

A Means-Methods Paradox and the Legality of Drone Strikes in Armed Conflict

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This article examines the legality of drone strikes. It limits the analysis to conduct within a traditionally defined armed conflict, in order to focus more clearly on the question of whether features inherent to the drone as a weapons system might make it conducive to violations of international law.

The article reviews the applicable legal principles from international humanitarian law (IHL) and international human rights law (IHRL), and examines the record of civilian deaths caused by drone strikes in Afghanistan. While transparency and accountability are a problem, the study suggests that the drone strike operations may be characterised by more direct systemic violations of international law. In examining such potential violations the article considers the features inherent to the drone as a “means” of warfare, and the features of the policy and practices that underlie the “methods” of warfare related to drone strikes, with the aim of determining which is more responsible for any violations.

The features of the armed drone as a weapons systems appear to make it more conducive to compliance with IHL than competing aerial weapons systems. Conversely, aspects of the policy governing drone operations, such as the criteria used for “signature strikes”, are more likely to contribute to violations of international law. However, examining the issue from the perspective of a particular strike, and through the lens of cognitive consistency theory on misperception, the article suggests that the picture may be more complex. Paradoxically, the very features that are most likely to make the drone compliant with IHL –its ability to linger undetected for protracted periods over potential targets, feeding intelligence back to an operations team that can make targeting decisions in a relatively stress-free environment – may facilitate targeting errors caused by misperception and misinterpretation of the target data. In short, both the “means” and “methods” of drone strikes may combine to facilitate violations of IHL.

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I - Introduction

The legality of targeted killing with armed unmanned aerial vehicles (UAVs – commonly referred to as drones) is a hotly debated issue.² It is also a fiendishly complex one. The debate is particularly complicated because it tends to encompass operations of varying kinds conducted by different actors in a range of very different circumstances.³ The U.S. drone-based targeted killing programme

¹ B.A., Royal Military College of Canada; J.D., Univ. of Toronto; LL.M., Univ. of Osaka; S.J.D. Univ. of Pennsylvania; Associate Professor of Law, Washburn University School of Law. I would like to thank Michael Boyle for inviting me to contribute to this special volume of the Journal. I would also like to thank for their thoughts and comments at various stages of the development of this article: Michael Boyle, Lois Chiang, Benson Cowan, Will Foster, Alex Glashausser, Emily Grant, Jericho Hockett, Sarah Holewinski, Rebecca Hollander-Blumoff, Matt Lamkin, Daniel Morales, Susannah Pollvogt, Margaret Ryznar, David Rubenstein, Laurent Sacharoff, Michael Schmitt, Nicholas Stephanopolos, and the anonymous referees for the journal. I am also grateful for the help provided by my research assistants, Norah Avellan, David Derochick, and Megan Williams.

² It should also be made perfectly clear here that the weapons system under discussion here is the remotely controlled armed drones such as the MQ-1 Predator and MQ-9 Reaper, as distinguished from a truly autonomous weapons systems that makes its own targeting decisions, about which there is growing debate. It is because of this distinction that the U.S. Air Force now refers to the current generation of drones as Remotely Piloted Aircraft, or RPAs, rather than UAVs. See Aaron M. Drake, 'Current U.S. Air Force Drone Operations and their Conduct in Compliance with International Humanitarian Law – An Overview', *Denver Journal of International Law & Policy*, Vol. 39, No. 4 (2011), 630, n.1.

³ Targeted killing has been defined as when "lethal force is intentionally and deliberately used, with a degree of pre-meditation, against an individual or individuals specifically identified in advance by the perpetrator." Philip Alston, 'Report of the Special Rapporteur on extrajudicial, summary or arbitrary executions', *United Nations Human Rights Council*, 28 May 2010, Doc. A/HRC/14/24/Add.6, 5, citing Nils Melzer, *Targeted Killing in International Law* (Oxford: Oxford University Press, 2008), 4-5. In this article, however, it is taken to have a broader meaning that includes so-called "signature strikes", in which otherwise unidentified individuals are targeted based on behaviour and other indicia that are

stretches from operations conducted by the military in openly acknowledged non-international armed conflict in Afghanistan, to CIA operations in the tribal areas of Pakistan, in Yemen, and in Somalia, none of which constitutes an armed conflict as traditionally defined, or in which the United States is a belligerent.⁴ A number of different legal regimes are thus implicated, and the extent to which each one is operating and whether or how they may interact is both complicated and the subject of dispute.⁵

Nonetheless, one of the questions that arises in the broader debate is whether there is anything inherently unlawful about drones themselves. This special volume of the Journal sets out to explore this question by restricting the focus of analysis to the use of drones in traditionally defined armed conflicts. It asks whether the use of drones for the conduct of lethal strikes in a traditionally defined armed conflict is giving rise to systemic violations of international law; and if so, is there something inherent in the nature of the weapons system itself that is causing or contributing to such unlawful conduct? This focus on the legality of drone strikes exclusively in a traditionally defined armed conflict is relatively rare. But this narrow focus helps to better isolate, for purposes of analysis, the issue of whether any unlawfulness under international humanitarian law (IHL, also commonly referred to as the law of armed conflict, and the laws of war), may be related to the nature of the weapon system itself.

The use of armed drones to kill suspected terrorists and members of organised armed groups taking part in an acknowledged non-international armed conflict such as Afghanistan, may implicate less complicated legal issues than such conduct in Yemen and Somalia. Nonetheless, it may still give rise to violations of IHL, international human rights law (IHRL), and even domestic criminal and constitutional law. Indeed, there is sufficient evidence of civilian killings in drone strikes in Afghanistan to raise significant questions in this regard. By exploring some of this

taken to mean that the individuals are members of organised armed groups or are civilians taking direct part in hostilities.

⁴ Whether or not drone strikes in Yemen, Somalia and even Pakistan are conducted within an armed conflict as that term is understood in international law is itself a hotly debated issue, which we need not explore here.

⁵ For my own analysis of the *jus ad bellum* implications of targeted killing operations in countries such as Yemen, Somalia, and Pakistan, see Craig Martin, *Going Medieval: Targeted Killing, Self-Defense and the Jus ad Bellum Regime*, in Claire Finkelstein et al., *TARGETED KILLINGS: LAW AND MORALITY IN AN ASYMMETRICAL WORLD* (2012), available on-line at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1956141.

evidence and examining the potential causes of what may constitute systemic violations of law in these operations, it may be possible to identify the extent to which such violations are attributable to something inherent in the nature of the weapons systems, or rather the extent to which it is more attributable to the manner in which the drone strikes are being conducted.

This question implicates two different specialised areas of law within the laws of war. IHL places limits on the “means of warfare”, by which is meant the weapons used to engage in armed conflict, through a body of law commonly referred to as weapons law.⁶ Certain types of weapon are considered to be inherently unlawful, while others may be deemed unlawful in particular circumstances. Other weapons are not inherently unlawful in any way, but may of course be used in an unlawful manner. IHL also limits the “methods of warfare”, which refers in part to how weapons are used. The body of law that governs the methods of warfare relevant to our study here is the law of targeting.⁷ In considering the legality of drone strikes in armed conflict, we must assess both the nature of the weapon and the manner of its use. We must analyse the extent to which possible unlawfulness in drone strikes arises principally from the means of warfare, that is from something inherent in the nature of the weapon itself, and to what extent it is more attributable to the methods of warfare employed in the conduct of drone strikes. The answer to these questions could help provide some insight into how the incidence of such violations of law might be reduced.

The analysis below will suggest that while any illegality would appear at first glance to be primarily a consequence of how the drone is employed, upon deeper reflection the issue may be more complicated, and there may indeed be something of a paradox. It may be that some of the features of the armed drone that are most likely to make it compliant with IHL may, counter-intuitively, facilitate violations of international law. For it is indeed the case that many of the features of the current drone weapons system, as an air-to-ground anti-personnel weapon, would seem to make it more compliant with the relevant IHL principles than most other competing aerial weapons systems, such as manned fixed wing aircraft or cruise missiles. The drone is highly precise and surgical in the actual delivery of missiles to the target. But more importantly, it has an enormous advantage in its ability to linger undetected for protracted periods of observation over a potential target, feeding detailed visual and other sensory intelligence back to an operations team that is able to engage in a targeting decision-making process under little stress, at a relatively

⁶ See *infra*, note 35, and accompanying text.

⁷ See *infra*, note 37, and accompanying text.

leisurely pace, and with zero risk. This should militate in favour of better decision-making and fewer targeting errors

To the extent that there are systemic violations of IHL or IHRL in the implementation of drone strikes in Afghanistan, these would seem to be more likely attributable to the policies and practices governing how the weapon system is being used. This begins with the lack of transparency and accountability in the programme, which may constitute an independent violation of law, and is compounded by the involvement of the CIA and Joint Special Operations Command (JSOC) in the process.⁸ But more relevant to the possible specific violations flowing from targeting errors, are the concerns over intelligence failures and the possible employment of improper targeting criteria for so-called signature strikes. Even more intriguing is the possibility that drone crews are making targeting errors due to systemic misperception and misinterpretation of the target behaviour and pattern of life information received from the drone. This issue is explored through an examination of one of the few strikes about which a detailed account is publicly available, and through the lens of psychological theory relating to misperception and confirmation bias. And herein lies the paradox – for it may be that it is precisely the features of the armed drone that are most likely to make it highly compliant with IHL, that facilitate or make more likely the kind of systemic misperception and misinterpretation that is leading to targeting errors resulting in violations of international law. At this stage this proposition is an untested suggestion that certainly requires further empirical and theoretical work to confirm, but it raises a question that surely deserves further inquiry.

The article begins, in Part II, by providing a brief account of certain well known drone strikes and reviewing the broader data available on the killing of civilians in drone strikes in Afghanistan. Part III engages in a review of the legal regimes that apply to drone strikes within an armed conflict. In Part IV the article turns to explore the extent to which the drone strike operations in Afghanistan comply with these legal regimes, and the extent to which there is evidence of possible systematic violations of international law. It is as part of this assessment that the article examines the features of the armed drone as a weapons system, to evaluate its inherent legality, followed by an analysis of the features of the policy and methods by which the drone systems are used, focusing on the nature of the targeting criteria used in strikes, and the status and nature of the

⁸ See *infra*, note 69, *et seq*, and accompanying text.

operators. In Part V the article introduces the ideas underlying cognitive consistency theory and attribution theory as explanations for misperception and confirmation bias, and explores the extent to which targeting errors in drone strikes may be explained, in part, as being caused by such misperception. It is here that the arguments about the means-method paradox discussed above are developed and advanced.

II - Drone Strikes and Civilian Casualties in Afghanistan

The U.S. drone-based targeted killing programme is commonly regarded as having commenced in November, 2002, when a CIA operated Predator drone was used to target and kill the suspected Al Qaida leader Ali Qaed Senyan al-Harithi, along with five other men, in Yemen.⁹ This may have been the first acknowledged strike resulting in the successful killing of an identified target, but it was not the first lethal drone strike.

Illustrative Drone Strikes

The first lethal drone strike was likely in Afghanistan, in February 2002, when a Predator drone was used by the CIA in a Hellfire missile strike targeting a tall man and two other men who were acting deferential towards him – leading the operators to believe it might be Osama Bin Laden – at an old Mujahedeen base called Zhawar Kili.¹⁰ The target was not Osama Bin Laden of course, but the three men were killed in the strike. Speaking for the Pentagon, Rear Admiral John D. Stufflebeem later acknowledged that the target had not been Bin Laden after all, but suggested that the targets were “not innocent”, and that “initial indications afterward would seem to say that these [were] not peasant people up there farming.”¹¹ Another spokesperson later added that the Pentagon was “convinced that it was an appropriate target” but that “we do not know yet exactly who it was.”¹² There was no indication of the basis for such conviction, or indeed what criteria had been used for determining that the three men were legitimate targets. The New York Times later

⁹ Alston, ‘Report of the Special Rapporteur’, 4.

¹⁰ John Sifton, ‘A Brief History of Drones’, *The Nation*, Feb. 7, 2012.

¹¹ John F. Burns, ‘Villagers Say U.S. Should Have Looked, Not Leapt’, *The New York Times*, Feb. 17, 2002.

¹² Sifton, ‘A Brief History of Drones’.

identified the three men, and determined that they had been civilians from nearby villages scavenging for scrap metal.¹³

This strike illustrates a number of features common to other drone strikes that have been documented over time in Afghanistan, and which raise significant questions about compliance with IHL and IHRL. To take a couple more examples, in September of 2013 a drone strike in Watapur district, Kunar province, targeted a vehicle thought to be carrying insurgents. It was later determined that there were indeed six insurgents in the vehicle, but also eleven civilians, including four women and four children. Along with the six insurgents, ten of the civilians were killed, leaving a young girl seriously injured. The NATO-led International Security Assistance Force (ISAF) media liaison initially denied the presence of civilians, and would not disclose what pre-engagement measures were taken to verify the identity or status of the targets, or whether the insurgents targeted were of strategic value, saying only that one of the insurgents had “most likely” been “high level”.¹⁴

Another strike, which became famous because it was one of the few strikes to be made subject to a publicly disclosed investigation, which resulted in administrative action, occurred in Uruzgan province in February 2010. The missiles were actually fired from a helicopter, but a Predator drone and its crew played an integral part in the operation and the drone crew was determined to have been responsible for serious targeting errors that resulted in the strike. The targets were a group of over twenty people who gathered in the pre-dawn hours and set out in a convoy of vehicles across the province. They were later determined to have been civilians, among whom were women and children, who were travelling together for security in order to traverse a dangerous region. The Predator drone observed them as they set out, and shadowed them for more than three hours, providing data on the group to an American ground commander who was leading a unit that was moving to engage a Taliban force in the area. We will return to this incident in the discussion below, but in short the drone crew misinterpreted the data being received from the drone, leading to the conclusion that the group comprised targetable insurgent men. The entire group comprised civilians, including several women and children, and twenty three of them were killed in

¹³ Burns, ‘Villagers Say U.S. Should Have Looked, Not Leapt’; see also, Sifton, ‘A Brief History of Drones’.

