

81 *Ibid.*, p. 351.

82 *Ibid.*

83 R. M. Coupland, “Abdominal Wounds in War”, *British Journal of Surgery*, No. 83, 1996, p. 1508, Fig. 4.

84 Netherlands Ministry of Foreign Affairs, above note 18, Part II, p. 278.

85 *Ibid.*, Part I, p. 83.

86 US Law of War Manual, above note 30, pp. 323–325.

87 Matthew Cox, “Army Begins MHS Competition to Find New Pistol and Ammo Supplier”, *Military.com*, 2 September 2015, available at: www.military.com/daily-news/2015/09/02/army-begins-mhs-competition-to-find-new-pistol-and-ammo-supplier.html.

superfluous injury, and some non-expanding bullets, because they tumble inside the human body, cause wounds similar to those produced by dum-dum bullets,⁸⁸ the best solution *de lege ferenda* would be to ban different bullet types directly according to their effect on the human body. It was along these lines that, at the First Review Conference of the Convention on Certain Conventional Weapons, the Swiss delegation proposed adding a protocol prohibiting the use of bullets which, fired at ranges of 25 metres or more, transferred more than 20 joules of energy per centimetre to human tissues during the first 15 centimetres of passage into the body.⁸⁹ But *de lege lata*, the ban on using as a means of warfare bullets that carry a high kinetic energy and are designed to flatten or deform in the human body cannot be called into question in this way.

We have thus explained why the wounds caused by the bullets habitually used by police forces cannot be equated with those inflicted by the dum-dum bullets of the late nineteenth century. Because of the difference in kinetic energy, a 9 × 19 mm expanding bullet, for instance, is quite simply unlikely to cause the same destruction of tissue as a .303 British dum-dum bullet.

Although they may contain the same type of chemical agent or have a similar projectile design, riot control agents and expanding bullets often have differing effects on the human body depending on the context in which they are used. Riot control agents can become deadly much more easily in the conduct of hostilities than in a law enforcement context. Expanding bullets from handguns used by police forces for law enforcement purposes do not cause the same wounds as dum-dum bullets from military rifles. Now, having developed this first argument, we shall demonstrate that the different implications of the use of these weapons and ammunition depending on the context justify their difference in treatment under the rules on the conduct of hostilities and those governing law enforcement.

From the different implications to the scope of the ban

In this second part, we shall seek to complete the argument made in the first by demonstrating that, even if there were the same risk of an overdose of riot control agents in the context of law enforcement, and even if police forces did use expanding bullets carrying higher kinetic energy to uphold public order, the use of riot control agents and expanding bullets raises different issues in the conduct of hostilities compared with law enforcement situations. The use of riot control agents in military operations against enemy combatants entails a risk of escalation to the use of chemical weapons designed to be lethal, and as for expanding bullets, their use in law enforcement must comply with conditions for the resort to lethal force that are much more restrictive than in the conduct of hostilities. For both these weapons and ammunition, we shall see that clarifying the implications of their use enables us to determine the scope of their

88 R. M. Coupland and D. Loye, above note 61, p. 138.

89 For a detailed analysis of this proposal, see E. Prokosch, above note 65, pp. 411–426.

prohibition in armed conflicts. Indeed, not all aspects of a belligerent's behaviour in an armed conflict are governed by the rules on the conduct of hostilities. As their name implies, these rules regulate only those hostile acts undertaken by a party to the conflict in order to fight the adversary.⁹⁰

Riot control agents and escalation

The dangerous use of riot control agents has occurred not only during the conduct of hostilities in armed conflict. Riot control agents have also been deployed in confined spaces for law enforcement purposes, in particular to suppress prison riots. At least six deaths following exposure to CN in enclosed environments have been documented since the 1950s.⁹¹ More recently, in August 2013, thirty-seven Egyptian Muslim Brotherhood supporters or members died of asphyxiation after security forces fired tear gas into the van they were in.⁹² We shall demonstrate that the use of riot control agents as a method of warfare entails a specific risk that does not exist when they are used for law enforcement purposes, even in the case of an overdose: the risk of escalation to the use of chemical agents designed to be lethal. This explanation will then enable us to clarify the boundary between permitted and prohibited uses of this weapon in armed conflicts.

