

The Automation of Authority: Discrepancies with *Jus Ad Bellum* Principles

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10.1: INTRODUCTION

The changing nature of warfare presents unanswered questions about the legal and moral implications of the use of new technologies in the theater of war. International humanitarian law (IHL) establishes that the rights warring parties have in choosing the means and methods of warfare are not unlimited, and that there is a legal obligation for states to consider how advancements in weapons technologies will affect current and future conflicts¹—specifically, they are required to consider if such advancements will be compatible with IHL. The character of technological advancement makes applying legal precedent difficult and, in many cases, it is unclear as to whether existing practices are sufficient to govern the scenarios in which new weapons will be implemented.² As this present volume is testament to, the development and use of lethal autonomous weapons systems (AWS) in particular is a current hotbed for these kinds of considerations.

Much attention has been paid to the question of whether or not AWS are capable of abiding by the *jus in bello* tenets of IHL: distinctness, necessity, and proportionality. The worry here is whether such systems can play by the rules, so to speak, once hostilities have commenced, in order that those who are not morally liable to harm come to none. Less attention has been paid to the question of whether the engagement of hostilities by AWS is in accord with the principles of *jus ad bellum*.³ That is, whether the independent engagement in armed conflict by AWS without any human oversight can satisfy the requirements currently placed on the commencement of

just conflicts: just cause, right intent, proper or legitimate authority, last resort, probability of success, and proportionality. The distinction is important. *In bello* considerations for AWS pertain to the practical implementation of humanitarian law within the circuitry of actual weapons systems, focusing on whether it is possible to program AWS such that they are capable of reliably abiding by the rules of warfare during engagements. *Ad bellum* considerations for AWS are one step removed from the battlefield, and, I take it, concern the conceptual tensions that AWS may have with IHL. Relinquishing the decision to engage in warfare to AWS, no matter how sophisticated, may, in principle conflict with the legal and ethical framework that currently governs the determination of just conflict.

In this chapter, I will consider how the adoption of AWS may affect *ad bellum* principles. In particular, I will focus on the use of AWS in non-international armed conflicts (NIAC). Given the proliferation of NIAC, the development and use of AWS will most likely be attuned, at least in part, to this specific theater of war. As warfare waged by modernized liberal democracies (those most likely to develop and employ AWS at present) increasingly moves toward a model of occupation and policing, which relies on targeted, individualized kill or capture objectives, how, if at all, will the principles by which we measure the justness of the commencement of such hostilities be affected by the introduction of AWS, and how will such hostilities stack up to current legal agreements⁴ surrounding more traditional forms of engagement?

I will first detail Heather M. Roff's argument (2015) against the permissibility of using AWS to fight a defensive war based on the violation of the *ad bellum* principle of proportionality. However, contra Roff, I provide reasons that show why the use of AWS is not particularly problematic as far as proportionality is concerned. That being so, proportionality considerations give us no reason to think that the use of AWS cannot abide by IHL. Following that, I will present the emergent shift in the structure of modern warfare and consider how AWS might play a role in this new paradigm. In the final section I claim that, while arguments against AWS that stem from proportionality are unconvincing, it is unclear that the engagement of hostilities by AWS can conform to the *ad bellum* principle of proper authority.

Prima facie, there seems to be a tension between this principle of just war and the use of AWS. The proper authority requirement puts the decision to enter into a state of war within the purview of societies, states, or, more generally, political organizations.⁵ However, when there is no human or association of humans (e.g., a legitimate government) involved in the decision-making processes of AWS, no human in the loop, the allocation of responsibility for the actions of those systems is uncertain. Consequently, I want to consider what implications the automation of authority has for IHL. If the current legal framework we have for determining just conflicts is violated, and yet nation-states still insist on developing and deploying AWS, as it seems they intend to do, then we must reconsider the principles that inform IHL so as to develop reasonable policies that ensure, or in any case make more likely, that AWS are employed within parameters that justice requires.