¹⁴ United Nations Assistance Mission in Afghanistan (UNAMA), *Annual Report 2013: Protection of Civilians in Armed Conflict*, (Kabul: United Nations, 2014), 46-47.

the strike. The military conducted a rare publicly disclosed investigation, and several senior officers, along with the Predator crew operating out of an Air Force base in Nevada, received administrative sanctions.¹⁵

The Data on Drone Strikes and Civilian Casualties

There are several other known incidents that involve the killing of civilians, which reflect and share to varying degrees a number of features that will be explored here, and indeed features that are common to drone strikes reported from Pakistan and Yemen. Yet, having said that, there is surprisingly little data on the drone strikes in Afghanistan. Much of the focus of research and analysis of the drone based targeted killing programme has been on operations in countries other than Afghanistan. Yet, the use of drone strikes in both “personality strikes” and “signature strikes” has been robust in Afghanistan as well. Unfortunately, it is difficult to precisely account for the number of drone strikes, the number of casualties resulting, or the number of civilian casualties among those totals, in Afghanistan. The U.S. government does not report such data,¹⁶ notwithstanding that its operations there, unlike the covert operations in Pakistan and Yemen, are in an open armed conflict in which the U.S. is an acknowledged belligerent.

There are more detailed on-going studies of drone strikes in Pakistan and Yemen, and while they are not consistent with one another regarding the numbers and rate of civilian casualties, most report significantly higher numbers of civilian casualties, and higher rates of civilian deaths per

¹⁵ Drake, ‘Current U.S. Air Force Drone Operations’, 658; Center for Civilians in Conflict, *The Civilian Impact of Drones: Unexamined Costs, Unanswered Questions*, (2012), 42; Maj. Gen. Timothy P. McHale, ‘Memorandum for Commander, United States Force-Afghanistan/International Security Assistance Force, Afghanistan – Subject: Executive Summary for AR 15-6 Investigation, 21 February 2010 CIVCA Incident in Uruzgan Province’; Gen. Stanley A. McChrystal, ‘Memorandum for Record – Subject: AR 15-6 Investigation, 21 February 2010 U.S. Air-to-Ground Engagement in the Vicinity of Shahidi Hassas, Uruzgan Province, Afghanistan’, available at <http://www.isaf.nato.int/images/stories/File/April2010-Dari/May2010Revised/Uruzgan%20investigation%20findings.pdf>.

¹⁶ Philip Alston, ‘The CIA and Targeted Killing Beyond Borders’, *Harvard National Security Journal*, Vol. 2 (2011), 299; Alice K. Ross, ‘Who is Dying in Afghanistan’s 1,000-plus Drone Strikes?’, *The Bureau of Investigative Journalism*, Jul. 24, 2014, available at: <http://www.thebureauinvestigates.com/2014/07/24/who-is-dying-in-afghanistans-1000-plus-drone-strikes/>.

insurgent killed, than the U.S. government reports.¹⁷ It has been argued that the upshot of these studies is that we really do not know how many people have been killed, or how many of those killed are civilian, which raises serious problems of transparency and accountability. These patterns of government under-reporting and insufficient disclosure hold true for operations in Afghanistan.

There are far fewer independent reports providing drone strike data for Afghanistan. The U.N. Assistance Mission in Afghanistan (UNAMA) reports annually on the numbers of civilian casualties in Afghanistan, along with details of how they died and at whose hands. But the UNAMA reports did not separate casualties caused by drone strikes from other aerial attack numbers until 2012.¹⁸ Nonetheless, it has reported that there was a steady rise in the numbers of weapons fired by drones from 2009 through 2013.¹⁹ UNAMA reported that in 2012 there were 506 drone strikes in Afghanistan, which resulted in only five incidents of civilian casualties, involving 16 deaths and three injured, which included the killing of four children through an apparent targeting error.²⁰ It reported that in 2013, there were 261 civilian casualties (147 deaths, 114 injured), attributable to the international forces, of which, as far as could be determined, 59 casualties (45 deaths, 14 injured) were the result of 19 separate aerial operations conducted by drones – which constitutes a fairly significant increase in both the number of drone strikes causing civilian casualties, and the total numbers of such casualties.²¹

The Bureau of Investigative Journalism, well known for its work in Pakistan, has only very recently turned its attention to Afghanistan, obtaining access to some of the United States Central Command (CENTCOM) drone-related data.²² It reported in July 2014 that there have been over

¹⁷ Alston, 'CIA and Drones Beyond Borders', 331, citing David Kilcullen and Andrew McDonald Exum, 'Death From Above, Outrage from Below', *The New York Times*, May 16, 2009, available at: <http://www.nytimes.com/2009/05/17/opinion/17exum.html>.

¹⁸ UNAMA, Annual Report, 2012, 31; see also, Ben Emmerson, *Report of the Special Rapporteur on the Promotion and Protection of Human Rights and Fundamental Freedoms While Countering Terrorism (Third Annual Report to the General Assembly)*, United Nations, Doc. A/68/389, Sep. 18, 2013, 7.

¹⁹ Emmerson, *Third Annual Report to the General Assembly*, 7 (reporting a steady rise up to 2012); UNAMA, Annual Report, 2013, Interim Report 2014 (reflecting the continued increase in 2013 and 2014).

²⁰ UNAMA, Annual Report, 2012, 33.

²¹ UNAMA, Annual Report, 2013, 8.

²² Ross, 'Who is Dying in Afghanistan's 1,000-plus Drone Strikes?'

1,000 drone strikes in Afghanistan since 2008,²³ but noted that there is no public record of these strikes or their effects.²⁴ Moreover, it reported that ISAF data on the number of civilian casualties caused by drone strikes suffers from systemic underreporting.²⁵ Perhaps the most astonishing report published recently, and most significant for our purposes, was a classified report compiled by the Joint and Coalition Operational Analysis (JCOA), a component of the U.S. Joint Forces Command. It similarly found that (according to the unclassified executive summary), coalition forces suffered from “inaccurate assessments of civilian harm”.²⁶ What is more, and of particular importance for our analysis, the JCOA report concluded that:

Drone strikes in Afghanistan were seen to have close to the same number of civilian casualties per incident as manned aircraft, and were an order of magnitude more likely to result in civilian casualties per engagement.²⁷

This finding, by the U.S. military, that drone strikes are much more likely to cause civilian casualties per engagement than manned airstrikes, both raises serious questions about compliance with IHL, and would seem counterintuitive given the features of the armed drone, issues that we will return to below.

III - The Applicable Law

Questions regarding what legal regimes apply and how precisely they may govern the conduct of drone strikes in a traditionally defined armed conflict, even a non-international armed conflict such as Afghanistan, are much less complex and less disputed than similar questions regarding strikes in countries such as Yemen and Pakistan. Having said that, there remain some disputes over which

²³ The 2014 report states the number as over 1,000 since 2001, but a prior report with more detailed annual numbers reflects 1,015 strikes between 2008 – 2012. See Chris Woods and Alice K. Ross, ‘Revealed: US and Britain Launched 1,200 Drone Strikes in Recent Wars’, Bureau of Investigative Journalism, Dec. 4, 2012, available at: <http://www.thebureauinvestigates.com/2012/12/04/revealed-us-and-britain-launched-1200-drone-strikes-in-recent-wars/>.

²⁴ Ross, ‘Who is Dying in Afghanistan’s 1,000-plus Drone Strikes?’.

²⁵ *Ibid.*

²⁶ Lawrence Lewis, ‘Drone Strikes: Civilian Casualty Considerations’, *Joint Coalition Operational Analysis*, Jun. 18, 2013, available at: <http://cna.org/research/2013/drone-strikes-civilian-casualty-considerations>.

²⁷ Lewis, ‘Drone Strikes: Civilian Casualty Considerations’.

legal regimes apply to drone strikes in a traditionally defined and acknowledged non-international armed conflict, and over the nature of the relationship among such regimes. In order to properly assess the issue of legality it is necessary that we briefly review the substance and operation of the legal principles that may apply to the drone strikes in Afghanistan.

International Humanitarian Law

It is undisputed that the primary legal regime governing drone strikes in a traditionally defined armed conflict is IHL. It is worth recalling, at the outset, that IHL is animated by two fundamental but somewhat conflicting rationales and purposes. One of these is to require armed forces to engage in hostilities in accordance with specific limits and constraints, in order to reduce human suffering, and in particular to minimise harm to civilians and civilian objects. The second is to provide legal authority for the conduct of such hostilities, and to thereby immunise the lawful combatants from prosecution or other action under different legal regimes, and to immunise the states on whose part they fight, for conduct that is undertaken in accordance with the principles and rules of IHL.²⁸ IHL thus both limits and legitimizes the conduct of hostilities in armed conflict.

The bulk of the IHL regime applies primarily to international armed conflict – that is conflict between or among sovereign states. This body of IHL comprises a host of treaties, the most important of which are the Hague Conventions of 1899 and 1907,²⁹ the four Geneva Conventions of 1949,³⁰ and Additional Protocol I of 1977,³¹ together with an extensive body of customary

²⁸ For analysis of the entire regime, see Yoram Dinstein, *The Conduct of Hostilities Under the Law of International Armed Conflict*, 2nd Ed. (Cambridge: Cambridge Univ. Press, 2010); Andrew Clapham and Paola Gaeta, eds., *The Oxford Handbook of International Law in Armed Conflict* (Oxford: Oxford Univ. Press, 2014); Dieter Fleck, *The Handbook of International Humanitarian Law* (Oxford: Oxford Univ. Press, 2013).

²⁹ *The Hague Convention (II): Laws and Customs of War on Land*, 32 Stat. 1803, July 29, 1899; *The Hague Convention (IV) Respecting the Laws and Customs of War on Land and its Annex: Regulation Concerning the Laws and Customs of War on Land*, 187 CTS 227, Oct. 18, 1907.

³⁰ See, in particular, *Geneva Convention Relative to the Treatment of Prisoners of War*, August 12, 1949, 75 UNTS 135 (1950)(*Geneva Convention III*); *Convention Relative to the Protection of Civilian Persons in Time of War*, August 12, 1949, 75 UNTS 287 (1950)(*Geneva Convention IV*)

³¹ *Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts, (Protocol I)*, 1125 UNTS 3 (1979), Jun. 8, 1977.

international law principles.³² Only a subset of these rules and principles applies to conduct in a non-international armed conflict, by which is meant hostilities of a sufficiently intense nature between the armed forces of the state and well organised armed groups (or hostilities among such groups), within some geographically limited theatre of conflict (the exact parameters of which are the subject of some debate).³³ Nonetheless, the customary international law principles relating to the law of targeting, and to weapons law, which in turn reflect the core principles of IHL, apply in both international and non-international armed conflict. In particular, the principles of necessity, distinction, humanity, discrimination, proportionality, and precautions in attack, all apply to drone strikes whether in non-international or international armed conflict.³⁴

Means and Methods of Warfare

It will be helpful to briefly review the substance of these principles, and to also identify more specifically how they relate to both the law of targeting and to weapons law, which as mentioned earlier are two separate aspects of IHL. They find their origins in one of the earliest treaty provisions that explicitly articulated constraints on the conduct of war, which stipulated that neither the *means* nor the *methods* of warfare are unlimited.³⁵ The term “means of warfare” here is

³² Dinstein, *Conduct of Hostilities*, loc-862 *et seq.* (Kindle edition).

³³ For analysis of the regime as it applies to non-international armed conflict, see Lindsay Moir, *The Law of Internal Armed Conflict* (Cambridge: Cambridge Univ. Press, 2002); Michael N. Schmitt et al., *The Manual on the Law of Non-International Armed Conflict with Commentary* (Sanremo: International Institute of Humanitarian Law, 2006); Yoram Dinstein, *Non-International Armed Conflicts in International Law*, (Cambridge: Cambridge University Press, 2014); for the definition of non-international armed conflict, the so-called Tadic test elaborated by the Appeal Chamber of the International Criminal Tribunal for the Former Yugoslavia, see *Prosecutor v. Dusko Tadic (Defense motion for interlocutory appeal on jurisdiction)*, Oct. 2, 1995, para. 70, available at: <http://www.icty.org/x/cases/tadic/acdec/en/51002.htm>.

³⁴ Schmitt et al., *Manual on the Law of Non-International Armed Conflict*, 8-10; Mary Ellen O’Connell, ‘Unlawful Killing with Combat Drones: A Case Study of Pakistan, 2004-2009’, Notre Dame Law School Legal Studies Research Paper No. 09-43 (unpublished), 21; Dinstein, *Non-International Armed Conflicts in International Law*, 257-258; Laurie R. Blank, ‘After “Top Gun”: How Drone Strikes Impact the Law of War’, *University of Pennsylvania Journal of International Law*, Vol. 33 (2012), 681 *et seq.*, 690-91.

³⁵ Hague Convention (IV), 1907, Art. 22. *See also*, Steven Haines, ‘The Developing Law of Weapons: Humanity, Distinction, and Precautions in Attack’, in Andrew Clapham and Paola Gaeta, eds., *The Oxford Handbook of International Law in Armed Conflict* (Oxford: Oxford Univ. Press, 2014), 281-82.

understood to refer to weapons, and is the subject of weapons law,³⁶ while “methods of warfare” relates to how weapons are used, which includes targeting decisions and is governed in part by the law of targeting.³⁷ This of course maps onto our inquiry into whether there is something inherent in the weapon system that contributes to illegality, or whether any such illegality can be explained by how it is being used. Virtually any weapon can be used in a manner that violates IHL, but relatively few are inherently unlawful.³⁸ Where a weapon is deemed to be inherently unlawful, the reason typically flows from a determination that any use of the weapon would by definition result in a *per se* violation of one of the core principles. Thus, chemical weapons and biological weapons are prohibited as being inherently unlawful because they are so indiscriminate that it is virtually impossible for them to be used in a manner compliant with the principle of distinction (to be discussed next). Other weapons, such as the use of white phosphorous on personnel, or exploding bullets more generally, are prohibited because they violate the principle of humanity, in that they cause unnecessary suffering.³⁹

Principles of Necessity and Distinction

The principle of military necessity reflects the duality of IHL’s rationales, both authorising belligerents to use the requisite force to achieve any military advantage that will advance the cause of winning the conflict, while inherently limiting the use of force to lawful means, and to the extent that such force is actually necessary to achieve a specific military objective.⁴⁰

More specifically central to targeting issues, at least for the purposes of our analysis, is the principle of distinction, which is also one of the core principles of IHL. Codified in both Additional Protocols, it provides that armed forces must distinguish between combatants and civilians, and

³⁶ Haines, ‘The Developing Law of Weapons’, 277, 281.

