Dædalus

Journal of the American Academy of Arts & Sciences

Fall 2016

Ethics, Technology & War

Scott D. Sagan, guest editor

with Michael Walzer
Michael C. Horowitz · David P. Fidler
C. Robert Kehler · Jennifer M. Welsh
Jeffrey G. Lewis & Scott D. Sagan
Lloyd Axworthy & A. Walter Dorn
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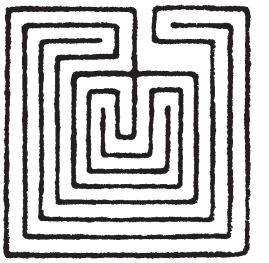

"Ethics, Technology & War"

Volume 145, Number 4; Fall 2016

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Inside front cover: President Barack Obama, the first sitting U.S. president to visit Hiroshima, bids farewell to Japanese Prime Minister Shinzō Abe, on May 27, 2016, after visiting the Hiroshima Peace Memorial Museum. © 2016 by EPA/Kimimasa Mayama.

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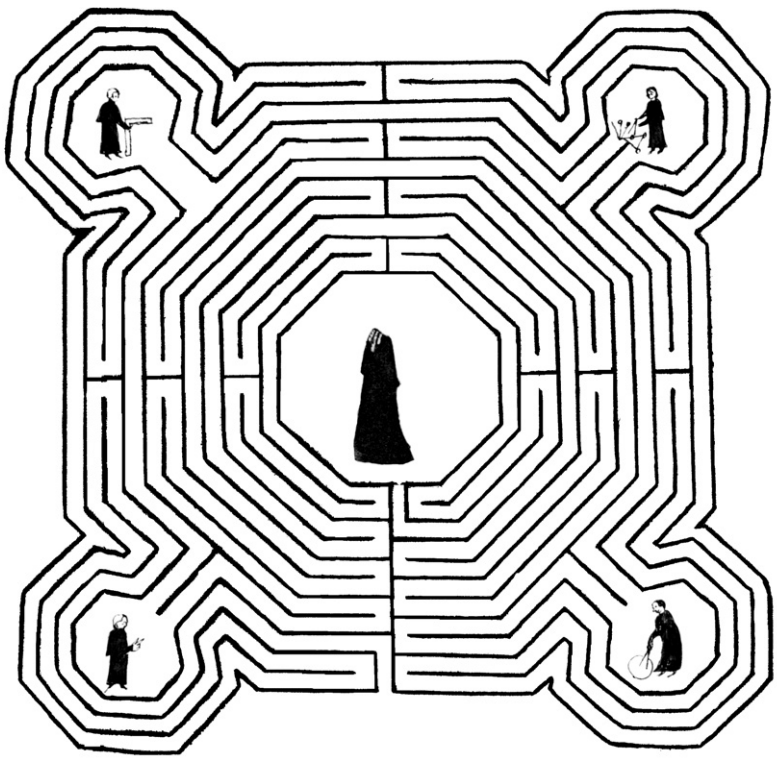

The pavement labyrinth once in the nave of Reims Cathedral (1240), in a drawing, with figures of the architects, by Jacques Cellier (c. 1550–1620)

Dædalus was founded in 1955 and established as a quarterly in 1958. The journal's namesake was renowned in ancient Greece as an inventor, scientist, and unriddler of riddles. Its emblem, a maze seen from above, symbolizes the aspiration of its founders to "lift each of us above his cell in the labyrinth of learning in order that he may see the entire structure as if from above, where each separate part loses its comfortable separateness."

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Ethics, Technology & War

Scott D. Sagan

"All's fair in love and war," so the saying goes. But, of course, we know that it's not true. For we commonly judge and sometimes punish individuals, in the arena of love, for infidelity, deceit, and crimes of passion; and we commonly judge and sometimes punish individuals, in the arena of combat, for acts of aggression, rape and pillage in war, and crimes against humanity. The intense pressure of competition, in both affairs of the heart and the crucible of war, can help explain why unfair, even inhumane, behavior is common, but it does not excuse it.

Several technological innovations and political developments are changing the nature of warfare today in ways that pose complex challenges to the traditional standards that we use, under the influence of international law and just war doctrine, to judge governments' and individuals' actions in war. New technologies – including the use of drones, precision-guided weapons, cyber weapons, and autonomous robots – have led both to optimism about the possibility of reducing collateral damage in war and to concerns about whether some states find it too easy to use force today. New technologies also have been developed, however, that can provide early warning of civil conflict and promote more effective peacekeeping operations. On the political front, the growth of terrorism by nonstate actors, the spread of weapons of mass destruction, and changing doctrines in the United Nations about the responsibility to protect civilians pose new questions about the appropriate legal rules and ethical norms governing decisions to use military force. Professional military lawyers play an increasingly important role in reviewing targeting policies and rules of engagement,

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at least in the United States, to ensure that military plans and operations are compliant with the laws of armed conflict. War crimes tribunals have grown in use, but raise new questions about whether they encourage ruthless leaders to fight to the finish rather than accept resignation and exile. New knowledge about post-conflict medical system failures raises questions about both the best practices to end wars and sustain peace accords and about whether political leaders systematically underestimate the costs of going to war before they make decisions about military interventions.

These are just a few of the emerging dilemmas that caused the American Academy of Arts and Sciences to create a new initiative on New Dilemmas in Ethics, Technology, and War in 2014. Intellectual inquiry on the relation between ethics and war is certainly not new. The seminal work of Michael Walzer, *Just and Unjust Wars* (1977), remains the classic investigation into just war doctrine applied within the context of interstate conflict during the Cold War, but it is striking that there is no volume that has successfully become the successor to Walzer's book.[1] This failure is certainly not due to lack of research and writing about ethics and war. Indeed, there are lively and ongoing debates concerning just war doctrine in a number of academic disciplines and also among policy-makers and policy analysts. But these groups rarely speak to each other and there is a growing gap between strong scholarship regarding ethics and war and policy-relevant work that can influence government decisions and public debates. Trends in universities prioritizing analytic philosophy in philosophy departments, formal models and game theory in political science departments, and social history over military history in history departments have all contributed to the relative neglect of the study of the evolution of just war doctrine, international law, and applications to real world security problems.

The Academy project therefore gathered together an interdisciplinary group of scholars and practitioners – including political scientists, philosophers, ethicists, lawyers, physicians, historians, soldiers, and statesmen – for a series of small workshops to discuss these issues and review commissioned essays. The result is both this Fall 2016 issue of *Dædalus*, "Ethics, Technology & War," and a companion volume, the Winter 2017 issue of *Dædalus*, "The Changing Rules of War." In both volumes, scholars move across the three traditional categories of just war doctrine issues. Contemporary scholars too often continue to approach ethical and legal questions arising from wars according to the categorization of *jus ad bellum* (rules governing when to go to war), *jus in bello* (rules governing behavior in combat), and *jus post bellum* (rules governing appropriate actions after war). Yet significant changes in both military postures and political developments require a reconsideration of such categories. Rather than understanding the linkage among these categories in a linear continuum – from prewar to conflict and then to postwar decisions – our authors explore the ways in which these categories should be seen in a circular relationship, wherein the conditions that influence and affect military decisions in one of them ultimately reflect and influence the others.

Incentives to improve national security and win conflicts have often led to the development and use of new and more destructive technologies of war. And yet, especially since World War II, very strong incentives have also existed to prohibit aggression and promote self-defense, to encourage legal and moral constraints on violence in war to protect noncombatants, and to punish soldiers and political leaders whose actions are judged to be war crimes. The United Nations Charter in 1945, the 1949 Geneva Conventions, and the Geneva Protocols of 1977 created legal

institutions to interpret and promote traditional just war principles such as nonaggression, protection of prisoners, proportionality, and noncombatant immunity. The collective set of such agreements, along with customary international law, form the laws of armed conflict and international humanitarian law. Like all laws, of course, the laws of war are not always followed. And like all ethical principles, just war principles are often violated. But the promotion of these principles and the development of the institutions to enforce them were strong enough that Walzer, in an important 2002 article, declared that there had been a "triumph of just war theory," although he rightly also warned about "the dangers of success."[2]

Among these dangers of success are overconfidence, complacency, and a failure to understand that new technologies can create new dilemmas regarding ethics and war. Each generation faces new challenges. This issue of *Dædalus* addresses how new technologies and political conditions create both challenges and opportunities in the prevention of war and constraint of violence within war.

The issue begins with three essays assessing how specific emerging military technologies are influencing current and potential operations in war. Michael Walzer examines targeted killing and the use of unmanned aerial vehicles (UAVs), more colloquially known as drones. Drones provide the opportunity for more discriminate use of military force against targets, but can also provide a temptation to use military force more often or in more places than would otherwise be the case. Walzer explores both the benefits and the dangers of drones from a just war theory perspective. Michael Horowitz then examines the ethical implications of a set of military technologies that are just beginning to enter into the arsenals of advanced states: autonomous weapons and the use of robots that can replace human decision-making and soldiers in combat. Horowitz asks whether human accountability and responsibility will be possible with autonomous weapons and reviews the emerging debate about this potential revolution in military technology. David Fidler's essay focuses on cyber warfare, cyber espionage, and cyber coercion. To what degree does the development of offensive and defensive cyber capabilities by many militaries and nonstate actors around the globe challenge the principles of just war doctrine and the laws of armed conflict?

Two essays focus on an older military technology that has produced what are still the most destructive weapons known to mankind: nuclear weapons. General C. Robert Kehler, former commander of U.S. Strategic Command, provides an insider's look at nuclear targeting, the requirements of deterrence, and the ethical and legal considerations that can influence military planning and implementation. Jeffrey G. Lewis and I then examine the consequences of a potential change in the existing presidential guidance given to the U.S. military. To what degree would a U.S. commitment to a new war planning requirement – that U.S. nuclear weapons only be aimed against legitimate military targets that cannot be destroyed with reasonable prospect of success by conventional weapons – reduce civilian fatalities in a nuclear conflict, produce stronger adherence to the laws of armed conflict, and impact the credibility of deterrence?

Military technology is not developed in a political vacuum. And military technology development does not always lead to more destructive weaponry. One of the most important global political developments in recent years has been the rise of and the challenges to the responsibility to protect (R2P) doctrine. At the 2005 United Nations World Summit, the heads of states accepted a collec-

tive responsibility to respond effectively if any government failed to protect its own people from the horrors of genocide, ethnic cleansing, large-scale war crimes, or other crimes against humanity. Jennifer Welsh examines the current standing and future trajectory of the responsibility to protect doctrine, which has been severely challenged by such events as the collapse of the Libyan state into chaos after the 2011 NATO-led military intervention, on humanitarian grounds, against the Gaddafi government, and the Syrian civil war, which began soon thereafter. Lloyd Axworthy, the former foreign minister of Canada, and A. Walter Dorn then explore the potential positive effects of technological developments – such as improved algorithmic forensic data analysis and autonomous surveillance vehicles – on peacekeeping operations, humanitarian crisis prevention, and post-conflict reconstruction. What are the ethical and legal responsibilities for state leaders and civil society to develop and use such technologies to reduce the risk of conflict and to protect lives in civil wars? Jennifer Leaning provides a different perspective, as a medical doctor with many years of experience in war-torn societies, examining the degree to which new information technologies and analytic capabilities provide adequate early warning of mass atrocities against civilians appearing over the horizon. Leaning addresses how improved technology can impact the challenge of early warning and response, focusing on whether the just war principle of "last resort," which requires restraint from military action until all reasonable means of peaceful settlement are exhausted, can be met with new warning mechanisms.

The volume ends with two essays that focus our attention on broader trends in violence, both inside states and between states. Keith Krause notes that most discussions of just war doctrine and international law focus primarily on interstate war (and to a lesser extent on civil wars), but that much of the violence in the world today takes place outside of conflict zones and inside states that are not engaged in organized war. Krause challenges us to focus on how the erosion of the state's practical monopoly over the use of violence and the proliferation of more powerful and sophisticated weapons into the hands of nonstate armed actors requires new thinking about how to prevent not only war, but also violence against noncombatants outside of warzones. Finally, Benjamin Valentino examines the shifts over time in American public opinion regarding the use of military force, especially regarding military operations that kill civilians directly as deliberate targets, or indirectly as collateral damage from an attack on a military target. Are the historical trends in both the conduct of war and public attitudes about killing civilians best explained as the result of changing ethical norms, changing ideas about how best to win wars, or changing strategic conditions in the wars the United States has fought?

Let me conclude with a brief explanation of the choice of photographs that appear on the inside front and back covers of this *Dædalus* issue. The front inside cover is a picture of Prime Minister Shinzō Abe with President Barak Obama during his historic visit to Hiroshima on May 27, 2016. In his speech, Obama declared: "Hiroshima teaches this truth. Technological progress without an equivalent progress in human institutions can doom us. The scientific revolution that led to the splitting of an atom requires a moral revolution as well."[3] The laws of armed conflict and international humanitarian law are imperfect, but still evolving, human institutions. Obama's speech reminds us that modern technological innovation has put such destructive power into the hands of mankind that our very existence as a species is

at risk; and he called for a "moral awakening" to strengthen the constraints we place on warfare in the future.

The photograph on the back inside cover is of nine-year-old Nabila Rehman, testifying to Congress in October 2013 and showing her drawing of the U.S. drone strike that killed her grandmother the year before.[4] In May 2013, President Obama signed a new Presidential Policy Guidance to set rules on when and where the U.S. military and intelligence agencies would conduct drone strikes. Obama then announced that "America does not take strikes to punish individuals; we act against terrorists who pose a continuing and imminent threat to the American people, and when there are no other governments capable of effectively addressing the threat. And before any strike is taken, there must be near-certainty that no civilians will be killed or injured."[5] Still, according to 2016 official U.S. government estimates (estimates that have been challenged by many as being too low), U.S. drone attacks have killed about 2,500 members of terrorist organizations, but also caused between sixty-four and one hundred civilian fatalities through accidental targeting or collateral damage between 2009 and 2015.[6] This photograph of the granddaughter of one of those civilian victims should remind us that even when weaponry is developed that provides a greater ability for discrimination, permitting direct attacks on military targets with lower yield explosives, noncombatant collateral deaths cannot be entirely eliminated.

ENDNOTES

Author's Note: This special issue of *Dædalus* (and the one that follows in winter 2017) would not have been possible without the assistance of many people and organizations. I thank Amy Zegart and David Relman at the Center for International Security and Cooperation at Stanford University and Graham Parsons at the United States Military Academy at West Point. Each institution hosted an authors' workshop that allowed for rigorous peer reviews of the essays and ensured intellectual coherence to both collections. I also thank Sarah Sadlier, who took notes and provided commentary on the discussion at the Stanford workshop. I am grateful to the many Stanford and West Point faculty members, and practitioners from international organizations, who attended our authors' workshops as discussants and provided thoughtful and thorough reviews of the essays for the benefit of the authors. I want to acknowledge Natasha Trethewey and Phil Klay who conveyed in poetry and prose the many facets of violence and participated in one of our most successful public events for this project. In addition, I want to thank the John D. and Catherine T. MacArthur Foundation and Humanity United for supporting our work on New Dilemmas in Ethics, Technology, and War. At the American Academy, Jonathan Fanton provided both strong leadership support and substantive content to the project, Francesca Giovannini was an inspiring and insightful program director, and Kathryn Moffat provided strong administrative support. Finally, I am grateful to the authors for providing their insights about and analyses of the many ethical dilemmas posed by rapid changes in technology and warfare.

[1] Michael Walzer, *Just and Unjust Wars*, 5th ed. (New York: Basic Books, 2015).

[2] See Michael Walzer, *Arguing about War* (New Haven & London: Yale University Press, 2008), 3–22. On the development and influence of the laws of armed conflict on the U.S. military, see John Fabian Witt, *Lincoln's Code: The Laws of War in American History* (New York: Free Press, 2012).

[3] "Text of President Obama's Speech in Hiroshima, Japan," *The New York Times*, May 27, 2016, http://www.nytimes.com/2016/05/28/world/asia/text-of-president-obamas-speech-in-hiroshima-japan.html?_r=0.

[4] Amnesty International, "Will I Be Next? U.S. Drone Strikes in Pakistan," October 22, 2013, http://www.amnestyusa.org/sites/default/files/asa330132013en.pdf; and Karen McVeigh, "Drone Strikes: Tears in Congress as Pakistani Family Tells of Mother's Death," *The Guardian*, October 29, 2013, https://www.theguardian.com/world/2013/oct/29/pakistan-family-drone-victim-testimony-congress.

[5] The White House Office of the Press Secretary, "Remarks by the President at the National Defense University," May 23, 2013, https://www.whitehouse.gov/the-press-office/2013/05/23/remarks-president-national-defense-university.

[6] Charlie Savage and Scott Shane, "U.S. Reveals Death Toll from Airstrikes Outside War Zones," *The New York Times*, July 1, 2016, http://www.nytimes.com/2016/07/02/world/us-reveals-death-toll-from-airstrikes-outside-of-war-zones.html?ref=todayspaper&_r=1.

Just & Unjust Targeted Killing & Drone Warfare

Michael Walzer

Abstract: Targeted killing in the "war on terror" and in war generally is subject to familiar and severe moral constraints. The constraints hold across the board; they don't change when drones are the weapon of choice. But the ease with which drones can be used, the relative absence of military risks and political costs, makes it especially tempting not only to use drones more and more, but also to relax the constraining rules under which they are used. It seems clear that the rules have, in fact, been relaxed in the course of the American experience with drone warfare – by presidential decision and without public debate. This essay is an argument for the opening up of the decision process to democratic scrutiny and in defense of the familiar constraints.

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It is always a hard question whether new technologies require the revision of old arguments. Targeted killing isn't new, and I am going to repeat an old argument about it. But targeted killing with drones? Here the old argument, though it still makes sense, leaves me uneasy.

First things first. Untargeted killing, random killing, the bomb in the supermarket, café, or bus station: we call that terrorism, and its condemnation is critically important. No qualifications, no excuses: this is wrongfulness of the first order. We need to be firm in rejecting all apologetic efforts on behalf of terrorists. But someone who takes aim at a particular person, a political official, say, is engaged in a different activity. He may be a "just" assassin, as in Albert Camus's play by that name, though I don't think that the justice of the killing depends, as Camus argues, on the killer's willingness to accept death himself – obviously, Camus hadn't heard of suicide bombers.[1] Justice in assassinations depends on the character of the targeted official, the character of the regime he or she serves, and the immediate political circumstances:

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what else is there to do? There are often many other things that should be done, or attempted, before sending in the assassins.

But even if assassination is a wrongful act, as it usually is in history if not in literature, the wrongfulness is of a second order. By aiming carefully at a person thought to be guilty of something, by choosing weapons that can be used with discrimination, the assassin indicates his rejection of indiscriminate killing and also his concern about collateral damage. Someone in his organization probably thought that it would be better to kill the official's extended family or to put a bomb in the restaurant where he and "his kind" regularly dine. A "just" assassin refuses to do that – or, at least, he doesn't do it. Hence his act, if it is wrong, is not as wrong as terrorism is.

We should set clear limits on political assassinations. In democracies, they can never be justified; the killing of an American president, even if you disagree radically with his tax policies, is easy to make out as a criminal act. It is only the blood of tyrants that waters the tree of liberty. And even with tyrants, a trial is preferable to an assassination whenever it is possible to bring down the tyrannical regime without killing its leader. Postwar and postrevolutionary trials of tyrannical leaders are often criticized as "show trials" or "victor's justice." The trials are certainly meant to "show" something: they serve as an argument against the old regime and in favor of the new one. But they can also be just if the deposed leaders are accorded the same rights to which ordinary criminals are entitled. We know what a fair trial looks like, and a fair trial ranks far above assassination as a practical and also a moral response to tyranny.[2] The trial of surviving Nazi leaders at Nuremburg is an example of "victor's justice" that gave the second word in that phrase its due.

The international laws of war bar the killing of political leaders on the grounds that they are the ones who will, in the end, negotiate the peace treaty, and that is a moral as well as a legal argument, given the value of peace. But some political leaders, with whom we cannot imagine negotiating, are legitimate targets: Hitler is the obvious example. Killing Hitler would have been "extrajudicial" but entirely justified. Tyrants do have to be *targeted*, however; blowing up the neighborhood where they live is not a moral option.

In wartime, military leaders are obviously legitimate targets. A sniper sent to a forward position to kill a visiting colonel or general is engaged in targeted killing, but no one will accuse him of acting extrajudicially and therefore wrongly. We distinguish the military leaders of the state from its political leaders. It is probably best to think of insurgent organizations in the same way and to make the same distinction. If they have separated their political cadre from their military cadre, as in the case of Sinn Fein and the Irish Republican Army, it is only members of the second group who should be targeted (but only if they can't be arrested). We may eventually decide, with whatever reluctance, to negotiate with the first group. I don't believe that the same distinction is morally required in the case of terrorist organizations, which the IRA was, though it may be prudent to make it, as the British did.

Individuals who plan, organize, recruit for, or participate in terrorist attacks are, all of them, legitimate targets. It would be better to capture them and bring them to trial, but that is often not a reasonable option: the risks are too high; innocent bystanders would be killed in the attempt; the planning would take time and the terrorist attacks are imminent or actual. In such cases, the idea that we are at war with terrorists makes sense. More often the "war" is police work, and targeted killing by the police is not permissible.

A van carrying Al Qaeda militants in Afghanistan in 2002 was obviously a legitimate target: Afghanistan was a zone of war where enemies could rightly be attacked. By contrast, in Philadelphia (the city of brotherly love), the targeted killing of the same militants in the same van would not be justified; they would have to be arrested, indicted, provided with defense attorneys, and brought to trial. Philadelphia is a zone of peace where we don't encounter enemies but rather criminals, whom we treat differently even if they share the ideological commitments of our enemies. What then about Yemen, where we actually attacked a van carrying Al Qaeda militants in 2002 (and where we have killed many times since, not always hitting our target)?[3] Yemen was not then a zone of war; nor was it a zone of peace where it was possible to capture criminals and bring them to trial. Much of the "war on terror" is being fought in places like Yemen, and the engagements don't seem to fit the zone of war or the zone of peace model; they aren't exactly armed conflict, and they aren't exactly law enforcement. I think that we have to work by analogy here. If the case can be made that Yemen is closer to Afghanistan than it is to Philadelphia, the attack on the van can be justified. But perhaps we need tougher criteria in intermediate cases like this one than we do in an actual war zone.[4]

I want to insist again that in a zone of peace, targeted killing is absolutely ruled out. Governments that make "kill lists" of their domestic political opponents and send out death squads to murder them are murderous and tyrannical governments without legitimacy. Lists of enemies abroad have their own problems, which I will come back to: Who makes the list? What are the criteria for inclusion and exclusion? But domestic political opposition raises an entirely different set of problems: opponents have to be engaged democratically and nonviolently; they have to be given a chance to win.

Insurgents who are not terrorists, who fight like soldiers, should be treated like soldiers. If they are captured, they are entitled to "benevolent quarantine for the duration of the war." They are not criminals, to be imprisoned and brought to trial. But the targeted killing of insurgents in wartime is no different from the targeted killing of terrorists: all killing is subject to the same moral constraints. It will have to meet strict standards of proportionality and, given that the target is usually a single person, it will be difficult to justify injury to innocent bystanders. Remember the standard rule: collateral damage – that is, the death or injury of noncombatants – must not be disproportionate to the value of the military target. Even a high ranking insurgent or terrorist leader is not so important – especially since these leaders are quickly replaced – as to justify many civilian deaths. I can't say how many or, better, how few might be justifiable in any particular case, but a historical example suggests the caution that is required. After the attack on the *USS Cole* in October 2000, the Clinton administration undertook a search for Osama Bin Laden, intending to kill him and any members of his organization who were with him. The CIA located his camp in Afghanistan, but its surveillance photos showed children's swings in front of some of the huts. The camp was not attacked.[5]

So this is the rule: targeting has to be undertaken with great care; collecting information about the targeted individuals, their daily schedules, and their families and neighbors is critically important, and if the necessary work involves risks for agents in the field, if the surveillance photos aren't clear enough, the risks must be accepted before the killing can be justified. If force is used on the ground rather than from the air, the commandos must get close enough to make sure they are killing the right people. These are standard requirements for

the zone of war. In the intermediate zone, the proportionality standards might well be tougher, the required care would be more extensive, and greater risks would have to be accepted in the collection of information or in the actual attack.

(I won't attempt a discussion here of the constitutional question: can an American citizen be targeted and killed in a foreign country by agents of the American government? I will just say, without argument, that if someone is involved in terrorist attacks on innocent men and women or in military attacks on American soldiers, it is hard to see why his nationality should protect him from counter-attack.)

Thus far, I have sketched the moral argument about targeted killing; it overlaps with the legal argument, but since I am not a lawyer, that isn't my subject. Now, does it make any difference, morally, if the actual killing is the work of a drone, operated by a technician sitting in a room five thousand miles away? Surely the same criteria apply to the drone as to any more closely manned machine. Why should we think it different from the sniper's rifle?[6] Indeed, this is a weapon ideally suited to asymmetric warfare, where it isn't easy to get snipers in range. Asymmetric wars are not fought along a "front"; the insurgents don't wear uniforms, they hide among civilians, and they prepare for battle in cross-border sanctuaries. They are more vulnerable to drones than to any more conventional weapon – so why should we worry about using drones?