10.2: AWS AND *JUS AD BELLUM* PROPORTIONALITY

Roff claims that even in the clearest case “of a defensive war, we cannot satisfy the *ad bellum* principle of proportionality if we knowingly plan to use lethal autonomous systems during hostilities because of the likely effects on war termination and

the achievement of one's just causes" (Roff 2015).⁶ Her argument draws on Thomas Hurka's conception of the *jus ad bellum* principle of proportionality and what this principle requires of those who decide when and how to engage in armed conflict. According to Hurka, *ad bellum* proportionality conditions "say that a war . . . is wrong if the relevant harm it will cause is out of proportion to its relevant good" (Hurka 2005). Which is to say that, in deciding if going to war would be just or not, one must determine whether or not the resultant harms will be outweighed by the good that will come of waging it. Further, there are limits on *ad bellum* relevant goods. For example, if a war were to lift some state's economy out of economic depression, this good does not give that state the right to pursue military action even if it could be shown that the resultant economic upturn outweighed the evils done in the war. Conversely, there are no restrictions to the content of the evils relevant to proportionality: "that a war will boost the world's economy does not count in its favor, but that it will harm the economy surely counts against it" (Hurka 2005).

Roff takes Hurka's conception of *ad bellum* proportionality and carries it into the realm of AWS, specifically for when AWS are deployed as part of defensive use of force. Roff considers

a case in which an unjust aggressor (State A) intentionally and without justification threatens the central rights of another state (State D), namely the rights of territorial integrity and/or state sovereignty. Under a forfeiture theory of self-defense State A loses its right not to be harmed by threatening an imminent violation [of] State D's rights. State D may inflict harm on State A to thwart an attack against it and to potentially restore State D's rights. The harm inflicted on State A must be necessary and proportionate. As noted above, only those benefits related to the just cause of defense will count in an *ad bellum* proportionality calculation, but *all* foreseen harms are included. (Roff 2015)

In response to such a threat, State D might consider using AWS as the first line of defense in efforts to check the aggression of State A. However, says Roff, the usual justification for retaliation to the threat presented by State A, that harm is imminent with respect to either state or citizen or both, is mitigated in the use of AWS. If the initial entities exposed to harm will be technologies that are not susceptible to lethal force (because they are not living), then the justification for retaliation is not accounted for. The worry is that it is incoherent to say that mechanized tools of warfare can be the bearers of harm in the same way that the living citizens of a nation can. The resultant harm from State A's aggression in this scenario amounts to little more than property damage and it is neither legal nor moral to respond to such damage with lethal force. And so, when a threat is initially brought against AWS, retaliation is not justified. However, I think we should find this initial foray unconvincing. The argument only shows that State D's proportionality calculation will include protecting its territorial integrity as the primary relevant good against which proportionality ought to be calculated. This ought then to be weighed against the foreseen harms of pursuing war with State A.

Roff anticipates this reply and is ready with one of her own: when pursued with AWS, such a war cannot meet the demands required by *ad bellum* proportionality because the calculations (including the relevant good of territorial integrity) are only satisfied when one round of hostilities is assumed. Roff says that, if we properly

factor in the effect that pursuing war with AWS will have on subsequent rounds of hostilities, with an eye toward resolution of the conflict and restoration of peace and security, we will see that the goods produced by using AWS will be outweighed by the created harms.⁷ This is for two reasons: (a) “the use of AWS will adversely affect the likelihood of peaceful settlement and the probability of achieving one’s just causes . . . [and (b)] the use of AWS in conflict would breed a system wide AWS arms race” (Roff 2015). Regarding (a), Roff insists that AWS will inevitably lead to increased animosity by the belligerents who do not possess them, which in turn will lead to further conflict instead of resolution. For example, the US’ employment of unmanned aerial vehicles (UAV, or drones) in Iraq, Pakistan, and Yemen suggests that even the use of these merely automated (rather than autonomous) weapons “breed[s] more animosity and acts as a recruiting strategy for terrorist organizations, thereby frustrating the U.S.’s goals” (Roff 2015). Given this, it seems likely that the use of AWS—fully autonomous systems—could make the situation even more caustic. Regarding (b), Roff argues that since, as per Hurka, we must consider all the negative outcomes from our pursuing war, we must consider the effect using AWS will have on the international community at large. For instance, other nations may decide it necessary to similarly arm themselves. The result “may actually tend to increase the use of violent means rather than minimize them. Autonomous war is thus more likely to occur as it becomes easier to execute” (Roff 2015).