³⁷ *Ibid.* See also, Willam H. Boothby, *The Law of Targeting* (Oxford: Oxford Univ. Press, 2012), 57-58; Stefan Oeter, ‘Methods and Means of Combat’, in Dieter Fleck, ed. *The Handbook of International Humanitarian Law*, 3rd ed. (Oxford: Oxford Univ. Press, 2013), 401-488.

³⁸ Haines, ‘The Developing Law of Weapons’, 277.

³⁹ *Ibid.*, 312, 331.

⁴⁰ Dinstein, *Conduct of Hostilities*, loc-756 *et seq.* (Kindle edition); Gary D. Solis, *The Law of Armed Conflict* (Cambridge: Cambridge Univ. Press, 2010), 257-65; Boothby, *The Law of Targeting*, 58.

between military objectives and civilian objects.⁴¹ In particular, the principle of distinction requires that armed forces refrain from making civilians or civilian objects the direct object of targeting or attack. This does not mean that the killing of civilians in a strike in and of itself violates the principle of distinction. This is so even when it was known at the time of the targeting decision that the killing of civilians would be a likely or even a sure consequence of the strike. So long as the killing is incidental to a strike in which the primary target is a legitimate military objective, it does not violate the principle of distinction. Such killing would “collateral damage”, which is the focus of the principle of proportionality, to which we will turn presently.

Individual Status in Armed Conflict

Before examining proportionality, it is necessary to pause and consider the question of who is actually targetable as a “combatant”, and who is protected as a “civilian”, as part of the principle of distinction. This is an issue over which there continues to be considerable dispute in the context of non-international armed conflict. However, it is well accepted that the concept of “combatant” as a legal status is unique to international armed conflict. The Geneva Conventions also provide, and it is generally accepted, that in both international and non-international armed conflict civilians may be targeted for such time as they take direct part in hostilities.⁴² The dispute arises over precisely how insurgents, militants, terrorists and the like should be classified in a non-international armed conflict (which would, of course, include Afghanistan today). There is no question that they are targetable for such time as they are taking direct part in hostilities, though even then there remains debate over the precise parameters of this concept. The International Committee for the Red Cross (ICRC) has published guidelines that attempt to crystallise the elements required of the acts taken by the individual to qualify as taking direct part in hostilities (which include a certain level of harm, direct causation between the act and such harm, and a belligerent nexus), as well as to clarify the scope of the temporal component (which is limited to the duration of each act but also includes

⁴¹ *Additional Protocol I*, Art. 48, Art. 44, Art. 51. It should be noted that the principle of distinction is referred to in *Additional Protocol II* as well: *Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts, (Protocol II)*, 1125 UNTS 609 (1979), Jun. 8, 1977, Art. 13(1); *see also*, International Committee of the Red Cross, *Customary International Humanitarian Law - Vol. 1: Rules*, (Cambridge: Cambridge Univ. Press, 2005), 3-6, 25-29

⁴² *Geneva Conventions*, Common Article 3; AP II, Art. 13(3). ICRC, *Customary International Humanitarian Law – Vol. 1: Rules*, 12-13, 19.

preparation for those acts), in order for the individual's conduct to be considered as taking direct part in hostilities.⁴³

There are arguments, however, which have been recently supported by the ICRC, that members of organised armed groups party to a non-international armed conflict may fulfil a "continuous combat function", making such individuals analogous to "combatants" in an international armed conflict, and thus targetable based on their status as members of the organised armed group rather than their acts at any given moment.⁴⁴ Some apply the term "fighters" to group members fulfilling this continuous combat function, as distinguished from but analogous to "combatants".⁴⁵

Principle of Discrimination

Related to the principle of distinction, but considered by some to be a distinct principle, is the principle of discrimination. Armed forces may not engage in indiscriminate attacks, by which is meant the conduct of strikes that are not directed at any specific military objective, or which employ a means of warfare that cannot be so directed, or the effects of which cannot be limited to the military objective.⁴⁶ This is reflected more specifically in weapons law in the prohibition on weapons that are indiscriminate, such as chemical weapons, and in targeting law by prohibiting the indiscriminate methods of using otherwise legitimate weapons, such as carpet bombing civilian populations. In addition to the principle of distinction, another overarching principle of IHL that provides part of the foundation for this prohibition against indiscriminate attacks is the principle of humanity, also sometimes called the principle of unnecessary suffering. The corollary to the

⁴³ International Committee of the Red Cross, *Direct Participation in Hostilities Under International Humanitarian Law* (Geneva: ICRC, 2009), 41-68.

⁴⁴ International Committee of the Red Cross, *Direct Participation in Hostilities Under International Humanitarian Law*, 59, 72-73; Dinstein, *Non-International Armed Conflicts in International Law*, 61-63.

⁴⁵ The ICRC notes that this is less than satisfactory, since in some languages the word "fighter" would be translated with the same term as used for "combatant" in any event: ICRC, *Customary International Humanitarian Law – Vol. 1: Rules*, Rule 3, 13; but see Schmitt *et al*, *Manual on the Law of Non-International Armed Conflict*, 4 (classifying both members of armed forces and members of organised armed groups as fighters).

⁴⁶ AP I., Art. 51. See also ICRC, *Customary International Humanitarian Law – Vol. 1: Rules*, Rule 11, 37. While explicit language articulating the rule was not included in AP II, the ICRC considers it to be customary international law as applicable to non-international armed conflict. *Ibid.*, 38-9.

principle of necessity, the principle of humanity prohibits the infliction of suffering, injury, or destruction that is not necessary for the achievement of legitimate military objectives or purposes.⁴⁷

Principle of Proportionality

We can now return to the principle of proportionality, mentioned above and closely related to both necessity and distinction. This principle provides that armed forces are prohibited from launching attacks that would be expected to cause incidental death or injury to civilians, or damage to civilian objects, which would be *excessive* in relation to the concrete and direct military advantage anticipated.⁴⁸ Implicit in this, as discussed earlier, is the idea that incidental death, injury, and damage are permissible so long as civilians and civilian objects were not the object of the attack (which would of course be contrary to the principle of distinction). It is only necessary to ensure that such harm is not excessive in relation to the advantage to be gained by attacking the military objective (which itself must be necessary, pursuant to the principle of necessity). There continues to be some debate over the scope and precise definition of “military advantage”, and even leaving that aside, the calculation of how much civilian life is to be considered excessive in relation to the rather incommensurate notion of military advantage is a difficult business. It should also be noted that any *ex post* assessment of compliance with the principle of proportionality focuses on what was known and anticipated at the time the decision was made.⁴⁹

Principle of Precautions in Attack

The final principle directly relevant to our analysis of drone strikes is that of precautions in attack. This builds on the rationale underlying the principles of distinction, discrimination, and proportionality, creating a positive obligation to take care to spare the civilian population, civilians, and civil objects from harm. It provides that “all feasible precautions” must be taken to avoid or to minimise incidental harm to civilians and civilian objects.⁵⁰ There are more specific related

⁴⁷ Boothby, *The Law of Targeting*, 99; Solis, *The Law of Armed Conflict*, 269

⁴⁸ AP I, Art. 51(5)(b) and Art. 57(2)(a)(iii); ICRC, *Customary International Humanitarian Law – Vol. I: Rules*, Rule 14, 46-50.

⁴⁹ Dinstein, *Conduct of Hostilities*, Loc-5379-5421 (Kindle edition); Boothby, *The Law of Targeting*, 95-97.

⁵⁰ AP I, Art. 57(1); ICRC, *Customary International Humanitarian Law – Vol. I: Rules*, Rule 15, 51.

obligations, which include: a duty to take all feasible measures to ensure that targets are military objectives; to ensure that the means and methods of attack are selected with a view to minimising incidental harm to civilians; to do everything feasible to assess whether the attack may be expected to cause excessive harm to civilians in violation of the principle of proportionality; and finally, the obligation to do everything feasible to cancel any attack if it becomes apparent that the target is not a military objective, or that the attack will cause excessive loss of life or injury to civilians, or damage to civilian objects.⁵¹

As we turn our attention to the use and effects of armed drones, their attributes as a weapons system, and some aspects of the policy that governs the manner in which they have been employed, we will consider how these principles apply to the conduct of drone strikes. But it is worth observing here that the principles and rules apply to drones in exactly the same way that they apply to any other weapon or method of attack.⁵²

International Human Rights Law and Domestic Law

In the context of an ongoing armed conflict, IHL is the *lex specialis* that governs the conduct of armed forces operating in the hostilities. Nonetheless, more general legal regimes continue to operate alongside IHL, and they may apply to some conduct within the conflict notwithstanding the operation of IHL. The most relevant of these legal regimes, for our purposes here, is international human rights law (IHRL). The extent to which and precisely how IHRL may operate alongside IHL in the theatre of armed conflict is, however, the subject of some dispute. On the one hand there are those who argue that IHRL will operate to govern conduct in situations where IHL does not provide a specific rule, or when the rule is unclear or ambiguous in the particular circumstances.⁵³ On the other hand, there are those who lean much further in the direction of holding that the *lex specialis* of IHL largely displaces and prevails over all more general legal

⁵¹ AP I, Art. 57(2)(a)(i)-(iii), (b); ICRC, *Customary International Humanitarian Law – Vol. 1: Rules*, Rules 16-19, 55-61

⁵² Michael N. Schmitt, 'Drone Attacks Under *Jus ad Bellum* and *Jus in Bello*: Clearing the "Fog of Law"', *Yearbook of International Humanitarian Law – 2010* (The Hague: T.M.C. Asser press, 2011), 321.

⁵³ See, e.g., Philip Alston, 'The CIA and Targeted Killing Beyond Borders', 283, 301; Michael N. Schmitt, 'Extraterritorial Lethal Targeting: Deconstructing the Logic of International Law', *Columbia Journal of Transnational Law* 52 (2013): 92 *et seq.*

regimes, such that IHRL has little if any application in an armed conflict, regardless of whether IHL is silent in a particular situation.⁵⁴ What is more, there is sometimes confusion, even on the part of institutions and international organisations operating within these legal regimes, in employing distinct concepts and principles that are unique to each of IHL and IHRL – such as applying the concept of “combatant” from IHL in a human rights analysis.⁵⁵

Nonetheless, there is a growing acceptance that IHRL operates at least to some extent alongside IHL in the theatre of armed conflict. This position has been confirmed by the International Court of Justice (ICJ) in its advisory opinions in the *Legality of Nuclear Weapons* case, and the *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory* case.⁵⁶ Moreover, it has been argued that the relationship between the two is more involved and complicated in the context of a non-international armed conflict, in part because the members of armed groups against which the state is fighting will often be nationals or residents of that state. As such these individuals will come squarely within the state’s jurisdiction for purposes of triggering IHRL rights and obligations. As will be returned to below, the due process obligations imposed by IHRL may potentially influence the application of IHL principles, and vice versa. Thus, IHL principles may, for instance, inform the analysis of what constitutes an arbitrary denial of the right to life under IHRL, where the right is implicated in the context of an armed conflict.⁵⁷

Extraterritorial Operation of IHRL and the Right to Life

Even apart from this more general conceptual debate over the extent to which IHRL operates in an armed conflict, there is the more specific dispute over the extent to which IHRL has extraterritorial effect, so as to create binding obligations on a state in its relations with non-nationals when operating in the territory of another state. For instance, does the U.S. have IHRL obligations in relation to non-Americans in the conduct of its operations in the non-international armed conflict

⁵⁴ Dinstein, *Conduct of Hostilities*, loc-1170 (Kindle ed.).

⁵⁵ David Kretzmer, ‘Targeted Killing of Suspected Terrorists: Extra-Judicial Executions or Legitimate Means of Defence?’, *The European Journal of International Law*, Vol. 6 No. 2 (2005), 181 (providing examples of such confusion on the part of the Inter-American Commission for Human Rights).

⁵⁶ *Ibid.*, 185; *Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons*, [1996] I.C.J. Rep. 226; *Advisory Opinion on the Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory*, [2004] I.C.J. 136, para. 106.

⁵⁷ Kretzmer, ‘Targeted Killing of Suspected Terrorists’, 186, 201-04; and see *infra*, note 67, and accompanying text.

in Afghanistan? The central right at issue, of course, is the right to life, which is enshrined as a matter of treaty law in Article 6 of the International Covenant of Civil and Political Rights (ICCPR).⁵⁸ The corollary obligation created by this right, is a prohibition against the arbitrary killing of any person by the state. But the ICCPR imposes obligations on states to respect and ensure the rights enshrined in the treaty ‘to all individuals in its territory and subject to its jurisdiction’,⁵⁹ which the United States has interpreted to mean that the U.S. only has obligations in relation to persons who are both subject to U.S. jurisdiction and who are within the territory of the United States.⁶⁰

This interpretation has been rejected by the UN Human Rights Committee,⁶¹ as well as the ICJ,⁶² and it is not shared by many other countries. Indeed, it has been controversial within U.S. government.⁶³ But quite aside from the specific language of the ICCPR, the right to life exists as a principle of customary international law, and there are strong arguments that the armed forces of one state that are operating in a separate state, would at a minimum have obligations to respect the customary international law right to life of persons within that state, if not an obligation to ensure the protection and enforcement of the right.⁶⁴ In the *Armed Activities on the Territory of the Congo*

⁵⁸ *International Covenant on Civil and Political Rights*, Mar. 23, 1976, 999 U.N.T.S. 171, Art. 6 (ICCPR).

⁵⁹ ICCPR, Art. 2.

⁶⁰ See Jon Heller, ‘Does the ICCPR Apply Extraterritorially?’, *Opinio Juris*, Jul. 18, 2006, available at: <http://opiniojuris.org/2006/07/18/does-the-iccpr-apply-extraterritorially/> (including text of U.S. Statement to the Human Rights Committee on its interpretation). Harold Koh, as legal counsel to the State Department, wrote an extensive memo arguing for a change of position (available on-line at: <http://justsecurity.org/wp-content/uploads/2014/03/state-department-iccpr-memo.pdf>), but the Obama administration re-iterated the U.S. interpretation in early 2013; see Charlie Savage, ‘U.S., Rebuffing U.N., Maintains Stance that Rights Treaty Does Not Apply Abroad’, *The New York Times*, Mar. 13, 2014, A12.