The risk of escalation

Already in 1977, Verwey had justified the ban on using riot control agents as a method of warfare by the risk of escalation involved. He differentiated between the danger of one-sided escalation⁹³ and two-sided escalation.⁹⁴

One-sided escalation occurs when one party to the conflict, after using riot control agents as a means of combat, decides to take the plunge and deploy other chemical weapons. Riot control agents are “threshold weapons”: once they have been used, a barrier falls and it is easier to use chemical weapons designed to be lethal.⁹⁵ This risk of escalation can also be linked to the risk of overdose. The threshold is all the more easily crossed if the use of riot control agents, supposedly non-lethal, has caused enemy deaths.⁹⁶ The distinction between non-lethal and lethal chemical weapons is then erased, and they are all regarded as “gases” without further specification. This pattern of escalation occurred in a number of armed conflicts during the twentieth century: during the invasion of Ethiopia by the Italian army in 1935 and 1936, the Japanese invasion of China in

90 Nils Melzer, *Targeted Killing in International Law*, Oxford University Press, Oxford, 2008, pp. 269–278.

91 W. Stopford and F. R. Sidell, above note 38, pp. 204–205.

92 “Egypt Police Convicted over Detainee Tear-Gas Deaths”, *BBC.com*, 18 March 2014, available at: www.bbc.com/news/world-middle-east-26626367.

93 W. D. Verwey, above note 2, pp. 161–190.

94 *Ibid.*, pp. 191–198.

95 Benjamin Kastan, “The Chemical Weapons Convention and Riot Control Agents: Advantages of a ‘Method’ Approach to Arms Control”, *Duke Journal of Comparative and International Law*, Vol. 22, No. 2, 2012, p. 268.

96 W. D. Verwey, above note 2, p. 165.

1937, the United Arab Emirates' intervention in the Yemeni civil war from 1962 to 1967,⁹⁷ and the 1980–88 Iran–Iraq war.⁹⁸ In each case, the deployment of chemicals designed to be lethal, such as yperite or sarin, was preceded by the use of irritant gases.

It was the danger of two-sided escalation that spurred the ban on the use of riot control agents as a method of warfare, according to the ICRC Customary Law Study.⁹⁹ This line of reasoning is found in the 1993 law of armed conflict manual of the Netherlands land forces:

It is said, with regard to tear gas, that it should be prohibited in armed conflicts. It can be used to control order. This should be distinguished from the use in armed conflict because there it runs the danger of provoking the use of other more dangerous chemicals.¹⁰⁰

The updated version of the manual, from 2005, expands on this argument:

Riot control agents such as tear gas may not be used as a method of warfare Use as a means of maintaining order, including the control of internal unrest, is not prohibited. Military use must be distinguished from this. This conceals the danger that the use of a relatively harmless chemical may unleash the use of some other, more lethal one by the adversary.¹⁰¹

... [M]ilitary use of a non-lethal weapon may pose the danger that the adversary perceives it as a forbidden means, which may induce the adversary to use other, more lethal means. One example is the use of tear gas, mentioned above.¹⁰²

Two-sided escalation would thus occur when one party to a conflict uses chemical weapons designed to be lethal in retaliation for an attack against them by another party using riot control agents. The two adversaries may then blame each other for the decisive attack that introduced the use of chemical weapons into the conflict.¹⁰³ The first belligerent will consider that his initial attack using riot control agents was not strictly speaking a chemical attack as these agents cause only temporary incapacitation. The second belligerent, meanwhile, will deem that he was attacked using combat gases, without waiting to find out whether they were riot control or other chemical agents, and will decide to use chemical weapons in retaliation. According to some sources, the use of chemical weapons

97 *Ibid.*, pp. 182–184; “‘Non-Lethal’ Weapons, the CWC and the BWC”, *CBW Conventions Bulletin*, No. 61, 2003, p. 2.

98 *Ibid.*, p. 2; B. Kastan, above note 95, p. 274.

99 ICRC Customary Law Study, above note 8, p. 265.

100 Dutch Ministry of Defence, *Toepassing Humanitair Oorlogsrecht*, Voorschrift No. 27-412/1, 1993, p. IV-6-IV-8, para. 14, quoted in Jean-Marie Henckaerts and Louise Doswald-Beck (eds), *Customary International Humanitarian Law*, Vol. 2: *Practice – Part 1*, Cambridge, Cambridge University Press, 2005, pp. 1744–1745, para. 540.

101 Dutch Military Legal Service, *Humanitair Oorlogsrecht: Handleiding*, Voorschrift No. 27-412, 2005, para. 0456, quoted in the updated online version of the ICRC Customary Law Study, available at: www.icrc.org/customary-ihl/eng/docs/v2_rul_rule75#_IIMiMa.

102 *Ibid.*, para. 0477.

103 W. D. Verwey, above note 2, p. 191.

during the First World War began not with the use of chlorine by German troops at Ypres in April 1915, but with the use of tear gas, in particular CN, by French troops as early as August 1914.¹⁰⁴ This attack apparently induced the German General Staff in its turn to accept the proposal of the companies Krupp and IG Farben to use chemical weapons as a method of warfare.¹⁰⁵ The right to retaliate in armed conflicts has evolved since the First World War, particularly as regards chemical reprisals. In 2005, the ICRC Customary Law Study noted increasing evidence that such retaliation may well be prohibited under customary law.¹⁰⁶ The ban on the use of riot control agents as a method of warfare can thus be seen as an additional safety mechanism aimed at forestalling a vicious circle of reprisals. In advance of a ban on chemical retaliation, it prevents the conditions from arising in which a conflict party would be tempted to resort to such an action.