But there are reasons to worry: killing-by-drone poses no immediate risk to the persons running the drone and so it is technically easier than other forms of targeted killing; there is no need to maneuver armed men into difficult terrain or contested airspace. I should qualify that last statement: drones are actually flown from bases fairly near their targets and it requires some 170 people to maintain the drones and get them into the air; these people are vulnerable to counterattack (though I don't know of any actual attacks).[7] The drone operators, however, aren't vulnerable, and so killing-by-drone is also politically easier than other forms of targeted killing: it invites us to imagine a war in which there won't be any casualties (on our side), no veterans who spend years in VA hospitals, no funerals. The easiness of fighting with drones should make us uneasy. This is a dangerously tempting technology. Of course, intelligence gathering will still be risky, but the drones "see" so much more than any soldier or agent in the field that they make fieldwork seem less important. It isn't less important, but appearances here have consequences. Drones combine the capacity for surveillance with the capacity for precise attack. The technology is so good that the temptation is very strong to relax the criteria in accordance with which it is used so that drones can be used more and more often.

This is what seems to have happened with the U.S. armed forces or, more accurately, with the CIA in Pakistan and Yemen (and possibly other places). We need to be careful here, for the exact character of our policy and its consequences on the ground are still disputed; much is not known or not known with any degree of certainty. Our government's commitment to secrecy with regard to drone warfare makes moral analysis problematic, and is itself one of the problems.

The most important dispute is about who is actually being killed: how many insurgents/terrorists and how many civilians? U.S. government officials and their congressional supporters have alternately claimed that no civilians have been killed in drone attacks, that the number killed each year is in the single digits, and, in President Obama's words, that "drones have not caused a huge number of civil-

ian casualties." Independent researchers, some critical of drone warfare and some supportive, have released estimates for drone attacks in Pakistan (up to early 2015) that range from 2,200 to 4,000 people killed overall, including 150 to 900 civilians. The differences are extreme: by some accounts, civilian casualties make up only 7 percent of the total; by others, 40 percent. In July 2016, the Office of the Director of National Intelligence issued the first official figures, covering all airstrikes outside conventional war zones (that is, in Pakistan, Libya, Somalia, and Yemen) in the Obama years. In 473 strikes, the report says, between 2,372 and 2,581 combatants and between 64 and 116 civilians were killed.[8] Taking the high figure for civilians and the low figure for combatants, this suggests that only about 4 percent of all casualties were civilians, a little over half of the lowest estimate produced by the most sympathetic independent researchers. It also indicates that if no strike produced more than one civilian death, then 357 strikes produced none at all: a remarkable result, which has already drawn highly skeptical responses.[9] I don't know what President Obama's "huge number" would be, but it seems fairly certain that more civilians have been killed than our government would like to admit.[10]

The nonlethal costs imposed on the civilian population are also disputed. These costs have been described and harshly condemned in the Stanford International Human Rights and Conflict Resolution Clinic and NYU Global Justice Clinic's report *Living Under Drones*, which is based largely on interviews in Pakistan. The authors describe what life is like in a Pakistani village with a drone hovering overhead, sometimes for days at a time. The hovering allows for accurate targeting of a particular individual; it is possible to wait and watch for the best opportunity for an attack. At the same time, the report says, the buzz of the hovering drone terrifies the villagers, who live in constant fear of an explosion from the sky.[11]

The fear may indeed be constant; there is much evidence for that and for the buzzing drone. But the very effectiveness of drone attacks raises questions about these accounts of the fear they provoke. Attacking drones must hover at such high altitudes that they can't be seen or heard. If they didn't do that, the intended targets, who presumably know they are targets, would simply stay out of sight.[12] Reconnaissance drones may fly at lower altitudes. Or, maybe, drones sometimes hover visibly and audibly precisely in order to terrify the villagers, so that they expel Taliban militants hiding among them. We really don't know. Like much else in the early history of drone warfare, reports from the field are not necessarily accurate, but they may be accurate in part. And it is undoubtedly true that the experience of drone attacks leaves fear behind; villagers who have watched one explosion from the sky may plausibly fear another. So the Stanford/NYU report may have something important to tell us. Drones don't win hearts and minds. There are political arguments, in addition to moral arguments, against their overuse.

But I want to focus here on one striking example of how the moral criteria were relaxed, or seem to have been relaxed, in order to justify the costs that drone warfare imposes on innocent people. According to a May 2012 article in *The New York Times* by Jo Becker and Scott Shane, President Obama adopted "a disputed method of counting civilian casualties" that made it (or makes it; I am not sure what tense to use here and in the following sentences) much easier to claim that the casualties caused by a drone attack were "not disproportionate" to the value of the target. In effect, it "counts all military age males in a strike zone as combatants" (so it was actually a way of *not* counting civilian casualties). If the targeted insurgent or ter-

rorist leader was surrounded by, or simply in the vicinity of, a group of men between the ages of fifteen and sixty (and even drone surveillance can't be precise about that), an attack was permitted, and the dead or injured individuals were not counted as collateral damage subject to the proportionality rule, but rather as legitimate military targets. But this wasn't targeted killing. The men who happened to be in the vicinity of the actual target were never themselves targeted; they were not the specific object of the attack; we had no knowledge of what they had done, or were doing, or were planning to do.

There are ancient precedents for this sort of thing. According to Thucydides (in his *History of the Peloponnesian War*), when the Athenians captured the rebellious city of Melos, they "slew all the men of military age." And according to the biblical book of Deuteronomy, when the Israelites besieged a city and "God delivers it into your hands . . . you shall put all its males to the sword." Since the Deuteronomist goes on to exclude children, the two policies, Greek and Israelite, are identical.[13] The new American doctrine isn't the same as these two. We are not aiming to kill all the men of military age, but we have made them all liable to be killed. We have turned them into combatants, without knowing anything more about them than their gender and (approximate) age. That wasn't right in ancient Greece or Israel, and it isn't right today.

This new doctrine of liability may well have been reconsidered and rescinded after the *New York Times* report. U.S. policy with regard to drone warfare is, as I have said, still largely secret. The Obama administration has issued new rules for drone attacks, which the president described in a speech at West Point in 2014: "In taking direct action, we must uphold standards that reflect our values. That means taking strikes only when we face a continuing, imminent threat, and only where . . . there is near certainty of no civilian casualties."[14] But this says nothing about how we define "civilians." The report of the Director of National Intelligence cited above states that the U.S. government, using many different sources of information, including assets on the ground and "geospatial intelligence," determines whether people killed in airstrikes had "undertaken certain acts that reliably connote meaningful integration into an enemy group."[15] Exactly how "reliable" is defined is not specified. Nor do we know what the president's "near certainty" means. After a recent drone attack that killed an American hostage held by the Taliban, an unnamed "senior administration official" told *The New York Times* that "you wonder whether the intelligence community's definition of 'near certainty' is the same as everybody else's."[16]

These definitional problems are evident again in the case of "signature attacks" directed not against a particular individual with whom we are well acquainted, whose hostility we are certain about, but rather at assemblies or encampments of suspicious individuals.[17] In these attacks, there is no "near certainty" that innocent men and women won't be killed (and probably also no "imminent threat"). It seems that signature attacks have been cut back radically since President Obama's new rules were promulgated. But they probably have not been stopped entirely. Again, we don't know as much as we should.

All this suggests how important it is to open up the process by which lists of targets are put together and decisions about drone attacks are made. It can't be right that a couple of people appointed by the president, with the president looking on, make these decisions entirely on their own. Particular decisions about particular targets will always be made by a small group, but these decisions should be subject to periodic review by a larger number

of people inside the government but independent of the president's office (and of the CIA). The general criteria for selecting targets in the zone of war and in the intermediate zone should also be considered and debated not only inside but also outside the government, by the body of citizens, by all of us. I don't object to these killings because they are "extrajudicial"; my argument here refers only to dangerous enemies who can't be captured and brought to trial. But I do want their deaths to be the subject of ongoing political and moral arguments, and there should be known government officials accountable to the rest of us for attacks that go badly wrong.

There is another issue raised by drone technology, which, even if not now real, certainly warrants discussion. Drones not only make it possible for us to get at our enemies, they may also lead us to broaden the list of enemies, to include presumptively hostile individuals and militant organizations simply because we can get at them – even if they aren't actually involved in attacks against us. One example of this is the attempt by American officials to expand the target list in Afghanistan to include drug dealers, on the grounds that the Taliban benefited from the drug trade. The attempt was apparently blocked by our NATO allies.[18] Our engagement with Islamist groups in West Africa that right now have only local ambitions is another example: these don't seem to be enemies in the same sense as the people we are attacking in Afghanistan and Pakistan. The engagement may be justifiable, but it definitely needs justification; it should be, though it hasn't yet been, the subject of public debate.

Drone warfare, when it involves only the targeted killing of real enemies, can be justified under tough constraints. But these constraints are not easy to maintain and enforce in the circumstances of asymmetric war. Up until now, at least, high-tech armies like our own have not been able to win these wars. Drones give us what I suspect is only an illusion of victory, though it is a powerful illusion. They make it possible to attack enemies in places where the conventional use of ground troops, even commandos, is difficult, sometimes impossible; they provide a way of coping with a war that has no "front." That's why they have been called "the only game in town." Whether victory is actually possible in this "game" is another question, and not for this essay. A long history of exaggerated expectations should make us skeptical about the possibility of winning wars or defeating insurgencies from the air. But all that is necessary for my qualified defense of drone warfare is that there are real advantages to be gained by the use of drones against our enemies. Those advantages cannot, however, justify any relaxation of the constraints that we ought (and that we claim) to uphold, however attractive it may be to play the "game" without limits. Adopting a broad definition of combatants or justifying signature attacks are options that should be rejected.

Indeed, we should think very carefully before revising and expanding the targeting rules. The moral and political value of drones lies in their precision, which means using them only against individuals or small groups of individuals whose critical importance we have established, about whom we have learned a great deal, and whom we can actually hit without killing innocent people nearby. Using them indiscriminately, as we have sometimes used artillery and bombers, isn't morally right or politically wise.

This last point can be driven home very simply: imagine a world, in which we will soon be living, where everybody has drones.

I want to stop now and try to restate in my own words a few of the most common arguments against the qualified defense of drone warfare that I have just provided. And then I will defend my defense.[19]

Before I get to the strongest arguments, let me quickly dispose of one bad argument. The likelihood that many states and many insurgent and terrorist organizations will soon possess drones might be a reason for the United States to adopt a set of tough constraints on their use, but one could say exactly the opposite: that the United States should use drones right now without constraint in order to defeat their most dangerous future users. Why shouldn't we go all-out while we have the technological advantage? Consider a useful though inexact analogy: in the late 1940s, some American "hawks" argued in favor of using nuclear weapons against the Soviet Union while we had them and they didn't. That was a very bad argument, given the number of civilian deaths that would have resulted from a nuclear attack. A preventive war would have been a crime of vast proportions, and I think that American leaders understood this.

By contrast, even the fiercest, most unrestrained use of drones would not produce casualties on anything like that scale. The idea of preventive drone attacks is nonetheless a bad idea. For in fact we don't know, and can't know, who the most dangerous future users of drones will be. So whose future use should we prevent? The technology is already easy to acquire and will soon be easier; all sorts of people will have it and will use it; some of them will be enemies. There is no way to prevent all future use of drones. Nor would it be possible to defeat potential enemies by preventive drone attacks, for drones are most useful in asymmetric wars, where conventional victory is probably not available.

So the argument for an early and heavy use of drones fails. I now want to look at three arguments for the proposition that we shouldn't use them at all; that we should seek to ban drone warfare. The first of these arguments begins from the plausible claim that there is no reason to think that future users of drone technology – states or non-state actors; officials, insurgents, or terrorists – will use drones in accordance with the rules I have urged the United States to adopt. Surely other users will adopt rules of their own, suited to their interests and purposes, or they will ignore all the rules. And they will certainly use drones not only against specifically targeted individuals but against enemy targets more generally. Imagine Al Qaeda or ISIS with drones: why wouldn't their militants use them not only against a particularly fierce congressional supporter of the "war on terror," on his way to lunch, say, but also against Congress as a whole? Or, claiming belligerent rights, against the Pentagon, or Fort Jackson, or any stateside military encampment? Or, more in line with their previous and current behavior, randomly, as a terrorist weapon, against the inhabitants of our cities? The CIA hasn't always observed, and may not now be observing, the necessary moral rules. Why would anyone else observe them?

If this is right, then here is the real choice that we face. We can stop using drones entirely and work for an international treaty outlawing their use, manufacture, and sale, and prescribing strong sanctions against any state or organization that makes or uses them. Or we can acknowledge that they already are or will certainly become a common weapon, sometimes used legitimately, within proportionality limits, but also and probably more often used indiscriminately and illegitimately, beyond those limits. If those are the alternatives that we face, the choice should be easy: ban the drone while we can (if we can).

The second argument for a ban has less to do with our possible enemies than with our own political leaders. Drone attacks are a form of warfare uniquely available to the executive branch of the government. In addition to all the other ways in which they are "easy," these attacks are easy for

the president to undertake. He can strike in secret, without congressional approval, and without taking any political risks at home. He doesn't require the participation or even the support of his fellow citizens. Conscientious objection to the use of drones would have little point, and political opposition would have none of its usual reasons, for the president would not be asking Americans to risk their lives; he would not be asking them to do anything. Democracy was born, we have been told, when Athens recruited its poorest citizens into the navy. Thus, Xenophon wrote: "It is the ordinary people who man the fleet… it is these people who make the city powerful, much more than the…noble and respectable citizens. This being so, it seems that all should share in public office."[20] And when it isn't so, when the leaders of the state don't need the citizens of the state, the democratic rights of "ordinary people" may be gravely weakened.

It can be argued, indeed, that this has already happened, that President Obama is waging war or, at any rate, killing putative enemies in military campaigns that have never been authorized by Congress, campaigns that American citizens know very little about.[21] There seem to be few if any constitutional constraints on the use of drones to kill people. It is, of course, possible to imagine constitutional constraints, but surely it would be better to remove this tempting weapon from the president's arsenal. Once again: ban the drone.

The third argument for a ban is a radical extension of the second. Drones, in this view, are the harbingers of a new, totally mechanized and impersonal kind of warfare. They require us to think about what was once only science fiction: a war of machines to which human beings are entirely superfluous. Governments capable of waging wars of that sort will not only be free from any democratic control, they will also be free to deal brutally with any citizens who dissent from their policies (if there are any). Enemies of the state will be hunted by machines programmed to recognize or anticipate their enmity. This is the ultimate use of drone technology. Whoever controls the machines rules the country. Readers will recognize the apocalyptic overtones of this argument: drone warfare points us toward, or leads us inexorably to, a mechanized and soon-to-be totalitarian politics.[22] And the best way, perhaps the only way, to hold off the radical mechanization of war is to act now, early in the process, and ban the drone.

I will respond to these three arguments in reverse order. There isn't much to say about the apocalypse; it remains at this point science fiction. One might think, though, that wars between machine armies might be much like wars between mercenary armies in the early modern period. With both sides eager to limit the damage to hugely expensive "soldiers," they would fight very limited wars. The threat of domestic tyranny is more frightening, but we know the remedy for that: eternal vigilance, always the price of liberty. Ordinary democratic politics is inherently antiapocalyptic.

This is also the necessary response to the second argument, which claims that drone warfare expands executive power and undercuts constitutional government. What is at issue here is political will, not technological determinism. Congressional oversight depends on a will to oversee, and this has been largely missing in recent decades. New technologies always require new regulatory systems, and we have fallen far behind: we have not yet figured out how to regulate the use of guns. So, again, there has to be a will to design and enforce the necessary regulations. In any case, for the foreseeable future, it will not be possible actually to win wars without putting soldiers in the field, so the president will still have to seek the support of the people and their elected

representatives. Wars will still be subject to democratic debate, so long as there are citizens ready with arguments.

But I have to admit that banning the drone is almost as tempting as using the drone. Wouldn't the future of democracy, indeed, the future of humankind, look a little brighter without this new technology? It is, however, very hard to see how a ban could possibly succeed. The ban on the use of poison gas, which has been relatively successful, makes for a helpful comparison. Poison gas is a weapon that not only fails to discriminate between soldiers and civilians, it also fails to discriminate between our soldiers and enemy soldiers. Using it over a city or town is terrorism on a large scale, which is already a war crime. Using it on the battlefield is militarily dangerous; the winds change, and the gas drifts back across the lines. It is necessary for all soldiers to wear masks, and even the most advanced models are clumsy and difficult to wear while fighting. Perhaps the strongest argument in favor of the ban is that our own soldiers find gas warfare horrifically frightening.

Drones are obviously very different. They are discriminating weapons that do not kill civilians, or not many civilians, so long as they are used with discrimination. They are relatively risk-free for our own soldiers, and the fear that they will be used by our enemies isn't especially frightening – except, perhaps, to political officials who imagine themselves as particular targets. For the rest of us, drones are probably less frightening than carpet bombing or any other sustained attack from the air. I am sure that drone strikes leave fear behind, but this will be a localized and temporary fear. The strong feelings that led to the ban on poison gas don't seem to exist in the case of drones.

In any case, it looks as if the proverbial cat is out of the bag, and we seem to be the ones who opened the bag. According to a report in *The Los Angeles Times* in February 2013, a private American company is selling predator drones to the United Arab Emirates, presumably with our government's approval, though obviously without any public debate.[23] Surveillance drones are already being used or considered for use by police forces in the United States and, I would guess, in other countries as well. Surveillance isn't the same as killing, but the technology is close enough so that if nonlethal drones are widely used, lethal ones won't be far behind. In the not-too-distant future, very small surveillance drones, with limited range, will be sold in hardware stores, so that you can watch your neighbors from the sky or follow your wandering children. The defense of privacy is not my subject here, so I won't comment on the legitimacy of domestic surveillance. But given the likely proliferation of drones of all sorts, there doesn't seem any prospect of an enforceable ban on their military use.[24]

So we have to come back to the establishment of constraints on how they are used: moral and legal rules of engagement for drone warfare. This is the only possible response to the first argument for banning the drone. Of course, the rules will be violated, but that's true of all the rules of war; indeed, it's true of all legal and moral rules, like the ones that govern democratic politics, say, or market behavior. Still, it is important to have rules, if only to make possible the public condemnation and perhaps also the legal indictment of those who violate them. Public opinion is an important force in international politics today, especially with regard to asymmetric warfare, so it is worthwhile to educate the public about the moral and immoral use of drones. One way to establish the moral rules is for the United States, the first country to use drones on a large scale, to proclaim and observe a code for this kind of warfare. And one way to press this project upon the U.S. government is for all of us who write and worry about

these issues to be firm in our critique of signature strikes, of the immoral incorporation of military-age males into the class of combatants, and of the studied ambiguity of our leaders' pronouncements about the rules they claim to be following.

Philosopher Allen Buchanan and political scientist Robert Keohane have argued for something more than this: the establishment of an international drone accountability regime.[25] They recognize the visionary character of their proposal, but argue that it is possible to imagine a "step by step" process through which states establish their own regulatory codes and look for reciprocity from other states – and from nonstate organizations. In any case, their proposal has the great advantage of forcing us to think about what the right regulations are and about the degree of visibility that would be necessary to make them morally and politically enforceable (Buchanan and Keohane don't envision a legally coercive regime).

The rules of the national and international codes shouldn't be anything radically new. They should be reasonably detailed, emphatic, and widely publicized, and they should attempt a definition of something like Obama's "near certainty." The codes should deny that the use of drones is or can be entirely risk-free; it requires intelligence work that is always dangerous, and that should be defined as morally necessary.[26] Drones should aim with great care at known individuals chosen in accordance with criteria that are publicly defended. The proportionality standards should be tough, and they too should be publicly defended.

The United States could adopt a code of this sort right now, and if we did, we would have a right to insist that other countries and insurgent organizations of all sorts follow suit. If some don't, as some won't, our criticism of their behavior will, at least, be honest and strong.

ENDNOTES

[1] Albert Camus, *The Just Assassins in* Caligula *and Three Other Plays*, trans. Stuart Gilbert (New York: Vintage, 1958).

[2] See my introductory essay in *Regicide and Revolution: Speeches at the Trial of Louis XVI* (Cambridge: Cambridge University Press, 1974), which defends the trial of Louis XVI.

[3] On civilian casualties in Yemen, see Open Society Justice Initiative, *Death by Drone: Civilian Harm Caused by U.S. Targeted Killing in Yemen* (New York: Open Society Foundations, 2015).

[4] Critics of drone warfare consider cross-border attacks in places like Pakistan and Yemen especially bad. See Jeanne Mirer, "U.S. Policy of Targeted Killing with Drones: Illegal at Any Speed," in *Drones and Targeted Killing: Legal, Moral, and Geopolitical Issues*, ed. Marjorie Cohn (Northampton, Mass.: Olive Branch Press, 2015), 135 – 168. Not enough is said by critics like Mirer about the responsibility of the governments of the countries in which these attacks take place. See the Open Society booklet on drone strikes in Pakistan for a discussion that, I think, gets things right: Open Society Foundations, *After the Dead are Counted: U.S. and Pakistani Responsibilities to Victims of Drone Strikes* (New York: Open Society Foundations, 2014).

[5] Steve Cole, *Ghost Wars* (New York: Penguin Books, 2004), 145 – 146.

[6] I have been greatly helped in thinking about drone warfare by Hugh Gusterson, who made available to me an advance copy of his just-published book *Drone* (Cambridge, Mass.: The MIT Press, 2016). The following books have also been helpful: Scott Horton, *Lords of Secrecy: The National Security Elite and America's Stealth Warfare* (New York: Nation Books, 2015); Benjamin Wittes and Gabriella Blum, *The Future of Violence: Robots and Germs, Hackers and Drones* (New

York: Basic Books, 2015); Peter Singer, *Wired for War: The Robotic Revolution and Conflict in the 21st Century* (New York: Penguin, 2009); Cohn, ed., *Drones and Targeted Killing*; Sarah Knuckey, ed., *Drones and Targeted Killings: Ethics, Law, and Politics* (New York: IDebate Press, 2015); Adam Rothstein, *Drone* (New York: Bloomsbury, 2015); Gregoire Chamayou, *A Theory of the Drone* (New York: The New Press, 2015); and Medea Benjamin, *Drone Warfare: Killing by Remote Control* (London: Verso, 2013).

7 Gusterson, *Drone*, 21.

8 Office of the Director of National Intelligence, "Summary of Information Regarding U.S. Counterterrorism Strikes Outside Areas of Active Hostilities," https://www.dni.gov/files/documents/Newsroom/Press%20Releases/DNI+Release+on+CT+Strikes+Outside+Areas+of+Active+Hostilities.PDF.

9 Charlie Savage and Scott Shane, "U.S. Reveals Death Toll from Airstrikes Outside War Zones," *The New York Times*, July 1, 2016, http://www.nytimes.com/2016/07/02/world/us-reveals-death-toll-from-airstrikes-outside-of-war-zones.html?ref=todayspaper&_r=0.

10 Gusterson, *Drone*, 83–87. See also Alice K. Ross, "Documenting Civilian Casualties," in *Drones and Targeted Killing*, ed. Cohn, 99–131. The reluctance to acknowledge civilian casualties obviously makes it difficult for the relatives of victims to claim the compensation that the U.S. government says it is ready to pay.

11 See Stanford International Human Rights and Conflict Resolution Clinic and NYU Global Justice Clinic, *Living Under Drones: Death, Injury, and Trauma to Civilians from U.S. Drone Practices in Pakistan* (2012), http://chrgj.org/wp-content/uploads/2012/10/Living-Under-Drones.pdf. See also Rothstein, *Drone*, 131–132: "Pashtun tribespeople in Pakistan refer to the drones overhead as 'wasps' or 'mosquitoes' due to their sound."

12 Even the most nuanced accounts are contradictory: Gusterson quotes reporters who liken the sound of drones to "lawnmowers in the sky," but then describes a targeted killing taking place "without warning." Gusterson, *Drone*, 40–43.

13 The Thucydides quote is from Richard Schlatter, ed., *Hobbes's Thucydides* (New Brunswick, N.J.: Rutgers University Press, 1975). See also Deuteronomy 20:13–14.

14 The White House Office of the Press Secretary, "Remarks by the President at the United States Military Academy Commencement Ceremony," May 28, 2014, https://www.whitehouse.gov/the-press-office/2014/05/28/remarks-president-united-states-military-academy-commencement-ceremony. The speech is also available on YouTube.

15 Office of the Director of National Intelligence, "Summary of Information Regarding U.S. Counterterrorism Strikes."

16 Peter Baker and Julie Hirschfeld Davis, "Amid Errors, Obama Publicly Wrestles with Drones' Limits," *The New York Times*, April 24, 2015.

17 Signature attacks are defined in Cohn, ed., *Drones and Targeted Killing*, 13. The phrase was originally classified; see Gusterson, *Drone*, 93–96.

18 See Jane Mayer, "The Predator War," in *Drones and Targeted Killing*, ed. Cohn, 70–71; and *Der Spiegel*, January 28, 2009.

19 For a no-holds-barred critique, to which I will respond only in part, see Benjamin, *Drone Warfare*.

20 Xenophon, *Constitution of the Athenians*, 1:1–2.

21 For a critique of executive war-making, see Peter W. Singer, "Do Drones Undermine Democracy?" in *Drones and Targeted Killings*, ed. Knuckey, 367–372. But Singer does not advocate a ban on the use of drones.

22 Gregoire Chamayou offers a full-scale account, with French philosophical élan, of our totalitarian future, already partly present, in his *A Theory of the Drone*.