⁶¹ See, e.g., United Nations Human Rights Committee, *Concluding Observations on the Fourth Periodic Report of the United States of America*, Apr. 23, 2014, CCPR/C/USA/CO/4, 2-3; though the actual position of the U.S. was more ambiguous in the actual report: *Fourth Periodic Report of the United States of America*, 22 May 2012, CCPR/C/USA/4, 142.

⁶² *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory, Advisory Opinion*, [2004] ICJ 136, para. 108-11.

⁶³ See note 60, *supra*.

⁶⁴ Kretzmer, ‘Targeted Killing of Suspected Terrorists’, 186; Alston, ‘CIA and Targeted Killing Beyond Borders’, 23, citing Nigel S. Rodely and Matt Pollard, *The Treatment of Prisoners Under International Law*, 3rd ed. (Oxford: Oxford Univ. Press, 2009), 250.

case the ICJ suggested that, under both treaty law and customary international law, not only will IHL and IHRL have to be taken into consideration in some contexts in an armed conflict, but that IHRL may also have extra-territorial application.⁶⁵ This was followed by the European Court of Human Rights in *Al-Skeini and Others v. The United Kingdom*, in finding that the European Convention on Human Rights applied to the actions of the British forces in relation to Iraqi nationals during the conflict there after the 2003 invasion.⁶⁶

The United Nations Special Rapporteur on the Protection of Human Rights and Fundamental Freedoms while Countering Terrorism likely captured the current state of the law accurately when he recently wrote that “[i]t is now reasonably well settled that, in a situation of armed conflict (whether of an international or non-international character), the international human rights law prohibition on arbitrary killing continues to apply, but the test of whether a deprivation of life is arbitrary must be determined by the applicable targeting rules of international humanitarian law.”⁶⁷ This may seem to suggest that in an armed conflict the default standards for assessing compliance with respect for the right to life are provided by IHL principles. It should be noted, however, when the killing is conducted by civilian agencies such as the CIA, as we will discuss below, then IHL principles will not necessarily provide such standards for what is arbitrary. Moreover, the consequences and remedies under state responsibility for the resulting violations of IHRL may differ. Thus, in short, the operation of IHRL separate and apart from IHL is not insignificant, and is relevant to drone strikes in Afghanistan.

⁶⁵ *Armed Activities on the Territory of the Congo (Democratic Republic of Congo (DRC) v. Uganda)*, [2005] I.C.J. 168, 179-80, 205-212, 216-19. As with the *Al-Skeini* case, *infra*, the finding that Uganda was an occupying power at the relevant times was a significant aspect of the decision, which does cast some doubt on how persuasive an authority this may be as a general principle.

⁶⁶ *Al-Skeini and others v. The United Kingdom*, ECtHR Jul. 7, 2011, 40-41. It should be noted that while the Court held that the Convention applied, and that the U.K. had violated the right to life of several of the applicants, the decision was based on the language of the European Convention relating to jurisdiction. Moreover, the fact that the killings were conducted in the context of belligerent occupation by occupation forces was relevant to the decision. *Id.* 59-61.

⁶⁷ Ben Emmerson, *Third Annual Report to the General Assembly*. See also, Christof Heyns, *Report of the Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions*, United Nations General Assembly, Doc. A/68/382, Sept. 13, 2013, 7-9 (describing the right to against the arbitrary deprivation of life as not only a principle of customary international law attaining the status of *jus cogens*, but also a general principle of international law, and that it “now a well established principle of international law that international human rights law continues to apply during armed conflict, as a complement to international humanitarian law.”).

Domestic Law

In addition to IHRL the domestic criminal and constitutional law of the state in which the armed conflict is taking place will continue to operate, and in some circumstances may apply to conduct undertaken in relation to the armed conflict. Moreover, the criminal and constitutional law of the state operating abroad in a non-international armed conflict, will also be operating in the background – meaning that, of course, U.S. criminal and constitutional law may apply to some conduct undertaken in the theatre of war in Afghanistan. In what circumstances could the domestic criminal or constitutional law, or for that matter IHRL, apply? It was mentioned above that (according to the predominant view) the *lex generalis* could apply when the rule from the *lex specialis* of IHL is ambiguous or non-existent. In other words, these other legal regimes would potentially apply when the conduct undertaken is clearly not authorised or governed by IHL, such that the immunities and privileges that IHL confers on combatants would not operate to protect the actor from the application of other legal regimes. This may be due, for instance, to the nature of the act, or the status of the actor – issues we will return to shortly in examining the role of the CIA in drone strikes.

Transparency and Accountability

Transparency and accountability has become a significant legal issue in relation to drone strikes. The drone-based targeted killing programme conducted in countries such as Yemen and Pakistan continues to be classified, with the U.S. government refusing to formally acknowledge its existence in court filings, even as government representatives, including President Obama himself, nonetheless make reference to it.⁶⁸ While the military's drone operations in Afghanistan are not formally classified there is insufficient transparency and accountability in relation to drone strikes in Afghanistan as well, as will be discussed in more detail below. The argument is being increasingly made that IHL and IHRL impose distinct obligations regarding transparency and accountability. Special Rapporteurs reporting to the United Nations General Assembly, the United Nations Human Rights Council, and the European Parliament, have all argued that both IHL and IHRL obligations require states to provide some degree of transparency, and to develop formal mechanisms of

⁶⁸ 'Obama's Speech on Drone Policy', *The New York Times*, May 23, 2013, available at: <http://www.nytimes.com/2013/05/24/us/politics/transcript-of-obamas-speech-on-drone-policy.html?pagewanted=all>.

accountability, in the conduct of lethal drone strikes – and that the failure to do so constitutes a separate violation of international law.⁶⁹

The starting point for such arguments is that transparency and accountability are integral to the very essence of the rule of law. Accessibility and intelligibility of the law, as well as assurance that the law is enforced equally throughout the system, are central ideas to all conceptions of the rule of law.⁷⁰ But there are more specific obligations relating to accountability in both IHL and IHRL. The UN Secretary General's expert panel on Sri Lanka asserted in its 2011 report that accountability for serious violations of both IHL and IHRL is a duty under both domestic and international law.⁷¹ With respect to IHL, Philp Alston has argued that the obligations of accountability arise directly from the undertakings of state parties in Common Article 1 of the 1949 Geneva Conventions to “respect and *ensure respect*” for the Geneva Conventions, which requires states to implement the obligations in internal law, and to develop mechanisms to enforce compliance.⁷² Moreover, in the context of targeted killing, the Geneva Conventions and customary international law require states to implement specific procedural safeguards in order to comply with the principles of distinction, proportionality, and precautions in attacks, as reviewed above. In order to comply with those obligations states must have in place specific mechanisms for implementation, assessment, and enforcement, all of which are aspects of accountability, and these in turn require a minimum level of transparency.⁷³

Special Rapporteur Ben Emmerson reached similar conclusions in his report to the U.N. General Assembly, arguing that transparency and accountability require fact finding inquiries in the

⁶⁹ Alston, ‘Report of the Special Rapporteur’, 26; Emmerson, ‘Interim- Report of the Special Rapporteur’, 12; Emmerson, ‘Report of the Special Rapporteur’, 9; Hayes, ‘Report of the Special Rapporteur’, 20-22;

⁷⁰ Nils Melzer, *Human Rights Implications of the Usage of Drones and Unmanned Robots in Warfare*, (European Parliament, Policy Department - Directorate-General for External Policies, May 2013), 37 *et seq*; Gen. John P. Abizaid and Rosa Brooks, *Recommendations and Report of the Task Force on US Drone Policy*, (Washington: The Stimson Center, 2014), 34. On a review of different theories of the rule of law more generally, see Brian Z. Tamanaha, *On the Rule of Law: History, Politics, Theory* (Cambridge: Cambridge Univ. Press, 2004).

⁷¹ *Report of the Secretary-General's Panel of Experts on Accountability in Sri Lanka*, March 31, 2011, 115, available at http://www.un.org/News/dh/infocus/Sri_Lanka/POE_Report_Full.pdf.

⁷² Alston, ‘CIA and Targeted Killing Beyond Borders’, 310 (citing common Article 1 of the Geneva Conventions); Alston, ‘Report of the Special Rapporteur’, 26.

⁷³ Alston, ‘The CIA and Targeted Killing Beyond Borders’, 310-11.

aftermath of all incidents that appear to have caused unanticipated civilian casualties; and that where any such assessment reveals the possibility of violations, a full investigation is required, adhering to transparency principles of promptness, effectiveness, independence, and impartiality.⁷⁴ All of these obligations relating to accountability necessarily require states to demonstrate, to both domestic audiences and the international community, that they are in compliance with legal obligations and that they have mechanisms in place for implementing the enforcement obligations relating to the relevant rules. And such demonstrations of course both requires and creates a sufficient transparency in the process.⁷⁵ This position on transparency and accountability is further supported by the ICRC and a number of other relevant international institutions.⁷⁶

There are similar specific obligations of accountability in relation to IHRL, particularly with respect to the right to life. Nils Melzer, in a report to the European Parliament, advised that “all major human rights bodies have held that the obligations flowing from the right to life necessarily entail a duty of States to investigate the use of lethal force by their agents, and that failure to comply with this duty may, as such, amount to a violation of the right to life.”⁷⁷ This obligation does not arise from treaty alone, but is a central and integral component of the customary international law right to life, and the state obligation not to arbitrarily deprive anyone thereof.⁷⁸

Transparency, in turn, is similarly necessary, since these obligations of accountability cannot be meaningfully fulfilled without some level of transparency.⁷⁹ A fundamental component of accountability is the requirement to provide public demonstrations that policies, procedures, and mechanisms exist, and are operating sufficiently, so as to ensure compliance with the underlying legal regime. That requirement simply cannot be fulfilled if there is limited transparency as to what

⁷⁴ Emmerson, ‘Report of the Special Rapporteur on the promotion of Human Rights’, 12. Emmerson relied in part on the report of the 2013 Public Commission to Examine the Maritime Incident of 31 May 2010 (the Turkel Commission, which investigated the Israeli killing of several individuals while boarding a Turkish vessel bound for Gaza), which itself conducted an “analysis of a broad range of sources”

⁷⁵ Alston, ‘The CIA and Targeted Killing Beyond Borders’, 310-11.

⁷⁶ *Ibid.*, 22, citing ICRC Rules, Vol. 1, 608-09, and a range of cases and institutional reports – see fn. 87; but see Michael N. Schmitt, ‘Investigating Violations of International Law in Armed Conflict’, *Harvard National Security Journal* 2 (2011): 35 *et seq.*, 77-82.

⁷⁷ Melzer, *Human Rights Implications*, 40, See fn. 186 for authorities referred to.

⁷⁸ Alston, ‘The CIA and Targeted Killing Beyond Borders’, 312.

⁷⁹ *Ibid.*

legal rules and principles are governing conduct, the extent to which such conduct is in fact consistent with the governing legal regime, and how mechanisms of investigation and enforcement are operating in the event of suspected non-compliance.

As Alston argues, accountability imposes a two-fold duty. On one level the national procedures and mechanisms designed to ensure compliance with international law regimes must meet certain standards of transparency and accountability in order to satisfy the state's international legal obligations to implement, assess, and enforce the underlying law. On a second level, however, the national procedures and mechanisms must be sufficiently transparent to permit international organisations and institutions to in turn assess the extent to which the state is, in fact, complying with both its substantive international legal obligations, and its obligations to address violations of that underlying law.⁸⁰ The U.S. itself effectively made a similar argument in relation to Sri Lanka's position on compliance with IHL in the last stages of its conflict with the Tamils.⁸¹

IV - Compliance with the Law

Having reviewed the data on the killing of civilians in drone strikes in Afghanistan, and examined the legal regimes that apply to those drone strikes in a traditionally defined non-international armed conflict, the inquiry now turns to examine in more detail whether the drone strike operations are being conducted in compliance with international law. In particular, this part examines whether there is a basis for arguing that there may be violations of the relevant legal principles, and explores whether such potential violations are primarily attributable to aspects of the weapon system itself, or whether they are more likely attributable to the methods of its use.

Potential Violations of International Law

Compliance with the Principles of Distinction and Precautions

It is difficult to reach firm conclusions as to whether there are systemic and on-going violations of international law obligations arising from drone strikes in Afghanistan, apart from obligations regarding transparency and accountability, given the limited data available. Yet there is sufficient

⁸⁰ *Ibid.*, 317.

⁸¹ Amantha Perera, 'Sri Lanka Ducks International Probe', *Interpress Service*, Aug. 20, 2011.

evidence of civilian casualties, and evidence that there are some features relating to targeting errors that are common to many of these incidents, to at least raise serious questions about compliance with legal obligations.

There are numerous strikes, as in two of the examples discussed earlier (the Zhawar Kili strike and the Uruzgan incident), in which the civilians killed were not “collateral damage” in relation to the targeting of a legitimate military objective, but were actually the primary target. While it can be safely presumed that these are instances of accidental targeting rather than any deliberate targeting of civilians as such, and thus not examples of wilful violation of the principle of distinction. Nonetheless, these incidents clearly raise questions about compliance with the principle of precautions in attack: In accordance with what criteria are targeting decisions being made, on the basis of what intelligence, and pursuant to what standards of proof for determining whether there is sufficient evidence to satisfy the criteria? This relates in particular to so-called “signature strikes”, in which people are targeted based on inferences drawn from their behaviour, actions, location, and other such criteria, leading to the conclusion that they are fighters or civilians taking direct part in hostilities. The features of these signature strikes will be examined in more detail below, but the repeated errors in targeting civilians suggests that either the criteria, or the sufficiency of evidence required to satisfy the criteria, may not meet the obligation to take all feasible measures to ensure that targets are military objectives.