I am sympathetic to the motivation behind these objections to the use of AWS. *Ad bellum* proportionality certainly requires that we take the long view and eschew short-sighted assessments when deciding if and how one goes to war. However, neither of these are particularly good reasons for thinking that the use of AWS cannot satisfy the requirements of *ad bellum* proportionality. Firstly contra (b), as Duncan MacIntosh argues, the proclivity to go to war if it becomes costless in terms of human sacrifice will not simply be due to the availability of AWS. Instead, this would owe to “not visualizing the consequences of actions, [or] lacking policy constraints” (MacIntosh, Unpublished (b), 13). If a state’s first response to any and all aggression is deadly force (by AWS or otherwise), then, of course, there will be unnecessary conflict. But no one is suggesting that AWS be developed as a blanket solution to conflict, just as no one, to my knowledge, suggested that the development of firearms meant that they should be seen as the panacea for all disputes. *A fortiori*, since Roff appeals to Hurka’s *ad bellum* principles, we may also do so, noting the so-called “last resort” condition for *jus ad bellum*. This condition states that “if the just causes can be achieved by less violent means such as diplomacy, fighting is wrong” (Hurka 2005). If states adhere at all to *ad bellum* principles when developing AWS, then we need not fear that the frequency of war would increase simply because it is easier to wage it, for there are other avenues to securing one’s just causes, and ones which an impartial AI-governed AWS may be more likely to note and pursue than humans. Indeed, this condition might conceivably be so fundamental to the proportionality calculations of AWS that AWS *rarely* commence or engage in hostilities.

Roff might respond in the following manner: This not only shows that there will be more war, but worse, these wars will likely be unjust. States will simply ignore the last resort condition. But again, I think we have a convincing response to her worry. Given that the states who have the capabilities to develop and deploy such systems are those that have large stable democracies, which are not (at least in writing)

committed to a state of unjust war, abuses will most likely be minimized due to abundant oversight. The bureaucracy surrounding AWS is going to be immense, which will help to safeguard against their rash use.⁸ If the proliferation of AWS is really not such a negative thing after all, then counting it as a relevant evil to our proportionality calculation is an erroneous attribution.

Regarding (a), Roff says that “the means by which a state wages war—that is, the weapons and strategies it uses to prosecute (and end) its war—directly affect the proportionality calculations it makes when deciding to go to war” (Roff 2015). This is surely correct. If the means by which one wages war make achieving one’s just cause more difficult, or impossible, to attain, then there is reason not to pursue war in such fashion. MacIntosh makes a similar point, saying that “part of successful warring is not attracting others to fight against you, so you must fight by rules that won’t be found outrageous” (MacIntosh, Unpublished (b), 6). However, if one’s cause is truly just, and if the resort to armed conflict deemed necessary, then one need not put so much stock in the opinions of one’s opponent. Justice does not require that the wrongful party to conflict be immediately appeased in the conflict’s resolution.

Although AWS may engender further animosity among those against which they are used, this is equally true when war is fought with any asymmetry whatsoever. Imbalances in numbers, favorable field position, strategy and tactics, as well as technology, all may induce resentment in the less well-equipped or prepared party to a conflict. This is a practical necessity of military action “more rooted in the sociology of conflict than in justice” (MacIntosh, Unpublished (b), 6). Further, given that the kinds of conflicts that are becoming most prevalent are non-international armed conflicts in which the belligerent parties are nonstate actors fighting in opposition to governmental militaries (of the home state but also often in conjunction with a foreign state military, e.g., Libya, Afghanistan, Syria), asymmetry is a baked-in characteristic of most modern wars. The imbalance of power in such conflicts is already often so wildly disproportionate that the addition of AWS by those who can develop them might not elevate the animus experienced by the sore party to hostilities. Adopting AWS might allow militaries to more effectively attain the just ends of war, while minimizing the risk to human life, without significantly raising the level of hatred the enemy has for them in virtue of their being engaged in the first place.