Here too, the risk of escalation can be linked to the risk of overdose. Already in 1977, Verwey had pointed out that the symptoms of exposure to very high doses of riot control agents and low doses of neurotoxic agents can be similar.¹⁰⁷ A chemical attack with high doses of riot control agents may therefore resemble an attack using neurotoxicants and, as Richard Price¹⁰⁸ summed up in an interview in 2013, “the idea is, if you’re in the battlefield you’re not going to sit around testing what kind of gas it is”.¹⁰⁹ The conflicting information about what was perhaps the first chemical attack of the Syrian civil war is rather symptomatic. On 15 January 2013, a secret cable from the US State Department leaked to the public stated that, in Homs on 23 December 2012, Syrian regime forces had used the chemical agent BZ (quinuclidinyl benzilate), a hallucinogen which is included among the “toxic chemicals” listed in Part A of Schedule 2 of the Annex on Chemicals of the CWC.¹¹⁰ The following day, the US administration denied this, declaring that the substance used was a riot control agent.¹¹¹

This risk of escalation does not exist in the context of law enforcement. As regards one-sided escalation, police forces are not supposed to possess the usual vectors for lethal chemical weapons such as artillery or bomber aircraft. Moreover, whenever a chemical weapon designed to be lethal has been used by

104 *Ibid.*, p. 165; Daniel P. Jones, “From Military to Civilian Technology: The Introduction of Tear Gas for Civil Riot Control”, *Technology and Culture*, Vol. 19, No. 2, 1978, p. 152.

105 W. D. Verwey, above note 2, pp. 195–196.

106 ICRC Customary Law Study, above note 8, pp. 260–261.

107 W. D. Verwey, above note 2, p. 166.

108 Richard Price is a political scientist who specializes in how the taboo against chemical weapons was built. He is the author of “A Genealogy of the Chemical Weapons Taboo”, *International Organization*, Vol. 49, No. 1, 1995; and *A Chemical Weapons Taboo*, Cornell University Press, Ithaca, NY, 1999.

109 Ezra Klein, “They Must Be Really Bad if Even Hitler Wouldn’t Use Them”, *Washingtonpost.com*, 3 September 2013, available at: www.washingtonpost.com/blogs/wonkblog/wp/2013/09/03/they-must-be-really-bad-if-even-hitler-wouldnt-use-them/.

110 Josh Rogin, “Exclusive: Secret State Department Cable: Chemical Weapon Used in Syria”, *Thecable.foreignpolicy.com*, 15 January 2013, available at: http://thecable.foreignpolicy.com/posts/2013/01/15/secret_state_department_cable_chemical_weapons_used_in_syria.

111 Elise Labott, “U.S.: Syria Didn’t Use Chemical Weapons in Homs Incident”, *Security.blogs.cnn.com*, 16 January 2013, available at: <http://security.blogs.cnn.com/2013/01/16/u-s-syria-didnt-use-chemical-weapons-in-homs-incident/>.

State agents, this has always been, to our knowledge, during an armed conflict. As for the risk of two-sided escalation, it seems highly unlikely that rioters whom police forces are trying to disperse using riot control agents could strike back with chemical agents designed to be lethal.

Limits on the use of riot control agents in situations of armed conflict

The CWC does not prohibit the use of riot control agents in armed conflicts in general, but only as a “method of warfare”¹¹² – that is, during the conduct of hostilities. They may, however, be used for “law enforcement”,¹¹³ even during an armed conflict. Determining the boundary between the use of riot control agents as a “method of warfare” and for “law enforcement” has given rise to much debate, particularly as regards official US doctrine on the subject.

When, in 1975, the United States unilaterally renounced first use of riot control agents by Executive Order 11850, signed by President Gerald Ford, it specified that four uses of these agents were nonetheless still permitted in armed conflict:

- (a) Use of riot control agents in riot control situations in areas under direct and distinct U.S military control, to include controlling rioting prisoners of war.
- (b) Use of riot control agents in situations in which civilians are used to mask or screen attacks and civilian casualties can be reduced or avoided.
- (c) Use of riot control agents in rescue missions in remotely isolated areas, of downed aircrews and passengers, and escaping prisoners.
- (d) Use of riot control agents in rear echelon areas outside the zone of immediate combat to protect convoys from civil disturbances, terrorists and paramilitary organizations.¹¹⁴

The content of Executive Order 11850 was not modified by the entry into force for the United States of the CWC.¹¹⁵ The Senate had made this a condition for ratification.¹¹⁶ The same provisions are found unchanged in the US Law of War Manual of June 2015.¹¹⁷

According to David P. Fidler, the uses given in subparagraph (a) of Executive Order 11850 are lawful under the CWC,¹¹⁸ and we share his analysis. As regards areas under direct US military control, let us remember that in situations of international armed conflict, for example, an occupying power is

112 CWC, Art. I(5).

113 *Ibid.*, Art. II(9)(e).