There are other examples in which the civilian casualties are collateral to strikes that are legitimately targeting military objectives. In such cases, as in the one example cited earlier (the Watapur district strike), both the principles of proportionality and precautions in attack are implicated. There are questions as to whether the operators met their obligations to take all feasible measures to ensure that the means and methods of attack were selected with a view to minimising incidental harm to civilians, and to assess whether the attack may cause excessive harm relative to the importance of the military objective, in violation of the principle of proportionality. And there are questions as to whether the actual harm caused to civilians was, in the final analysis, excessive in relation to the importance of the military objective being targeted. It has been reported that the Air Force rules of engagement (ROE) in place for Afghanistan, for instance, restrict the number of civilian casualties acceptable (known as collateral damage estimates or CDEs) in targeting

operations to far fewer than the principle of proportionality might require under IHL.⁸² But the ROE are not publically available, and as will be discussed below, they are likely not uniform across all agencies engaged in drone strikes in Afghanistan. Moreover, the calculation of acceptable civilian casualties under the principle of proportionality is relative to an assessment of military advantage, and it is entirely unknown how that is assessed – all of which brings us back to the absence of transparency and accountability.

Transparency and Accountability – The CIA and JSOC

As mentioned earlier, there are increasing claims that the lack of transparency and accountability in relation to the drone strikes is a feature of the programme that by itself constitutes a separate violation of legal obligations. Moreover, it makes it impossible to properly assess the extent to which the strikes are being otherwise conducted in compliance with international law. The example of the 2010 Uruzgan strike, which resulted in an investigation and the public disclosure of a summary of the investigation findings and resulting sanctions, is an exception that highlights the norm. Many of the cases reported by UNAMA and others working in the field reveal a pattern of behaviour in which U.S. forces initially deny the existence or extent of civilian casualties after strikes, and even, in some cases, engage in deliberate efforts to conceal or suppress facts relating to incidents.⁸³ There is little indication that investigations are routinely conducted in cases of alleged civilian casualties, from which lessons could be learned, and in cases of IHL violations, actions taken to enforce the legal obligations. Even when some inquiry has been undertaken, there is typically very little in the way of subsequent disclosure of information regarding the findings.⁸⁴ This is particularly so when the CIA or JSOC are involved. Indeed, all of these issues regarding both

⁸² Center for Civilians in Conflict, *The Civilian Impact of Drones*, 54; see also, Gregory S. McNeal, 'Are Targeted Killings Unlawful? A Case Study in Empirical Claims Without Empirical Evidence', in Claire Finkelstein *et al.*, eds, *Targeted Killing: Law and Morality in an Asymmetrical World* (Oxford: Oxford Univ. Press, 2012), 328-33

⁸³ One of the best documented and egregious example of this followed a Special Forces night raid on a civilian household in Gardez, on February 12, 2010, in which five civilians, including three women, were killed. ISAF initially claimed that the women had been stabbed to death by the Taliban, and there were reports that Special Forces personnel involved in the raid had dug the bullets out of the dead bodies with knives to destroy the evidence of how they had died. ISAF only changed its version of events almost two months later after numerous media stories about a possible cover up. See Jeremy Scahill, *Dirty Wars: The World is a Battlefield* (New York: Nation Books, 2013), 333-46.

⁸⁴ Alston, 'CIA and Targeted Killing Beyond Borders', 364; Center for Civilians in Conflict, *The Civilian Impact of Drones*, 44-46; UNAMA, Annual Report, 2013, 48

transparency and accountability, and compliance with IHL and IHRL, are vastly complicated by the fact that some of the strikes are being conducted by the CIA and some by JSOC, and sometimes by both operating together.

There tends to be a widely held view in both the scholarly and the media treatment of the targeted killing programme that while the CIA is the main operator in Yemen and Pakistan, the Air Force, or at least the regular U.S. armed forces more generally, are the sole operators in Afghanistan.⁸⁵ But there is good reason to believe that both the CIA and JSOC forces are involved in the conduct of lethal drone strikes in Afghanistan.⁸⁶ The CIA is not, as a matter of both domestic U.S. law and international law, part of the armed forces engaged in hostilities in Afghanistan. This raises a couple of significant issues. The first question is whether CIA operators conducting drone strikes consider themselves bound by IHL and IHRL. The regular forces of the U.S. military are, of course, formally committed to compliance with IHL.⁸⁷ Drone strikes undertaken by the Air Force, for instance, are subject to the Air Force's well developed targeting rules and principles, and the specific rule of engagement (ROE) that are in place at the time.⁸⁸ While specific ROE are classified, and as will be discussed in more detail below, the criteria used for signature strikes are both opaque and questionable, there is nonetheless a body of well-known targeting doctrine grounded in principles of IHL to which the organisation is formally committed.

In contrast, little is known about what rules or targeting principles are applied by the CIA. There is evidence that the CIA operates under less stringent and more flexible rules, and it is unknown whether these rules are entirely compliant with the demands of IHL.⁸⁹ It is not at all clear

⁸⁵ Alston, 'CIA and Targeted Killing Beyond Borders', 355, citing Afsheen Radsan and Richard Murphy, 'Measure Twice, Shoot Once: Higher Care for CIA Targeted Killing', *University of Illinois Law Review*, No. 4 (2011).

⁸⁶ Alston, 'CIA and Targeted Killing Beyond Borders', 355; Abizaid, *Task Force on US Drone Policy*, 39.

⁸⁷ Department of Defense Directive, Number 2311.01E, May 9, 2006, (certified current as of Feb. 22, 2011), available at: <http://www.dtic.mil/whs/directives/corres/pdf/231101e.pdf>.

⁸⁸ Drake, 'Current U.S. Air Force Drone Operations', 641-45. Abizaid, *Task Force on US Drone Policy*, 33.

⁸⁹ Alston, 'CIA and Targeted Killing Beyond Borders', 357-56; See also, Radsan and Murphy, 'Measure Twice, Shoot Once: CIA Targeted Killing', 1217-20 (exploring CIA practice, but in the absence of concrete information, recognising that "in fashioning its own standards and procedures, [the CIA] has

whether the CIA even understands itself to be governed by IHL in particular, or international law in general.⁹⁰ Indeed, there is evidence that the CIA interprets certain provisions of its domestic enabling legislation to mean that it is not bound or limited by principles of international law.⁹¹ Even if it did consider itself so bound, it does not have an institutional history of interpreting, operationalizing, and internalizing principles of international law.⁹² On the contrary, there are famous episodes in its history, such as its involvement in the Phoenix Program in Vietnam, in which it participated in armed conflict in ways that entirely flouted the principles of IHL and IHRL.⁹³

The operations of JSOC also raises some of the same issues. While JSOC is part of the U.S. Special Operations Command (USSCOM), it is quite unlike other elements of the regular military forces, including the other branches of Special Operations Forces. While JSOC was established after the failed Iran rescue mission in 1979, its role has expanded significantly since 9/11, and its primary mission is “believed to be” the identification and destruction of terrorist organisations worldwide.⁹⁴ USSCOM has legal authority to engage in anti-terrorist activity abroad that is separate from the traditional Title 10 legal authority for the regular forces.⁹⁵ JSOC is notoriously secretive, and is not subject to the same level of oversight and supervision as the regular military in some

presumably relied on the military.”); and Tara McKelvey, ‘Inside the Killing Machine’, *Newsweek*, Feb. 13, 2011, available at: <http://www.newsweek.com/inside-killing-machine-68771>.

⁹⁰ Centers for Civilians in Conflict *The Civilian Impact of Drones*, 57-58; Murphy and Radsan, ‘Measure Twice, Shoot Once: CIA Targeted Killing’ (arguing that the CIA *should* be so governed by IHL).

⁹¹ Centers for Civilians in Conflict *The Civilian Impact of Drones*, 57. Though see Robert Chesney, ‘Military-Intelligence Convergence and the Law of the Title 10/Title 50 Debate’, *Journal of National Security Law & Policy*, Vol. 5 (2012), 617 *et seq.* (arguing that Title 50 does not provide any domestic law justification for violation of international law).

⁹² Centers for Civilians in Conflict *The Civilian Impact of Drones*, 57, citing W. Hayes Parks, ‘The United States and the Law of War: Inculcating an Ethos’, *Social Research*, Vol. 69 No. 4 (2002), 981; and Laurie Blank and Amos Guiora, ‘Teaching an Old Dog New Tricks: Operationalizing the Law of Armed Conflict in New Warfare’, *Harvard National Security Journal*, Vol. 1 (2010).

⁹³ See e.g., Douglas Valentine, *The Phoenix Program*, (New York: William Morrow Co., 1990).

⁹⁴ Andrew Feickert and Thomas K. Livingston, ‘U.S. Special Operations (SOF): Background and Issues for Congress’, *Congressional Research Service*, Dec. 3, 2010, 10.

⁹⁵ Andrew Feickert, ‘U.S. Special Forces (SOF): Background and Issues for Congress’, *Congressional Research Service*, Sep. 18, 2013; Feickert and Livingston, ‘U.S. Special Operations (SOF): Background and Issues for Congress’; Schahill, *Dirty Wars*, Chap. 3; Marshal Curtis Erwin, ‘Covert Action: Legislative Background and Possible Policy Questions’, *Congressional Research Service*, Apr. 10, 2013.

aspects of its operations.⁹⁶ While many of the studies of JSOC and its operations note the dearth of publically available information, and thus the difficulty of making definitive statements about its operations and protocols, there is evidence that JSOC often operates outside of the regular regional command structure, and that it does not adhere to the normal ROE and standard operating procedures of the regular forces.⁹⁷ There is considerable evidence that JSOC has conducted operations in violation of IHL in Iraq and elsewhere, and there are allegations that it may not believe itself bound by IHL.⁹⁸

These issues regarding transparency and accountability, and other aspects of compliance with international law, are compounded by the manner in which the CIA and JSOC have operated together in Afghanistan and elsewhere, in what has come to be referred to as “double-hatting.”⁹⁹ This refers to combined operations undertaken by the CIA and JSOC in circumstances that exploit differences in the domestic legal authority and the distinct Congressional reporting requirements that govern the two agencies, as well as the different legal status of the two organisations under international law. There is a growing debate over the significance and extent of this “blurring” of domestic legal authority and international legal status by this practice,¹⁰⁰ the details of which we need not dwell on here. For our purposes, the upshot is that such joint operations in the conduct of drone strikes may serve to avoid the normal lines of reporting, oversight, and accountability that would normally apply to the CIA and the regular military forces, thus further reducing the

⁹⁶ Chesney, ‘Military-Intelligence Convergence’, 573; Jennifer D. Kibbe, ‘Covert Action and the Pentagon’, *Intelligence and National Security*, Vol. 22 No. 1; Centers for Civilians in Conflict *The Civilian Impact of Drones*, 64; Alston, ‘CIA and Targeted Killing Beyond Borders’, 346-47.

⁹⁷ Centers for Civilians in Conflict *The Civilian Impact of Drones*, 63; Kibbe, ‘Covert Action and the Pentagon’.

⁹⁸ Centers for Civilians in Conflict *The Civilian Impact of Drones*, 63; on details of JSOC conduct at Camp Nama in Iraq, see Seahill, *Dirty Wars*, Chap. 13, and Jane Mayer, *The Dark Side: The Inside Story of how the War on Terror Turned Into a War on American Ideals* (New York: Doubleday, 2008), loc. 4913-4925 (Kindle ed.).

⁹⁹ P.W. Singer, ‘Double Hatting Around the Law: The Problem with Morphing Warrior, Spy and Civilian Roles’, *Armed Forces Journal*, Jun. 1, 2010.

¹⁰⁰ See, e.g., Chesney, ‘Military Intelligence Convergence’; Kibbe, ‘Covert Action and the Pentagon’; Andru E. Wall, ‘Demystifying the Title 10-Title 50 Debate: Distinguishing Military Operations, Intelligence Activities & Covert Action’, *Harvard National Security Journal*, Vol. 3 (2011); Alston, ‘CIA and Targeted Killing Beyond Borders’; Abizaid, ‘Task Force on US Drone Policy’.

transparency, accountability, and possibly, the felt need to comply with IHL and IHRL in any given operation.¹⁰¹

CIA Operators as Civilians Taking Direct Part in Hostilities

It would be remiss not to mention one final issue raised by CIA involvement in drone strikes, which relates to the legal consequences of civilians engaging in lethal operations in an armed conflict. Some have argued that this conduct by the CIA constitutes a violation of IHL, and the U.S. has itself prosecuted detainees under the theory that killing by unprivileged combatants in an armed conflict constitutes a war crime.¹⁰² The better view, however, is that while such involvement in hostilities is not authorised or privileged under IHL, it is not a violation of IHL either. Thus, such civilians do not enjoy the protections and privileges of combatants under IHL, and so are themselves targetable (for such time as they are taking direct part in hostilities), and they could theoretically be prosecuted for murder for their actions.¹⁰³ The CIA operators of drones would, of course, fall into this category.

While not a violation of IHL, this is not to say that the killing of individuals in Afghanistan by CIA operatives is lawful. If the killing is in circumstances that do not satisfy the law enforcement paradigm for using deadly force, then it may constitute a violation of the IHRL obligations of the U.S. to respect (if not to enforce) the right to life of the victims, and thus may well attract state responsibility for that violation of international law.¹⁰⁴ But this issue need not be fully explored here, and is best left for another day, as it is somewhat tangential to the central inquiry into the lawfulness of drones in a defined armed conflict.

In sum, there is limited information on the drone strikes in Afghanistan, but there is sufficient evidence to at least raise the possibility that there may be systemic targeting errors in violation of the principles of proportionality and precautions in attack. The next question to address

¹⁰¹ Chesney, 'Military Intelligence Convergence', 540-41; Kibbe, 'Covert Action and the Pentagon', 65-68; Alston, 'CIA and Targeted Killing Beyond Borders', 348-50; Centers for Civilians in Conflict *The Civilian Impact of Drones*, 64-65; but see Wall, 'Demystifying the Title 10-Title 50 Debate' (arguing generally that the blurring of accountability is exaggerated and misunderstood).

¹⁰² See Scott Horton, 'The Khadr Boomerang', *Harper's Magazine*, May 25, 2010.

¹⁰³ Schmitt, 'Clearing the "Fog of Law"', 324; Blank, 'After "Top Gun": How Drone Strikes Impact the Law of War', 708.