[23] There have also been more recent sales: see, for example, the Center for the Study of the Drone, "Weekly Roundup 11/9/2015," http://dronecenter.bard.edu/weekly-roundup-11915-2/, reporting on the forthcoming sale of Hellfire missiles and laser-guided bombs to the Italian Air Force to arm its fleet of Reaper drones.

[24] For the full range of possibilities, see Wittes and Blum, *The Future of Violence*, ch. 1. See Dan Fesperman, *Unmanned* (New York: Vintage Crime, 2015) for a fictional account of the dangers of the commercialization and proliferation of drone technology.

[25] Allen Buchanan and Robert O. Keohane, "Toward a Drone Accountability Regime," *Ethics and International Affairs* 29 (1) (2015): 1 – 23.

[26] A reader pointed out that in the case of U.S. drone attacks, the intelligence work is often done not by U.S. military personnel, but by native informants. Nonetheless, the risks they take are taken on our behalf; they are necessary participants in the attack, and its success is radically dependent on their reliability.

The Ethics & Morality of Robotic Warfare: Assessing the Debate over Autonomous Weapons

Michael C. Horowitz

Abstract: There is growing concern in some quarters that the drones used by the United States and others represent precursors to the further automation of military force through the use of lethal autonomous weapon systems (LAWS). These weapons, though they do not generally exist today, have already been the subject of multiple discussions at the United Nations. Do autonomous weapons raise unique ethical questions for warfare, with implications for just war theory? This essay describes and assesses the ongoing debate, focusing on the ethical implications of whether autonomous weapons can operate effectively, whether human accountability and responsibility for autonomous weapon systems are possible, and whether delegating life and death decisions to machines inherently undermines human dignity. The concept of LAWS is extremely broad and this essay considers LAWS in three categories: munition, platforms, and operational systems.

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The growing use of drones on today's battlefields raises important questions about targeting and the threshold for using military force. Over ninety militaries and nonstate actors have drones of some kind and almost a dozen of these have armed drones. In 2015, Pakistan shot down an Indian drone in the disputed Kashmir region, Turkey shot down a drone near its border with Syria, and both Nigeria and Pakistan acquired armed drones.[1]

The use of drones by the United States and others has led to an array of questions about the appropriateness of so-called remote-controlled warfare. Yet on the horizon is something that many fear even more: the rise of lethal autonomous weapon systems (LAWS).[2] At the 2016 Convention on Certain Conventional Weapons in Geneva, over one hundred countries and nongovernmental organizations (NGOs) spent a week discussing the potential development and use of autonomous weapon sys-

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tems. An NGO, The Future of Life Institute, broke into the public consciousness in 2015 with a call, signed by luminaries Elon Musk and Stephen Hawking, as well as scientists around the world, to prohibit the creation of autonomous weapons.[3]

Two essential questions underlie the debate about autonomous weapons: first, would autonomous weapons be more or less effective than nonautonomous weapon systems? Second, does the nature of autonomous weapons raise ethical and/or moral considerations that either recommend their development or justify their prohibition? Ultimately, the unique facet distinguishing LAWS from non-LAWS is that the weapon system, not a person, selects and engages targets. Therefore, it's critical to consider whether the use of LAWS could comply broadly with the protection of life in war, a core ethical responsibility for the use of force; whether LAWS can be used in ways that guarantee accountability and responsibility for the use of force; and whether there is something about machines selecting and engaging targets that makes them ethically problematic. Given the centrality of these issues in debates about just war theory, it therefore makes the issue of LAWS relevant to just war theory as well.

This essay examines the potentially unique ethical and moral issues surrounding LAWS, as opposed to nonautonomous weapon systems, especially as they relate to just war theory, in an attempt to lay out some of the key topics for thinking about LAWS moving forward. It does not engage, however, with certain legal arguments surrounding LAWS, such as whether international humanitarian law implies that humans must make every individual life-or-death decision, or whether LAWS violate the Martens Clause of the Hague Convention by violating the dictates of the human conscience.[4] Moreover, different opponents of LAWS make different arguments, as do different critics of those opponents, so there are undoubtedly subcomponents of each issue not discussed here. Most generally, this essay finds that the ethical challenges associated with autonomous weapons may vary significantly depending on the type of weapon. LAWS could fall into three categories: munition, platforms, and operational systems. While concerns may be overstated for LAWS that will be most akin to next-generation munitions, when thinking about autonomous weapon platforms or operational systems for managing wars, LAWS raise more important questions. Caution and a realistic focus on maintaining the centrality of the human in decisions about war will be critical.

Given the use of drones by the United States and others against terrorists and insurgents around the world, there is a tendency to conflate the entire category of military robotics with specific cases of drone strikes. However, it is a mistake to focus solely on the drone strike trees and miss the vast military robotics forest. For example, as current platforms, like the RQ-4 Global Hawk, and next generation experimental technologies, like the X-47B (United States) and Sharp Sword (China), demonstrate, drones are potentially useful for much more than simply targeted strikes, and in the future could engage in an even larger category of military missions. Moreover, the focus on drone strikes presumes that military robotics are only useful in the air. But there are a variety of missions – from uninhabited truck convoys to the Knifefish sea mine detection system to Israel's unmanned surface patrol vehicle, the *Protector* – in which robotic systems can play a significant role outside the context of airborne-targeted killings.[5]

Within the realm of military robotics, autonomy is already extensively used, including in autopilot, identifying and tracking potential targets, guidance, and weapons detonation.[6] Though simple autonomous

weapons are already possible, there is vast uncertainty about the state of the possible when it comes to artificial intelligence and its application to militaries. While robots that could discriminate between a person holding a rifle and a person holding a stick still seem to be on the horizon, technology is advancing quickly. How quickly and how prepared society will be for it, though, are open questions.[7] A small number of weapon systems currently have human-supervised autonomy. Many variants of the close-in weapon systems (CIWS) deployed by the U.S. military and more than two dozen militaries around the world, for example, have an automatic mode.[8] Normally, the system works by having a human operator identify and target enemy missiles or planes and fire at them. However, if the number of incoming threats is so large that a human operator cannot target and fire against them effectively, the operator can activate an automatic mode whereby the computer targets and fires against the incoming threats. There is also an override switch the human can use to stop the system.

Nearly all those discussing autonomous weapons – from international organizations to governments to the Campaign to Stop Killer Robots – agree that LAWS differ fundamentally from the weapons that militaries employ today.[9] While simple at first glance, this point is critical: when considering the ethical and moral challenges associated with autonomous weapons, the category only includes weapons that operate in ways appreciably *different* from the weapons of today.[10]

From a common sense perspective, defining an autonomous weapon as a weapon system that selects and engages targets on its own makes intuitive sense. Moreover, it is easy to describe, at the extremes, what constitutes an autonomous weapon. While a "dumb" bomb launched by a B-29 in World War II is not an autonomous weapon, a hunter-killer drone making decisions about who to target and when to fire weapons via algorithm clearly is. In between these extremes, however, is a vast and murky gulf – from incremental advances on the precision guided weapons of today to humanoid robots stalking the earth – that complicates our thinking about the ethical and moral challenges associated with LAWS and the implications for just war theory.

In 2012, the U.S. Department of Defense (DoD) defined an autonomous weapon as "A weapon system that, once activated, can select and engage targets without further intervention by a human operator."[11] The DoD further distinguished between autonomous weapons, human-supervised autonomous weapons (that is, autonomous weapons that feature a human "on the loop" who possesses an override switch), and semiautonomous weapons, or "a weapon system that, once activated, is intended to only engage individual targets or specific target groups that have been selected by a human operator."[12] NGO groups, such as Human Rights Watch, have generally adopted similar definitions.[13] This essay does as well, considering lethal autonomous weapon systems as weapon systems that, once activated, are designed to select and engage targets not previously designated by a human.[14] Defining what it means to select and engage targets is complicated, however. For example, if homing munitions are considered to "select and engage" targets, then autonomous weapons have existed since World War II.

Resolving the definitional debate is beyond the scope of this essay. But even if there is not a clear agreement on exactly what constitutes an autonomous weapon, breaking down LAWS into three "types" of potential autonomous weapons – munition, platforms, and operational systems – can potentially help move the discussion forward, revealing the ethical, moral, and strategic issues that might exist for each.[15]

At the munitions level, there are already many semiautonomous weapons today. The advanced medium range air-to-air missile (AMRAAM), for example, deployed by the United States and several militaries around the world, is a "fire and forget" missile: after it is launched, it uses internal navigation and radar to find and destroy a target. AMRAAM engagements generally happen beyond visual range, with the pilot making the decision to launch an AMRAAM based on long-range radar data, not visual cues. The AMRAAM is not considered inherently problematic from an ethical perspective, nor is it considered an autonomous weapon.[16] Some fully autonomous weapons at the munitions level arguably already do exist, though, including the Israeli Harpy, a loitering cruise missile designed to detect and destroy a certain type of radar.[17]

The next level of military system aggregation is the platform. An example of an autonomous weapon system platform would be a ship or plane capable of selecting targets and firing munitions at those targets on its own. There are almost no platform-level LAWS currently deployed, but the CIWS systems that protect ships and military bases from attack are arguably an exception. Like the AMRAAM, countries have used these weapon systems for decades without opposition. However, an example of a platform-level LAWS that does not currently exist – and which no military appears to be planning to build – is an autonomous version of the MQ-9 Reaper (United States) or the CH-4 (China) drones. Imagine a drone identical from the exterior, but with software that allows it, after activation by a human operator, to fly around the world and target a particular individual or groups of individuals and fire missiles at them, much as human-piloted drones do today.[18]

The broadest type of LAWS would be a military operations planning system in which a machine learning system would substitute, in a way, for military leaders and their staff in planning operations. No LAWS at the operational level appear to exist, even in research and development, though it is possible to imagine militaries wanting to leverage potential insights from machine learning models as they conduct planning. In this scenario, upon deciding to fight a war – or perhaps even deciding whether to fight a war – a human would activate an autonomous battle system that could decide the probability of winning a war and whether to attack, plan an operation, and then direct other systems – whether human or robotic – to engage in particular attacks. This category is the furthest away from reality in terms of technology and is the one that most invokes images of robotic weapon systems in movies such as *The Terminator* or *The Matrix*.

Some worry that autonomous weapons will be inherently difficult to use in ways that discriminate between combatants and noncombatants and only take life when necessary. An inability to discriminate would violate just war theory as well as the law of war. Consequently, some worry that autonomous weapons will be uncontrollable – prone to errors and unable to operate predictably.[19] Moreover, even if LAWS meet basic law of war requirements, they could create safety and control problems. Their very strength – the reliability of their programming relative to humans – could make them fragile when facing operating environments outside of their programming. At the extreme, unpredictable algorithms interacting as multiple countries deploy autonomous weapons could risk the military version of the 2010 stock market "flash crash" caused by high-frequency trading algorithms.[20]

Additionally, opponents of LAWS argue that autonomous weapons will necessarily struggle with judgment calls because they are not human.[21] For example, a human

soldier might have empathy and use judgment to decide not to kill a lawful combatant putting down a weapon or who looks like they are about to give up, while a robotic soldier would follow its order, killing the combatant. This could make it harder to use LAWS justly.[22]

Additionally, autonomous weapons potentially raise *jus in bello* questions concerning conduct in war from a just war perspective. For example, LAWS that are unable to respect benevolent quarantine for prisoners would violate core just war principles, though their inability to comply means responsible militaries would not deploy them in those situations. This is precisely why it makes the most sense to think about autonomous weapons in comparison with existing weapons in realistic scenarios.

These are also empirical questions, though convincing evidence is difficult to gather because these weapon systems generally do not yet exist. Moreover, even beyond the uncertainty about the technological range of the possible, many of these arguments can be made in both directions. For example, those less worried about LAWS could contend that the arguments above consider improbable scenarios, because militaries are unlikely to deploy inherently unpredictable weapons that would be less likely to accomplish missions than non-LAWS.[23]

In this sense, it's possible that militaries would purposefully decide not to deploy LAWS unless they believed those LAWS could operate with the ability to discriminate and follow the law of war. LAWS might also be more effective and ethical on the battlefield than other nonautonomous alternatives. Human soldiers kill unnecessarily on the battlefield, up to and including war crimes, for a variety of reasons, including rage, revenge, and errors from fatigue. One theoretical benefit of LAWS is that, as machines that do not get tired or (presumably) experience emotion, LAWS would almost certainly fire more accurately and discriminate perfectly according to their programming. According to scholars like Ronald Arkin, this could make these types of war crimes and the killing of civilians by human soldiers less likely.[24]

How would these theoretical benefits and drawbacks stack up? Given the current state of the technology in question, we can only speculate the extent to which these matters are likely to be more or less serious for the three possible categories of autonomous weapon systems described above.

For munitions, most imaginable LAWS are less likely to create inherent effectiveness challenges beyond those of current weapons in terms of controllability. There is still a human operator launching the munition and making a decision about the necessity of firing upon a target or set of targets. Autonomy may help ensure that the weapon hits the correct target – or gets to the target, if autonomy enables a munition to avoid countermeasures. In this case, there is not a significant difference, from an ethical perspective, between an autonomous weapon, a semiautonomous weapon, or arguably even a bullet, because a person is making the choice to launch the munition based on what is presumably sufficient information. For example, Israel's Harpy may be problematic because the system will destroy its target whether that target is on top of a school or on a military base, but it is not executing a complicated algorithm that makes it inherently unpredictable. Practically, militaries are very unlikely to use LAWS at the munitions level unless they are demonstrably better than semiautonomous weapons, precisely for reasons of controllability.

It is, of course, possible to imagine futuristic versions of munitions that would be more complicated. Autonomous cruise missiles that can loiter for days, instead of hours, and travel around the world, programmed to target particular individuals

or ships when they meet certain criteria, could raise other questions. This is one example of how context based on geography and time may influence the appropriateness and desirability of autonomous weapon systems in a given situation.

It is at the platform and the operational levels that disquiet about discrimination and controllability becomes more complex. A LAWS platform deployed in a confined geographical space in a clear war zone may not (depending on the programming) be inherently problematic, but there are other mission sets – like patrolling autonomous drones searching for insurgents – that would lead to much greater risk from a controllability perspective. Essentially, complications, and thus the potential for fragility, will increase as the machine has to do more "work" in the area of discrimination.

At the operational battle-management level, it is difficult to imagine militaries having enough trust to delegate fundamental operational planning roles to algorithms, though they could become supplemental sources of information. Delegating those roles, however, could create large-scale ethical concerns from the consequences of those actions, in part because they might be harder to predict. Operational planning LAWS could make choices or calculate risks in novel ways, leading to actions that are logical according to their programming, but are not predictable to the humans carrying out those orders. Operational planning LAWS also connect most directly to the types of existential risks raised by Hawking and others.

One of the key arguments made by opponents of LAWS is that, because LAWS lack meaningful human control, they create a moral (and legal) accountability gap.[25] If they malfunction or commit war crimes, there is no single person to hold accountable the way a drone operator, pilot in the cockpit, or ground team would be accountable today. This is potentially unique to LAWS. Remotely piloted military robotics do not appear to create excessive moral distance from war at the operator level. For example, new research shows that drone pilots actually suffer from posttraumatic stress disorder at similar rates to pilots in the cockpit.[26]

There is still nervousness, however, that drones already make war too "easy" for political leaders. Autonomous weapons raise similar fears, just as indirect artillery and manned airpower did in the past.[27] The core fear is that LAWS will allow leaders and soldiers not to feel ethically responsible for using military force because they do not understand how the machine makes decisions and they are not accountable for what the machine does.

LAWS may substitute for a human soldier, but they cannot be held accountable the way a human soldier is held accountable.[28] Imagine, for example, deploying a robot soldier in a counterinsurgency mission to clear a building that is suspected to house insurgents. If that robotic soldier commits a war crime, indiscriminately executing noncombatants, who is responsible? The responsible party could be the programmer, but what if the programmer never imagined that particular situation? The responsible party could be the commander who ordered the activation of the weapon, but what if the weapon behaved in a way that the commander could not have reasonably predicted?

On the other side of the debate, part of the problem is imagining LAWS as agents, rather than tools. The human operator that fires a LAWS munition or activates a LAWS platform still has an obligation to ensure the system will perform in an ethically appropriate fashion to the best of anyone's ability to predict, just as with today's weapons.[29] Thus, planning and training becomes critical to avoiding a responsibility gap. By ensuring that potential op-

erators of LAWS understand how they operate – and feel personally accountable for their use – militaries can theoretically avoid offloading moral responsibility for the use of force.

Formal rules could ensure technical accountability. One solution in the case of the ground combat situation described above is to hold the commander accountable for war crimes committed by the robotic soldier, just as commanders today are generally held accountable for war crimes committed by their unit.[30] This leads to fairness considerations, though: if the robotic soldier malfunctions, and it is not the fault of the commander, is it fair to hold the commander accountable? Arguably not, though commander accountability for LAWS would create a strong incentive for commanders only to use LAWS when they have a high degree of confidence in its situational appropriateness. Analogies from legal regimes, such as vicarious liability, could also prove useful. Thus, while accountability and responsibility issues are relevant topics, it is not clear that they are irresolvable. Additionally, accidents with nonautonomous and semiautonomous weapons happen today and raise accountability questions. In a 2003 incident in which a U.S. Patriot missile battery shot down allied aircraft, no one was personally held accountable for the system malfunction. Should the accountability requirements for LAWS be higher than for other weapon systems?

Considering this argument in both directions, it makes sense again to see how these concerns might vary across different types of LAWS. At the munitions level, ensuring legal accountability and moral responsibility should be relatively close, if not identical, to the use of semiautonomous weapons today. There will still be human operators firing the munitions in ways that they believe are legitimate; the guidance systems for the munitions would just operate somewhat differently. Adaptations of existing accountability regimes therefore seem plausible.

The platform level will place the largest amount of stress on potential training and planning to avoid offloading accountability when using LAWS. While there is still a person that will have to activate and launch an autonomous weapons platform, if that person lacks sufficient understanding of the mission or how the LAWS will operate to complete the mission, it could lead to a responsibility gap. Such a gap does not seem inevitable, however, presuming the construction of clear rules and training.

At the operational system level, the use of LAWS creates a real and significant risk of moral offloading. Operational planning conducted by an algorithm – rather than the algorithm being one input into human judgment – is precisely the type of situation in which human accountability for war would decline and humans might cease to feel responsible for the casualties caused by war. This is a significant ethical concern on its own and would raise large questions in terms of just war theory.

Establishing the line at which the human is so removed from the targeting decision that it makes the use of force *a priori* unjust is complex from a just war perspective, however. Imagine a case in which the human is entirely removed from the targeting and firing process, but the outcome is a more precise military engagement. On the one hand, such an engagement would almost certainly meet basic *jus in bello* requirements, but one might also argue that the removal of human agency from the process is ethically defective. This is a tricky question, and one worth further consideration.

The last major ethical argument about LAWS is whether they might be inherently problematic because they dehumanize their targets. All human life is precious and has intrinsic value, so having machines

select and engage targets arguably violates fundamental human dignity – people have the right to be killed by someone who made the choice to kill them. Since machines are not moral actors, automating the process of killing through LAWS is also by definition unethical, or as technology philosopher Peter Asaro has put it: "justice itself cannot be delegated to automated processes."[31] LAWS might therefore be thought of as *mala in se*, or evil in themselves, under just war theory.

If a machine without intentions or morality makes the decision to kill, it makes us question why the victim died.[32] This argument has a moral force. As human rights legal scholar Christof Heyns argues: "Decisions over life and death in armed conflict may require compassion and intuition."[33] There is something unnerving about the idea of machines making the decision to kill. The United Nations Institute for Disarmament Research describes it as "an instinctual revulsion against the idea of machines 'deciding' to kill humans."[34] The concern by opponents of LAWS is that machines making decisions about killing leads to a "vacuum of moral responsibility": the military necessity of killing someone is a subjective decision that should inherently be made by humans.[35]

On the other side, all who enter the military understand the risks involved, including the potential to die; what difference does the *how* make once you are dead? In an esoteric sense, there may be something undignified about dying at the hands of a machine, but why is being shot through the head or heart and instantly killed by a machine necessarily worse than being bludgeoned by a person, lit on fire, or killed by a cruise missile strike? The dignity argument has emotional resonance, but it may romanticize warfare. Humans have engaged in war on an impersonal and industrial scale since at least the nineteenth century: from the near sixty thousand British casualties the first day of the Battle of the Somme to the firebombing of Tokyo and beyond.

Looking at the three categories of possible LAWS again reveals potential differences between them with regards to the question of human dignity. At the munitions level, LAWS seem unlikely to generate significant human dignity questions beyond those posed by existing weapon systems, at least based on the current technological world of the possible. Since the decision-making process for the use of force would be similar, if not identical, to the use of force today, the connection between the individual firing the weapon and those affected would not change.[36]

At the platform level, LAWS again require deeper consideration, because it is with LAWS platforms that the system begins calculating whether to use force. The extent to which they may be problematic from a human dignity perspective may also again depend on how they are used. The use of platform-level LAWS in an antimaterial role against adversary ships or planes on a clear battlefield would be different than in an urban environment. Moreover, as the sophistication of LAWS grows, they could increase the risk of dehumanizing targets. Returning to the case of the Harpy, at present, it is clearly up to the person launching the missile to make sure there is a lawful radar target that the Harpy can engage. A platform with the ability to make choices about whether the radar is a lawful target (for example, is the radar on top of a hospital?) would be better at discrimination, making it ethically preferable in some ways, but also raising questions from the perspective of the human dignity argument; it is the machine, rather than a person, making the targeting decision.[37]

The human dignity argument arguably also applies less to platforms that defend a fixed position from attack. Electric fences are not ethically problematic as a cat-

egory if labeled clearly and used in areas where any intrusion is almost by definition a hostile action.[38] Or to take another example, South Korea deploys a gun system called the SGR-1 pointed at the demilitarized zone with North Korea. The system has some automatic targeting features, though the specifics are unclear. However, since the system is deployed in a conflict zone and can only aim at targets that would almost certainly be lawful combatants, this is arguably less problematic than LAWS platforms employed as part of an assault operation.

LAWS pose the largest challenges to human dignity at the operational system level, though the relationship to just war theory is more ambiguous. An operational-level LAWS making decisions about whether and how to conduct a military operation certainly involves offloading moral responsibility for the use of force to a machine. Oddly, though, imagine a case in which an operational-level LAWS designed a battle plan implemented by humans. In that case, the machine is taking the place of a high-level military commander, but humans are selecting and engaging targets on the ground. Would this be less problematic, ethically, than a hunter-killer drone searching for individuals or groups of insurgents? It sounds odd, but this example points to the complexities of assessing these issues.

The debate is just beginning, and this essay attempts to address the broad ethical issues potentially associated with the development of autonomous weapons, a class of weapons that, with a few exceptions, do not yet exist. While technological trends suggest that artificial intelligence is rapidly advancing, we are far from the realm of dystopian science fiction scenarios. Of course, how quickly the technology will develop remains to be seen.

Do autonomous weapons create novel issues from an ethical perspective, especially regarding just war theory? Excluding technologically implausible scenarios of autonomous operational battle systems deciding to go to war, autonomous weapons are unlikely to lead to *jus ad bellum* problems from a traditional just war perspective, excluding the risk that LAWS will make going to war so easy that political leaders will view unjust wars as costless and desirable. One could argue that since machines cannot have intentions, they cannot satisfy the *jus ad bellum* requirement for right intentions. Yet this interpretation would also mean that broad swaths of precision-guided modern semiautonomous weapons that dramatically reduce civilian suffering in war arguably violate the individual intentionality proposition, given the use of computerized targeting and guidance. Presumably no one would rather the world return to the age of the "dumb bombs" used in World War II. Overall, it is critical to understand that there is the possibility for significant diversity within the subset of autonomous weapons, in particular, whether one is discussing a munition with greater autonomy in engaging a target versus a platform or operational system.

At the level of the munition, where LAWS might represent missiles programmed to attack particular classes of targets (such as an amphibious landing craft) in a given geographic space, the relevant ethical issues appear similar to those regarding today's weapons. The process of using force – and responsibility for using force – would likely look much the same as it does today for drone strikes or the use of other platforms that launch precision-guided munitions. The key will be how munitions-based LAWS are used.

It is at the platform level that the ethical challenges of LAWS begin to come into focus. Autonomous planes, for example, flying for thousands of miles and deciding for themselves whom to target, could risk the moral offloading of responsibility and un-

dermine human dignity in some scenarios, even if they behave in ways that comply with the law of war. While it is possible to address this issue through training, accountability rules, and restricting the scenarios for using autonomous weapon platforms, this area requires further investigation.

Autonomous operational systems using algorithms to decide whether to fight and how to conduct operations, besides being closest to the robotic weapon systems of movies and television, could create more significant moral quandaries. Given full authority (as opposed to supplementing human judgment), operational system LAWS would make humans less relevant, from an ethical perspective, in major wartime decision-making. Fortunately, these types of systems are far from the technological range of the possible, and humans are quite unlikely to want to relinquish that level of control over war, meaning the real world systems that require deeper thought over the next several years are LAWS at the munition and platform levels.

Finally, just war theory provides an interesting lens through which to view LAWS: could they lead to a world in which humans are more removed from the process of warfare than ever before, while warfare itself becomes more precise and involves less unnecessary suffering? These are complicated questions regarding the appropriate role for humans in war, informed by how we balance evaluating LAWS based on a logic of consequences versus evaluating them based on a logic of morality. It will be critical to ensure in any case that the human element remains a central part of warfare.