114 Executive Order 11850, “Renunciation of Certain Uses in War of Chemical Herbicides and Riot Control Agents”, 8 April 1975.

115 K. Boyd, above note 29.

116 “Senate Executive Resolution 75 relative to the Chemical Weapons Convention”, *Congressional Record*, Vol. 143, No. 46, 17 April 1997, available at: www.gpo.gov/fdsys/pkg/CREC-1997-04-17/html/CREC-1997-04-17-pt1-PgS3373.htm.

117 US Law of War Manual, above note 30, pp. 390–391.

118 David P. Fidler, “The Meaning of Moscow: ‘Non-Lethal’ Weapons and International Law in the Early 21st Century”, *International Review of the Red Cross*, Vol. 87, No. 859, 2005, p. 546.

responsible for ensuring public order in the occupied territory.¹¹⁹ According to David P. Fidler, this responsibility goes hand in hand with permission to employ usual law enforcement means, including riot control agents.¹²⁰ The opinion that these can be used to put down riots in prisoner-of-war camps is also widely reflected in legal doctrine.¹²¹ Indeed, the relationship between a belligerent and civilians in a territory that it is occupying, or enemy combatants after their surrender or capture, does not fall under the conduct of hostilities (a prisoner of war may therefore be prosecuted criminally for murdering one of his guards, for instance¹²²). The use of riot control agents against such individuals is therefore unlikely to be perceived by another belligerent as a use of “combat gases”.

The uses of riot control agents provided for in subparagraphs (b) and (c) are much more problematic. An operation aimed at targeting an adversary hiding within the civilian population (subparagraph (b)), preventing an adversary from capturing a downed aircrew or recapturing an escaping prisoner (subparagraph (c)) clearly constitutes military action directed against the forces of the opposing party and therefore falls within the conduct of hostilities. In such contexts, an attack using riot control agents creates precisely those conditions in which, to quote Richard Price, the combatants targeted will not “sit around testing what kind of gas it is”¹²³ but will take very seriously the possibility that they may have been attacked with combat gases, which obviously risks triggering two-sided escalation. It is worth noting that when the United States ratified the CWC, the Clinton administration and the Senate were aware of the incompatibility of subparagraphs (b) and (c) of Executive Order 11850 with the new Convention that the United States was about to ratify. This did not prevent President Bill Clinton from assuring the Senate that the entry into force of the CWC for the United States would involve no modification of Executive Order 11850.¹²⁴ However, the fact that the United States has national legislation (Executive Order 11850) authorizing behaviour that is prohibited by an international treaty it has ratified (the CWC) does not make this behaviour lawful as a result. Under Article 3 of the International Law Commission’s Draft Articles on Responsibility of States for Internationally Wrongful Acts, “[t]he characterization of an act of a State as internationally wrongful is governed by international law. Such

119 Regulations respecting the Laws and Customs of War on Land, annexed to the Convention respecting the Laws and Customs of War on Land, 29 July 1899 (entered into force 4 September 1900), Art. 43, in Netherlands Ministry of Foreign Affairs, above note 18, Part I, Annexes, p. 260; Geneva Convention (IV) relative to the Protection of Civilian Persons in Time of War of 12 August 1949, 75 UNTS 287 (entered into force 21 October 1950), Arts 64–78.

120 D. P. Fidler, above note 118, p. 544.

121 W. Krutzsch and R. Trapp, above note 32, pp. 42–43; Y. Dinstein, above note 15, p. 76; D. P. Fidler, above note 118, p. 544.

122 Geneva Convention (III) relative to the Treatment of Prisoners of War of 12 August 1949, 75 UNTS 135 (entered into force 21 October 1950), Art. 93.

123 E. Klein, above note 109.

124 US Law of War Manual, above note 30, pp. 1172–1173.

characterization is not affected by the characterization of the same act as lawful by internal law.”¹²⁵

As regards subparagraph (d), the protection of a convoy cannot be regarded in the same way if it is held up by an angry mob (civil disturbance) or ambushed by an organized paramilitary group. In the first case, dispersing the crowd is indeed a matter of law enforcement. In the second case, defending the convoy falls within the conduct of hostilities, and any weapon used to this end becomes a “method of warfare”. Part of subparagraph (c) contains the same ambiguity: if the crew of a downed aircraft were threatened by an angry mob rather than the troops of an opposing party, the rules of law enforcement would apply and the use of riot control agents would be lawful.¹²⁶