10.3: THE CHARACTER OF MODERN WARFARE

Prior asymmetries in conflict ought to be taken into consideration when the alteration of the means of warfare is on the table. With that in mind, I’ll now entertain a brief digression on the character of the kinds of conflict that the entities most likely to develop AWS often find themselves engaged in. Understanding the operations that contemporary military action requires will better inform the discussion of whether AWS can plausibly play the role which a manned military currently does.

It is notable that international armed conflicts have been on the decline, at least in the modernized West. This is due in part to relative economic stability over the past half-century, distaste developed by Western societies for large scale warfare post-WWI and WWII, and the codification of IHL through charters and treaties. But this is certainly not to say that war has become an absent pursuit of Western

nations; only rather to highlight that, especially since the turn of the century, the predominant mode of warfare is now non-international armed conflict. As Glenn J. Voelz notes, there is a “new mode of state warfare based on military power being applied directly to individual combatants” (2015); Gabriella Blum calls this “the individualization of war” (2013). The advent of individualized warfare can be seen as a result of “specific policy preferences and strategic choices in response to the threats posed by non-state actors” (Voelz 2015). Instead of fighting well-established militaries of other nation-states, the states of the West most often find themselves embroiled in battle against smaller, less cohesive armed groups. Even “individuals and groups of individuals are . . . capable of dealing physical blows on a magnitude previously reserved for regular armies” (Blum 2013) and, consequently, engagement with these individuals is necessary to prevent or minimize the harm they would seek to cause.

Nonstate military groups, or the individuals that comprise them, are often more disperse and less identifiable by conventional means, such as uniforms. Indeed, part of the relative success of such groups stems from anonymity. One of the main challenges in fighting against insurgencies is often simply identifying the enemy. This, in turn, leads to increased difficulty in respecting the *in bello* distinction between enemy combatants and civilians. To cope with these complications, state militaries battling insurgent or terrorist foes increasingly rely on intelligence gathering practices in order to clear this specific fog of war: “operational targeting has not only become individualized, but also *personalized* through the integration of identity functions” (Voelz 2015). The collection of data pertaining to “pattern of life” analysis (movement, association, family relations, financial transactions, and even biometric data) through surveillance allows militaries to “put a uniform on the enemy.” Staggeringly, in Afghanistan between “2004 and 2011, US forces collected biometric data on more than 1.1 million individuals—equivalent to roughly one of six fighting age males” (Voelz 2015).

These practices characterize a split with former methods of warfare, where what made one liable to attack was membership in a state’s armed forces. Now, we increasingly see that “targeting packages have more in common with police arrest warrants than with conventional targeting [practices]” (Voelz 2015). What makes one liable to incapacitation in modern NIAC are one’s personal actions, “rather than [one’s] affiliation or association” (Blum 2013). Furthermore, these targeting practices may apply outside of the active theater of war. As in the case of the war on terror, we see a “‘patient and relentless man-hunting campaign’ waged by the US military against [individual] non-state actors” (Voelz 2015). This manhunt “extends beyond any active battlefield and follows Al Qaeda members and supporters wherever they are” (Blum 2013).

The picture that emerges is a stark one in which states engage in NIAC by occupying territory, mass surveillance, and “quasi-adjudicative judgments based on highly specific facts about the alleged actions of particular individuals” (Issacharoff and Pildes 2013). More often than not, force is brought to bear against these individuals via sophisticated drone strikes. The use of UAVs to surveil, target, and engage specific enemy combatants wherever they may be is now one of the most prevalent methods of, at least, the US military. It is estimated that “over 98% of non-battlefield targeted killings over the last decade have been conducted by [drones]” (Voelz 2015). In fact, the development of UAVs grew directly alongside

the individualization of warfare, and their use is an expression of personalized targeting in its most pure form.