ENDNOTES

Author's Note: Thank you to Michael Simon and all the workshop participants at West Point, along with Paul Scharre, for their feedback. All errors are the sole responsibility of the author.

[1] Michael C. Horowitz, Sarah E. Kreps, and Matthew Fuhrmann, "The Consequences of Drone Proliferation: Separating Fact from Fiction," working paper (Philadelphia: University of Pennsylvania, 2016).

[2] For the purposes of this essay, I use the phrases *autonomous weapon*, *autonomous weapon system*, and *lethal autonomous weapon system* interchangeably.

[3] See the Campaign to Stop Killer Robots, http://www.stopkillerrobots.org/; and the Future of Life Institute, "Autonomous Weapons: An Open Letter from AI and Robotics Researchers," http://futureoflife.org/AI/open_letter_autonomous_weapons.

[4] For example, see the discussion in Peter Asaro, "On Banning Autonomous Weapon Systems: Human Rights, Automation, and the Dehumanization of Lethal Decision-Making," *International Review of the Red Cross* 94 (886) (2012): 687 – 709; and Charli Carpenter, "How Do Americans Feel About Fully Autonomous Weapons?" *Duck of Minerva*, June 10, 2013, http://duckofminerva.com/2013/06/how-do-americans-feel-about-fully-autonomous-weapons.html; and Michael N. Schmitt, "Autonomous Weapon Systems and International Humanitarian Law: A Reply to the Critics," *Harvard National Security Journal* (2013); and Michael C. Horowitz, "Public Opinion and the Politics of the Killer Robots Debate," *Research & Politics* (forthcoming).

[5] Michael C. Horowitz, "The Looming Robotics Gap: Why America's Global Dominance in Military Technology is Starting to Crumble," *Foreign Policy Magazine* (May/June 2014), http://foreignpolicy.com/2014/2005/2005/the-looming-robotics-gap/. Put another way, discussions of banning drones because they are used for targeted killing conflate the act of concern (targeted killings) with the means (drones), when other means exist. It would be like banning the airplane in the early twentieth century because of targeted killing.

[6] Paul Scharre and Michael C. Horowitz, "An Introduction to Autonomy in Weapon Systems," working paper (Washington, D.C.: Center for a New American Security, 2015), 7, http://www.cnas.org/sites/default/files/publications-pdf/Ethical%20Autonomy%20Working%20Paper_021015_v02.pdf.

[7] For one example, see Stuart Russell, "Artificial Intelligence: Implications for Autonomous Weapons," presentation at the Convention on Certain Conventional Weapons, Geneva, 2015.

[8] U.S. military examples include the Phalanx and C-RAM.

[9] Human Rights Watch, *Losing Humanity: The Case against Killer Robots* (New York: Human Rights Watch, 2012), http://www.hrw.org/sites/default/files/reports/arms1112_ForUpload.pdf.

[10] It is possible, of course, to use today's weapons in ethically problematic ways, but that is beyond the scope of this essay.

[11] U.S. Department of Defense, *Directive on Autonomy in Weapons Systems, Number 3000.09* (Washington, D.C.: U.S. Department of Defense, 2012), 13, http://www.dtic.mil/whs/directives/corres/pdf/300009p.pdf.

[12] Ibid., 14.

[13] Human Rights Watch, *Losing Humanity*.

[14] This builds on the definition in Scharre and Horowitz, "An Introduction to Autonomy in Weapon Systems," 16. The phrase "not previously designated by a human" helps reconcile the fact that the use of weapons sometimes involves firing multiple munitions at multiple targets.

[15] Another interesting possibility is to classify LAWS based on the types of autonomy they possess. See Heather Roff, "The Forest for the Trees: Autonomous Weapons and 'Autonomy' in Weapons Systems," working paper, June 2016.

[16] This discussion is similar to ibid., 11.

[17] Peter J. Spielmann, "Israel Killer Robots Could be Banned under UN Proposal," *The Times of Israel*, May 3, 2013, http://www.timesofisrael.com/israeli-killer-robots-could-be-banned-under-un-proposal/.

[18] The X-47B, a U.S. Navy experimental drone, has autonomous piloting, but not automated weapon systems.

[19] Human Rights Watch, *Losing Humanity*.

[20] Michael C. Horowitz and Paul Scharre, "The Morality of Robotic War," *The New York Times*, May 26, 2015, http://www.nytimes.com/2015/05/27/opinion/the-morality-of-robotic-war.html. Also see Paul Scharre, *Autonomous Weapons and Operational Risk* (Washington, D.C.: Center for a New American Security, February 2016), http://www.cnas.org/sites/default/files/publications-pdf/CNAS_Autonomous-weapons-operational-risk.pdf.

[21] Aaron M. Johnson and Sidney Axinn, "The Morality of Autonomous Robots," *Journal of Military Ethics* 12 (2) (2013): 137.

[22] Michael Walzer, *Just and Unjust Wars: A Moral Argument with Historical Illustrations*, 4th ed. (New York: Basic Books, 1977), 142 – 143.

[23] This is particularly true given that drones and other remotely piloted military robotics options exist.

[24] Ronald C. Arkin, *Governing Lethal Behavior in Autonomous Robots* (Boca Raton, Fla.: CRC Press, 2009).

[25] Wendell Wallach, *A Dangerous Master: How to Keep Technology from Slipping Beyond Our Control* (New York: Basic Books, 2015); and Human Rights Watch, *Mind the Gap: The Lack of Accountability for Killer Robots* (New York: Human Rights Watch, 2015), https://www.hrw.org/report/2015/04/09/mind-gap/lack-accountability-killer-robots.

[26] James Dao, "Drone Pilots are Found to Get Stress Disorders Much as Those in Combat Do," *The New York Times*, February, 22 2013, http://www.nytimes.com/2013/02/23/us/drone-pilots-found-to-get-stress-disorders-much-as-those-in-combat-do.html.

[27] Kenneth Anderson, Daniel Reisner, and Matthew C. Waxman, "Adapting the Law of Armed Conflict to Autonomous Weapon Systems," *International Law Studies* 90 (2014): 391 – 393; and Kenneth Anderson and Matthew C. Waxman, "Law and Ethics for Autonomous Weapon Systems: Why a Ban Won't Work and How the Laws of War Can," *Jean Perkins Task Force on National Security and Law Essay Series* (Stanford, Calif.: Stanford University, The Hoover Institution, April 10, 2013).

[28] Robert Sparrow, "Killer Robots," *Journal of Applied Philosophy* 24 (1) (2007): 62 – 77.

[29] Horowitz and Scharre, "The Morality of Robotic War."

[30] This can vary depending on the specific situation, but the general point is clear.

[31] Asaro, "On Banning Autonomous Weapon Systems," 701.

[32] United Nations Institute for Disarmament Research, *The Weaponization of Increasingly Autonomous Technologies: Considering Ethics and Social Values* (Geneva: United Nations Institute for Disarmament Research, 2015), 9, http://www.unidir.org/files/publications/pdfs/considering-ethics-and-social-values-en-624.pdf.

[33] United Nations General Assembly, *Report of the Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions* (A/HRC/23/47), April 9, 2013, http://www.ohchr.org/Documents/HRBodies/HRCouncil/RegularSession/Session23/A-HRC-23-47_en.pdf.

[34] United Nations Insitute for Disarmament Research, *Weaponization of Increasingly Autonomous Technologies*, 7 – 8.

[35] United Nations General Assembly, *Report of the Special Rapporteur*, 17.

[36] This is arguably why munitions-based LAWS may not really be LAWS at all, depending on the definition.

[37] Thanks to Paul Scharre for making this point clear to me in a personal conversation.

[38] Johnson and Axinn, "The Morality of Autonomous Robots," 131.

Just & Unjust War, Uses of Force & Coercion: An Ethical Inquiry with Cyber Illustrations

David P. Fidler

Abstract: The emergence of cyber means and methods of war, force, and coercion raises ethical questions under just war theory different from those historically generated by the development of ever more destructive instruments of war. Whether in armed conflict or contexts not considered war, cyber technologies create political and ethical incentives for their use. However, this attractiveness poses potential risks and dangers that, at present, are largely speculative but invite more ethical deliberation. Unfortunately, the convergence of political and ethical incentives on cyber in a context of increasing geopolitical competition and conflict make the prospects for ethical consensus on just and unjust cyber coercion, force, and war unlikely.

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Among new technologies affecting ethical deliberations about war, none is as enigmatic as cyber. Within just war theory, cyber warfare exhibits attractive characteristics. Unlike the development of more violent weaponry, cyber does not endanger ethical objectives as directly in the just war tradition. Cyber weapons take a different trajectory within just war theory: away from extremes that threaten to obliterate ethics and toward scenarios in which the ethical compass functions but struggles to find true north.

This trajectory also appears in how cyber technologies highlight differences between war and force, which recalls Michael Walzer's argument for "a theory of just and unjust uses of force."[1] Cyber creates possibilities for force "short-of-war"[2] and coercion short-of-force and thus raises questions about the relationship among force, coercion, and ethical objectives of the just war tradition, such as protecting civilians. Cyber incidents often require analyzing concepts found in just war theory, such as reprisals and

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deterrence, in situations not amounting to war, creating complicated ethical contexts.

This essay, first, identifies how cyber technologies affect just war theory. Cyber warfare presents different challenges from those that have dominated just war thinking and invites ethical deliberations rather than marginalizing them.[3] Cyber is not putting the Athenians before Melos. Second, concerning uses of cyber technologies that fall short of war and thus outside just war theory, the essay examines Walzer's ideas on just uses of coercion and force and applies them to cyber. Thinking through the ethics of coercion and force short-of-war proves disorienting because arguments go in various directions. But the disorientation is important because cyber is not rendering ethics inert.

After a decade of effort, the UN Group of Governmental Experts on Developments in the Field of Information and Telecommunications in the Context of International Security (GGE) reached a consensus in 2013 that international law applies to cyberspace, including the prohibition on the use of force.[4] Prior GGE failure to reach agreement on this issue reflected many factors, including whether cyberspace is so different that it requires new rules.

GGE delegations for and against applying international law made ethical arguments, at least rhetorically. China resisted – and continues to resist – including the law of armed conflict in the consensus because applying this law legitimizes the "militarization" of cyberspace. Under this position, cyberspace is, and should be considered, different. The United States embraced the law of armed conflict because it provides legal and ethical guidance in cyberspace. These opposed positions force us to consider whether cyberspace is, or should be considered, distinct from traditional realms of armed conflict.

Perhaps those against applying the law of armed conflict bear the burden of justifying this position. However, things get complicated when we consider other controversies. China and the United States also disagree about Internet governance. China favors "Internet sovereignty," in which states govern the Internet through international law and organizations. The United States supports "multistakeholder" governance involving state and nonstate actors, an approach associated with "Internet freedom."

Friction between these positions intensified at the 2012 World Conference on International Telecommunications (WCIT) organized by the International Telecommunication Union (ITU). The Chinese wanted international law and institutions to control Internet governance, as done with other communication technologies. The Americans advocated keeping international law and the ITU at arm's length – a stance that the Internet is, and should be considered, distinct.

In the GGE and WCIT, we have claims that cyberspace and the Internet are different and these differences should affect how we think about them. But we do not have consistency about which states support cyber exceptionalism or in what contexts. Instead, these examples illustrate normative and political complexities lurking in cyberspace. How these complexities affect ethical considerations bears watching in analyses of cyber activities and armed conflict.

In 2010, the Stuxnet worm was discovered, and analysis revealed it was used to attack uranium-enrichment centrifuges in Iran. The attack damaged hundreds of centrifuges. The worm was so sophisticated that only a state or states could have developed it. Evidence suggests that Stuxnet was a U.S.-Israeli effort, but neither country has admitted involvement. Stuxnet is the first known use by a state of a pur-

pose-built cyber weapon designed to damage property in another state. In *jus ad bellum* terms, did the attack constitute an act of war or a crime of aggression?

The incident reopened debates about what "force" and "armed attack" mean. Whether Stuxnet was an illegal use of force or armed attack produced disagreement about whether the damage constituted force or an armed attack in international law.[5] State reactions to this episode were subdued. Had conventional weaponry damaged hundreds of centrifuges, international lawyers would not have considered the use-of-force and armed-attack questions difficult. Diplomats would have been more vocal. Did use of a *cyber weapon* affect perspectives on this seminal incident?

This question implies that cyber creates the potential for a type of aggression we might not consider criminal. Stuxnet did not trigger war. But if war is an act of force, as Clausewitz argued, then Stuxnet – a weapon designed to damage property in a specific country – was an instrument of force. Without a justification, it looks like an act of war that we are not sure how to evaluate.

Two options to avoid this quandary are apparent. First, we could read Stuxnet as not amounting to war or aggression because of the limited damage it caused, particularly the absence of injuries or deaths. It is a type of force outside *jus ad bellum* made possible by the less lethal and destructive options cyber technologies create. Second, perhaps the perpetrators were justified in attacking, in which case Stuxnet was not an act of war or aggression. The most plausible justification involves preventing Iran from developing a nuclear-weapons capability. We are not talking about preventive war. Stuxnet involved, in Walzer's phrase, "preventive use of force-short-of-war" outside *jus ad bellum*,[6] thus highlighting the need to extend just war thinking to force short-of-war.

Both options take analysis away from *jus ad bellum*. This trajectory resonates with debates about whether Stuxnet violated the legal prohibition on the use of force. Even if Stuxnet was an illegal use of force, it did not generate controversies typically seen when states use force in violation of international law. Given the ability to limit and tailor damage, can a cyber weapon provide ethical ways of violating the legal prohibition on the use of force?

This analysis assumed that a state was responsible for Stuxnet. However, Stuxnet touches another aspect of cyber technologies that affects ethical deliberations: the attribution problem. When a cyber incident happens, we want to know who did it. Cyber technologies provide opportunities for instigators to make attribution difficult. In law, attribution is critical because it determines which actor is involved, what policy prescriptions and legal rules apply, and what evidence is required to hold the perpetrator accountable. Attribution is also important in ethics. We could assert that "a state perpetrated an unjust cyber attack," but if we cannot identify the state, then the statement loses ethical force.

In just war theory, having a just cause to go to war requires identifying the state that committed the initial wrong triggering the right to use force. The inability to do so with a high level of certainty counsels against the victim state waging war. This position perhaps explains why analyses of just war theory often do not focus on attribution. With perhaps one exception, Walzer's historical illustrations involve known perpetrators. The exception involves General Yamashita, who was, many believe, unjustly executed for crimes committed by soldiers under his command. But no one questioned that Japanese soldiers committed the atrocities.

In cyber, attribution is a problem. Although claims are made that attribution is becoming more feasible, accusations based on evidence and means of detection that

remain secret agitate attribution controversies. In addition, the law imposes evidentiary requirements that those seeking to hold states accountable for violating legal rules must meet. Tracing a cyber attack to an Internet address in a specific location might be technically accurate, but might not meet the evidence thresholds international law requires for assigning state responsibility.[7] Just war theory creates a similar challenge given its high threshold for attributing wrongs capable of starting wars.[8]

The attribution problem has stimulated efforts to overcome it, including the argument that, rather than perceive the problem as intractable, "attribution is what states make of it."[9] However, alternative approaches have to achieve collective acceptance given cyber's global scope. This challenge requires surmounting the triple burden in the attribution problem – the technological difficulties, the legal demands, and the ethical strictures – in an international political context that has not proved receptive to the development of new cyber norms.

Stuxnet is the only existing example of a cyber incident that approaches *jus ad bellum*, but states and terrorists could try to use cyber weapons to kill and destroy on a massive scale. U.S. policy-makers have warned that states could cause a "cyber Pearl Harbor" or terrorists could launch a "cyber 9/11." However, these scenarios are not difficult in just war terms. If, unprovoked, a state attacked with cyber and caused death and destruction on the scale of Pearl Harbor, then it launched an unjust war and committed criminal aggression. The slaughter of thousands and large-scale destruction of property by cyber terrorists would trigger the victim state's right to use force in self-defense. In both cases, ethical analysis would shift to whether belligerents fight in accordance with *jus in bello*.

With these scenarios, people argue not about ethics, but whether states or terrorists could or would cause such slaughter and devastation with cyber weapons. From the technological perspective, doubt exists that cyber weapons could kill and destroy on the scales of Pearl Harbor or 9/11. More realistic scenarios involve less dramatic consequences, which would raise questions, again, about whether uses of cyber weapons cross into *jus ad bellum*. Politically, scary scenarios do not explain why a state or terrorists would court full-scale war by launching killer cyber attacks.

In 2008, Russia and Georgia fought a war that featured depressingly familiar aspects of armed conflict, including alleged war crimes. However, the war stands out because Georgia experienced distributed denial of service (DDOS) attacks. Once war is underway, just war theory analyzes whether "the war is being fought justly or unjustly."[10] Lawyers have analyzed the cyber aspects of the Russia-Georgia war under the law of armed conflict. The hardest question involved the attribution problem: was Russia responsible? Efforts to answer this question did not find sufficient evidence that Russia was legally responsible. Although this outcome does not preclude ethical deliberations, facts – or the lack of them – still matter for determining accountability.

In addition, attribution does not matter if no wrong is done. In the Russia-Georgia war, did the DDOS attacks against governmental and civilian institutions violate *jus in bello* rules about "fighting well"?[11] Under the law of armed conflict, the disruptions did not qualify as an "attack" – an act intended or foreseeably likely to cause death, injury, destruction, or damage – subject to legal rules, including those protecting civilians. With no violation, there is no accountability to assign, which makes attribution legally irrelevant.

In just war theory, international law does not determine the scope of ethical delib-

eration. However, where ethics go when the law of armed conflict is not violated is unclear. Most debates about the actions of soldiers and commanders address whether violating established rules – Walzer's "war convention"[12] – are justified. How do we evaluate acts of force or coercion short-of-an-attack during war? When we evaluate such acts, will we not look favorably on them compared to violent, kinetic attacks? Aren't we going to want, ethically, weapons that do not produce the death, injury, destruction, and damage that belligerents can legally inflict during war?

Let's return to Stuxnet. Assume Iran and the United States were at war, and the United States deployed Stuxnet. This weapon was built to cause damage, and it caused damage, qualifying as an attack in the law of armed conflict. Under this law, the United States attacked a military target, the attack and weapon complied with the principles of distinction and discrimination, the damage was not disproportionate, and the methods used to attack were, as far as we know, not perfidious. Stuxnet's performance, particularly under the discrimination and proportionality principles, provided a glimpse of "the possibility of an age of precise warfare that is truly unprecedented."[13]

This hypothetical highlights cyber's attractiveness under the war convention.[14] Underscoring this attractiveness is the U.S. government's acknowledgement in early 2016 that it was launching cyber attacks against the so-called Islamic State's social media operations and military command-and-control capabilities in the armed conflict being waged against this group.[15] Given its position on cyber and *jus in bello*, the United States clearly believes that its cyber weapons and attacks comply with the law of armed conflict and with this law's ethical functions in the just war tradition. The U.S. acknowledgement represents the first time a state has admitted to using cyber weapons in armed conflict, and the U.S. cyber attacks are a seminal development in the long-predicted integration of offensive cyber capabilities into strategies and tactics for waging war.

The attractiveness of cyber in the war convention does not mean that all cyber weapons will be as sophisticated as Stuxnet or that all cyber attacks during war would comply with *jus in bello*. Belligerents could use cyber weapons in illegal and unethical ways, with "the most serious ethical problem … [being] their potential for collateral damage to civilians."[16] However, the cyber threat to the war convention appears, at present, more limited than threats posed by kinetic weapons. We are unlikely to see cyber equivalents of the Dresden firebombing or the My Lai massacre. Indeed, cyber's less lethal and destructive possibilities raise the question whether belligerents should use them before, or instead of, kinetic weapons.[17]

Cyber weapons might also be preferable if a belligerent decides that military necessity or supreme emergency requires breaching the war convention. If a belligerent believes it must neutralize civilian targets, an attack would violate the principle of civilian immunity, whatever weapon is used. However, a cyber attack might cause less death, injury, destruction, or damage than conventional weaponry, and thus be an ethically better way to fight unjustly.

Analyzing cyber warfare has a surreal quality at the moment because there has been no cyber warfare, at least not as just war theory describes war. However, as the U.S. cyber attacks against the Islamic State demonstrate, cyber technologies are being integrated with other weaponry and tactics in armed conflict, a trend that will continue. The future might also see more examples of the "hybrid warfare" Russia has conducted in Eastern Ukraine by combining kinetic operations, infor-

mation warfare, and covert cyber activities,[18] or of Russia's "gray zone combat" against NATO members and partners involving disruptive cyber attacks, cyber espionage, and online propaganda.[19] In such activities, cyber technologies are useful for many purposes, most of which do not constitute attacks under the law of armed conflict, but challenge adversaries and complicate calculations of outside actors.

The Islamic State also integrates kinetic operations with cyber activities in its war-fighting. Although its "cyber caliphate" has claimed responsibility for incidents, including one against U.S. Central Command, its signature activity is exploiting social media to spread propaganda and recruit adherents.[20] The Islamic State's use of social media in waging war is unprecedented, and it has produced not only U.S. cyber attacks against the Islamic State's social media operations, but also U.S. kinetic attacks against members of the cyber caliphate.

Although not works of ethics, the *Tallinn Manual on the International Law Applicable to Cyber Warfare* and the U.S. Department of Defense's *Law of War Manual* address how *jus in bello* applies to cyber.[21] These manuals indicate that cyber weapons do not create the stark ethical dilemmas that the militarization of other technologies has. Ever more destructive weaponry has strained ethical strictures in *jus in bello*, but cyber technologies do not follow this pattern.

Cyber raises different issues, particularly whether *jus in bello* should protect civilians from the full range of harms cyber operations can inflict on Internet-dependent services important to civilian well-being. Should the threshold at which civilian immunity is triggered be *lowered* to regulate less violent and lethal effects cyber operations can cause? Interfering with civilian cyber systems can be coercive, but, according to the *Tallinn Manual*, damaging code and data on computers does not by itself qualify as an attack in the law of armed conflict and is not subject to rules protecting civilian objects from attack.

Where the attack threshold is set legally makes cyber attractive to coerce an adversary without violating *jus in bello*. Here, the question is whether cyber coercion directed at civilians during war is ethical. At first glance, this question seems superficial given that the law of armed conflict permits belligerents to use kinetic weapons, including in ways that produce civilian collateral damage. However, civilian dependence on computer systems makes unrestricted cyber coercion suspect, especially given the principle of military necessity. Allowing unrestricted cyber coercion underneath the attack threshold would privilege a new capability to coerce civilians over the ethical imperative in war not to harm civilians without compelling reasons.

Norms guiding the transition from war to peace – *jus post bellum* – are not prominent in just war theory. Advocates for these norms identify the need to think about how wars end in order to inform war's ends and means. What *jus post bellum* seeks is daunting because a "just peace is one that vindicates the human rights of all parties to the conflict."[22]

In 2011, the UN Security Council authorized the use of force under the responsibility to protect (R2P) principle to protect Libyan civilians. According to news reports, the U.S. government considered, but rejected, cyber attacks against Libyan air defense systems, which NATO disabled through bombing. With Security Council authorization, NATO's operations were legal, and the attacks on the air defense systems complied with the law of armed conflict. The Libyan intervention was hailed as a successful application of R2P, until post-conflict Libya descended into chaos.

R2P includes the "responsibility to rebuild" after military interventions, which

links with *jus post bellum*. What happened in Libya supports those seeking more attention on the transition from war to peace. NATO forces complied with *jus ad bellum* and *jus in bello*, but the post-conflict phase tainted the notion that the intervention was a just war. Even so, how more emphasis on *jus post bellum* would have affected the decision to use military force or choices NATO made in waging war is hard to see. The Security Council acted under R2P to prevent atrocities in urgent circumstances that did not permit much contemplation about how the conflict might end. The U.S. government decided, in part, against cyber attacks because it believed preventing atrocities required immediate action that conventional weapons could accomplish. *Jus post bellum* does not seem relevant to that decision.

The Libya incident does not nullify the ethical importance of transitioning from war to peace, but it raises questions about how *jus post bellum* informs decisions about war's ends and means. What these questions mean for use of cyber technologies in war is harder to fathom. Cyber weapons might produce less death and destruction, which might help post-conflict efforts. But the more we use the Internet for military purposes, the more we might undermine cyberspace as a tool for post-conflict development. However, these musings seem trite because Libya's post-intervention collapse had nothing to do with cyber technologies.

In contrast with the paucity of cyber warfare examples, states are using cyber technologies in ways that are not acts of war, do not take place during armed conflict, and thus fall outside just war theory. For example, certain disclosures made by Edward Snowden revealed the U.S. government's interest in, policies on, and conduct of offensive cyber operations that can achieve a range of potential effects.[23] But the United States is not the only country interested in the coercive possibilities of cyber technologies.

The occurrence of offensive cyber acts demonstrates that cyber technologies make coercion and force short-of-war possible and attractive. The U.S. government has started to emphasize cyber threats short-of-war more than cyber Pearl Harbor or cyber 9/11 scenarios. This shift suggests that cyber force and coercion, not cyber war, are more pressing challenges. The following examples illustrate that forceful and coercive cyber actions, and threats of such actions, have become frequent.