One may thus question the authorization given by President George W. Bush to US troops in Iraq in April 2003 to use riot control agents in the circumstances set out in Executive Order 11850.¹²⁷ If the troops had deployed riot control agents against the regular Iraqi army or militias backing it, this would have constituted a violation of the CWC, and the United States could not have denied the risk of two-sided escalation, especially seeing the vehemence with which, two months earlier, Secretary of State Colin Powell had sought to convince the members of the Security Council that Iraq possessed chemical weapons.¹²⁸

Thus, by examining the risk of escalation when riot control agents are used as a method of warfare, we have been able to explain why these weapons, the use of which is permitted for law enforcement purposes, could not be used against enemy combatants in an armed conflict. This has also enabled us to determine the boundary between permitted and prohibited uses of these weapons and thus to challenge the provisions of US domestic law on the subject. We shall now do the same for expanding bullets. A study of the different issues raised by their use according to the context will also help us to clarify the boundary between authorized and prohibited uses.

Expanding bullets and the use of lethal force

The difference in the kinetic energy of, and therefore in the severity of injuries caused by, expanding bullets is the argument most frequently put forward to justify why these bullets are treated differently in the rules on the conduct of hostilities and the rules of law enforcement. This is only valid, though, when

125 International Law Commission, Draft Articles on Responsibility of States for Internationally Wrongful Acts, UN Doc. A/CN.4/SER.A/2001/Add.1, *Yearbook of the International Law Commission*, Vol. 2, No. 2, 2001, p. 26.

126 Kenneth Watkins, “Chemical Agents and ‘Expanding’ Bullets: Limited Law Enforcement Exception or Unwarranted Handcuffs?”, in Anthony M. Helm (ed.), *International Law Studies*, Vol. 82: *The Law of War in the 21st Century: Weaponry and the Use of Force*, US Naval War College, Newport, RI, 2006, p. 206.

127 Kerry Boyd, “Military Authorized to Use Riot Control Agents in Iraq”, *Arms Control Today*, April 2003, available at: www.armscontrol.org/act/2003_05/nonlethal_may03.

128 United Nations Security Council, Official Transcript of 4701st Meeting, UN Doc. S/PV.4701, 5 February 2003, pp. 2–20.

police forces use expanding bullets for their standard-issue handguns. Expanding bullets are however sometimes fired from military rifles to ensure public order in some situations where the police forces' usual equipment is not enough. For example, on 26 March 2000, Ewald K., armed and barricaded in his apartment after seriously wounding a policeman, was killed by an expanding bullet fired from a military rifle by a Swiss police sniper.¹²⁹ The use of expanding bullets, even for military rifles, is nonetheless justified given the existence of conditions that limit the use of lethal force under the rules of law enforcement. This argument can also be used to determine in which conditions expanding bullets can be used in contexts of armed conflict.

The conditions for using lethal force

Much of the literature on the subject sees two practical reasons for the use of expanding bullets by police forces. First, they maximize the chances that, once hit, the suspect will be put out of action and instantly prevented from firing back. Second, they minimize the risk that the bullet will pass through the body of the suspect and wound or kill a bystander.¹³⁰ This benefit can also be of interest in the conduct of hostilities, especially in areas where combatants and civilians are intermingled. The difference in treatment between the rules on the conduct of hostilities and the rules of law enforcement is thus justified by the different implications under these two branches of law.

According to Nils Melzer, one possible, albeit imperfect explanation is that there is a higher tolerance of “collateral damage” during the conduct of hostilities than in law enforcement operations.¹³¹ The law of armed conflict does not seem to authorize reducing the risk of collateral damage at the cost of inflicting more serious injuries on combatants. The idea, advocated by some,¹³² that the principle of distinction could take precedence over the prohibition against superfluous injury is, in our view, not compatible with the spirit of IHL. The ICJ referred to these two principles in its Advisory Opinion on the *Legality of the Threat or Use of Nuclear Weapons*. While it cites the principle of distinction before the prohibition against causing unnecessary suffering, it calls them both “cardinal principles” and does not seem to establish a hierarchy between them.¹³³ Similarly, Articles 35 and 48 of Additional Protocol I, respectively on the prohibition against causing superfluous injury or unnecessary suffering and the principle of distinction, both bear the title “basic rule”.¹³⁴

129 N. Melzer, above note 90, pp. 229–230.

130 R. M. Coupland and D. Loye, above note 61, p. 141; ICRC Customary Law Study, above note 8, p. 270; N. Melzer, above note 90, pp. 377 and 416.

131 *Ibid.*, pp. 377–378, 416.