¹⁰⁴ On the law enforcement paradigm, see Melzer, *Targeted Killing*, Chap. 5.

then, is whether the cause for such potential violations is primarily in the nature of the weapon system itself, or in the methods by which it used.

Nature of the Armed Drone as Weapons System – Means of Warfare

We turn next to examine the nature of drones as a weapons system, to assess whether there is something inherent to drones that is likely to cause violations of international law. Drones are not, of course, the only weapons system used in targeted killing operations. Cruise missiles, airstrikes with traditional manned aircraft, and even hunter-killer teams have all been used by the U.S. for the targeting of identified individuals, in Afghanistan and elsewhere. But one of the primary questions addressed in this article is whether there are unique features of the drone that contributes to illegality. It is important to thus begin by examining the attributes of the armed drone as a weapons system. Drones have a number of features that combine in ways that reinforce one another so as to confer a significant comparative advantage over both cruise missiles and manned fixed-wing aircraft, not only in terms of military tactical advantage, but arguably also in terms of enabling optimal compliance with IHL. On the other hand, perhaps somewhat paradoxically, some of these same features may facilitate, or make more likely, certain violations of IHL.

Positive Features of Drones

To begin, drones such as the MQ-1 Predator and the MQ-9 Reaper can be deployed over a target for comparatively long periods of time – for as long as 22 hours at a time, as compared with perhaps 90 minutes for an F-16 – for observation and intelligence acquisition, thus providing operators with a longer evaluation and decision-making period before lethal force is employed.¹⁰⁵ This feature of “persistence” is reinforced by stealth, arising from the size and low sound of the drone at altitude – up to 50,000 feet – making it difficult to detect in the absence of sophisticated air-defense systems.¹⁰⁶ As well, since they are typically on-site directly over the target during the decision-making process, they provide for more rapid implementation of a strike once the decision

¹⁰⁵ Abizaid *The Task Force on US Drone Policy*, 21; Lynn E. Davis *et al.*, *Armed and Dangerous? UAVs and U.S. Security*, (Washington: RAND Corporation, 2014), 11; Drake, ‘Current U.S. Air Force Drone Operations’, 637.

¹⁰⁶ Drake, ‘Current U.S. Air Force Drone Operations’, 637.

is made, as compared with, for instance, a combined use of drones for surveillance but manned air-strikes or cruise missiles for the final attack.

In addition to this persistence and stealth, a defining feature of the drones is the intelligence gathering and targeting system, which includes ever more sophisticated sensors and video feeds. The most recent innovation is called the “Gorgon Stare”, a system of cameras that will deliver video of a five-mile diameter area at one time, while allowing operators to zoom into any one segment, or multiple segments at a time.¹⁰⁷ What is more, a signal advantage of the drone, relative to a manned aircraft such as an F-16, is how the intelligence from such sensors and videos are analysed. Each Air Force drone has a team of at least three operators, including a pilot, a sensor operator, and a mission intelligence coordinator.¹⁰⁸ Moreover, while the mission intelligence coordinator is responsible for overseeing the collection and immediate analysis of the intelligence being gathered, there are other individuals, including intelligence analysts, who may participate in the assessment of incoming data from other remote locations, and be part of the decision making process via dedicated voice-line or on-line “chat rooms”.¹⁰⁹ As compared to a pilot in a manned aircraft, the decision-making process involves more people, assessing far greater volumes of sensor information and intelligence, operating under fewer time constraints and without the stress caused by imminent personal risk to themselves. It has been argued, therefore, that this decision-making process is sounder, less prone to errors, and far more likely to comply with legal obligations.¹¹⁰

The defining feature of drones, as compared to traditional aircraft, to state the obvious, is that they are remotely controlled and thus unmanned (but not fully autonomous, which is a different kind of weapon that raises a whole host of different issues). It is this essential characteristic that gives rise to so many of the other features, such as persistence and stealth, collective decision making and the reduction of risk to the operators to virtually zero. Being unmanned also allows for an extension of operational reach, permitting the deployment of the drone in regions where not only

¹⁰⁷ *Ibid.* 637-38.

¹⁰⁸ *Ibid.* 639.

¹⁰⁹ *Ibid.*

¹¹⁰ *Ibid.*, 640; Blank, ‘After “Top Gun” How Drone Strikes Impact the Law of War’, 686-88.

actual risk to the crew but also political and strategic risks would make the deployment of manned aircraft untenable.¹¹¹

It is also argued by the defenders of drone strikes that the weapons employed by drones are both highly accurate, and characterised by relatively tight blast areas, thus making the drones a high-precision weapon system.¹¹² The Predator carries laser guided Hellfire missiles, while the Reaper can carry, in addition to Hellfire missiles, GPS-guided bombs. The laser guided missiles can be guided by the drone's own laser system, or by a laser directed at the target by forces on the ground.¹¹³ All of these features may be said to combine in ways that make the armed drone weapons system, as it currently exists and is deployed, one that is likely to enhance compliance with IHL and IHRL, and indeed is much more so than other weapons systems used for targeted killing and air strikes.¹¹⁴

One last point should be made regarding the features of drones in the context of IHL. There is another possible consequence of all these features combining to provide the drone with a unique capacity to adhere tightly to the principles of proportionality and precautions in attack.¹¹⁵ These features may also operate to raise the standard that the U.S. forces must satisfy in order to comply with the obligation to do "everything feasible" to avoid causing harm to civilians and civilian objects.¹¹⁶ The more precise the weapons systems that are at a country's disposal for any given attack, the less justifiable will be any harm caused to civilians.

Negative Features of Drones

There are, however, also some corresponding weaknesses or disadvantages flowing from these very same features. Operators and decision-makers, sitting somewhere thousands of miles

¹¹¹ Abizaid, *Task Force on US Drone Policy*, 18; Davis, *Armed and Dangerous?*, 11-12.

¹¹² Schmitt, 'Clearing the "Fog of Law"', 314; Drake, 'Current U.S. Air Force Drone Operations', 645; Blank, 'After "Top Gun": How Drone Strikes Impact the Law of War', 687.

¹¹³ Drake, 'Current U.S. Air Force Drone Operations', 645.

¹¹⁴ Schmitt, 'Clearing the "Fog of Law"', 322; Drake, 'Current U.S. Air Force Drone Operations', 645; Laurie R. Blank, 'After "Top Gun": How Drone Strikes Impact the Law of War', 688-702.

¹¹⁵ Schmitt, 'Clearing the "Fog of Law"', 315.

¹¹⁶ Drake, 'Current U.S. Air Force Drone Operations', 645; Blank, 'After "Top Gun": How Drone Strikes Impact the Law of War', 713-14.

away, are limited in large measure to the video and other sensory intelligence being provided by the drone itself. It has been suggested that decision-makers are prone to a so-called “soda-straw effect” – meaning that operators tend to “zoom in” to focus on an increasingly narrow area around the target, with a resulting loss of information regarding the surrounding context – particularly during the final stages prior to firing.¹¹⁷

It has been similarly suggested that as the video and sensor feeds become ever more sophisticated and extensive – as evidenced by the new Gorgon Stare system – the operators are prone to suffer from a “data crush”, in which there is simply so much data streaming in during the targeting process, with too little time and too few people to analyse it, that crucial evidence regarding civilian presence, to take one example, is more likely to be missed.¹¹⁸ There have also been concerns expressed that the operator’s distance and detachment from the conflict zone and their targets, together with the complete absence of reciprocal risk, may somehow increase the likelihood of targeting errors. This is often expressed and explained in different ways. Thus there is the so-called “Play-Station” effect, in which the concern is that the distance and detachment of operators who are killing by video-feed in the afternoon and are home for a BBQ with their families by evening, may simply not have a sufficiently grave appreciation for the moral nature consequences of their actions.¹¹⁹

Many of these concerns tend to get brushed aside by defenders of drones. Thus, the “Play-Station” effect is argued to be somewhat speculative, and in any event can be addressed by strict adherence to IHL and compliant ROE.¹²⁰ Similarly, the distance and detachment concern is given short shrift on the grounds that it is actually more of a strength than a weakness, given that it creates conditions for more stress-free decision-making.¹²¹ Moreover, these concerns can be seen as being with the operators as much as with the nature of the drone system itself. But the concerns may lack salience in part because they have not been developed in a systematic fashion, organised within a

¹¹⁷ Centers for Civilians in Conflict *The Civilian Impact of Drones*, 37.

¹¹⁸ *Ibid.*, 41; see also, Wayne Chappelle et al., 'Assessment of Occupational Burnout in United States Air Force Predator/Reaper "Drone" Operators', *Military Psychology* 26:5-6 (2014): 376-385.

¹¹⁹ Alston, *Report of the Special Rapporteur*, 317.

¹²⁰ Schmitt, 'Clearing the “Fog of Law”', 321; Blank, 'After “Top Gun” How Drone Strikes Impact the Law of War', 680.

¹²¹ Schmitt, 'Clearing the “Fog of Law”', 319-20.

theoretical framework. We will return to them below when we examine these features through the lens of psychological theory, and assess whether they may not contribute to systemic misperception.

Nature of the Drone Strike Policy – Methods of Warfare

Having considered the nature of the armed drone as a weapons system, and its inherent legality as a “means of warfare”, it remains to examine more closely certain aspects of the policy governing its use. In other words, to assess whether there are features of the “methods of warfare” associated with the drone strikes that may contribute to systemic violations of IHL or IHRL. We have already explored some aspects of the policy relating to its use, and the issues surrounding the lack of transparency and accountability discussed above would also fall within this category. But at the centre of any inquiry into methods has to be an examination of the varying targeting policies employed in drone strikes. The targeting policies have not been publicly disclosed, but the essential elements of the policies have been inferred from the different kinds of strikes reported.

Personality Strikes

Drone strikes can be broadly categorized into two types – the so-called “personality strikes” and the “signature strikes”. Personality strikes are premeditated attacks mounted against identified individuals, usually having been designated as a target on one of several “kill lists” maintained by different agencies. Little is known about the decision-making process for placing individuals on such a list, but presumably it is based on the accumulation of some required level of intelligence.¹²² In order to be lawful under IHL, that intelligence would have to establish that the individual is a combatant, a fighter engaged in a continuous combat function, or a civilian who routinely takes direct part in hostilities. Once on the list or otherwise selected for targeting, the agency planning the strike will typically have intelligence obtained in advance regarding the identity, conduct, and location of the target. The accuracy of that intelligence, be it signals intelligence, human intelligence, or other combinations of sources, will of course have a significant impact on the possibility of targeting errors. Moreover, if the target is a civilian who takes direct part in hostilities,

¹²² One of the most often cited authorities for how the “kill lists” are compiled and maintained is a series of articles in *The New York Times*, particularly Jo Becker and Scott Shane, ‘Secret “Kill List” Proves a Test of Obama’s Principles and Will’, *The New York Times*, May 29, 2012, A1.

the intelligence must accurately indicate that the target is actually taking direct part in hostilities at the time of the strike.¹²³

There are said to be as many as six different “kill lists” in existence for Afghanistan alone, with thousands of names among them, maintained by different agencies.¹²⁴ Mistakes can occur in designating persons as targets when they do not in fact satisfy the criteria for identifying them as members of an organised armed group fulfilling a continuous combat function, or a civilian taking direct part in hostilities. Other errors may occur through incidents of mistaken identity, in which a person other than the designated target is killed. In 2010, for instance, a man named Zabet Amanullah, along with nine other civilians in his company, were killed due to mistaken intelligence that suggested he was a Taliban deputy governor named Muhammad Amin who was using Amanullah’s name as an alias.¹²⁵

Within the context of personality strikes there is also a distinction between the clearly premeditated strikes that are undertaken methodically according to careful planning based on considerable intelligence, and “dynamic targeting” operations in which there is little time between the receipt of intelligence placing a designated target in a certain location, analysis of that intelligence, decision-making, and implementation of the strike.¹²⁶ Targeting errors can occur in either case due to flaws in the original intelligence, or with the sensory, video, or signals intelligence being relied on in the final targeting process, but errors are clearly more likely in dynamic targeting scenarios. In either case, all feasible efforts must be made in the implementation of the strike to minimise collateral or accidental injury to civilians, in accordance with the principles of precautions in attack and proportionality.

¹²³ As indicated earlier, the temporal window during which such a civilian is targetable is hotly debated, and has been the subject of judicial analysis: See, e.g. Nils Melzer, *Direct Participation in Hostilities Under International Humanitarian Law*, (Geneva: ICRC, 2009) 65-68; *Public Committee Against Torture in Israel v. Israel*, H CJ 762/2 [2005], paras 38-40.

¹²⁴ Alston, ‘CIA and Targeted Killing Beyond Borders’, 285.

¹²⁵ Kate Clark, “The Takhar Attack: Targeted Killings and the Parallel Worlds of US Intelligence and Afghanistan”, Afghan Analysts Network, May 2011, at http://aan-afghanistan.com/uploads/20110511KClark_Takhar-attack_final.pdf; Centers for Civilians in Conflict *The Civilian Impact of Drones*, 38.

¹²⁶ Centers for Civilians in Conflict *The Civilian Impact of Drones*, 11.

Signature Strikes

In contrast to personality strikes, signature strikes are attacks against people whose identity is unknown, and who are targeted on the basis of a number of indicia or criteria that comprise a “signature”, which is considered sufficient for an inference that the individuals are combatants (in the context of an international armed conflict), members of armed groups who are fulfilling a continuous combat function (in non-international armed conflict, and assuming this standard is accepted), or are civilians taking a direct part in hostilities (in either form of armed conflict). These strikes are typically the result of decisions based entirely on real-time observation of the persons targeted rather than intelligence about them obtained prior to the operation. The probability of error, and indeed the legality of such strikes, will depend in large measure on the criteria being applied – that is, the nature of the conduct, behaviour, or other indicia that comprise the “signature” – in making targeting decisions, as well as the sufficiency of the evidence used to establish that the criteria were satisfied in the circumstances.¹²⁷

The U.S. government has not made public the criteria used in signature strikes, but inferences can be made from an analysis of known strikes, and a number of different sets of criteria are said to be employed in Afghanistan and elsewhere.¹²⁸ A recent legal analysis of signature strikes by Kevin Heller identifies these various criteria. Heller argues that several of these criteria will almost always conform with the requirements of IHL or be “legally adequate” (assuming that there is sufficient evidence to satisfy them in any given circumstance), while some will almost always be “legally inadequate” under IHL, and the legality of a third group will depend on the precise interpretation placed upon the signature criteria by the decision-makers.¹²⁹ The signatures that are legally adequate include indicia that the individuals are, at the time of the strike: i) planning attacks; ii) transporting weapons (which is to be distinguished from merely being armed); iii) handling explosives; or iv) present in the compound or training camp of an organised armed group that is a party to the conflict. Assuming the sufficiency and reliability of the evidence establishing them, all

¹²⁷ Kevin Jon Heller, “‘One Hell of a Killing Machine’: Signature Strikes and International Law”, *Journal of International Criminal Justice*, Vol. 11, No. 1 (2013), 94.