10.4: AWS IN AN IDEAL NON-INTERNATIONAL ARMED CONFLICT

While the use of drones in NIAC presents both advantages as well as concerns, the technology itself still requires human operation. There is always a human soldier who controls the action of a UAV, and consequently, those human operators, or the nations that they represent, retain responsibility for the actions that drones carry out. The targeting itself may be computer-aided but the decision of whom to target and when is still carried out by a human chain of command. UAVs are currently inert absent the will of the humans behind them. This would not be so in the case of AWS.

The appropriate question to ask is then: What might the implementation of a fire-and-forget weapon like an AWS actually look like in an NIAC? The very idea of mechanized or automated processes in war is not an entirely unfamiliar one. Many of the techniques that are integral to individualized warfare would be impossible without computerized data analysis simply because of the amount of data that informs them (Voelz 2015). Analysis, however, is not decision-making, and the goal of implementing AWS as difference makers in live combat will require that they be able to take on functions far beyond those of mere correlation and aggregation of data. There will be real-world consequences in allowing weapons systems to operate autonomously.

Recall (fn. 6) the second kind of deployment (B) for AWS, where, in a time of peace, or in a time where we know there are nonstate groups that mean to do our nation harm, but with whom we are not currently engaged, we have already deployed our AWS and there is no human on the loop. Suppose we have some component of the system devoted to monitoring the potential threats posed to our nation by nonstate actors around the world, and some other component that is the actionable part of the system capable of dealing with said threats once they arise. One day the intelligence gathering unit of this system puts together x, y, and z pieces of information and determines that there is an imminent threat that crosses some threshold of acceptable credibility.⁹ (And a good thing too, because no human could have possibly waded through all that data.) Further, suppose that the threat is real, and, it is determined by the system, the threat cannot be dealt with diplomatically by the human-run government, this meaning that the principle of *ad bellum* last resort is respected. As a consequence, the AWS springs to action in order to neutralize the threat before harm can be done to innocent persons. Perhaps the system notifies that part of the military still run by humans so that they can tell the relevant authorities that the system has engaged enemy combatants, but they may not have time to respond given that AWS work very quickly out of necessity, and in any case, they would not be able to effectively change the course of the AWS because, after all, it is autonomous.

Now, the machines arrive on scene with access to all the relevant information needed regarding who is liable to harm and, respecting the rules of *jus in bello*, determine who is a civilian, who it is necessary to capture, who, if anyone at all, it is necessary to kill and at what cost each individual target should be pursued for either

kill or capture. The machines execute the plan to the best possible outcome as initially determined, minimizing civilian casualties while ensuring all real threats are neutralized and peace and security can be maintained.

In the aftermath the rest of the military catches up, more data is gathered, prisoners are taken or handed over to the relevant authorities, and a localized (temporary?) occupation is established so that subsequent threats might be dealt with more effectively and with less bloodshed. Such a scenario is highly unlikely to play out so picturesquely, yet we ought to evaluate the best case the proponent of AWS has to see if, in principle, there is anything amiss. And this does seem to be the ideal case for AWS. This conflict risked no loss of life on the side using AWS, either civilian or combatant, and the AWS were able to neutralize an imminent threat to peace and security in the least costly and most efficient way.

10.5: AWS AND *JUS AD BELLUM* PROPER AUTHORITY

However, given this ideal scenario, one question is immediately pressing: Who went to war here? If the governing body of the nation who initializes an AWS is in the dark with respect to its moment to moment operations, then when the AWS engages in armed conflict, can it really be said that the nation has gone to war? Put another way, could robotized and autonomous targeted strikes against hostile armed groups, or specific individuals, be considered representative of the intentions of the state? Such questions not only have bearing upon jurisprudence and just war theory but also upon more practical implementations of IHL. For instance, given the common statist conception of the proper authority requirement, it is equally unclear whether the commencement of hostilities by AWS against nonstate groups constitutes an armed conflict that can legally be governed by the laws of IHL, and so those normally afforded its care during normal hostilities may not be afforded the protections that IHL is designed to give them.¹⁰ Conflicts of this kind do not seem to invoke the mandate of any state whatsoever, for they are initiated without any governmental oversight against groups or individuals not recognized by the international community as representative of state interests.