132 William H. Boothby, *Weapons and the Law of Armed Conflict*, Oxford University Press, Oxford, 2009, p. 146.

133 ICJ, *Nuclear Weapons*, above note 22, p. 257, para. 78.

134 Protocol Additional (I) to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts, 1125 UNTS 272, 8 June 1977 (entered into force 7 December 1978) (AP I), Arts 35, 48. In the French text of the Protocol, the expression “règle fondamentale” is literally

The other, complementary explanation is that the absence of a ban on the use of expanding bullets for law enforcement purposes is compensated for by much more restrictive conditions regulating the use of force. The rules on the conduct of hostilities contain a “positive freedom to use force”, provided that those targeted are combatants or civilians taking a direct part in hostilities.¹³⁵ Indeed, under this body of law, according to Marco Sassòli and Laura M. Olson, “attacks against combatants are not subject to a proportionality assessment of the harm inflicted on the combatant and the military advantage derived from the attack”.¹³⁶ By contrast, in the field of law enforcement, under the Basic Principles on the Use of Force and Firearms by Law Enforcement Officials,¹³⁷ in particular Principle 9, “intentional lethal use of firearms may only be made when strictly unavoidable in order to protect life”. There is thus a huge difference between the two bodies of rules as regards the use of lethal force:

While it is generally accepted under international humanitarian law that enemy combatants may be targeted in an international armed conflict until they surrender or are otherwise hors de combat, regardless of whether they constitute an immediate threat to human life, international human rights law limits the admissibility of deadly force to such circumstances.¹³⁸

Thus, the lack of a ban on the use of expanding bullets for law enforcement purposes can be justified both by a greater tendency by this body of law to allow more serious injury to the person targeted in order to limit collateral damage and by significantly more restrictive conditions for the use of force.

The conditions for the use of expanding bullets in armed conflict: A question of lex specialis

The ICJ has consistently held that, in situations of armed conflict, both international humanitarian law and international human rights law apply.¹³⁹ In recent years, the ICRC has taken a special interest in the interplay between these two branches of law in contexts of armed conflict when it comes to determining the conditions for the

closer to “fundamental rule” than “basic rule”. The English and French texts of the Protocol are equally authentic according to Article 102.

135 Dale Stephens, “Military Involvement in Law Enforcement”, *International Review of the Red Cross*, Vol. 92, No. 878, 2010, p. 463.

136 Marco Sassòli and Laura M. Olson, “The Relationship between International Humanitarian and Human Rights Law Where It Matters: Admissible Killings and Internment of Fighters in Non-International Armed Conflicts”, *International Review of the Red Cross*, Vol. 90, No. 871, 2008, p. 606.

137 Basic Principles on the Use of Force and Firearms by Law Enforcement Officials, adopted by the 8th United Nations Congress on the Prevention of Crime and the Treatment of Offenders, Havana, 27 August–7 September 1990, cited by European Court of Human Rights (ECtHR), *McCann and Others v. United Kingdom*, Application No. 18984/91, Judgment (Grand Chamber), 27 September 1995, para. 139.

138 Office of the United Nations High Commissioner for Human Rights (OHCHR), *International Legal Protection of Human Rights in Armed Conflict*, UN Doc. HR/PUB/11/01, 2011, p. 64.

139 ICJ, *Nuclear Weapons*, above note 22, p. 240, para. 25; ICJ, *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory*, Advisory Opinion, 9 July 2004, *ICJ Reports 2004*, p. 178, para. 106.

use of lethal force by a State agent against an individual.¹⁴⁰ However, the question of the use of expanding bullets has been dealt with only very briefly.¹⁴¹ As explained above, the two branches of law lead to radically different conclusions on the matter, meaning that a choice must be made, as they cannot be applied jointly. In most situations involving the use of lethal force by a State agent, it is fairly easy to determine whether the rules on the conduct of hostilities, which are a branch of IHL,¹⁴² should apply, or rather the rules of law enforcement, which may fall under both international human rights law and IHL (in particular in situations of occupation). Regarding the use of expanding bullets, the US Law of War Manual states: “The US armed forces have used expanding bullets in various counter-terrorism and hostage rescue operations, some of which have been conducted in the context of armed conflict.”¹⁴³

In the case of a hostage-taking which occurs in a context of armed conflict but is unrelated to it (the hostage-takers have no link with any of the parties to the conflict), it is clear that international law pertaining to law enforcement (in particular the provisions concerning the use of lethal force) would apply to an operation to release the hostages, whether carried out by the army or the police. The use of expanding bullets would not be prohibited here. As summarized by Eric David, “in an international or non-international armed conflict, the law of armed conflict applies in principle only within the framework of conflictual relations between the belligerents”.¹⁴⁴ But what if the hostage-takers are members of the forces of one of the parties to the conflict? Should those tasked with freeing the hostages treat it as a police operation governed by the rules of law enforcement or as a combat operation regulated by the law of the conduct of hostilities? The principle of “*lex specialis derogat legi generali*” provides an answer to this question.