Cyber Sabotage. In 2015, Reuters reported that the United States attempted, but failed, to damage North Korea's nuclear weapons program with a Stuxnet-like attack at approximately the same time it allegedly used Stuxnet to damage Iran's centrifuge facility. If these reports and allegations are accurate, the United States attempted cyber sabotage against two countries for reasons related to threats posed by the proliferation of nuclear weapons.

Cyber Vandalism. In 2014, the United States accused North Korea of "cyber vandalism" in hacking Sony Entertainment and damaging stored data and networks. Allegedly, North Korea did so in response to Sony's crude comedy about a fictional assassination of North Korea's leader. The hacking was a coercive act, but the choice of vandalism to describe it illustrates the difficulties of characterizing cyber coercion short-of-force.

Cyber Reprisal. In 2012, Iran is believed to have launched a cyber attack against Saudi Aramco, damaging approximately thirty thousand computers, and DDOS attacks against U.S. financial institutions. Experts argued that these attacks were reprisals against Saudi Arabia for being a U.S. ally and the United States for the Stuxnet attack. In 2015, the United States accused Iran of hacking the Sands Hotel in

Las Vegas, an apparent retaliation for remarks the hotel's owner – a supporter of Israel – made about Iran.

Cyber Attrition. For years, South Korea has experienced cyber incidents it believes North Korea has perpetrated. One incident involved the hacking of a company that operates South Korean nuclear energy facilities. These events form part of the political and military struggle on the peninsula, and North Korea uses cyber to threaten, weaken, and distract South Korea.

Cyber Espionage. Traditionally, states have not considered espionage a coercive act that violates the legal prohibition on intervention in the domestic affairs of other states. However, the scale and intensity of cyber espionage have generated claims that it has become coercive, destabilizing, and "a proscribed intervention under customary international law."[24] The United States has accused China of persistent, large-scale, and harmful cyber espionage against the U.S. government and U.S. companies. Significantly, in 2015, the United States accused Chinese government hackers of stealing information from the Office of Personnel Management (OPM) on millions of government employees. The Obama administration believed this act of spying went beyond normal espionage and justified retaliation. Likewise, China has complained about intrusive U.S. cyber espionage, complaints Snowden's leaks amplified.

Cyber Deterrence. In 2015, the U.S. Department of Defense released a new cyber strategy that emphasized deterrence, which "works by convincing a potential adversary that it will suffer unacceptable costs if it conducts an attack on the United States, and by decreasing the likelihood that a potential adversary's attack will succeed."[25] The U.S. government has threatened to retaliate against China to deter it from undertaking certain kinds of cyber espionage. In thinking about how to retaliate for the OPM hack, the Obama administration considered offensive cyber operations against China's "Great Firewall" to undermine the Chinese government's control of the Internet. As in other contexts, deterrence in cyber requires credible threats backed by attribution and offensive capabilities sufficient to identify and hurt an adversary, and thereby change its behavior. Deterrence in cyber appears in other ways as well. Demonstrating offensive capacity and cyber espionage skills sends signals intended to induce caution in adversaries, features connected with cyber attacks that temporarily disrupted electrical supplies in Ukraine at the end of 2015.[26]

In short, states have developed interests and capabilities in using, and threatening to use, cyber as a means of force and coercion short-of-war. The examples reveal a spectrum of harm that includes destructive, damaging, degrading, disruptive, and deterrent effects. This spectrum highlights the complications that cyber technologies introduce when attempting to distinguish force short-of-war from coercion short-of-force. The range of effects also creates the risk that cyber actions short-of-war might trigger escalation, which raises particular questions about automated responses to cyber incidents.[27] The spectrum, and its dangers, counsels thinking about just and unjust cyber coercion in addition to cyber force short-of-war.

For state actions that fall underneath the legal prohibition on the use of force associated with *jus ad bellum*, international law contains obligations, including to settle disputes peacefully, respect the sovereignty of other states, and refrain from intervening in the domestic affairs of other states.[28] Violation of these principles permits the victim state to respond with proportionate countermeasures not involving the use of force intended to bring the state committing the wrongful act into compliance with international law.

The cyber acts short-of-war described above suggest that these legal rules do not adequately regulate state behavior. This problem connects to precyber controversies about the nonintervention principle, including the principle's nonapplication to espionage or other coercive acts, such as economic sanctions. These issues create challenges for ethical analysis. To illustrate, the United States proposed to the GGE in 2015 some voluntary cyber norms for peacetime. One norm the GGE accepted holds that countries should not conduct cyber operations that intentionally damage critical infrastructure in other states.[29] Such attacks would violate legal duties to settle disputes peacefully, respect sovereignty, and refrain from coercive interference in another country's domestic affairs. It is a sign of how bad things are in cyberspace when a nonbinding norm is proposed to accomplish what binding international law prohibits.

Turning to ethics, Walzer posited that a theory of just uses of force short-of-war should reflect just war theory. We can extend this proposition to coercion short-of-force as well. First, coercion and force short-of-war must have a just cause. Walzer argued that just causes for force short-of-war "will certainly be more permissive than the theory of just and unjust war."[30] How much more permissive is not clear, which raises the question of whether just causes for coercion short-of-force are even broader. The need to prevent escalation should inform the additional permissiveness, and avoiding escalation requires that coercion and force be proportionate to the just cause and the context be one in which escalation is not likely.

Second, Walzer argued that force short-of-war "should be limited in the same way that the conduct of war is limited, so as to shield civilians."[31] In essence, *jus in bello* –type rules should apply. But this step is more complicated than it might appear. Do we need a rule to determine when coercion and force short-of-war trigger the obligation to shield civilians, as the concept of "attack" does in the law of armed conflict? What are the peacetime equivalents of the "military necessity" principle, or "combatants" that would be legitimate targets? Does it even make sense to subject coercion or force short-of-war to a rule against targeting civilians when such acts do not threaten a civilian's right to life? What rules should guide the responses of states victimized by cyber coercion and force short-of-war?

Cyber technologies do not clarify what just causes should be included in a theory of just coercion and force short-of-war. The scope of just-cause permissiveness would stimulate disagreement, just as the legitimacy of going to war for reasons beyond self-defense and Security Council authorization is hotly contested. Potential just causes, such as responding to atrocities or preventing proliferation of weapons of mass destruction, do not come with political or ethical consensus about the propriety of using coercion or force short-of-war for these purposes. Does Stuxnet's role in helping the United States persuade Iran to enter into an agreement on its nuclear program make the operation ethically palatable sabotage?[32]

However, cyber's coercive possibilities might provide incentives for countries to explore the boundaries of coercion and force short-of-war. Capabilities associated with cyber could make deliberations about just causes for coercion and force short-of-war less exacting, with emphasis shifting to the proportionality of the means used. If so, we would expect frequent but calibrated cyber incidents undertaken for diverse reasons. The examples described above prove this expectation is not far-fetched.

Drawing a line between force short-of-war and coercion short-of-force might avoid this problem by centering ethical de-

liberations on actions closer to war. Leaving aside the difficulty of reaching consensus on where to draw this line, cyber technologies might stimulate resistance to establishing clarity between force and lesser forms of coercion. The ability to argue that a coercive cyber operation did not constitute a use of force short-of-war would be politically useful and would create headwinds for achieving ethical consensus. This dynamic could produce the ethics equivalent of controversies about the scope, substance, and effectiveness of the nonintervention principle in international law.

Similarly, arguing that *jus in bello*–type rules should regulate coercion and force short-of-war – and responses to such acts – might encourage countries to resist clarifying what qualifies as coercion short-of-force and what constitutes force short-of-war. The possibilities that cyber technologies support could feed this resistance so that states can maximize offensive and defensive options. Even for activities that would produce coercion or force short-of-war, states can tailor cyber attacks in ways that are discriminating and do not cause significant collateral damage, as happened with Stuxnet. Even with ethically dubious attacks, such as the Sony hack, indiscriminate harm to people or property did not occur. Further, states hit by acts of cyber coercion or force should also react under the discrimination and proportionality principles.[33] So, just and unjust acts of cyber coercion or force – and responses to them – can comply with *jus in bello*–type rules.

But with the ability to attack targets without major collateral damage, exploiting cyber to "coerce well" might make states care even less about the ethics of coercion or force short-of-war. Leaving just causes aside, cyber attacks that produce discriminate, proportional consequences make escalation less likely. That capability has great political utility, and states are using cyber coercively in ways that have not, so far, produced escalation toward war. We get escalation avoidance through targeted, proportional cyber coercion without a theory of just coercion and force short-of-war guiding state actions.

Although cyber technologies and just war theory have been my focus, how such technologies support efforts to achieve peace – and advance *jus ad pacem* – is also important. For many, the Internet can help reduce domestic and international conflict by facilitating economic interdependence, political development, and cultural understanding. Such outlooks link a global, accessible, and free Internet with the purpose of achieving meaningful peace at home and abroad.

For *jus ad pacem*, the emphasis on the ethics of cyber warfare is worrying. The Internet's weaponization could undermine what cyber technologies can do for human betterment. These technologies prove attractive in peace and war, and perhaps too much attention is paid to shielding civilians from cyber warfare as opposed to protecting the Internet, societies, and individuals from power politics. Focusing on war, force, and coercion also does not touch human rights controversies about cyber surveillance by states seeking to prevent kinetic and cyber threats and attacks from other countries and terrorists.[34] Approaching cyber technologies through *jus ad pacem* highlights the need for demilitarizing cyberspace rather than delineating why and how states can use cyber weapons to fight wars and coerce adversaries.

In *Just and Unjust Wars*, Walzer revived the need to think about the ethics of war after the Vietnam conflict and during a Cold War dependent on nuclear terror. The digital age is different, and cyber technologies affect the ethics of war in ways that do not resemble the dilemmas Walzer

tackled. Unlike weapons and combat situations that threaten ethics in war, cyber can fit within *jus ad bellum* and *jus in bello*, but the potential for cyber coercion and force short-of-war generates ethical issues that the just war tradition does not address. Under just war theory, cyber proves attractive as a means of fighting justly and fighting well, and, outside just war theory, as a means of coercion and force short-of-war not subject to clear ethical guidance.

My claim is not that cyber technologies are intrinsically ethical when used in waging war or coercing states outside armed conflict. As has happened with other technologies, states could deploy cyber means and methods illegally and unethically in going to war, fighting armed conflicts, or coercing adversaries in peacetime. Further, political and technological developments might produce new forms of cyber warfare and less sanguine conclusions.[35] But at the moment, the possibilities cyber technologies create, along with their limitations, align with just war thinking in ways that do not produce "war is hell" outcomes.

These possibilities also make thinking prescriptively about cyber coercion and force short-of-war difficult. Following Walzer, ethical reasoning favors applying core concepts of the just war tradition – just cause, necessity, discrimination, and proportionality – to coercion and force short-of-war and responses to such acts. Anchoring ethical deliberations about coercion and force short-of-war in these principles makes theoretical sense, but murkiness arises in their application. In contexts involving conventional means of coercion and force, controversies in international law about the prohibitions against the use of force, intervention in another state's domestic affairs, and violating a foreign country's sovereignty highlight the difficult political, legal, and ethical terrain of coercion and force short-of-war as phenomena in international relations.

The great utility cyber technologies offer means states have few incentives to clarify how ethical principles from just war theory apply to cyber coercion and force short-of-war. At the same time, the possibilities cyber technologies create for discriminating and proportional acts of coercion and force that do not risk escalation make cyber options ethically attractive, in the same way the just war tradition finds ethical potential in cyber weapons.

At present, political and ethical interests converge in cyber in ways that drain urgency from revising the just war tradition and developing a theory of just coercion and force short-of-war – an outcome rarely seen in the history of politics and ethics concerning the emergence of new means and methods of coercion, force, and war.

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Nuclear Weapons & Nuclear Use

C. Robert Kehler

Abstract: While nuclear weapons were conceived to end a war, in the aftermath of their operational use at Hiroshima and Nagasaki, they became the central (and controversial) means to prevent a war. Nuclear deterrence formed the foundation of U.S. Cold War doctrine and the basis of an extended security guarantee to our allies. But the Cold War ended one-quarter century ago, and questions about the efficacy of deterrence, the need for nuclear weapons, and the ethics surrounding them have resurfaced as some call for further major reductions in inventory or the complete elimination of the U.S. nuclear arsenal. Discussed from the perspective of a military practitioner, this essay highlights the continuing need for U.S. nuclear weapons in a global security environment that is highly complex and uncertain, and describes the means by which the credibility of the nuclear portion of the strategic deterrent is being preserved even as the role and prominence of these weapons have been reduced.

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Among the many responsibilities I had as the Commander of United States Strategic Command (USSTRATCOM), none was greater than my responsibility to plan, operate, and, if ordered by the president, employ the nation's long-range nuclear forces in combat. Beginning with General George C. Kenney in 1946, a long line of senior officers has held that responsibility in what is arguably one of the most consequential military posts in the world. While USSTRATCOM's responsibilities have grown since 1992 – when it assumed the combatant command and planning roles of its predecessors, Strategic Air Command (SAC) and the Joint Strategic Target Planning Staff (JSTPS) – every commander since Kenney has shared a common critical mission: to deter attack (primarily nuclear attack) against the United States and its allies and partners, and to use nuclear weapons to defend the nation if deterrence fails.

But the twenty-first-century international security environment is far different from the bipolar Cold War contest that originally defined this mission. The massive conventional threat posed by the Soviet

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Union and Warsaw Pact disappeared almost twenty-five years ago. While it is still possible (and still must be deterred), the likelihood of a large-scale surprise nuclear attack has declined. The traditional regional battlefield is becoming a global battlespace as adversaries acquire technologies and exploit the interconnected nature of our world to quickly transit political, geographic, and physical boundaries. Attacks by violent extremists and the possibility of nuclear terrorism are immediate security concerns; cyber weapons and drones present new challenges; and traditional weapons like ballistic missiles and advanced conventional capabilities are more available, affordable, and lethal. USSTRATCOM and its sister Combatant Commands (CCMDs) may be called on to face diverse contingencies that unfold suddenly and range from small arms in the hands of violent extremists to nuclear weapons in the hands of hostile state leaders.

This new reality has led antinuclear activists as well as some prominent national security figures to pose serious questions about the enduring role of our nuclear arsenal. Despite support from the White House and Congress to sustain the traditional U.S. nuclear triad – comprising long-range nuclear bombers, submarine-launched ballistic missiles (SLBMs), and intercontinental ballistic missiles (ICBMs) – some continue to challenge the efficacy of nuclear deterrence and the need to recapitalize the aging forces and infrastructure. Others propose large force reductions or call for its complete elimination. Several highly publicized lapses in morale and discipline in the nuclear forces have caused some to question whether the United States is capable of sustaining the safe, secure, and effective nuclear deterrent called for in national policy. Humanitarian issues and security concerns have also resurfaced. While the technologies certainly are not new, the confluence of the new global security environment, the need to reinvest in nuclear weapons and delivery systems, and declining budgets have caused many of the familiar policy and ethical dilemmas that have surrounded nuclear weapons since their conception to reappear.

As a senior nuclear commander, I welcomed this renewed interest in the world's most destructive weapons. Throughout my career I was exposed to and participated in many of the debates surrounding nuclear weapons, and I agreed that the diversity of opinion they generated both inside and outside the government helped to strengthen our policies, doctrine, and force structure.[1] Along with many others, I was concerned when the intellectual emphasis on nuclear weapons and deterrence declined as the Cold War faded.

But such interest can be counterproductive if the resulting debates paralyze our thinking or actions. I believed, as did former SAC Commander General Russell E. Dougherty, that nuclear debates are useful for our background thinking, but should not be passed along to operational commanders as unresolved dilemmas or conundrums; they need to be resolved by policy-makers who offer practicable guidance.[2] Those responsible for investment decisions in government and Congress need similar resolution. Clarity and commitment are as important now as at any time during the Cold War.

Preventing the spread and use of nuclear weapons remains the top U.S. national security objective and a credible nuclear deterrent remains the foundation of our strategy to achieve it. Deterrence is still based on our ability to convince an adversary that the United States has both the capability (forces, plans, command, and control) and national resolve (policy, declaratory statements, visible demonstrations) to respond effectively to any contingency. Unresolved dilemmas, especially those involving the enduring role of nuclear

weapons or the basic ethical legitimacy for them, can erode the credibility of our deterrent in the minds of our adversaries, cause our allies to question the validity of U.S. security guarantees to them, and ultimately influence the perceptions of our own military members regarding the importance and necessity of their mission. Such issues can make the very thing we are trying to prevent more likely.

While much has changed since the end of the Cold War, nuclear weapons continue to meet a critical need in U.S. security strategy and the strategies of our allies and partners.[3] Although it is far too simplistic to say that nuclear weapons alone have prevented major war, the evidence is compelling that they fundamentally changed the notion of warfare between major nations in August of 1945 and that their deterrent effects have constrained the scope and scale of conflict ever since. Before a crisis, nuclear weapons establish limits and constraints in international behavior. During a crisis, nuclear weapons force an adversary to consider the potential consequences and costs of his actions before he takes them. During a conflict, the possibility of a nuclear response discourages an enemy from attempting to use the threat of nuclear escalation as a means to reverse failed conventional aggression.[4] No other weapons create the same deterrent effect.

We cannot predict with certainty what a future crisis or conflict will look like, but a nuclear attack of any size still presents the gravest security risk to the American people and our allies. Deterring such an attack and extending to our allies and partners the deterrence guarantee was my number-one priority at USSTRATCOM. However, while the underlying concepts were familiar from the Cold War – deny benefits and/or impose costs by holding at risk that which an adversary values the most – we recognized that yesterday's "one size fits all" approach to deterrence would likely not be sufficient against today's diverse adversaries, who have unique objectives, motivations, and capabilities. Deterrence credibility demanded a new approach.

As a result, USSTRATCOM planners began working with the Office of the Secretary of Defense (OSD), Joint Chiefs of Staff (JCS), and the intelligence community (IC) to tailor our strategies, plans, and capabilities to individual actors and new circumstances. To do this, we needed a deeper understanding of the values, intentions, and decision-making processes of our adversaries and potential adversaries; a major challenge for an IC already stretched to meet the full-time demands of countering violent extremists. Further, we needed to reach out both to the regional CCMDs and to our allies to ensure we understood and accounted for their unique needs, capabilities, and concerns. Global and regional plans and activities had to become better synchronized.

We also increased our emphasis on the deterrence value of nonnuclear capabilities. For some years, the United States has recognized that nuclear weapons may not be the most effective (or credible) deterrent tool in many crisis or conflict scenarios, or against adversaries like violent extremists. Therefore, beginning in 2002, USSTRATCOM's responsibilities and capabilities grew significantly to bring the combined power of conventional strike, nonkinetic (cyber) operations, missile defenses, and nuclear weapons to a broader strategic deterrence approach. In particular, while not practical as a large-scale replacement, the combat performance of conventional U.S. forces over the last two decades showed that precision strike capabilities could provide viable options in certain scenarios and against certain targets where nuclear weapons were once seen as the best (in some cases the only) choice for the president.

At the same time, we had to consider a far smaller nuclear force and supporting stockpile in our deterrence planning than our predecessors did during the Cold War. Today's deployed strategic nuclear force is only about one-tenth the size and has a daily posture that is far less aggressive than the force I entered and helped lead earlier in my career.[5] Theater nuclear forces have been similarly reduced and entire classes of intermediate-range nuclear delivery systems have been eliminated. Except for a small number of weapons deployed in support of the NATO alliance in Europe, no U.S.-theater nuclear weapons are deployed outside the continental United States today. Moreover, the nation no longer builds new nuclear warheads or conducts nuclear explosives tests.[6]

Taken together, the diminished global conventional threat, U.S. and Russian force reductions, and the emergence of viable alternatives have allowed the United States to reduce the role of nuclear weapons in countering nonnuclear threats, and to narrow the conditions under which they might be used in defense of vital national interests.[7] Nuclear weapons no longer have singular prominence in U.S. defense planning. But other nuclear-armed nations have these weapons to meet their own security needs. As we used to say when I was a young staff officer: when it comes to deterrence, the other guy gets a vote.

Nuclear weapons continue to serve a central purpose in the security strategies of our most significant potential adversaries. At the very time the United States has stated an ultimate policy goal of a "world without nuclear weapons," other states are emphasizing their weapons or threatening to acquire them.[8] Adversaries have watched the United States project conventional military power with relative impunity for over twenty years and are pursuing "integrated strategic deterrence" strategies to reduce the likelihood of our intervention in regional affairs.[9] The ability to threaten critical targets in the United States and allied homelands with conventional, cyber, and graduated nuclear attacks is a key component of these strategies. When acting in concert with other counterintervention capabilities designed to negate our key operational advantages (including the ability to attack our space-based intelligence, surveillance, reconnaissance, and communications systems) and deny access to our forces in a geographic region, these adversaries seem to believe that the threat of homeland attack will constrain our freedom of action, intimidate our allies and partners, and enable their own more-assertive foreign policies and aggressive behaviors. Nuclear weapons underwrite their approach.[10]

The threats of such integrated strategic-level attacks are real and consistent with the activities I saw during my time as USSTRATCOM's commander and still see reported today. Russia is modernizing its nuclear forces and has reportedly tested a ground-launched cruise missile outside the limits of the Intermediate-Range Nuclear Forces Treaty. Senior Russian leaders have used their large-theater nuclear force to publicly threaten their regional neighbors and our NATO allies. China is publicly less aggressive with its nuclear weapons, but has made it clear with its ambitious modernization program, survivability improvements, and deployment of SLBM-equipped submarines that it will continue to field a potent nuclear force that can threaten the United States and its regional allies. Both countries have upgraded their significant long-range conventional strike and defensive capabilities and exercise them routinely and aggressively; both are active in cyberspace; both are deploying the means to threaten our national security–related space capabilities; both are improving their counterintervention capabilities; and both can quickly cause massive casualties and dam-

age in the United States and allied homelands with nuclear weapons. These developments present significant operational challenges to U.S. forces and, by extension, our ability to deter conflict in the first place (always the preferred outcome).

Others view nuclear weapons with slightly different purposes in mind. Beyond Russia and China, North Korea routinely attempts to intimidate its regional neighbors and threatens U.S. territory and U.S. forward-based forces in the Pacific with the possibility of nuclear attack. North Korean leaders are working to deploy their weapons on ICBMs in order to threaten the continental United States directly. India and Pakistan feature the threat of nuclear war in their disputes, and the potential for additional proliferation to other countries remains an ongoing concern. Our allies continue to rely on nuclear weapons and the U.S. extended deterrent for their security needs as well.

The prominence and role of U.S. nuclear weapons in our national security strategy have rightfully changed since the end of the Cold War. Arms reductions and other initiatives have helped reduce the threat to the American people and enhance stability with Russia. Nevertheless, despite a period of reduced attention, nuclear weapons are not gone and it appears they will not be eliminated from world affairs any time soon. From a U.S. perspective, nuclear weapons remain the ultimate means to deter attack, assure allies of our security guarantees, and defeat aggression if deterrence fails. Ensuring the continued credibility of our nuclear deterrent in today's world requires us to adjust our deterrence concepts and tools and how we apply them. Deterrence credibility also requires us to periodically reaffirm the moral legitimacy for the use of these weapons if deterrence fails.

Nuclear weapons have always presented policy-makers with a paradox. On the one hand, they are the most destructive weapons ever devised by man and their use must be prevented; on the other hand, nuclear weapons are the most effective deterrent to such use. As Michael Walzer has put it: "Nuclear weapons . . . are the first of mankind's technological innovations that are simply not encompassable within the familiar moral world."[11]

While U.S. policy regarding the targeting and employment of nuclear weapons evolved across the decades of the nuclear age, the chain of command from the president on down has been consistent in its conviction that using nuclear weapons to defend vital U.S. interests would be both moral and legal provided such use is compatible with fundamental U.S. principles and values and compliant with the law.[12] As a military commander, I believed such clarity and consistency were absolutely essential in these foundational aspects of U.S. nuclear policy and in the public statements that conveyed it. Lack of these can reduce the credibility of our deterrent at home and abroad.

Adversaries, allies, civilian leaders, Congress, and the public at large all must be confident that U.S. military operations (especially those involving nuclear weapons) conform to high moral and legal standards. The implications of not doing so are clear: either the risk of deterrence failing increases because adversaries perceive a lack of U.S. national resolve to use nuclear weapons in any case; or public and political support for maintaining the nuclear deterrent fades due to the perceived incompatibility of nuclear weapons with America's foundational precepts. Absent a solid moral and legal foundation, some of America's allies and partners could either refuse to participate in certain military campaigns or restrict severely the conditions under which they do so.

Lack of such clarity and consistency can also have a negative impact on the perfor-

mance of our military. Nuclear duty places extraordinary demands on our service members. Beyond constant pressure to adhere to the highest standards of performance and discipline, nuclear duty adds the unique psychological burden of the enormity of the possible consequences of the actions these warriors may be ordered to take, should deterrence fail. Military members need clear national policy and intent regarding the morality and legality of the weapons of war the nation provides to them. Lack of moral and legal clarity at the tip of the spear can, at best, create confusion and, at worst, cause hesitation or inaction at critical moments. As a commander, I knew that those under my command who may be ordered to use nuclear weapons in a conflict had to be confident both in the morality and legality of those actions and in the character, commitment, and support of the chain of command over them. Such commitment and support is not an abstract matter: some of the performance and disciplinary problems within the nuclear forces have been attributed to a perceived lack of support and commitment from the top.