The statist interpretation of the *ad bellum* requirement of proper authority maintains that just wars can only be initiated by “a legitimate authority: usually a state that represents its citizens and is recognized as such by the international community” (Benbaji 2015). Formulating proper authority in this way excludes certain actors from engaging in war justly. Individuals cannot wage war on this conception, and neither can failed states, evil dictatorships, or nonstate groups, which are generally not representative of the peoples of which they claim to be. In the case of our ideal scenario, wherein AWS make preemptive strikes against individuals in order to prevent harm from coming to those who are not morally liable to it, the governing body of the state that originally implemented the AWS is removed from the consideration of war altogether. It seems that, where the will of the state is absent, any war entered into is done so unjustly and unlawfully because it cannot be said that the state is the entity that decides to go to war. Therefore, adopting AWS that are truly autonomous, in that they act alone in the processes of target acquisition, tracking, and engagement, will necessarily violate the *ad bellum* requirement of proper authority. That is, AWS, in principle, cannot be a legitimate authority.

An obvious response to this position is to point out that AWS simply may engage in warfare in the name of the state, because they have been authorized by the state to do so. That a particular conflict was not foreseen by the state does not change the fact that the state conferred authority upon the AWS to protect its interests. Indeed, there is some precedent here to support the attribution of legal responsibility for the actions of nonstate entities to states that authorize those entities to act in their name.¹¹ Therefore, given the right kind of authorization, to be worked out through international agreement in accordance with restrictions on the development of new weapons, AWS can be said to conform to proper authority.

Nevertheless, this response does not seem open to the proponent of AWS. If we take them seriously in their conception of what the use of such weapons would come to, they often *ideally* would not conform to *ad bellum* proper authority as it has been laid out. Such wars would be fought, not to conform with the political will of a nation, but solely to preserve the rule of law. They would be fought *in nomine iustitiae*, in the name of justice. As MacIntosh puts it, we could make robots “into perfect administrators and enforcers of law, unbiased and tireless engines of legal purpose. This is why so deploying them is the perfection of the rule of law and so required by rule of law values” (MacIntosh 2016).

Perhaps the problem lies not with the violation of *ad bellum* proper authority by the use of AWS. Instead, the possibility of automating the rule of law entails that the conception of *ad bellum* proper authority is no longer a necessary condition for just war. If a war meets all other criteria of *jus ad bellum*, then it ought not to matter who, or what, enters into it. The war ought to be fought by those who can carry it out effectively. If only AWS can attain the just ends of warfare, we ought not to worry that they will do so despite a lack of proper authority.¹² This position illustrates a direct tension between *ad bellum* proper authority and the specified use of AWS.¹³ What is more, since wars that adhere to the requirement may still be unjust, autonomous weapons systems may, at least in principle, give us the best opportunity for avoiding the abuses of authority that have been characteristic of some modern conflicts. It is hard to imagine that, absent any human influence, the Iraq War would have been initiated by a sufficiently competent AWS.

Unfortunately, this position will not be found sufficiently plausible by those who support proper authority, and I want to acknowledge two responses before leaving off. Proponents of the requirement claim that allowing the mechanization of the rule of law, and with it the jettisoning of the proper authority requirement, will still tend to make wars fought by AWS more likely to be unjust than those fought when the proper authority requirement has been met. Proper authority is constituted by further sub-requirements: “political society authority,” “beneficiary authority,” and bearer authority” (Benbaji 2015). These sub-authorities correspond to the obligations that the instigating party has to those they represent, those they fight to benefit, and those who will bear the costs of their making war. The satisfaction of these sub-requirements works to ensure that wars pursued in compliance with them are just. I will discuss the first two sub-requirements. Firstly, political society authority maintains that “if a war is fought in the name of a group of individuals . . . , then this group is entitled to veto the war” (Benbaji 2015). The idea here is that if the society in whose name a war is pursued considers the actions of the state to be unjust, then it is likely that the state is acting without the interests of those it represents in mind, for example, for private reasons. Political society authority is then a good