According to the Office of the High Commissioner for Human Rights, this principle “reflects a widely accepted maxim of legal interpretation and technique for the resolution of normative conflicts”.¹⁴⁵ The International Law Commission adds:

For the *lex specialis* principle to apply it is not enough that the same subject matter is dealt with by two provisions; there must be some actual inconsistency between them, or else a discernible intention that one provision is to exclude the other.¹⁴⁶

140 ICRC, *Report on International Humanitarian Law and the Challenges of Contemporary Armed Conflicts*, ICRC Doc. 31IC/11/5.1.2, Geneva, October 2011, pp. 18–20; Gloria Gaggioli (ed.), *Expert Meeting on the Use of Force in Armed Conflicts: Interplay between the Conduct of Hostilities and Law Enforcement Paradigms*, ICRC, Geneva, 2013; ICRC, *Report on International Humanitarian Law and the Challenges of Contemporary Armed Conflicts*, ICRC Doc. 32IC/15/11, Geneva, October 2015, pp. 33–37.

141 G. Gaggioli (ed.), above note 140, pp. 28–29.

142 N. Melzer, above note 90, p. 269.

143 US Law of War Manual, above note 30, p. 323.

144 E. David, above note 16, p. 217, para. 1176.

145 OHCHR, above note 138, p. 59.

146 International Law Commission, above note 125, p. 140.

In accordance with this principle, the specific rule takes precedence over the general – indeed, it is closer to the specific legal issue at hand and takes better account of the particular features of the context.¹⁴⁷ The International Law Commission advises on how to apply the principle:

A weighing of different considerations must take place and if that weighing is to be something else than the expression of a preference, then it must seek reference from what may be argued as the systemic objectives of the law, providing its interpretative basis and *milieu*.¹⁴⁸

This consideration of the systemic objectives opens the door to a teleological criterion in determining the *lex specialis*.¹⁴⁹

The law on the conduct of hostilities and the rules of law enforcement have the task of balancing very different parameters, as illustrated by their respective principles of proportionality. In the law of the conduct of hostilities, the principle of proportionality weighs the anticipated military advantage of an attack against the incidental loss of civilian lives that the attack might cause. In the field of law enforcement, the proportionality principle requires a balancing between the risks posed by the individual who is to be neutralized versus the potential harm caused by this neutralization to the individual and to any bystanders.¹⁵⁰ The law of the conduct of hostilities is thus designed to impose certain limits on operations that are aimed at obtaining a military advantage, while the rules of law enforcement are intended to regulate situations in which the use of lethal force against an individual is necessary in order to protect others. This is why we support Nils Melzer’s argument that, in the context of a hostage release operation, even if the operation opposes two adverse parties to an armed conflict, it is the “law enforcement paradigm” that must apply, in that the main goal of the operation is the release of the hostages and not the pursuit of a military advantage.¹⁵¹ In this situation, expanding bullets could therefore be used, but the use of lethal force would be limited as laid down in the rules of law enforcement.

Another point in favour of this solution is that, although the two bodies of rules aim to limit the loss of human life, the rules on the conduct of hostilities are not suited to operations whose goal is saving civilian lives. The principle of distinction¹⁵² prohibits the targeting of civilians, and thus the rules on the conduct of hostilities are not designed to regulate operations whose primary purpose is to defend civilians against an adversary seeking to harm them. The principle of proportionality in an attack sees the preservation of civilian lives not as the objective of a military

147 M. Sassòli and L. M. Olson, above note 136, p. 603.

148 Martti Koskeniemi, *Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law*, Report of the Study Group of the International Law Commission, UN Doc. A/CN.4/L.682, 13 April 2006, p. 59, para. 107.

149 M. Sassòli and L. M. Olson, above note 136, p. 604.

150 G. Gaggioli (ed.), above note 140, pp. 8–9.

151 N. Melzer, above note 90, p. 376.

152 AP I, Art. 48; Protocol Additional (II) to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of Non-international Armed Conflicts, 1125 UNTS 650 8 June 1977 (entered into force 7 December 1978), Art. 13(2); ICRC Customary Law Study, above note 8, Rule 1, pp. 3–8.

operation but rather as a constraint that limits the means for achieving a given military objective.¹⁵³ From the perspective of the rules on the conduct of hostilities, the military objective during a hostage release operation is not saving the hostages' lives but putting the hostage-takers *hors de combat*. Moreover, while the principle of precautions in attack establishes an obligation to refrain from an attack in certain situations,¹⁵⁴ no rule on the conduct of hostilities makes an attack obligatory in certain circumstances. Thus, in cases where hostage-takers threaten to kill their captives if their demands are not met, the law of the conduct of hostilities would only balance putting the hostage-takers *hors de combat* against the losses that an attack could cause among the hostages, without taking into account the cost of inaction – that is, the risk that all the hostages would be executed. By contrast, the rules of law enforcement must be interpreted in light of the idea that States have a positive obligation to protect the lives of people under their jurisdiction against the actions of third parties.¹⁵⁵ In this paradigm, the risk that the lack of an attack on the hostage-takers would entail for the lives of the hostages would be factored into the calculation of proportionality.¹⁵⁶ Since the rules of law enforcement provide the most suitable framework for the choices that have to be made by State agents tasked with preventing an attack on civilians, such as hostage-taking, it is these which must be applied as the *lex specialis*.