Commanders play a key role in affirming moral and legal legitimacy. Unlike draftees, military members in today's all-volunteer force presumably address and resolve any personal morality concerns regarding warfare and military service prior to joining the ranks. The moral perspectives of these volunteers are shaped by many sources and factors outside the military, and military training and professional education add to that foundation after they join. Those assigned to duties involving the employment of nuclear weapons are given an additional opportunity to ponder the implications of their use during initial orientation and again as their commanders evaluate their security, medical, and psychological readiness and certify them for those duties. Each individual either resolves any lingering morality concerns or is obligated to come forward with them before progressing.

The legality of employing nuclear weapons is addressed differently. Military members are bound by the Uniform Code of Military Justice (UCMJ) to follow orders provided they are legal and have come from competent authority.[13] They are equally bound to question (and ultimately refuse) illegal orders or orders that do not come from competent authority.[14] Further, they are trained that they must apply the principles of law while executing those legal orders. Ensuring that the military members who would actually deliver nuclear weapons can verify that nuclear control orders are both legal and have come from competent authority is an important responsibility of commanders at all levels.

Only the president of the United States can authorize the use of U.S. nuclear weapons, and crew members constantly drill on processes and procedures that allow them to personally verify with certainty that nuclear control orders have come from the president. However, establishing their confidence that such orders would be legal must be done in advance. In the confines of a submarine or a missile launch control center, it is almost impossible to personally apply the principles of necessity, distinction, and proportionality to nuclear control orders. In many (perhaps most) cases, nuclear crews will not know the specifics of the target they are being ordered to strike. With some exceptions in the nuclear bomber force, most nuclear crews would be unable to either see the target or interact with someone who can (such as a forward air controller in conventional scenarios). Training and personal assurance from every level of the chain of command are the means we use to create trust and confidence in these crew members that legal issues have been addressed and resolved in advance on their behalf by

policy-makers, commanders, and planners and that the highest legal standards have been enforced, from target selection to an employment command by the president.

I experienced these issues first-hand when I began my Air Force service as a twenty-three-year-old missile launch control officer. In the forty-plus years that have passed since, I have often been asked if I could have launched nuclear-armed missiles at another country knowing the potential consequences of such an act. My response is always the same. While I fervently hoped it would never happen (and believed it would not so long as we remained ready to perform our mission), I could and would have carried out my responsibilities if so ordered by the president. Like thousands before and since, I was mindful of the extraordinary responsibility entrusted to us by the American people and our civilian and military leaders. I had contemplated the consequences of nuclear use and was highly confident that orders to conduct nuclear operations would have been based on sound moral and legal principles, issued by competent authority, and necessary in defense of the nation and our allies. The credibility of our deterrent depended then and still depends on such confidence.

Ultimately, it is in the nuclear commands (primarily USSTRATCOM) that the weapons, delivery systems, plans, and people come together to form the war-fighting instrument that figures into the deterrence equation.[15] For deterrence to be credible, forces must be capable and ready; plans must provide the president with a flexible range of nonnuclear and nuclear options that are tailored to a variety of potential adversaries and scenarios; processes must be in place to quickly adapt to unforeseen circumstances; and moral and legal standards must be understood and enforced.

With the verbal agreement of OSD and the chairman of the Joint Chiefs of Staff (CJCS), USSTRATCOM in 2012 began preliminary work on the most comprehensive revision of nuclear contingency plans since the command's inception in 1992. While the plans had been maintained and essential targeting details updated over the succeeding two decades, nuclear planning had remained mostly static as the military first adjusted to the post–Cold War/Desert Storm period and then focused almost exclusively on extended conventional wartime operations in the Middle East following 9/11.

By no means had Strategic Command remained static over that period. My predecessors had been fully engaged incorporating USSTRATCOM's new missions, changing its organizational structure, responding to contingencies, and implementing a number of conceptual changes to our deterrence concepts and plans. However, the nuclear plans in effect in 2011 were still largely based on guiding principles formed in the late 1980s and early 1990s. Despite significant changes in the global security situation, the Cold War still echoed in our nuclear contingency plans. I believe my predecessors would agree with this assessment.

The opportunity to revise our nuclear contingency plans accelerated when President Obama issued new nuclear weapon employment guidance in 2013. While the specifics are highly classified, the document provided direction to us on subjects from contingency planning and force posture to force levels and stockpile considerations. As reported publicly, the new guidance emphasized the need to maintain a credible nuclear deterrent with "significant counterforce capabilities."[16] It also contained explicit direction to ensure that nuclear contingency plans are "consistent with the fundamental principles of the Laws of Armed Conflict [LOAC]."[17]

Implementing the new presidential guidance provided us with the opportuni-

ty to adopt more comprehensive and tailored deterrence concepts, expand nonnuclear strike alternatives, and add significant flexibility into our contingency plans. Of equal importance, our planners used this opportunity to work more closely with the regional CCMDs to ensure global plans were synchronized with regional objectives and plans. Our intent in this approach was to provide the president with a complementary set of activities and options (strategic and regional, nonnuclear through nuclear) that would function together to enhance deterrence as a seamless U.S. approach to crisis or conflict. This was not done to make the use of nuclear weapons more feasible or likely; rather, these steps were taken to make such use even less likely by strengthening the credibility of the full range of nonnuclear and nuclear approaches against today's wider threats.

One of the most important changes in the new planning effort was a shift to objective-based planning. As a matter of course, U.S. military commanders expect and respond to objectives, guidance, and orders from the civilian chain of command (especially where nuclear weapons are concerned). But from my perspective as a planner through combatant commander, despite being motivated by a valid desire to place civilian leadership more firmly in the nuclear-planning and -targeting process, the addition over time of hundreds of pages of highly detailed planning guidance from the secretary of defense (SECDEF) and CJCS eventually proved problematic.

Every president since Harry Truman has issued (or endorsed) guidance dealing with nuclear weapons and their use. Beginning in 1974, the earlier presidential documents that described basic Cold War national security policy gave way to presidential guidance documents that specifically addressed nuclear weapons employment; an approach that continues today. Since 1974, SECDEF has also issued an annual nuclear weapons employment policy (NUWEP) or equivalent document. Together, these documents form the civilian-approved guidance for nuclear contingency planning. In addition to this guidance from the president and SECDEF, the CJCS provides a further layer with additional planning details.

While much of the nuclear planning guidance remained consistent over the years, the trend from 1974 to the end of the Cold War was to increase both the volume of SECDEF and CJCS guidance and the details contained in them. Such items as objectives, target categories, general characteristics and constraints of employment plans, specific attack options, and damage requirements were all prescribed.[18] My first task as a nuclear staff officer in the early 1990s was to cut one hundred pages from the CJCS guidance document (a controversial chore).

For sure, civilian policy-makers sought the nuclear commanders' military advice as these and other nuclear policy and guidance documents were developed; but unlike conventional operations in which a commander takes national guidance and applies the "art of war" to craft a plan and present it to the civilian chain for review and approval, the essence of the nuclear employment plan was contained in external guidance issued to him. Essentially, the guidance *was* the plan and JSTPS/USSTRATCOM became a targeting factory in which contingency planning was, for all practical purposes, target planning. In my view, this issue did not cause but rather unintentionally contributed to a number of problems, including spiraling weapon requirements during the Cold War and a continuation of "Cold War thinking" beyond it (especially as attention was diverted to conventional combat operations).

In 2012, we began to apply a more traditional approach to nuclear contingency planning; essentially to do what was envi-

sioned when USSTRATCOM was formed and the nuclear Single Integrated Operational Plan (SIOP) became a "numbered" operational plan. In today's approach (which parallels the same interactive planning process military and civilian leaders have become accustomed to during conventional operations) the president states the broad objectives he wants the military to achieve if deterrence fails; SECDEF and CJCS add necessary amplifying and clarifying guidance; and USSTRATCOM translates words into actions. The deliberate process we subsequently follow to preplan nuclear weapons in various scenarios involves layers of mission analysis, intelligence assessment, course of action and option development, and modeling, resulting in a range of options that are intended to meet the most likely scenarios and that can be selected by the president and ordered for use if needed. Crisis planning follows a similar (although much faster) process; but the output is an option (or options) specifically matched to the demands of an emerging situation. Importantly, this approach resulted in *more* comprehensive civilian review and oversight of the contingency plans than I had seen in many years.

These planning processes required a great deal of my personal involvement and drove my direct participation in all phases of the effort from guidance development to target selection. In particular, the traditional planning process highlighted my responsibility to implement and enforce in these activities the president's direction to ensure our plans comply with the body of international law generally described as LOAC.[19] Ultimately, this comes down to the selection of targets and the construction of options.

Despite what is still commonly heard in public discourse, the United States long ago rejected the intentional targeting of cities and civilian populations with nuclear weapons. Volumes have been written about the evolution of U.S. nuclear employment policy and targeting away from World War II–like strategic bombardment concepts and toward counterforce and military-related targeting as nuclear parity, technological advances, better intelligence, and arms control and reductions changed the dynamics of the Cold War contest. The desire to provide the president with more flexibility and improve the likelihood of controlling escalation if deterrence failed also drove additional changes like limited options and optional withholds (such as the ability for the president to selectively avoid certain targets within an option).[20]

It is clear that U.S. policy-makers were mindful of ethical concerns as they sought to strike a careful balance among the high (perhaps unavoidable) potential for collateral damage from nuclear weapons, the principle of military necessity, and the critical importance of nuclear deterrence to our national security and that of our allies.[21] The desire to strike that balance certainly influenced the evolution of U.S. nuclear policy. Whether implemented as a means to control escalation or as a means to limit civilian casualties and collateral damage, inclusion of planning methods like limited options and withholds helped to address *jus in bello* concerns even as U.S. policy moved planners toward less reliance on nuclear weapons and more restrictive guidelines for using them in extreme circumstances.

The president establishes the fundamental basis of nuclear option development and target selection: namely, the objectives he directs the military to achieve with nuclear weapons if deterrence fails. Today's guidance to "apply the principles of distinction and proportionality and seek to minimize collateral damage to civilian populations and civilian objects"[22] while achieving those objectives is explicit and its implementation is rigorous at every step in the planning process:

Option Development. Options are developed to achieve presidential objectives while offering flexibility. It is during this phase that the discussion of military necessity and proportionality begins as option size, scope, and weapon alternatives are considered. Conventional weapons begin to get considered here.

Target Selection. Perhaps nowhere do the LOAC principles get more discussion than in the target development and selection process. USSTRATCOM planners follow basic joint targeting principles established by CJCS that prescribe the practical application of the LOAC principles of necessity and distinction to military targeting activities.

Weapon Application. Once targets are selected, planners carefully match weapons to those targets with collateral effect and civilian casualty concerns in mind (which is required by the LOAC principle of proportionality). In addition to applying tactics and techniques to minimize collateral effects, planners examine opportunities to create the intended effect with conventional weapons.

Other Effects. Planners also consider other nuclear weapon effects beyond blasts (such as fire; electromagnetic pulse; radiation) in their modeling and analysis. Much progress has been made in understanding these effects, their implications for collateral damage, the potential impact on casualties, and how that understanding can be used to enhance our compliance with LOAC principles.

Legal Advice and Review. It should be no surprise today that the Staff Judge Advocate is heavily involved in nuclear planning and operations.[23] While there is no question that military lawyers are far more prominent advisors in command matters than ever before, in my experience, such deep involvement in nuclear planning and operational matters is a fairly recent phenomenon. I cannot say precisely when their involvement in nuclear operations increased (some military lawyers attribute it to the worldwide attention on legal aspects of potential nuclear weapon use in response to the request from the United Nations General Assembly to the International Court of Justice for an advisory opinion on the threat or use of nuclear weapons in the mid-1990s),[24] but I do know that during my time as commander, I never held a formal nuclear planning discussion without a lawyer present to advise on LOAC matters. As with conventional targeting, lawyers were an official part of the formal and informal planning, targeting, and operational processes and reviews to "ensure their consistency with the law of war and Department of Defense policy on the law of war."[25] Regardless of the reasons, I welcomed their participation and relied on their expertise and advice as important members of the planning and operations teams.

The contingency plans prepared by the USSTRATCOM commander and staff go through an extensive, hands-on review and approval process that requires frequent high-level interaction and iterative engagement between military and civilian leaders. Nuclear contingency plans are successively reviewed and approved by the military and civilian chain of command, and ultimately presented to the president by SECDEF. At every step, the plans are reviewed to ensure they achieve national objectives, comply with national policy, and meet the standards of the law. Assessing the expected/potential direct and indirect casualties from nuclear options is an essential part of this civilian review of the revised plans and of any options that might be provided to the president. The president can be confident that any nuclear options he or she may consider in extreme circumstances when national interests are at stake have been prepared mindful of LOAC principles.

Nuclear weapons continue to play a reduced but vital role in the security of the

United States and that of its allies and partners some seventy years after they were used to end World War II. Although the challenges of the twenty-first century are far different than those of the Cold War, nuclear weapons will continue to cause leaders to pause and consider the risks and consequences of escalation before they act. While nuclear weapons are but one element of a U.S. deterrent strategy that today is being tailored to specific adversaries and includes conventional, missile defense, and nonkinetic alternatives, they remain unique in every aspect. Ensuring adversaries, allies, the U.S. public, and the men and women who may be called upon to use them know that nuclear plans are carefully shaped to today's global security situation and that they meet the highest moral and legal standards contributes to the credibility of the deterrent – and helps ensure they will never be used in combat again.

ENDNOTES

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The Nuclear Necessity Principle: Making U.S. Targeting Policy Conform with Ethics & the Laws of War

Jeffrey G. Lewis & Scott D. Sagan

Abstract: In 2013, Obama administration spokesmen stated that all U.S. nuclear war plans "apply the principles of distinction and proportionality and seek to minimize collateral damage to civilian populations and civilian objects." We analyze U.S. nuclear policy documents and argue that major changes must be made if U.S. nuclear war plans are to conform to these principles of just war doctrine and the law of armed conflict. We propose that the U.S. president announce a commitment to a "principle of necessity," committing the United States not to use nuclear weapons against any military target that can be destroyed with reasonable probability of success by a conventional weapon. Such a doctrinal change would reduce collateral damage from any nuclear strike or retaliation by the United States and would, we argue, make our deterrent threats more credible and thus more effective.

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(See endnotes for complete contributor biographies.)*

> The world will note that the first atomic bomb was dropped on Hiroshima, a military base. That was because we wished in the first attack to avoid, insofar as possible, the killing of civilians.
>
> – Harry S. Truman, radio address to the American people, August 9, 1945[1]

> Truman said he had given orders to stop atomic bombing. He said the thought of wiping out another 100,000 people was too horrible. He didn't like the idea of killing, as he said "all those kids."
>
> – Henry Wallace, diary, August 10, 1945[2]

Applying just war doctrine and the laws of war to planning for a nuclear war may seem like an impossible task. After all, the destructive power of nuclear weapons is so massive that most conceivable uses of such weapons, even against legitimate military tar-

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gets, are likely to kill multitudes of innocent people. Strategists can imagine limited uses of nuclear weapons – a single detonation against a ship at sea or an isolated military target in the desert – that might meet stringent ethical and legal standards, but these are mostly imaginary scenarios, far removed from the real concerns of policy-makers and planners.[3] This state of affairs naturally leads to grave doubts about whether the principles of distinction (or noncombatant immunity) and proportionality can be meaningful concepts in actual nuclear war planning. A valuable literature about ethics and nuclear weapons exists in philosophy and political science, but most of this work focuses on the question of whether it is ethical to make a threat that would be immoral to execute. And even reluctant supporters of nuclear deterrence have lingering doubts. "Nuclear weapons explode the theory of just war," Michael Walzer has written elsewhere. "The reason for our hesitancy and self-doubt is the monstrous immorality of what our policy contemplates, an immorality we can never hope to square with our understanding of justice in war."[4]

Yet it is this monstrous immorality that lies at the heart of how most policy-makers think and talk about deterrence. The dominant logic underpinning nuclear deterrence has been about *punishment to noncombatants*. The dominant language, however, has used more clinical or euphemistic formulations, like "unacceptable damage," "assured destruction," "countervalue targeting," or "holding at risk that which an adversary values most."

At the same time, the U.S. government has tasked the military with creating plans to deter, and to inflict damage if deterrence fails, in ways that comply with the law of armed conflict (LOAC). The Obama administration's 2013 guidance on the employment, or use, of nuclear weapons, for example, explicitly directs that "all plans must also be consistent with the fundamental principles of the law of armed conflict. Accordingly, plans will, for example, apply the principles of distinction and proportionality and seek to minimize collateral damage to civilian populations and civilian objects. The United States will not intentionally target civilian populations or civilian objects."[5]

We believe these two requirements – the unstated threat to inflict high levels of civilian punishment to deter a nuclear attack and the official promise to respect the law of armed conflict and "minimize collateral damage" – are in deep tension with each other. When policy-makers implicitly view nuclear deterrence as including the ultimate threat of the pain and suffering inflicted on civilian populations, they are relying on something that the U.S. military has largely come to reject as a legitimate military objective. Those who are responsible for the practice of deterrence are left to resolve these incompatible positions as best they can – a task we like to think of as putting a square missile in a round silo.

We have no reason to doubt that military officers and U.S. government lawyers are largely seeking to follow the guidance given to them with skill and professionalism. But it is important to recognize that the law of armed conflict, to use a common legal theory metaphor, provides "standards," rather than "rules," to guide decision. For example, a standard would be a law telling a driver "do not drive recklessly," while a rule would be a law saying "do not drive above sixty miles per hour." Bright line rules are put in place when one wants strict adherence to a specific constraint on behavior; more flexible standards are put in place when one wants individuals to be able to use their judgment on how best to confirm with the purpose of the specific law. The laws of war are mostly standards rather than bright line rules. It is therefore critical to examine how the U.S. military and

civilian lawyers alike have interpreted the standards they are required to follow under the relevant laws of war.

An understanding of the history of nuclear targeting and our reading of contemporary military guidance documents makes us deeply skeptical about the degree to which U.S. nuclear war plans actually conform to the principles of distinction, proportionality, and necessity. U.S. military officers surely want to follow the laws of war, seeking to be just warriors and not illegal killers, but they are in a nearly impossible position. The result has been an unfortunate expansion of the definition of "military objects" and the creation of many loopholes and exceptions to rules. Thus, the resulting war plans – which could produce tens of millions of noncombatant deaths – are still claimed to be consistent with the principles of distinction and proportionality found in just war theory and the law of armed conflict.

This state of affairs reflects a gap, one that has existed since 1945, between the way we understand nuclear weapons, on the one hand, and plan for their use, on the other. The euphemistic and impoverished language of nuclear strategy – the ways in which we describe legitimate "military objects," the "nuclear umbrella," "collateral damage," and "countervalue" and "counterforce" targets – that too easily obfuscates the real human consequences of nuclear use, helps identify that gap. This gap can lead to both public misinformation and private discomfort and denial, as seen in Harry Truman's public assertion that Hiroshima was a military target and his private concern about civilian casualties. Truman claimed that he never lost one night's sleep over the dropping of the bomb, but the fact that he said it so often, we suspect, is a sign that it was not true.

The consequence of this gap is a profound disconnect between what the Government Accountability Office politely described as an "indirect" relationship between the requirements and the practice of selecting targets and developing operational plans.[6] It is inevitable that there will be some distortion as a large bureaucratic military organization attempts to turn the often vague and poorly considered aspirations and intentions of policy-makers into actual plans. While Truman emphasized the military nature of Hiroshima, he was nonetheless not informed that the targeting committee moved the ground zero aim point from the military factory area to a bridge at the center of the city.

It is time to close this gap by better matching the requirements and practice of deterrence. It is possible to revise the president's nuclear employment guidance to make nuclear targeting practice better conform to principles of just war doctrine and the law of armed conflict. To do so, the U.S. government should state clearly that the United States will not employ nuclear weapons against any military target that can be reliably destroyed with conventional weapons. This guidance would be a modern, nuclear version of what some just war theorists have called the "necessity principle" in warfare. In this case, the president would be committing to refrain from using nuclear weapons when they are not necessary to achieve legitimate military objectives and thereby minimize collateral damage fatalities to civilians.

There are healthy disputes in the legal community within the U.S. military about how to interpret the laws of armed conflict in the context of nuclear weapons. We make these proposals to encourage an informed public debate, not to settle such disputes. We understand that using conventional weapons as a substitute for nuclear weapons when feasible can create its own unintended consequences and challenges. But we want to have that debate about such ethical, legal, and security dilemmas in the open, rather than behind

closed doors, where bureaucratic biases can too easily reign.

The U.S. Strategic Command (STRATCOM) has its origins in the Strategic Air Command (SAC) whose legendary second commander, General Curtis LeMay, famously proclaimed during World War II that "there are no innocent civilians."[7] There have been other voices within the U.S. military, including the Air Force, that have held a different view of the principles of distinction and proportionality. The emphasis on avoiding attacks against noncombatants has increased over time, particularly now that the Geneva Convention, negotiated after World War II, has created a stronger set of agreed-upon laws of armed conflict.[8] Still the attraction of strategic bombing against civilian populations remains strong, even if the advocates avoid explicitly admitting this. When, for example, one of us (Sagan) submitted the book *Moving Targets* in 1988 to classification review to ensure that it did not inadvertently reveal classified information, the Pentagon security reviewers initially concluded that there was one word in the following paragraph that needed to be removed:

> There will continue to be grave limits to the discrimination possible in a nuclear war. Although current developments in missile accuracy and advanced conventional and nuclear munitions hold great promise for significant reductions in the collateral damage caused by many potential retaliatory strikes, some targets might continue to require high-yield weapons. Certainly, given the accuracy and yield of the present generation of U.S. nuclear weapons, the collocation of populated areas and many military and leadership targets, and the inevitable "fog of war," millions of innocent Soviet citizens would be killed in any massive retaliatory strike.[9]

The word that the Pentagon censors wanted removed was "innocent."

This kind of open ideological and bureaucratic denial of the existence of innocent noncombatants in an adversary's country seems less likely in the U.S. military today. Yet when we are told that the United States does not "intentionally target civilians or civilian objects" and will "seek to minimize damage to civilian populations," what does that really mean? What kinds of targets are left off the target list because of that guidance and which ones remain? How seriously does the "principle of proportionality" constrain war plans?

The bureaucratic process by which nuclear targeting decisions are made is an arcane and highly classified arena of military planning, but it is necessary to examine it seriously, to peer into the back rooms of nuclear planning and implementation, if you will, in order to understand the observations that lead to our skepticism. Despite the Obama administration's guidance that the principle of distinction will be followed, for example, official Joint Chiefs of Staff (JCS) planning documents continue to argue that there are legitimate exceptions to the prohibition on targeting civilians in warfare.[10] According to the official U.S. 2013 *Joint Targeting* manual: "Civilian populations and civilian/protected objects may not be intentionally targeted, although *there are exceptions to this rule*. Civilian objects consist of all civilian property and activities other than those used to support or sustain the adversary's war-fighting capabilities. Acts of violence *solely* intended to spread terror among the civilian population is [*sic*] prohibited [emphasis added]."[11] The term *solely* in this passage implies that as long as there is a primary intent to destroy legitimate military targets, it is acceptable to have secondary intent to "spread terror" to affect the will of a government to continue the war. Similarly, the 2007 edition of the official document on *Strategic Attack* cites the 1999 Operation Allied Force strikes against Serbian electri-

cal power plants, executed with the intent both to sever electric power to military facilities and to create popular opposition to the war to encourage Slobodan Milosevic to come to terms with NATO, as an example of justified bombing of dual-use infrastructure targets.[12] A 2012 Air Force document, in a definition of "punishment," also noted that the word is often used to refer to a strategy, "which attempts to inflict enough pain on enemy civilians so that they cause their leaders to change their behavior." This document continued to argue that although "a punishment strategy may conflict with the LOAC, depending on the nature of a conflict, it may nonetheless be a feasible, if not always acceptable strategy." It then listed Operation Allied Force as a successful example.[13]

Air Force lawyers have developed arcane arguments to provide legal justification for such secondary, but intended, targeting of civilian populations, even with nuclear weapons. In 1997, then-Colonel Charles Dunlap, who was the Staff Judge Advocate at STRATCOM, published an important article in which he noted that the "special political and psychological dimensions of nuclear weapons" posed a dilemma for the lawful use of nuclear weapons. "Although using nuclear – or any other – weapons merely to terrorize noncombatant civilians is contrary to international law," Dunlap argued, "affecting the mental state of an adversary, degrading his morale, and eroding his will to continue the conflict, can all constitute legitimate military objectives." Dunlap frankly admitted the difficulties associated with such amorphous standards. We can find no meaningful distinction between "terrorizing" noncombatants and the allegedly lawful objects of affecting their "mental state" and "eroding their will to continue the conflict" other than a rhetorical one. Dunlap's solution was to shift responsibility. "To avoid such dilemmas," Dunlap continued, the relevant guidance documents should consider "affecting an adversary's 'perception of U.S. will and resolve' as an employment (as opposed to targeting) consideration. In other words, under U.S. doctrine a particular target must first be justified in orthodox military terms independent of the psychological or political 'message' the use of nuclear weapons might produce."[14]

What Dunlap means by the distinction between employment and targeting considerations is important. The reference to an employment decision, in context, means that such considerations are left to the president, or National Command Authority. This frees targeteers to simply ask whether the destruction of the target represents a valid military objective. If the president knows that the real "benefit" or "intent" of attacking a radar facility next to a major city with multiple nuclear weapons, for example, is the terror produced among the surviving civilian population, then that specific policy decision is *his* problem. Targeteers may simply satisfy themselves by stating that the target is, itself, a legitimate military objective and that the very large number of nuclear weapons required to destroy it is little more than the application of a formula to achieve damage criteria created to implement the president's employment guidance. While there are other views that have been expressed by Department of Defense lawyers, we note that it is Dunlap's view that appears in educational materials prepared for Air Force officers.[15]

Furthermore, the U.S. military has expanded the definition of a legitimate military object to include civilian objects that have the potential to be used by the military in the future. As STRATCOM Deputy Staff Judge Advocate Theodore Richard has noted, the 2013 *Joint Targeting* guidance introduces "definitional flexibility" when describing the purpose or use of a military object:

> **Purpose or use.** Purpose means the future intended or possible use, while use refers to its present function. The potential dual use of a civilian object, such as a civilian airport, also may make it a military objective because of its future intended *or potential* military use. The connection of some objects to an enemy's war-fighting, war-supporting, or war-sustaining effort may be direct, indirect, or even discrete. A decision as to classification of an object as a military objective and allocation of resources for its attack is dependent upon its value to an enemy states [*sic*] war-supporting or war-sustaining effort (including its ability to be converted to a more direct connection), and is not solely reliant on its overt or present connection or use.[16]

In other words, any target that could conceivably be used by an enemy's military in the future, such as a civilian airport, could be deemed a legitimate military object. Any "civilian object" that could potentially contribute to an enemy's war effort, even if "indirect" or "discrete," could be deemed fair game as a "a military object."