indication that *ad bellum* just cause is being respected. But the option to veto the actions of AWS in our considered scenario is not open to the state that originally authorizes their use. Consequently, AWS cannot meet the sub-requirement, they are not, and cannot be, authorized to represent the state in the right way, and so their use, in conflicting with *ad bellum* proper authority, will tend to result in unjust conflict.

Secondly, it is reasonable to assume that wars are “intended to secure a public good for a larger group (Beneficiary) on whose behalf the war is fought” (Benbaji 2015). For example, presumably, the Gulf War was entered into by the American government, in the name of the American people, not only to stop unjust aggression by Iraqi forces, but also to secure the public good of ridding unjust occupation for the people of Kuwait. The Kuwaiti peoples were the direct beneficiaries of that war. However, if the people of Kuwait objected to America’s participation in the war, this would be a good indication that America pursued war unjustly despite its best calculations. The assumption here is that the “alleged beneficiaries are in a better position to assess the value of [the public good pursued via war]” (Benbaji 2015) than those would-be benefactors who calculate whether or not the pursuit of such a war is justified. What is required then, if this is so, is that the beneficiary of a war has the ability to veto its pursuit, but this could not be the case with an AWS. From a legal standpoint, these additional conditions, or the first of them in any case, may help to determine that a war is pursued illegally. If, say, a state was to pursue armed conflict, citing self-defense as just cause,¹⁴ and its citizenry overwhelmingly declared that there was no need for such action, no need for self-defense because of no perceived imminent threat, then we have additional evidence from which to judge the unlawfulness of that pursuit.

10.6: CONCLUSION

One of the purposes of international regulation over the means and methods of warfare is to ensure that armed force shall not be used, save in the common interests of international peace and unity. If unconventional weapons are those most in need of regulation by the dictates of human institutions, then the most unconventional weapons of all are those that require no human to operate. Be that as it may, even when the use of new weapons comes into conflict with established moral justification and legal precedent, regulation need not necessitate prohibition. For the future is a fog of war through which such precedent simply cannot cut, and what is most amenable to the aims of IHL may not be most amenable to the current apparatus that supports it.

I have endeavored to show here that given the sorts of conflicts AWS are likely to be developed for, NIAC, it is an open question as to whether their implementation is compatible with the dictates of just war theory. Although it was seen that some arguments that stem from proportionality considerations do not cause issues for the use of AWS, in one very clear sense, autonomous weapons cannot respect current restrictions on the commencement of just conflicts. The automation of authority circumvents not only the moral requirements of just war theory, in the guise of the proper authority principle, but also many of the legal fail-safes we have in place to prevent armed conflict when possible and protect the innocent when not. That

much is certain. What is necessary to decide now is whether or not such automation may constitute the basis for a reconsideration of the *jus ad bellum* justifications constraining international law.