¹²⁸ On the efforts within the government to formalize the criteria, see Scott Shane, ‘Election Spurred a Move to Codify U.S. Drone Policy’, *The New York Times*, 24 Nov. 2012, A1.

¹²⁹ Heller, ‘One Hell of a Killing Machine’, 94-103.

of these signature criteria are sufficient indications that the individuals in question are, at a minimum, taking direct part in hostilities, and thus are targetable.¹³⁰

Legally *inadequate* signature criteria, which the U.S. has on at least some occasions applied, include indicia that individuals are: (i) military-age males in an area of known terrorist or insurgent activity, or “strike zones”;¹³¹ (ii) consorting with known militants, or organised armed groups party to the conflict;¹³² (iii) among an armed group travelling in enemy-controlled territory (“armed group” here merely referring to a group of people with weapons, as distinguished from an “organised armed group party to the conflict”);¹³³ and (iv) present in a ‘suspicious camp’ in enemy controlled territory.¹³⁴ These signature criteria may tend to be more often employed in Yemen, Pakistan and other such regions that do not constitute a hot battlefield, but there is evidence that they are also used in Afghanistan. Indeed, both the 2002 Zhawar Kili strike by the CIA and the 2010 Uruzgan strike by the Air Force, discussed above, appear to have involved targeting based on a combination of indicia that included several of these “inadequate” criteria. Moreover, it was arguably reliance upon these criteria that contributed to what was the likely unlawful killing of civilians.

Finally, there are signature criteria that may or may not be legally adequate, depending on how they are interpreted by decision-makers. These include: (i) groups of armed men travelling toward a combat zone (which will be adequate if there is other evidence to corroborate that there is actual intent to take direct part in hostilities); (ii) persons operating in the training camps of an organised armed group party to the conflict (which may be adequate if there is evidence that the targeted individuals are training for specific operations or attacks); (iii) persons training to join the

¹³⁰ *Ibid.*, 94-97.

¹³¹ *Ibid.*, 97, citing for evidence of the use of such signatures, Stanford Law School International Human Rights and Conflict Resolution Clinic & NYU School of Law Global Justice Clinic, *Living Under Drones: Death, Injury and Trauma to Civilians from US Drone Practices in Pakistan*, Sept. 2012, 31.

¹³² Heller, “‘One Hell of a Killing Machine’”, 97-98, citing D. Filkins, ‘The Journalist and the Spies’, *New Yorker*, Sept. 19, 2011, available at: http://www.newyorker.com/reporting/2011/09/19/110919fa_fact_filkins.

¹³³ Heller, “‘One Hell of a Killing Machine’”, 98-99, citing B. Roggio, ‘US Predators Strike Again in Southern Yemen’, *Long War Journal*, Apr. 16, 2012, available at: http://www.longwarjournal.org/archives/2012/04/us_predators_strike_35.php.

¹³⁴ Heller, “‘One Hell of a Killing Machine’”, 99-100, citing ‘Munter Found Drone Strikes Unacceptable’, *DAWN*, May 30, 2012, available at: <http://dawn.com/2012/05/30/munter-found-drone-strikes-unacceptable/>.

Taliban or Al Qaeda in Afghanistan (which may be adequate if there is sufficient evidence that the individuals are indeed training for a specific operation or to take up a continuous combat function within the armed group); and (v) persons deemed to be ‘facilitators’ (which could only be adequate if it involved action that comes within the scope of taking direct part in hostilities, but would be inadequate if it involved such actions as financing, recruiting, propagandizing, feeding, and so forth, all of which could constitute ‘facilitation’ but does not constitute taking direct part in hostilities).¹³⁵ Again, the Uruzgan strike reflected reliance on the criteria of armed men travelling in the general direction of a combat zone (and the even more problematic “military-age male” criteria), without sufficient corroboration of whether they were in fact armed, or whether there were other indicia to establish that they intended to join the hostilities.

Having reviewed the features relating to the nature of drones, and features of the policy and practice surrounding their use, we turn to examine in a little more detail the relationship between the two – and address more specifically the question of attributing between them the responsibility for any systemic violations of international law.

V - The Means-Method Paradox

The foregoing examination would tend to suggest that it is the manner in which drone strikes are conducted, with policies such as those governing signature strikes, that is more conducive for IHL violations than anything in the nature of the drone itself. Thus, to the extent there are systemic violations of IHL in the conduct of the drone strikes in Afghanistan, this examination would seem to indicate that the problem lies with the methods of warfare, not the means. And yet, having said that, a more careful examination of the causes of the errors in such strikes as the Uruzgan incident, raises interesting questions as to whether there may be a more complex relationship between the means and methods of warfare. Indeed, a consideration of the relationship through the lens of psychological theory raises the prospect that some of the features of the armed drone that were identified above as making it particularly conducive to compliance with IHL, may paradoxically facilitate or make more likely the employment of methods that could lead to systematic violations of IHL.

¹³⁵ Heller, “One Hell of a Killing Machine”, 100-103, citing for the adequacy of such criteria, ICRC, ‘Interpretative Guidance on the Notion of Direct Participation in Hostilities Under International Humanitarian Law’, *International Review of the Red Cross*, Vol. 90, (2008) 1002.

We begin this exploration with a concern that has been raised regarding a specific feature of armed drones, namely that the drone team is operating at great distances from the target and often in a completely detached environment. As was mentioned briefly above, the criticism is that drone crews will lack the same kind of nuanced understanding of the typical cultural behaviour and patterns of life of the target population, as compared to the understanding that forces on the ground normally would develop – and thus drone operators will be more prone to misinterpreting the situations and behaviour they are observing.¹³⁶ But while this argument has been made frequently before, and indeed has been summarily dismissed by others,¹³⁷ some of its deeper implications have not been fully explored. An absence of such deeper familiarity with the theatre of conflict will not only lead to direct and more obvious errors in the interpretation of this or that behaviour pattern. Considered from the perspective of psychological theory, this detachment and lack of familiarity may actually create the foundation for more systemic and systematic errors. Moreover, once we begin to examine the drone operations through the lens of psychological theory, it becomes apparent that other features of the drone, features that are considered among its strengths, may feed into misperceptions that could help explain systemic targeting errors.

Cognitive Consistency Theory and Misperception

It is well established in cognitive consistency theory and certain aspects of attribution theory that our perceptions, and in particular our interpretation of the posture, behaviour, and intentions of others, is heavily influenced by our expectations or assumptions about them.¹³⁸ We tend to interpret

¹³⁶ Centers for Civilians in Conflict *The Civilian Impact of Drones*, 41-42

¹³⁷ Schmitt, 'Clearing the "Fog of Law"', 319.

¹³⁸ Cognitive consistency theory developed in the area of social psychology in the 1940s through to the 1960s, with such work on balance theory by Fritz Heider, cognitive dissonance by Festinger, and cognitive consistency by Robert Abelson – see, Fritz Heider, *The Psychology of Interpersonal Relations* (New York: Wiley, 1958); Leon Festinger, *A Theory of Cognitive Dissonance* (Stanford: Stanford Univ. Press, 1957); Robert Abelson and Milton Rosenberg, 'Symbolic Psycho-Logic', *Behavioral Science*, Vol. 3 (1958); Robert Abelson et al., eds. *Theories of Cognitive Consistency* (Chicago: Rand McNally, 1968). It worked its way into other fields over the next several decades, such as its brilliant application in international relations in Robert Jervis, *Perception and Misperception in International Politics* (Princeton: Princeton Univ. Press, 1976). It has had a resurgence in the last couple of decades. For a short review of the more recent theoretical development see Dan Simon et al., 'The Redux of Cognitive Consistency Theories: Evidence Judgments by Constraint Satisfaction', *Journal of Personality and Social Psychology*, Vol. 86, No. 6 (2004), 814-837; and Raymond S. Nickerson, 'Confirmation Bias: A Ubiquitous Phenomenon in Many Guises', *Review of General*

information about others in ways that are consistent with our long-held theories and attitudes about them (commonly referred to as our “perceptual set”), and with our more immediate short-term hypothesis, assumptions, and expectations about their likely behaviour (known as our “evoked sets”).¹³⁹ While this predisposition of people to interpret information in ways that are consistent with their views and expectations is actually quite important to their ability to efficiently and effectively make sense of the world around us, it can also be the cause of misperception and misinterpretation. This happens because people tend to interpret ambiguous information in a manner that is consistent with pre-existing assumptions and hypotheses, and to discount or ignore possible alternative interpretations, and even worse, they will often reject or suppress inconsistent information as being false, flawed, or irrelevant.¹⁴⁰ Indeed, misperceptions can be increasingly entrenched by recurring feedback loops, in which ambiguous information is assimilated to existing hypotheses, thus confirming and reinforcing them, making it ever more difficult for inconsistent information to get through to dislodge or change the perceptions in question.

The likelihood of such misperception can be increased by a number of factors. The first of these is overconfidence. Where decision-makers are overly confident in their information about a situation and their understanding of it, they are more likely to develop the view that the event or situation supports obvious inferences, and will be blind to the very real possibility that the inferences are actually being shaped by the pre-existing assumptions or hypotheses. This in turn will lead to over-confidence in the soundness of the inferences, and exclusion or discounting of alternative options.¹⁴¹

A second factor, related to the first, is what is called premature cognitive closure. This refers to situations in which decision-makers become excessively bound to pre-existing views,

Psychology 2 (1998), 175-220. For recent applications in the context of law, see e.g., Stephanie Stern, ‘Cognitive Consistency: Theory Maintenance and Administrative Rulemaking’, *University of Pittsburgh Law Review*, Vol. 63 (2002), 589; and in police work, Karl Ask and Par Anders Granhag, ‘Motivational Sources of Confirmation Bias in Criminal Investigations: The Need for Cognitive Closure’, *Journal of Investigative Psychology and Offender Profiling*, Vol. 2 (2005), 43-63; on attribution theory, see John H. Harvey and Gifford Weary, ‘Current Theories in Attribution Theory and Research’, *Annual Review of Psychology*, Vol. 35 (1984), 427-59.

¹³⁹ Jervis, *Perception and Misperception*, 203-06; Stern, ‘Cognitive Consistency’, 603-04.

¹⁴⁰ Jervis, *Perception and Misperception*, 143-154; Stern, ‘Cognitive Consistency’, 603-05, 608-611.

¹⁴¹ Simon, ‘The Redux of Cognitive Consistency Theories’, 817; Jervis, *Perception and Misperception*, 195-202;

assumptions or hypotheses, and consequently become too prone to discount or reject information that cannot be reconciled with those views. This is caused in part by the sheer psychological difficulty of escaping the influence of a perceptual set or evoked set once it has been established in one's mind, and by the person being insufficiently aware of the extent to which such perspectives are influencing their analysis. But this problem is also most likely to arise when actors prematurely form hypotheses or working assumptions. Most people do not sufficiently understand that the very formation of such working assumptions or preliminary hypotheses can then operate to skew their perception through premature cognitive closure.¹⁴² The results are illustrated in the realm of criminal justice, in cases where investigators are said to have developed "tunnel vision" once they have identified a suspect, and been victims of "confirmation bias" in their subsequent analysis of evidence in the course of the investigation.¹⁴³

A third factor that can operate to skew perceptions is the extent to which decision-makers often interpret the behaviour of others through an unrealistically egocentric lens – that is, they tend to exaggerate the significance of themselves or their institution in the decision-making and behaviour of others. Indeed, in some contexts, the decision-maker may perceive themselves as being central to other actors' behaviour, when in fact there may be no such relationship at all.¹⁴⁴

The tendencies that flow from these factors can be further exacerbated by another but separate psychological phenomenon, which is the influence of group dynamics on collective decision-making. Famous studies in psychology have demonstrated that people can be influenced into making flawed judgments about the simplest and most obvious of tasks (such as indicating which of two lines on a piece of paper is longer), when surrounded by others expressing support for the wrong answer.¹⁴⁵ The opinions of those around a person engaged in a decision-making process exerts pressure to a surprising degree, and can cause the mediation and distortion of judgment in the

¹⁴² Jervis, *Perception and Misperception*, 187; Ask, 'Motivational Sources of Confirmation Bias', 45-48.

¹⁴³ Ask, 'Motivational Sources of Confirmation Bias'; Carole Hill *et al.*, 'The Role of Confirmation Bias in Suspect Interviews: A Systemic Evaluation', *Legal and Criminological Psychology*, Vol. 13 (2008), 357-371.

¹⁴⁴ Jervis, *Perception and Misperception*, 211-16.

¹⁴⁵ Solomon Asch, 'Effects of Group Pressure Upon the Modification and Distortion of Judgments', in Harold Guetzkow, ed., *Groups, Leadership and Men: Research in Human Relations* (New York: Russell & Russell, 1963), 177-190.

wrong direction. This could quite conceivably operate in the context of drone crew deliberations, as will be seen when we examine the Uruzgan strike more closely below.