The U.S. military's inclusion of "war-sustaining" rather the just "war-supporting" industry targets arguably produces a definition of legitimate military targets that stretches beyond the reach of what is permissible under the Additional Protocol to the Geneva Conventions. (Although the United States is not a party to Additional Protocol I, the targeting standard in article 52(2) is accepted by the United States as customary international law.) The dispute concerns whether it is permissible only to target industrial facilities or other economic objects that contribute directly to military production (such as a tank factory or munitions facility) or broader "war-sustaining" industrial targets (such as oil export facilities or other industries that merely provide tax revenue supporting the state's military efforts). The 2013 *Joint Targeting* document cited earlier legitimized attacks on "war-sustaining" targets, not just "war-fighting" or "war-supporting" targets. We agree, in contrast, with international law experts Janina Dill and Yoram Dinstein who point out that using such expansive "war-sustaining" criteria, rather than direct military support criteria, opens up the possibility that all civilian economic targets could become legitimate targets.[17]

Unfortunately, the principle of proportionality does not provide a check on such an expansive interpretation of the principles of just war and the law of armed conflict to nuclear weapons use. The military planner is required to weigh the costs of unwanted collateral damage against the benefits of destroying the military target. If, however, the contribution of a nuclear attack is to limit nuclear damage to the U.S. population or to maintain the United States as a viable society after a nuclear war, then almost any degree of collateral damage could be deemed acceptable under the proportionality principle. In short, following the principles of proportionality and distinction alone still make it too easy, too acceptable, even too legal, to kill many, perhaps millions, of innocent civilians.

Lastly, we note that the bureaucratic slide into legitimizing civilian targeting is too often hidden by a kind of Strangelovian doublespeak in the nuclear planning process. The Nixon administration, for example, stated that the United States did not target civilian populations "per se." Nevertheless, National Security Directive Memorandum 242 (NSDM-242) guided planners to hold at risk the "enemy's postwar power, influence and ability to recover" from a nuclear war. In implementing this "counter-recovery targeting" planners increased the number of weapons targeted on Soviet industry, reportedly including fertilizer factories. While the United States did not target "population *per se*," it did seek to destroy the Sovi-

et population's food supply, which would starve the population.[18] As lawyer Theodore Richard has argued, "at this stage . . . law-of-war rules appeared to have minimal impact on nuclear targeting considerations. If anything, the law appeared to maintain its Second World War incarnation with vague notions of military objectives and toleration for civilian casualties."[19]

Although the United States no longer targets food supplies, the episode illustrates how easily advocates of "strategic bombing" can create thin legal and moral justifications out of public view for targeting practices that would result in millions of deaths as "collateral damage" in a nuclear war. Policy-makers can too easily accept this state of affairs in the name of deterrence. Indeed, much of the discussion in the Washington policy community, and in scholarly circles alike, about how nuclear deterrence operates rests on the ultimate prospect of killing millions of innocent persons in retaliation to a nuclear strike. This is as true of dovish "minimum deterrent" advocates calling for "assured destruction" and "countervalue" targeting as it is for hawkish advocates of massive nuclear superiority. When the threat of massive collateral civilian fatalities is the basic building block of deterrence, however, those expected fatalities should no longer be considered collateral. It is worrisome, therefore, that some policymakers appear to count on the terror of nuclear weapons against civilians for deterrence to operate, while targeteers attempt to sidestep the moral and legal complexities by narrowing their inquiries into whether the target is military or not.

We do not want to focus attention only on the U.S. military here. The root of the problem is that the fundamental conception of nuclear deterrence through threatened punishment to civilians is incompatible with just war principles, the law of armed conflict, and international humanitarian law. Some of the most trenchant critiques of these problems are by military lawyers. And we understand that junior officers questioning the lawfulness of orders is a concern for their commanding officers: it could result in a loss of discipline and an erosion of deterrence. The question is further complicated because the moral and legal harm rests in the creation of plans on paper – plans that, even if unethical or unlawful, most expect will never be executed. In our view, however, some advocates embrace the claim that U.S. nuclear war plans are compatible with ethical principles with excessive exuberance, helping to perpetuate the current state of affairs. Dunlap, for example, has argued that "should deterrence fail, our forces are – and must continue to be – ready to immediately execute orders of the national command authorities to employ nuclear weapons. Those who carry this gravest of responsibilities are entitled to be secure in the knowledge that plans they must execute honor the highest ideals of the country they have sworn to defend."[20] We also want soldiers to be willing and able to execute all legal military orders. But we believe that very different guidance and practices are necessary to produce new nuclear and conventional war plans that are consistent with the highest ideals of our country.

We have argued that following the principles of distinction and proportionality do not appear sufficient to deal with the legal and ethical challenges posed by nuclear weapons. It is important to note that the "principle of necessity" was entirely omitted from the U.S. nuclear weapons employment guidance. The principle of necessity, however, features prominently in two legal findings relating to the threat or use of nuclear weapons: *Ryuichi Shimoda et al. v. The State* (1963) and the International Court of Justice advisory opinion on the *Legality of the Threat or Use of Nuclear Weapons* (1996).

While these opinions represent a relatively diverse set of views about the legal questions involving nuclear weapons, they articulate important alternatives to how we think about the use of nuclear weapons.

In 1955, several Japanese nationals who were residents of Hiroshima and Nagasaki at the time of the bombing brought an action against the Japanese state for damages. Ryuichi Shimoda lost four daughters and a son in the bombing. He survived, but experienced severe health problems that left him unable to work. While the Tokyo District Court found that individuals could not claim damages, it also reached a number of conclusions about the legality of the bombings. The Tokyo court concerned itself only with the narrow question of whether the bombings of Hiroshima and Nagasaki were legal, avoiding the broader question of whether the use of nuclear weapons might ever be permissible. Yet the court found the 1945 bombings to be illegal. The court noted that indiscriminate bombing of undefended cities was prohibited because there was no justification in terms of military necessity for such an act. While recognizing that there were legitimate military objectives in the two cities, the court concluded that the atomic bombing was indistinguishable from the indiscriminate bombing of the two cities. The court also specifically rejected the notion that total war invalidated any distinction between combatants and noncombatants.[21]

The second case appeared in the International Court of Justice (ICJ). In 1994, the United Nations General Assembly passed a resolution seeking an advisory opinion from the ICJ on the *Legality of the Threat or Use of Nuclear Weapons*. (The World Health Organization had sought a similar opinion starting in 1993, but the ICJ eventually held that the question fell outside the scope of the WHO's mandate.) Like the Tokyo Court in *Shimoda et al.*, the ICJ opinion avoided a sweeping ruling, arguing that "the Court cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence, in which the very survival of a State would be at stake." But the ICJ opinion held, among other things, that "the threat or use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflict, and in particular the principles and rules of humanitarian law." Central to the court's reasoning were the notions of proportionality and necessity, with the court citing an earlier ruling on the "specific rule whereby self-defence would warrant only measures which are proportional to the armed attack *and necessary to respond to it*, a rule well established in customary international law [emphasis added]."[22]

In both cases – *Shimoda* and the ICJ advisory opinion – the criteria of "military necessity" was not settled by simply asking whether the object of the nuclear use was a legitimate target, but also whether the means themselves were necessary to destroy the target and were thus permissible. The view expressed by both opinions is similar to the pithy summation offered by William Taft: "The condition of 'necessity,' rather, requires that no reasonable alternative means of redress are available."[23] Emphasizing the necessity of the means, not merely the ends, is an essential aspect of improving our nuclear doctrine and policy. Absent this emphasis, "the principle of necessity" loses its meaning as a constraint.

To see how the principle of necessity might constrain nuclear war planning, consider the many "soft" targets, such as military-related industrial targets, that appear to remain in the nuclear war plans today. Such targets could be destroyed, if necessary, by conventional weapons. One might ask, therefore, what would be the purpose of using a nuclear weapon against a target when a conventional weapon would suffice? Would this not seem to be a reason-

able test of whether the actual intention was to terrorize civilians instead of achieving a legitimate military objective? What are the practical benefits of using a nuclear weapon in place of a conventional one? It is this question we turn to next.

An awareness of the weak constraints created by the proportionality principle in practice is what led Michael Walzer to propose, in *Just and Unjust Wars*, that soldiers and leaders alike must take active measures to reduce collateral damage, including taking risks upon themselves. This concept of taking active measures to reduce collateral damage has been called the "due care" principle by political philosopher Steven Lee, and Sagan and Benjamin Valentino.[24] Others, like Seth Lazar, argue that using only the minimal amount of force necessary to destroy the target should be called the "necessity principle" in *jus in bello*.[25] It does not really matter which term is used, but the principle should be that the minimal amount of force needed to destroy the target with a reasonable prospect of success should be used at all times, even if this means accepting some risk. In terms of nuclear war planning, this would require the president to state as a matter of law and national policy that the United States will not employ nuclear weapons against any target that could be reliably destroyed with conventional weapons.

If we agree that nuclear weapons may not be used for other purposes such as their "unique psychological impact" – simply a euphemism to invoke the terror nuclear weapons cause – perhaps there will remain practical arguments that the use of nuclear weapons might be justified on some other grounds, such as economy of force or their ability to destroy hard and deeply buried targets.

In contrast to the economy argument, however, we believe there are many sound strategic reasons to prefer an increased role of conventional forces in maintaining deterrence today. The traditional benefit of nuclear weapons has been their explosive power; but the value of explosive power is a diminishing one. As weapons have become more accurate, leaders have preferred weapons that can reliably destroy a target through precision, while avoiding the mass casualties that nuclear weapons or indiscriminate bombing might inflict. The large yields associated with nuclear weapons are no longer a benefit, but rather an inhibition against their use. Political leaders are reluctant to use weapons that do not discriminate between combatants and noncombatants and produce undesirable physical effects like radiation. Nor are political leaders eager to transgress the "tradition of non-use" that has grown since 1945 for fear that doing so might encourage further nuclear proliferation and the potential use of these weapons by other nations.

For these reasons, the threat of conventional weapons use is not just a more ethical choice, it is also, in most scenarios, a more credible choice. This policy might produce some risk that an adversary discounts the destructiveness of a conventional attack or retaliation. As conventional military options are more likely to be ordered in a conflict, however, we believe that they are generally a more credible threat. Although the common perception is that nuclear weapons are needed for stable deterrence because they are so terrible, in fact the opposite may be the case: nuclear weapons struggle to deter because the threat of their use is so incredible, since the consequences would be so terrible.

A second category of targets may be hard and deeply buried targets that require a very large yield nuclear explosion that sends a shockwave through the ground to crush a deeply buried bunker. There is, at the moment, a considerable debate about the effectiveness of conventional weapons against such targets. Many such targets are

defended by uncertainties in their location as much as their depth. Once a site is discovered, it may have other vulnerabilities, such as ventilation, that are a more reliable route to destruction than simply hoping to crush them with a nuclear shockwave. And other targets may be too hard or buried too deeply for any form of munition, nuclear or conventional.

On balance, we believe setting a requirement that nuclear weapons never be used against any legitimate military target that could be reliably destroyed by other means would result in a substantial reduction in nuclear weapons, threatening the much smaller set of targets, if any, that remain immune to conventional attack. Most of all, we think the proposal conforms with simple common sense. It is hard to imagine a circumstance in which it would be either ethically permissible or wise from the perspective of our security interests to use a nuclear weapon when a conventional one would suffice. U.S. officials have made similar statements in the past. In 1996, then-Secretary of Defense William Perry was asked about whether the United States would allow Libya to complete construction of what appeared to be a large chemical weapons production facility near Tarhuna. Perry answered with one word: "No," and then when asked about the use of force, he replied, "I wouldn't rule anything out or anything in."[26] This was quickly interpreted as a nuclear threat, something Perry corrected by stating, "I would never recommend nuclear weapons for that particular application."[27] The United States could easily generalize Perry's statement, reserving nuclear weapons only for those targets that cannot be reliably destroyed otherwise and letting the effectiveness of U.S. conventional military capabilities shoulder the burden of deterrence.

We understand that any U.S. policy change emphasizing the deterrent and war-winning potential of conventional capabilities could result in unintended consequences. Would this doctrine require a massive increase in conventional arms spending? Would it require the development of new nuclear weapons with smaller yields? How would the resulting shifts in doctrine influence the likelihood of escalation in a crisis? Would potential adversaries find this shift reassuring or threatening, and how would allies perceive the change? In particular, two U.S. NATO allies, France and the United Kingdom, also have nuclear weapons and have, at least in the recent past, explicitly targeted cities in the Soviet Union and Russia, as their main deterrent threat.[28] Wouldn't the U.S. adoption of the nuclear necessity principle also suggest that these two NATO nuclear allies must change their doctrines to conform to just war doctrine and the law of armed conflict? We believe such a policy would ultimately enhance extended deterrence to our friends and allies, by making U.S. commitment rest on threats that the U.S. president would execute if deterrence failed. But we are mindful of the need for dialogue with our allies and partners.

Finally, would this step be consistent with efforts to encourage the United States and other nuclear powers to honor their commitments under article VI of the Non-Proliferation Treaty to work in "good faith" toward nuclear disarmament? On its face, emphasizing an additional legal constraint on nuclear targeting should be welcomed by those seeking progress toward disarmament. And yet, in prohibiting some behavior, a rule permits others – in this case the targeting of nuclear weapons for specific purposes. Our view is that focusing on the limited and declining utility of nuclear weapons is a necessary step toward creating a world without nuclear weapons that is not predicated on unachievable conditions of world peace and general disarmament.

These are all legitimate issues for debate. It would behoove us, however, to debate such subjects with transparency and frankness in academic and government circles, rather than allow a gap to persist between how we talk about nuclear deterrence and how we practice it. Placing conventional weapons at the center of debates about the future of deterrence would help focus the policy discussion on realistic scenarios in which our military power might actually be used. And it would more faithfully honor the just war principles of distinction, necessity, and proportionality, by placing them at the heart of our deterrence and security policies, where our highest ideals belong.

ENDNOTES

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The Responsibility to Protect after Libya & Syria

Jennifer M. Welsh

Despite the commitment made by all heads of state attending the 2005 World Summit to uphold the principle of the responsibility to protect (R2P), atrocity crimes continue to be committed by states and nonstate actors. This essay argues that assessments of R2P's effectiveness too often overlook the political nature of the principle – with the strengths and weaknesses that this status entails – and apply rigid standards of success that both underestimate its contribution to building capacity to prevent and respond to atrocity crimes and overemphasize the role of military intervention. It also suggests that R2P is best understood as a "duty of conduct" to identify when atrocity crimes are being committed and to deliberate on the best form of collective response. The cases of Libya and Syria have nonetheless raised fundamental questions about the prospect of catalyzing international efforts to protect populations, particularly when there is disagreement over the costs and benefits of a coercive response.

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In spite of the cries of "never again" following the genocides in Rwanda and Srebrenica, the early decades of the twenty-first century have continued to be marked by atrocity crimes.[1] In far too many crises, vulnerable populations suffer from forms of violence that challenge our common humanity.[2] In 2014 – 2015, acts that could constitute genocide, war crimes, ethnic cleansing, and crimes against humanity took place in the Central African Republic, the Democratic Republic of the Congo, Iraq, Libya, Nigeria, South Sudan, Sudan, Syria, and Yemen, among other regions. A number of other situations featured grave and systematic violations of human rights or international humanitarian law – by both state and nonstate actors – that entailed significant risk of further escalation, or virulent forms of violent extremism that posed a particular threat to religious and ethnic minorities.

Just over a decade ago, heads of state and government pledged to address these protection cri-

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ses when they adopted the principle of the responsibility to protect (R2P) at the 2005 World Summit held at the United Nations headquarters in New York. In articles 138 and 139 of the 2005 World Summit Outcome, they not only affirmed the primary responsibility of states to protect their own populations from genocide, war crimes, ethnic cleansing, and crimes against humanity, but also accepted a collective responsibility to assist each other in fulfilling this responsibility and declared their preparedness to take timely and decisive action, through the Security Council and in accordance with the United Nations charter, when national authorities manifestly fail to protect and peaceful means have proven inadequate.[3]

So what does the apparent disjuncture between rhetorical commitment and the reality faced by threatened populations tell us about the standing and trajectory of the responsibility to protect? There is an active scholarly debate on whether R2P has progressed to the status of a norm and, if so, the nature of its effects on state behavior.[4] This essay does not seek to address these particular issues, notwithstanding their importance to theoretical advances concerning the nature and impact of norms in international relations. Instead, it takes the view that the fractious debates about R2P's impact have often been driven by a lack of clarity over what exactly the principle is, and what it can contribute. In what follows, I tackle both of these questions before focusing on how the particularly difficult cases of Libya and Syria have affected assessments of R2P and posed challenges for its future implementation.

Nonetheless, two preliminary points about R2P's normative trajectory are worth stressing. First, while there is continued contestation about some aspects of R2P, the points of contention among UN member states have diminished substantially over the past decade. Informed by the annual reports of the UN secretary general,[5] extensive consideration of the responsibility to protect in the General Assembly has helped to advance an implementation framework based on three pillars: pillar one emphasizes the primary responsibility of individual states to protect their own populations (whether nationals or not) from genocide, war crimes, ethnic cleansing, and crimes against humanity; while pillars two and three call upon the international community to assist states in fulfilling these responsibilities and to respond collectively if national authorities manifestly fail to do so. This framework has helped forge consensus on some core aspects of the principle, including the importance of prevention, the need to ensure that "timely and decisive" response uses a full range of diplomatic, political, humanitarian, and – as a last resort – military measures, and that implementation must conform to the UN charter and other established principles of international law.

This consensus spans all regions. While there is a persistent view that R2P is a "Western" concept, the past decade of deliberation and action provides contrary empirical evidence.[6] As one recent multinational study of state practice concluded: "The core of the global political conflict over protection from atrocities has moved on. Most relevant actors around the globe accept the idea that the protection of populations from atrocity crimes is both a national and international responsibility."[7] Those states and institutions once considered hostile to the principle of R2P have themselves begun to reference and employ it, and the debate has shifted from the merits of the principle itself as to how it should be implemented.[8] This evolution has been on full display in the most recent interactive dialogues on the responsibility to protect in the General Assembly, where states across the geographical spectrum concur that the international community should

adopt measures to support R2P, including the use of force as a last resort.

Second, the principle of R2P has made significant progress in the formal deliberations of key intergovernmental bodies in a relatively short period of time. As of autumn 2015, the Security Council had adopted more than thirty resolutions and six presidential statements that refer to the responsibility to protect, some of which have authorized peacekeeping missions that explicitly referenced the need to support national authorities in upholding their responsibility to protect (such as in Mali, South Sudan, and Cote d'Ivoire), and others that welcome the work of the Joint Office for the Prevention of Genocide and the Responsibility to Protect.[9] The General Assembly has held a formal debate, convened seven annual informal interactive dialogues, and referred to the responsibility to protect in two Third Committee resolutions. The Human Rights Council has adopted thirteen resolutions that feature the responsibility to protect, including three on the prevention of genocide and nine relating to country-specific situations. And at a regional level, the African Commission on Human and Peoples' Rights has adopted a resolution on strengthening the responsibility to protect in Africa[10] and the European Parliament has recommended full implementation of the principle by the European Union.[11]

Resolutions and declarations, however, are ultimately about words; on their own, they do not tell us enough about the degree to which R2P has been internalized. Nor do they provide much comfort to those who on a daily basis confront systematic and large-scale violence. We therefore require deeper consideration of what the principle of responsibility to protect can reasonably be expected to do, and what contributions it has concretely made to realize the goal of atrocity crime prevention and response.

The starting point is to recall that the inclusion of R2P in the 2005 World Summit Outcome embodies a *political* commitment to take a more activist posture vis-à-vis atrocity crimes, born out of the international community's painful failures in the 1990s to halt genocide, war crimes, crimes against humanity, and ethnic cleansing. It is also crucial to note that the political context that gave rise to the principle was dominated by the lessons of *both* Rwanda *and* Kosovo. In the former case, the failure to respond to the unfolding genocide with a stronger international force led to a search for ways to build the capacity and will to protect populations from large-scale massacre or humanitarian catastrophe. In the case of Kosovo, NATO's intervention to avert ethnic cleansing encountered strong opposition given the lack of Security Council authorization for the bombing campaign, prompting attempts to construct a more widespread consensus for the conditions under which military force could be used in the service of humanitarian objectives. These efforts followed the approach of the 2001 International Commission on Intervention and State Sovereignty, which developed and promoted the notion of "responsible sovereignty": that state sovereignty should not be conceived solely in terms of undisputed control over territory, but rather should be linked to a state's capacity to protect and provide for its population.[12]

The principle of R2P thus arose primarily out of moral and political, rather than legal, considerations, and was built on the conviction that state sovereignty is enhanced through more effective protection. It did not create any new legal obligations, beyond what already exists in the Geneva Conventions, the Genocide Convention, the UN charter, and other relevant legal instruments related to human rights. Indeed, on the face of it, we had – and have – all of the law we need.[13] What was lacking then,

and is still in too short supply today, is the capacity and will to act on these legal provisions, including the powers of the Security Council to authorize the use of coercive measures when it identifies threats to international peace and security. What the unanimous support for R2P in the Summit Outcome provided was an authoritative interpretation of the charter,[14] and of other particular aspects of international humanitarian and human rights law, that asserted the legitimacy of viewing the commission of atrocity crimes as a matter of international concern – rather than a matter of domestic jurisdiction – and of acting collectively to address it. In addition, it sent a powerful reminder to national authorities of the responsibilities they already have to their own populations as part of existing law and emphasized that this responsibility includes prevention.

As a political principle, R2P was designed both to legitimize a shift in expectations about how the international community should view situations involving atrocity crimes, and to mobilize greater will and capacity to act. With respect to the first function, it has helped create a category of acts that are, by their very nature, issues of *international* concern by establishing a "floor of decency"[15] beyond which states *themselves agree* that populations should not fall. In terms of its second role, R2P has created a framework for developing policy and institutional capacity – at the national, regional, and international levels – to prevent and respond to atrocity crimes.

One key example is the appointment of focal points within governments to coordinate policy development on atrocity crime prevention and response.[16] These national-level officials are critical to the implementation of R2P's first pillar: they accelerate the adoption of domestic measures that will advance implementation of these obligations. Such steps include conducting a national risk assessment; signing and ratifying relevant treaties of international human rights law and international humanitarian law, as well as the Rome Statute of the International Criminal Court; and developing laws and institutions to address exclusion and discrimination. They also extend to efforts to foster collaboration among various government departments and agencies to improve upon the capacity to respond to atrocity crimes outside state borders, as illustrated by the Obama administration's creation of the Atrocities Prevention Board.

Progress in capacity-building is also evident at the regional and international levels. Within the European Union, an R2P focal point has been appointed to coordinate the work of policy divisions active in different aspects of atrocity crime prevention and response, and the European Commission's early warning tool, designed for conflict prevention, now incorporates indicators relevant to genocide, crimes against humanity, and war crimes. Within the United Nations, implementation of R2P has been furthered by the work of the Joint Office for the Prevention of Genocide and the Responsibility to Protect and by the adoption of a new framework of analysis that both specifies the risk factors of atrocity crimes and sets out a process for identifying and elevating "situations of concern."[17] More recently, the action plan for the secretary general's Human Rights Up Front initiative has spawned further institutional reforms to strengthen the link between early warning and early action in the UN system.[18]

Elsewhere at the international level, institutionalization is less formal and more decentralized. It has usually taken the form of enhanced coordination and engagement among a variety of actors and organizations in cases where atrocity crimes have been committed, or were imminent, such as in Guinea in 2009 – 2010, Kenya in both 2007 – 2008 and 2013, and, most recently, Burundi. These conscious efforts to forestall the com-

mission or escalation of atrocity crimes offer the strongest proof that such acts of violence are deemed matters of international (and not solely domestic) concern.