In theory, this reasoning could be extended to all situations in which armed forces are deployed in an armed conflict to protect civilians, but in practice this would be problematic. It is only in planned operations such as a hostage release that it can be determined while equipping the soldiers whether they will be acting within the framework of the rules on the conduct of hostilities or of law enforcement. By contrast, a soldier deployed by an occupying power in an occupied territory, for example, will have the dual task of keeping the territory under occupation and of upholding public order there, in line with the occupying power's obligations.¹⁵⁷ This soldier could consequently be confronted with a multitude of different situations of violence¹⁵⁸ regulated by different legal frameworks. If he is attacked by resistance forces seeking to end the occupation, he will have to defend himself according to the rules on the conduct of hostilities. But if he witnesses an attack against civilians, he should apply the rules of law enforcement in order to defend them. To be effective in preventing violations of the law of armed conflict, the rules of engagement given to troops must be kept relatively simple and comprehensible

153 AP I, Art. 51(5)(b); ICRC Customary Law Study, above note 8, Rule 14, pp. 46–50.

154 AP I, Art. 57(2)(b); ICRC Customary Law Study, above note 8, Rule 19, pp. 60–62.

155 ECtHR, *L.B.C. v. The United Kingdom*, Application No. 23413/94, Judgment, 9 June 1998, para. 36; Human Rights Committee, *General Comment No. 31: The Nature of the General Legal Obligation Imposed on States Parties to the Covenant*, UN Doc. CCPR/C/21/Rev.1/Add.13, 29 March 2004, p. 4, para. 8; OHCHR, above note 138, pp. 18–19.

156 ECtHR, *Finogenov and Others v. Russia*, Application Nos 18299/03 and 27311/03, Judgment (First Section), 20 December 2011, para. 226.

157 Regulations concerning the Laws and Customs of War on Land, annexed to Convention (IV) respecting the Laws and Customs of War on Land, 18 October 1864 (entered into force 26 January 1910), Art. 43.

158 K. Watkins, above note 126, pp. 202–204; Kenneth Watkins, "Use of Force during Occupation: Law Enforcement and Conduct of Hostilities", *International Review of the Red Cross*, Vol. 94, No. 885, 2012, pp. 279–283.

to all.¹⁵⁹ Issuing a soldier with both conventional bullets and expanding bullets for his assault rifle while instructing him that the latter can be used only to defend civilians, and only within the limits imposed by the rules of law enforcement, but not to defend himself if he finds himself in the context of the conduct of hostilities, seems extremely complex. This is why giving expanding bullets to troops that might have to carry out law enforcement operations but for whom this is not the only task is, in our view, not feasible without increasing the risks that this ammunition will also be used unlawfully. The use of such ammunition should therefore be limited to planned special operations aimed at protecting civilians in imminent danger, a typical example of which is the release of hostages.

Thus, by identifying the line of reasoning that reconciles the use of expanding bullets by law enforcement forces with their prohibition in the conduct of hostilities, we have managed to clarify the scope of their prohibition in situations of armed conflict. Such bullets can be used only in operations whose primary goal is protecting civilians rather than obtaining a military advantage, and their use should be restricted in accordance with the rules of law enforcement – that is, by limiting the use of lethal force to that strictly necessary to save innocent lives.

We have responded to the criticisms regarding the different treatment of riot control agents and expanding bullets under the rules of law enforcement and the rules on the conduct of hostilities by exposing the different issues raised by their prohibition and authorization depending on the circumstances. True to the maxim “*ratio legis est anima legis*”, elucidating the reasons behind this difference in treatment has also enabled us to clarify the boundary between authorized and prohibited uses of these weapons and ammunition.

Conclusion

We have drawn on two complementary arguments to justify the use of riot control agents and expanding bullets for law enforcement purposes though they are prohibited in the conduct of hostilities. With the first, we demonstrated that the effects of these weapons and ammunition on the human body vary greatly depending on the situation in which they are used, which justifies the difference in treatment under the rules on the conduct of hostilities and the rules of law enforcement. The second argument, focusing on the different issues raised by the use of these weapons and ammunition depending on the context, reinforced the conclusions of the first. This led us to examine how the rules of law enforcement apply in situations of armed conflict and to elucidate their relationship with the rules on the conduct of hostilities. Doing so helped us to clarify the boundary between authorized and prohibited uses of these weapons and ammunition. This boundary, which is based on a coherent interpretation of the law, should in our view not be moved as some would wish, either in a more permissive or a more restrictive direction.

¹⁵⁹ NATO *Legal Deskbook*, 2nd ed., 2010, p. 261.