We return to the context of drone strikes, and the question of whether the operators' distance from the theatre of conflict could lead to misinterpretation. The consequences of this detachment are not only that the operators lack familiarity with the target culture and environment, such that they might make straightforward mistakes in interpreting behaviour due to ignorance of local conditions. Rather, it may contribute to more systemic problems of misperception. As a result of the detachment, the drone crew are entirely immersed in their own particular institutional sub-culture back home, as well as living and operating within the home culture far from the front. Quite apart from the possibility that this may interfere with their understanding of the moral implications of their work – the so called “Play-Station effect” criticism discussed earlier – there is the prospect that it may be highly conducive to the development of inappropriate and premature assumptions or hypotheses about potential target populations. That will in turn lead to operators misinterpreting ambiguous information and ignoring contrary evidence in a manner that is consistent with and reinforcing of the assumptions, with resulting targeting errors.¹⁴⁶ Moreover, this tendency would likely be further exacerbated by the “data crush” and “soda straw” concerns that were discussed earlier, providing a more sound theoretical foundation for those criticisms of the drone operations.

A study of the 2010 Uruzgan targeting incident suggests that the tragic targeting error may be explained at least in part by precisely this kind of pattern of misperception. The findings of the formal investigation noted that the drone operations team received evidence that was inconsistent with the hypothesis that the group was a Taliban force, but that this evidence had been “ignored or downplayed” by the operators.¹⁴⁷ Portions of the dialogue among the pilot, the sensor operator, and the intelligence coordinator who were operating in Nevada, and the screeners who were reviewing intelligence at a location in Florida, and the ground force in Afghanistan that the drone was supposed to be protecting, have been publicly disclosed.¹⁴⁸ It suggests shared attitudes, mind-sets, and perspectives about the local population (perceptual sets), and reveals that they held

¹⁴⁶ See notes 140 - 143, *supra*.

¹⁴⁷ Centers for Civilians in Conflict, *The Civilian Impact of Drones*, 41; David S. Cloud, ‘Anatomy of an Afghan War Tragedy’, *Los Angeles Times*, Apr. 10, 2011. See also McChrystal, ‘Memorandum for Record – Subject: AR 15-6 Investigation’.

¹⁴⁸ Cloud, ‘Anatomy of an Afghan War Tragedy’.

assumptions, hypotheses, and mutually reinforcing mind-sets (evoked sets) about the group of men under observation from virtually the moment they came under observation.

The team's dialogue from the beginning exhibits a collective desire to find evidence of hostility. There were several instances in which information that was ambiguous or even inconsistent with the team's starting assumption – that the group under observation comprised insurgent fighters – was incongruously interpreted to actually confirm the presumption. For instance, when the trucks stopped and passengers disembarked to pray at one point early in the operation, the camera operator commented “this is their force...Praying? I mean, seriously, this is what they do.”¹⁴⁹ Praying became evidence of belligerence. At other times, there was frustration when the operators were unable to find more conclusive confirmation, or when evidence that was clearly inconsistent with the presumption was suggested by the intelligence screeners in Florida. Thus the pilot at one stage states, during a discussion of whether the screeners could see any evidence of weapons: “I was hoping we could make a rifle out...never mind”. A little later, when one of the screeners raised the possibility of a child having been spotted among the group, the pilot protests: “why didn't he say ‘possible’ child? Why are they so quick to call kids but not to call rifle?”¹⁵⁰ Here we see the potential for the group pressure being brought to bear, with the possible modification and distortion of judgment.¹⁵¹

The suggestion that there might be children present was then quickly reinterpreted as being evidence of possible adolescents. That in turn morphed into “possibly military age males”. Military age males is, as we have seen, one of the “legally inadequate” criteria for signature strikes which is thought to have been employed by U.S. forces in Afghanistan (it has been reported that as a result of this incident General McChrystal issued an order banning the use of the criteria).¹⁵² Information indicating the presence of protected persons was thus assimilated to existing assumptions and hypotheses, and thereby incrementally transformed to become information confirming the presence of targetable fighters. This was, arguably, due in large measure to flawed initial and potentially prematurely established assumptions, resulting in cognitive closure. As one of the team later

¹⁴⁹ *Ibid.*

¹⁵⁰ *Ibid.*

¹⁵¹ See note 145, *supra*.

¹⁵² Heller, “‘One Hell of a Killing Machine’”, 97; Centers for Civilian in Conflict, *The Civilian Impact of Drones*, 75. On the order of Gen. McChrystal banning the use of the criteria, see Cloud, ‘Anatomy of an Afghan War Tragedy’.

recounted: “we all had it in our head, ‘Hey, why do you have 20 military age males at 5 a.m. collecting each other?’ There can only be one reason, and that’s because we’ve put [U.S. troops] in the area.”¹⁵³ Here laid bare are indications of the premature formation of assumptions and consequent cognitive closure, bolstered by classic egocentric interpretation of the actions of others. It was only after the strike, when over 20 people lay dead and dying, that the operators finally recognised the presence of women and children, several of whom were younger than six years old.¹⁵⁴ It may be that a more rigorous adherence to legally valid criteria for signature strikes could have helped prevent this tragedy, but as we will explore next, it may be that features of the armed drone weapon system facilitate misperception that makes such errors more likely.

The Features of Drones and Misperception

To the extent that the above account may reflect an example of a more systemic problem of misinterpretation and misperception, it would not appear to be caused by features of the armed drone itself, but rather of the operators and the targeting criteria being employed. Indeed, once we are talking about the psychology of operators we would seem to be, by definition, out of the realm of the weapon itself. In other words, the problems would appear to relate to the “methods of warfare” according to which the weapon is being used, rather than to anything apparently inherent to the “means of warfare” comprising the weapons system. And yet upon closer consideration this may not be the case. To the extent that systemic targeting errors are being caused by misperception and other cognitive problems, these may be caused or facilitated by a combination of features that relate to both the nature of the operators and the policy they operate under on the one hand, and features of the drone as a weapon system that may systematically influence how the operators behave. The misperception is, in the final analysis, a function of the operators. And it may be enabled and exacerbated by the policies and rules of engagement they are operating under. But the proposition that requires further study is whether features of the drone itself feed into and facilitate such misperception as well. These features may be interwoven in ways that can be difficult to disentangle and assess individually.

¹⁵³ Cloud, ‘Anatomy of an Afghan War Tragedy’.

¹⁵⁴ *Ibid.*

Some of these features may seem more clearly related to the operators, even though the features in question may be made possible by those of the weapons system. Thus, for instance, we have already observed in examination of the Uruzgan strike that the distance and detachment of the operations team may have been a factor in their susceptibility to forming premature and mistaken hypotheses and assumptions. That is at once a feature of how the drone is operated, but also perhaps of the drone itself. The distance and detachment may not be necessary or required by the nature of the drone, but it is a feature of the overall system, and is indeed viewed as one of its advantages of the weapon system.

Similarly, we have seen above how overconfidence is one of the factors identified in cognitive consistency theory that can contribute to the problem of misinterpretation and misperception. Such overconfidence has also been identified as a feature of the drone operators. As one senior officer who oversaw the investigation into the Uruzgan incident noted, "[t]echnology can occasionally give you a false sense of security that you can see everything, that you can hear everything, that you know everything."¹⁵⁵ An exaggerated confidence in the infallibility of the assumptions the team is operating under and the intelligence the team is receiving from the drone and other sources, may contribute to systemic misperception. And such over-confidence flows in part from a confidence in the technology of the weapons system itself.

Other features implicated in the problem of misperception may be more uniquely tied to the nature of drones, and be a necessary aspect of how they operate. Or, if not necessary, be integral to the advantages attributed to the armed drone as a means of warfare. This would include the combination of features identified earlier as being central to effectiveness and indeed the precision of the drone: namely, being able to linger for prolonged periods, silently and undetected, at low cost and low risk, all the while feeding its team of operators with volumes of real-time video and other sensory intelligence. The upshot of this combination of features is that the drone will enable the protracted observation of individuals who might otherwise not have come under close observation at all if they had been spotted, for instance, by an F-16 or other manned aircraft. The pilot of a manned aircraft will have to make relatively quick decision, typically within minutes, as to whether the individuals are hostile and targetable, and then move on if no such evidence presents itself. The drone operators can linger for tens of hours. As discussed earlier, this should be a key advantage. The team of operators and support screeners can take their time in a low stress environment making

¹⁵⁵ *Ibid.*, quoting Air Force Maj. Gen. James O. Poss, who oversaw the Air Force investigation.

a careful determination as to whether the individuals are hostile and legitimately targetable under IHL principles.

It would not be an advantage, however, if operators prematurely develop assumptions and hypotheses about the individuals at the very outset of observation. As illustrated in the Uruzgan incident, the protracted observation may then facilitate a process in which drone crew members misinterpret the incremental inputs of ambiguous information, assimilating the data in ways that simply conform with and confirm pre-existing assumptions, accumulating to support a conclusion that they are hostile and targetable. The process in that case, in combination with insufficiently clear and prudent targeting criteria, arguably contributed to the crew reaching an entirely erroneous conclusion regarding the status of the individuals, resulting in the tragic killing of some twenty civilians including children. In short, this combination of features that are central to the advantage of drones as a weapons system may operate to create an environment that is more conducive to systemic targeting errors due to this process of misperception.

This would indeed be consistent with, and perhaps help explain, the Air Force's own surprising and counterintuitive finding, published in the JCOA study referenced earlier, which reported that:

[d]rone strikes in Afghanistan were seen to have close to the same number of civilian casualties per incident as manned aircraft, and were an order of magnitude more likely to result in civilian casualties per engagement.¹⁵⁶

If we can safely assume that not all civilian casualties are within the anticipated and acceptable range for collateral damage estimates, this would seem to suggest that drone strikes are causing greater rates of accidental and impermissible killing per strike than manned air strikes. In other words, notwithstanding every reason to believe that as a weapons system it would be more precise, the improved intelligence, and longer stress-free targeting process that characterises the drone's operations are actually leading to greater rates of targeting error than those suffered by manned air strikes.

¹⁵⁶ Lewis, 'Drone Strikes: Civilian Casualty Considerations'.

The Paradox

I should stress that this argument – that features of the drone and its operations may combine in ways that facilitate misperception that in turn increases the risk of systemic targeting errors – must be rather tentative at this stage. In order to confirm the proposition, far more detailed data on other incidents of targeting error, and for that matter on the likely many more instances of both successful strikes and the appropriate identification of civilians leading to decisions *not* to strike, would have to be obtained and analysed. That is not possible for legal scholars working in the public domain, given the dearth of information that is currently available. But it may indeed be possible for policy makers within the Department of Defense and other branches of government to pursue such inquiries. In addition to requiring further data, more empirical and field work would be required to explore and test the psychological theory propositions advanced here. That too would be work that those within the relevant agencies could undertake.

If there is some validity to the proposition, however, an important issue to explore would be to identify the features of the drones system that are most central to the facilitation of systemic targeting errors, and how precisely they are combining to contribute to such effects. This would be key to understanding the phenomenon and, where possible, correcting the problem through changes in training, operating procedures, and the like. It would seem likely that some of the preconditions for the operation of cognitive consistency leading to misperception could clearly be ameliorated through such steps – for instance by developing training modules aimed at sensitizing operators to the dangers of formulating assumptions and hypotheses prematurely. But as part of the process of identifying the features central to the problem, and thinking about how to resolve the issues, we would be returning to the question of whether the problem is primarily with the method of using the drones, or whether it is related to something inherent to the weapon itself. That is, whether it is a problem with the drone as a means of warfare, an issue of weapons law, or a problem with the method of warfare, and an issue of targeting law.

Herein lies the nature of the paradox referred to at the outset. For as we have explained, the very features that make the drone highly conducive to compliance with IHL, could also, paradoxically, indirectly contribute to not only more targeting errors and failures in relation to precautions in attack once a legitimate target has been identified, thus leading to higher and perhaps impermissible rates of “collateral damage”; but also, and much more significantly, to more strikes being undertaken against civilians mistakenly identified as being fighters or taking direct part in hostilities. It is possible to conceive of scenarios in which groups of civilians who would not have

attracted the attention of manned aircraft or other weapons systems, are erroneously being killed precisely because of the drone's capacity for low-risk, low-cost lingering over the target to provide pattern of life observation, combined with the problem of the data not being interpreted correctly and being fed into a targeting decision matrix based on overly broad criteria.¹⁵⁷ And this is not simply to say that the weapon is being misused. Rather, the essential point is that it is not just that the methods, the manner of use that is causing potentially non-compliance, but that the means, the weapon system itself, may be facilitating and enabling those questionable methods.¹⁵⁸

VI - Conclusions –

The examination in this article has focused on the legality of drone strikes within a traditionally defined armed conflict for the purpose of simplifying the inquiry into whether there are features inherent to the remotely controlled armed drone as a weapons system, which may make it more susceptible to potential violations of IHL and IHRL. While the lack of transparency and accountability poses problems in reaching definitive conclusions, our analysis of the record of civilian deaths caused by drone strikes suggests that the drone strike operations may indeed be characterised by systemic violations of IHL and IHRL. In examining the reasons for such violations, the article has explored the features of drones as a means of warfare, and the features of the policy and practices that underlie the methods of warfare related to drone strikes.

On the one hand the features of the drone as a weapons systems would appear to make it more conducive to compliance with IHL than other competing aerial weapons systems, while such aspects of policy as the criteria for signature strikes would be most likely responsible for possible violations of international law. On the other hand, however, an examination of these features in in the context of a specific notorious drone strike, and conducted through the lens of cognitive consistency theory and misperception, suggests that the picture may be more complicated. The very

¹⁵⁷ But see Schmitt, 'Clearing the "Fog of Law"', 320, stating that "compared to attack by manned aircraft or ground-based systems, the result is often a significantly reduced risk of misidentifying the target or causing collateral damage to civilians". Hence the paradox if this is in fact not always the case.

¹⁵⁸ Laurie Blank hints at this, writing: "Furthermore, given that proportionality rests on a reasonable commander's determination based on the information available to him at the time of the attack, we must consider whether drones at some point will no longer add to that process but could actually impede that process simply because of the flood of information." Blank, 'After "Top Gun" How Drone Strikes Impact the Law of War', 714.

features that are most likely to make drones compliant with IHL – their ability to linger undetected and at little risk and low cost for protracted periods over potential targets, feeding large volumes of intelligence back to an operations team that can engage in decision-making in a relatively stress-free environment – may paradoxically facilitate and make more likely targeting errors caused by misperception and misinterpretation of the target data. This proposition requires further empirical and theoretical study to be confirmed, but it is advanced here as an intriguing possibility deserving of further examination.