NOTES

1. Art 35(1) and Art 36. Additional Protocol I (AP I). *Protocol Additional to the Geneva Conventions of August 12, 1949, and relating to the Protection of Victims of International Armed Conflicts*, 1125 UNTS 3, opened for signature June 8, 1977, entered into force December 7, 1978.
2. See <https://www.icrc.org/en/war-and-law/weapons/ihl-and-new-technologies> for discussion; also, the *International Review of the Red Cross: New Technologies and Warfare* 94 (886), 2012.
3. Grut (2013), to her credit, does discuss the issue of proper authority; however she focuses on where the assignment of moral responsibility for harm lies when lethal force is brought to bear by AWS. This is no doubt an important question; however, my focus in this paper differs, as will become clear below.
4. E.g., *Convention (III) relative to the Treatment of Prisoners of War*. 75 UNTS 135.
5. Benbaji (2015) claims that the common understanding of proper authority tends to favor sovereign states as the entities capable of entering into a state of just warfare for three reasons: (1) states have the right kind of status, one which makes declaration meaningful and possible; (2) the just cause requirement entails that the ends of war are attainable only by legitimate states (i.e., not by tyrannical governments etc.); (3) the authority of legitimate states explains why the *in bello* actions of individuals fighting in wars are governed by different rules. While the requirement of statehood has been relaxed since World War II, allowing for the legitimacy of civil wars or wars fought by smaller nonstate groups against oppressive regimes, the assumption here is still that these kinds of conflict are fought with the end of statehood in mind.
6. There is a discrepancy here between Roff's argument and the argument that I will make later on which must be immediately noted. Roff's argument pertains to our plans to use AWS "during hostilities," that is, when we have already been engaged by hostile forces. Her scenario requires that we make an *ad bellum* proportionality calculation with respect to the use of AWS of a certain kind. MacIntosh (this volume) implicitly correctly distinguishes two distinct uses of AWS: (a) once warfare has already broken out, wherein regular military personnel may presumably decide to deploy AWS, allowing them to carry out some given objective as they see fit; or (b) before warfare has broken out, wherein, having already been deployed with no objective in mind, AWS are allowed to decide the who, when, where, and how of engagement for themselves, without any further oversight (as could happen if, for example, AWS are tasked with determining when to retaliate against a sneak attack with nuclear weapons in mutually assured destruction scenarios). Roff's argument concerns the type (a) use of AWS, however as will become clear later on it is with their type (b) use where issues concerning *ad bellum* principles arise, and consequently where AWS fail to conform to preconceived legal notions of engaging in armed conflict.
7. Interestingly, Roff here collapses the *ad bellum* principle of "probability of success" with the principle of proportionality.

8. We have recourse here not only to the ethical *ad bellum* constraints, but also to universally accepted legislation requiring an attempt at the Pacific Settlement of disputes before the commencement of hostilities, for example, UN Charter chapter VI art 33, chapter VII art 41. Only after such attempts are reasonably made can the use of armed force be considered. There is no barrier, in principle, to the development of AWS that are capable of abiding by such legislation.
9. See Radin and Coats (2016) for discussion of the impact the use of AWS may have for the determination of whether or not a conflict can legally be considered an NIAC. Their focus is on the use of AWS by nonstate groups, but the applicability of the criteria that they highlight, namely, the level of organization of the parties to conflict and the intensity of conflict, are, as the authors note, equally relevant for states and their use of AWS (p. 134).
10. Radin and Coats (2016) consider this point in depth (pp. 137–138).
11. Yearbook of the International Law Commission on the work of its fifty-third session, (2001), vol II part 2, chapter 2 art 4(1): “The conduct of any State organ shall be considered an act of the State under international law, whether the organ exercises legislative, executive, judicial or any other functions, whatever position it holds in the organization of the State, and whatever its character as an organ of the central Government or of a territorial unit of the state”; art 4(2): “An organ includes any person or entity which has that status in accordance with the internal law of the State.” Also see art 7 of the same report concerning the excess of authority or contravention of instructions, as well as article 9: “Conduct carried out in the absence or default of the official authorities.”
12. Similar judgments, though more general (i.e., not stemming from tensions with AWS), can be found in Fabre (2008). There Fabre argues that the proper authority constraint ought to be dropped wholesale. So long as other *ad bellum* principles are respected, the fact that a just war is not waged by a proper authority does not thereby make it unjust.
13. Consequently, current international charters that rely on proper authority for the determination of the legality of conflict are also challenged by the introduction of AWS. The establishment of a UN Security Council, and the responsibilities of that international body, would be otiose if AWS are allowed the capability of circumventing them. See especially Charter of the United Nations, Chapters III–VII for the relevant statutes.
14. Self-defense is the only recognized recourse to war that sovereign states may appeal to without the approval of the UN Security Council: Charter of the United Nations, Chapter VII art 51.

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