More broadly, the development and diffusion of R2P has been partially responsible for the increased volume in academic and policy-related research on risk factors and triggers for atrocity crimes, sources of national resilience, and preventive mechanisms.[19] This enhanced knowledge is beginning to translate into tailored efforts to support "states under stress" (to use the term from the Summit document) through development cooperation programs that build or strengthen inhibitors to atrocity crimes, such as a professional and accountable security sector, independent bodies and procedures for overseeing political transitions, and local capacity for dispute resolution.[20] These initiatives are only in their infancy, and face the methodological challenge – common to all areas of public policy involving prevention – of definitively demonstrating effectiveness, since it is hard to prove a negative. But the political commitment to R2P and its increased presence in the language of international diplomacy have helped to create a transnational policy constituency dedicated to improving preventive capacity.[21]

What the principle of R2P has *not* done is dictate what particular response should follow in every case of protection failure, particularly when it comes to the option of military intervention. As a result, critics have been quick to claim that the lack of intervention in one case, and the presence of it in another, is evidence of R2P's weakness.[22] However, there are two reasons why it is inappropriate to judge R2P's impact in terms of whether we see a consistent pattern of military intervention.

First, such a test misunderstands the essence of responsibility. As the philosophical literature tells us, prospective responsibilities – such as R2P – are by nature consequentialist rather than deontological. They define a particular state of affairs that an agent should bring about (in this case, protection), without specifying the precise means of doing so.[23] The standard of the critics of R2P is therefore too minimalist, given that it overlooks the many other tools and mechanisms that can be brought to bear to address situations featuring atrocity crimes. In the case of Guinea, for example, concerted preventive efforts by local, regional, and international actors – which included preventive diplomacy, arms embargos, travel bans, and threats of International Criminal Court prosecutions – helped avert a recurrence of atrocity crimes following the massacre of September 2009. Assessing how the international community has responded to atrocity crime situations to date, and how it could respond in future, requires analysis of these nonmilitary means and the conditions under which they are effective.

On the other hand, the standard of a consistent pattern of intervention is too demanding, given that – like all issue areas that touch on the use of coercive means – implementation of R2P is profoundly shaped by the political dynamics within, and unique structure of, the United Nations Security Council. That said, it would be too simplistic to explain away the mixed pattern of responses to atrocity crime situations by highlighting the political motives of Security Council members, no matter how prominent they may be in certain cases. The lack of consensus on action within the Council, or the slow pace of its response, can also be shaped by genuine doubts on the part of Council members about either the appropriateness or the feasibility of using military force for humanitarian objectives. In the case of Darfur in 2004 – 2005, for example, Western states concluded that a successful military effort to counter the violence perpetrated by the Janjaweed militia could not

be mounted, given competing missions in Iraq and Afghanistan, the difficulties associated with the terrain in Sudan, and concerns about whether such an intervention would have destabilizing effects for neighboring countries. This example suggests that the normative imperative to respond to atrocity crimes will almost always exist alongside other considerations: both normative (such as the just war notion of "reasonable prospects of success") and non-normative (such as military overstretch). How these factors work together in decision-making to produce policy decisions will differ from case to case.

Given this complex political and normative landscape, what *can* we expect R2P to do? I have argued elsewhere that what the principle demands, at a minimum, is a "duty of conduct" on the part of members of the international community: to identify when atrocity crimes are being committed or are imminent and to deliberate on how different actors (national, regional, and international) can and should respond. This duty of conduct is particularly demanding for bodies such as the UN Secretariat or Human Rights Council, which do not have the same level of politicization built into their DNA as a body like the Security Council.[24]

Nevertheless, even here the principle of R2P has had some effect. This brings me to its third and final political function: raising the political costs of a failure to respond. The growing acceptance of the responsibility to protect now makes it more difficult for the Security Council to justify inaction in the face of genocide, war crimes, ethnic cleansing, and crimes against humanity. That does not mean that it always mounts a collective response, but the reputational costs of not doing so have increased. When members of the Council are united – as they were in mandating and supervising the removal of chemical weapons in Syria – they can ameliorate conditions of insecurity for thousands of civilians. But when they fail to find common purpose, the impact is devastating, to civilians on the ground and to the reputation and standing of the Council itself. In a highly unusual step, the General Assembly publicly rebuked the Council in the summer of 2012 for its inadequate response to the Syrian crisis, passing a strongly worded resolution expressing "grave concern" at the escalation of the violence and "deploring the failure of the Security Council" to agree on measures to ensure the compliance of Syrian authorities with its decisions.[25]

One response to this reputational challenge, mounted by the French government, is to create a voluntary agreement among the Permanent Five Members of the Security Council to refrain from using the veto in situations featuring atrocity crimes.[26] Despite the obvious political difficulties in reaching such agreement (both Russia and China are firmly opposed), the degree to which the proposal continues to gather support among UN member states is surprising. This speaks to the growing frustration with the working methods of the Security Council, and mounting pressures for the body to be more representative in its makeup and transparent in its decision-making. Thus, even if the French proposal fails to gain traction in its current form, the political cost of the veto to the Permanent Five is likely to increase, and concrete alternatives to the Council's monopoly over matters of international peace and security – such as the so-called Uniting for Peace Resolution or the authorization of regional bodies – may over time gain in prominence and legitimacy.

I have thus far suggested that R2P presents a multifaceted political agenda, involving tiered responsibilities and a mix of preventive and responsive tools. Yet at the heart of the principle remains a call to implement the international community's responsi-

bilities to protect populations from atrocity crimes, no matter where those populations reside. In short, while prevention may be the preferred approach, it does not always succeed.

Although states have taken concrete measures to enhance their pillar one and pillar two responsibilities, the record of implementation of the measures under pillar three – timely and decisive response – has been mixed. Two cases in particular have raised fundamental and persistent questions about R2P's capacity to catalyze efforts to protect populations in ways viewed as legitimate by the international community. The international intervention in Libya in 2011, authorized by Security Council Resolution 1973, has generated debates about when and how force should be used for the purposes of protection and sparked concerns among some member states about the potential for the responsibility to protect to be misused. It has also reminded actors of the vital need to consider what responsible action demands *after* the use of force.[27] In addition, the international community's inability to resolve the continuing catastrophe in Syria – where over one-quarter of a million people have now been killed and more than ten million displaced – has led some to question whether R2P has, by raising the expectations of populations about the international community's concern and resolve but delivering very little protection on the ground, in fact, made matters worse.

My focus here is on R2P's continued political utility, and how its "duty of conduct" has been affected by the examples of Libya and Syria. Three main effects can be identified. First, these cases have highlighted the epistemic problems associated with arriving at a collective view on an atrocity crime situation. Second, they have illustrated the difficulty of determining *when* military force should be considered. And third, they have underscored the challenges that arise in efforts to estimate and weigh costs when deliberating over the appropriateness of a military response.

A key benefit of paragraphs 138 and 139 of the World Summit Outcome is that they circumscribe the scope of R2P from the more general threshold of "large scale loss of life," which was the formulation in the 2001 International Commission on Intervention and State Sovereignty report *The Responsibility to Protect*, to four specific crimes and violations that had already been identified in the Rome Statute of the International Criminal Court and the Constitutive Act of the African Union. But although, in theory, this narrower scope should facilitate consensus on situations that constitute matters of concern for the international community as a whole, in practice, contestation has lingered over which situations feature the current or imminent risk of atrocity crimes and thus activate the international responsibility to protect. This debate has been particularly pronounced in retrospective discussions of the Libyan case, since critics of the intervention now claim that the capacity of Colonel Gaddafi to engage in large-scale massacres was greatly overstated.[28] It was also evident in the context of Sri Lanka in 2009, when, even among supporters of R2P, there was disagreement as to whether the civilians caught in the fighting in the jungle area near Mutulivu were being subjected to atrocity crimes, or whether the Sri Lankan government was legitimately protecting its population against the existential threat of terrorism.[29]

Some analysts, such as Robert Pape, believe this potential for contestation can only be mitigated by waiting for a specific threshold to be crossed – in his case, the death of "several thousand" civilians – before contemplating the use of coercive responses involving military force.[30] This standard, Pape suggests, enables a balance between the imperative of timely ac-

tion and the need for clear evidence. But although this represents an admirable attempt to set a specific "line" to be crossed, it would both rule out the potential of preventive action – at least preventive action through military means – and represent a further narrowing of R2P's scope to a particular number of deaths.

Furthermore, one notable aspect of recent cases has been the degree to which evidence for alleged atrocity crimes, particularly in video or photographic form, has been publicly contested as exaggerated or fabricated. The French government's argument for referral of the situation in Syria to the International Criminal Court drew upon photographs of alleged torture that were dismissed by other members of the Security Council as lacking credibility.[31] Such controversy gives added weight to the calls by some states for an authoritative and impartial actor to make a definitive determination on the existence of an atrocity crime situation. In fact, this suggestion has been a core element of the French proposal for restraint in the use of the veto by the Security Council Permanent Five.

Even if such an impartial body could be formed or identified, or an ad hoc commission of inquiry established to ascertain the "facts," such processes cannot always deliver definitive or timely assessments that enable the international community (or more particularly, the Security Council) to respond decisively to escalating crises. In the case of Syria, for example, the initial report of the Independent International Commission of Inquiry on the Syrian Arab Republic could not definitively establish responsibility for the May 2012 massacre at Houla, in which more than one hundred people (half of them children) were killed.[32] Two months later, in its final report, the Commission concluded that the Houla massacre had been committed by Syrian government forces and militia, backed by state officials at the highest levels, and that the killings met the requirements of the war crime of murder.[33] By that time, however, one of the pivotal moments for decisive political action had passed and core members of the Security Council had become deadlocked over how to respond to the deepening crisis.

In article 139 of the World Summit document, UN member states emphasized a full range of tools at the disposal of the international community – noncoercive as well as coercive – to respond to the commission of genocide, war crimes, ethnic cleansing, and crimes against humanity. Since 2005, states' use of noncoercive tools has included measures under chapters six and eight of the charter, such as mediation between warring parties to reduce or end violence; negotiation over specific protection issues, such as humanitarian access; monitoring and observer missions to report on serious violations of international humanitarian and human rights law, assess specific sources of threat, and deter the commission of atrocity crimes; fact-finding missions to establish impartially whether atrocity crimes have occurred; and public advocacy on protection by key United Nations officials and representatives of regional and other international organizations. Acting under articles 41 and 42 of the charter, the international community has also employed more robust tools to address the threat or commission of atrocity crimes, including targeted sanctions, the authorization of peacekeeping missions with a robust protection of civilians mandate, and the authorization of military action with the express purpose of protecting civilians.

As this record shows, the choice for the international community is rarely between total inaction and sending in ground troops. Instead, there are a variety of mechanisms that can be employed, even if actors have underinvested in their capacity to use them. Nor is every use of military force necessarily a coercive act, in the strictest sense, since

most UN-authorized missions with civilian protection purposes operate with the consent of the state in question.

Regardless of the presence or absence of consent, a crucial ethical and political question is whether the use of military means must *literally* be the last resort, or whether R2P's "duty of conduct" entails only an obligation to assess if nonmilitary means are likely to succeed. With respect to Libya in 2011, some believe the rush to authorize the use of force curtailed the opportunity for other tools to succeed, particularly a mediated solution to the conflict between the government and rebel groups. This view has been contested by those who suggest that if atrocity crimes are to be prevented, not all tools will be appropriate or feasible. The challenge facing the latter position, however, is that it defers to a more subjective act of political judgment – such as whether a mechanism is likely to work – rather than the more objective standard of using force as a last resort.

Another core feature of ethical debates on the use of force is the imperative for decision-makers to assess reasonable prospects for success, given the unintended and destructive consequences that military means invariably bring about. The political discourse that has accompanied the development of R2P suggests that its "duty of conduct" implies a similar kind of injunction, but it is even more pronounced given that the overall objective of coercive measures is humanitarian. Nevertheless, one of the core challenges raised by the Libya intervention is how to sustain an argument about the success of a military effort to forestall atrocity crimes (or their escalation). This is so for three reasons.

First, as international affairs scholar Roland Paris has observed, the evidence of a successful preventive action is a *nonevent*: the absence of atrocity crimes. But since this is extremely difficult to demonstrate, supporters of such a policy usually resort to counterfactual arguments about what would have happened in the absence of military action, which in almost all cases will involve assumptions that can be contested.[34] The task becomes even more challenging when such interventions cause significant harms, even if unintended, since these actual costs will appear more vivid than the predicted benefits. "Perceptions of the costs and benefits of preventive operations," Paris has suggested, "are thus likely to be skewed towards the costs, even when the mission arguably accomplishes what it set out to do: averting a mass atrocity."[35]

A second and related problem is that military action to prevent or respond to atrocity crimes is often judged not in terms of whether it meets its immediate goal, but rather in terms of whether the state in which intervention occurs becomes *generally* more stable. As commentators have observed, particularly in relation to the NATO action in Libya, outside forces seeking to protect a population may be tempted (or pressured) to expand their operation to address what is alleged to be the "deeper" cause of the threat to that population. Unless they do, the argument goes, their disengagement may simply lead to a resumption of the original conditions that placed populations in peril.[36] But if they do, their actions will amount to an (unauthorized) expansion of their initial mandate. If this mandate is issued from a multilateral body, the damage to future intergovernmental negotiations can be considerable.

I do not have the space here to argue whether or not regime change is a necessary part of military action to protect populations. However, what the dilemma above suggests is that, post-Libya, new mechanisms are needed for ensuring accountability for those who act on behalf of a multilateral body such as the United Nations. It is no longer legitimate (if it ever was) to delegate protection without effective forms of oversight. Protection missions with mul-

tilateral authorization may therefore need to be accompanied by reporting mechanisms (akin to those that currently exist for peacekeeping) and "sunset clauses" that would trigger regular reviews by the Security Council and other relevant stakeholders, such as troop-contributing countries.

A final challenge in estimating reasonable prospects of success is the growing demand that agents who use military force also fulfill their responsibility to rebuild. The normative accounts that detail these *post bellum* responsibilities have proliferated in the wake of both the 2003 War in Iraq and the 2011 intervention in Libya, given the judgment that both missions failed to plan for the aftermath.[37] The public inquiry to identify lessons from the Iraq conflict, initiated by the British government in 2009, and which finally published its findings in July 2016, presented a damning critique of woefully inadequate postwar planning. Sir John Chilcot, chair of the investigation, firmly rejected the argument that the potential for chaos in Iraq could only have been seen in hindsight; instead, he contended, many of the difficulties encountered after the initial invasion – including the rise of violent extremism – "had been, or could have been foreseen."[38] The imperative to rebuild has also been criticized, however, for imposing excessive costs on potential interveners and thus dissuading them from engaging in efforts to protect populations from atrocity crimes.[39]

The contemporary backdrop for the third pillar of R2P is thus one to which the sentiment of "damned if you do" is paramount. While members of the international community fulfill their duty of conduct by identifying an atrocity crime situation and deciding how to react, they all too frequently conclude that the costs of a robust response are too high. But if the lessons drawn from Iraq and Libya are all about the costs of action, what does Syria tell us about the costs of *inaction*? The total number of displaced people in the world in 2015 reached a record 65.3 million – the highest figure in recorded history. The Syrian conflict was a major contributor to this surge in mass flight, with the country standing as the world's biggest producer of refugees in 2015.[40] It is clear from this tragic case that the international community is also "damned if you don't"; costs are incurred both with and without intervention. Decision-makers therefore have a moral obligation to do as much and as best as they can to anticipate those costs and to subject their judgments to constant reassessment.

This essay has argued that the responsibility to protect should be seen as a political principle, with all of the strengths and weaknesses that this status entails. There is little doubt that, after only a decade, R2P has been established as a key feature of the normative and diplomatic landscape. We have also seen evidence of its ability to inspire research, galvanize resources for capacity-building, catalyze institutional change, mobilize collective attention, and even raise the political costs of inaction. What it has not achieved, but which is too much to expect, is the consistent and robust international response to all protection crises.

The progress made under R2P's first pillar conforms roughly to what scholars of international norms would expect: national/domestic-level actors interpreting and "localizing" an international principle within their particular context.[41] What makes the full realization of R2P so challenging, however, is that progress at the national level is insufficient. The principle also demands a collective "duty of conduct" by the international community. Successful implementation at this level is harder to achieve and more difficult to measure. Moreover, the debates generated by the cases of Libya and Syria suggest that the potential for delegitimization that

arises in the context of R2P's third pillar could have "collateral damage" with respect to maintaining the political capital necessary to further its other important pillars. As a result, the dilemmas associated with deliberation on the use of military means require, at a minimum, greater acknowledgement and, at a maximum, concerted effort at resolution – if the consensus that has been painstakingly built around R2P is to survive and strengthen.

ENDNOTES

Author's Note: The views expressed in this essay are those of the author, and do not reflect the position of the Office of the Special Advisers on the Prevention of Genocide and the Responsibility to Protect.

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[1] This essay uses the term *atrocity crimes* to refer to the four acts specified in paragraph 138 of the 2005 World Summit Outcome. Genocide, war crimes, and crimes against humanity are established as crimes under international criminal law; ethnic cleansing, while not defined as a distinct crime, includes acts that will regularly amount to one of the crimes, in particular genocide and crimes against humanity. See United Nations General Assembly, *2005 World Summit Outcome* (A/RES/60/1), October 24, 2005, para. 138, http://www.un.org/womenwatch/ods/A-RES-60-1-E.pdf.

[2] See, for example, Early Warning Project, "Historical Trends in State-Led Mass Killing," http://www.earlywarningproject.com/risk_assessments. An increase in the number of atrocity crimes committed by nonstate armed groups has also accompanied the rise in state-led mass killing.

[3] United Nations General Assembly, *2005 World Summit Outcome*, para. 138 and 139.

[4] See, for example, Aidan Hehir, *The Responsibility to Protect: Rhetoric, Reality and the Future of Humanitarian Intervention* (Houndsmills, United Kingdom: Palgrave Macmillan, 2012); Theresa Reinhold, "The Responsibility to Protect – Much Ado About Nothing?" *Review of International Studies* 36 (S1) (2010): 55 – 78; Alex J. Bellamy, "The Responsibility to Protect Turns Ten," *Ethics and International Affairs* 29 (2) (Summer 2012): 161 – 185; and Jennifer M. Welsh, "Norm Contestation and the Responsibility to Protect," *Global Responsibility to Protect* 5 (4) (2013): 365 – 396.

[5] United Nations General Assembly, Report of the Secretary-General, *Implementing the Responsibility to Protect* (A/63/677), January 12, 2009; United Nations General Assembly, Report of the Secretary-General, *Early Warning, Assessment, and the Responsibility to Protect* (A/64/864), July 14, 2010; United Nations General Assembly, Report of the Secretary-General, *The Role of Regional and Sub-Regional Arrangements in Implementing the Responsibility to Protect* (A/65/877), June 27, 2011; United Nations General Assembly, Report of the Secretary-General, *Responsibility to Protect: Timely and Decisive Response* (A/66/874), September 5, 2012; United Nations General Assembly, Report of the Secretary-General, *Responsibility to Protect: State Responsibility and Prevention* (A/67/929), July 9, 2013; United Nations General Assembly, Report of the Secretary-General, *Fulfilling Our Collective Responsibility: International Assistance and the Responsibility to Protect* (A/68/947), July 11, 2014; and United Nations General Assembly, Report of the Secretary-General, *A Vital and Enduring Commitment: Implementing the Responsibility to Protect* (A/69/981), July 13, 2015.

[6] Philipp Rotmann, Gerrit Kurtz, and Sarah Brockmeier, "Major Powers and the Contested Evolution of a Responsibility to Protect," *Conflict, Security & Development* 14 (4) (2014): 355 – 377. See also Bellamy, "The Responsibility to Protect Turns Ten."

[7] Global Public Policy Institute, *Effective and Responsible Protection from Atrocity Crimes: Toward Global Action* (Berlin: Global Public Policy Institute, April 2015), http://www.globalnorms.net/r2p.

[8] For one example of the changing view on R2P within Asia, see High Level Advisory Panel on the Responsibility to Protect in Southeast Asia, *Mainstreaming the Responsibility to Protect in Southeast Asia: Pathway Towards a Caring ASEAN Community* (New York: United Nations, 2014).

[9] See United Nations Security Council, *Resolution 2085 (2012)* (S/RES/2085), on the situation in Mali; United Nations Security Council, *Resolution 1996 (2011)* (S/RES/1996), on the situation in South Sudan; United Nations Security Council, *Resolution 1975 (2011)* (S/RES/1975), on the situation in Côte d'Ivoire; and United Nations Security Council, *Resolution 2150 (2014)* (S/RES/2150) and *Resolution 2171 (2014)* (S/RES/2171), both thematic resolutions.

[10] African Commission on Human and Peoples' Rights, *Res. 117 (XXXXII) 07: Resolution on Strengthening the Responsibility to Protect in Africa*, 42nd Ordinary Session, November 28, 2007, http://www.achpr.org/sessions/42nd/resolutions/117/.

[11] European Parliament, *Recommendation to the Council on the UN Principle of the "Responsibility to Protect"* (A7-0130/2013), http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P7-TA-2013-0180+0+DOC+XML+V0//EN&language=EN.

[12] International Commission on Intervention and State Sovereignty, *The Responsibility to Protect* (Ottawa: International Development Research Corporation, 2001). The move toward this reading of sovereignty had been developed almost a decade earlier in the work of Kofi Annan's former special representative on internally displaced persons, Francis M. Deng (who subsequently served as Ban Ki-moon's special representative on the prevention of genocide). See, for example, Roberta Cohen and Francis M. Deng, *Masses in Flight: The Global Crisis of Internal Displacement* (Washington, D.C.: The Brookings Institution, 1998).

[13] I am not suggesting that R2P would not benefit from the further development of law. But the broader question of whether such legal advancement would be feasible in the current context is beyond the scope of this essay.

[14] For an elaboration of this view, see Maria Banda and Jennifer M. Welsh, "International Law and the Responsibility to Protect: Clarifying or Expanding States' Responsibilities?" *Global Responsibility to Protect* 2 (3) (2010): 213 – 231.

[15] For the original idea of the "floor," see R. J. Vincent, *Human Rights and International Relations* (Cambridge: Cambridge University Press for the Royal Institute of International Affairs, 1986), 152.

[16] To date, over fifty states – one-quarter of the UN membership – have appointed national focal points. See the updated list at Global Centre for the Responsibility to Protect, http://www.globalr2p.org (accessed January 14, 2016).

[17] The UN framework is available at the Office of the Special Adviser on the Prevention of Genocide, http://www.un.org/en/preventgenocide/adviser/.

[18] For a summary of the initiative and action plan, see Ban Ki-moon, "'Human Rights Up Front' Initiative," http://www.un.org/sg/humanrightsupfront/.

[19] For examples of recent scholarship, see Scott Straus, *Making and Unmaking Nations* (Ithaca, N.Y.: Cornell University Press, 2015); Sheri P. Rosenberg, Tibi Galis, and Alex Zucker, eds., *Reconstructing Atrocity Prevention* (Cambridge: Cambridge University Press, 2015); and Serena Sharma and Jennifer M. Welsh, *The Responsibility to Prevent: Overcoming the Challenges of Atrocity Prevention* (Oxford: Oxford University Press, 2015).

[20] For the full list of these inhibitors, see United Nations General Assembly, Report of the Secretary-General, *Fulfilling Our Collective Responsibility: International Assistance and the Responsibility to Protect*, para. 43 – 58.

[21] Two examples are the Global Centre for the Responsibility to Protect's Global Network of National R2P Focal Points and the Global Alliance Against Mass Atrocity Crimes.

[22] Aidan Hehir, "The Permanence of Inconsistency: Libya, the Security Council, and the Responsibility to Protect," *International Security* 38 (1) (2013): 137 – 159.

[23] Robert E. Goodin, "Responsibilities," *The Philosophical Quarterly* 36 (142) (1986): 50 – 56. Duties, by contrast, specify an action that ought to be undertaken by a duty-bearer, and success or failure is a binary judgment that depends on whether the action is carried out.

[24] Welsh, "Norm Contestation and the Responsibility to Protect."

[25] United Nations General Assembly, *The Situation in the Syrian Arab Republic* (A/66/L.57), July 31, 2012. During the General Assembly debate that preceded the passing of the resolution, Assembly President Nassir Abdulaziz Al-Nasser lamented that the deadlock in the Council "sends the wrong signals to all parties in the Syrian conflict."

[26] Laurent Fabius "A Call for Self-Restraint at the UN," *The New York Times,* October 4, 2013, http://www.nytimes.com/2013/10/04/opinion/a-call-for-self-restraint-at-the-un.html?_r=2&.

[27] See the United Nations General Assembly and Security Council, *Letter Dated 9 November 2011 from the Permanent Representative of Brazil to the United Nations Addressed to the Secretary-General* (A/66/551 – S/2011/701), "Annex: Responsibility while Protecting: Elements for the Development and Promotion of a Concept," November 11, 2011.

[28] Alan Kuperman, "A Model Humanitarian Intervention? Reassessing NATO's Libya Campaign," *International Security* 38 (1) (Summer 2013): 105 – 136.

[29] Ramesh Thakur, "West Shouldn't Fault Sir Lankan Government Tactics," *Daily Yomiuri,* June 12, 2009.

[30] Robert A. Pape, "When Duty Calls: A Pragmatic Standard of Humanitarian Intervention," *International Security* 37 (1) (2012): 41 – 80.

[31] "Syria Crisis: 'Torture' Photos Shown to the UN Security Council," BBC News, April 15, 2014, http://www.bbc.com/news/world-middle-east-27044203.

[32] United Nations Human Rights Council, *Oral Update of the Independent International Commission of Inquiry on the Syrian Arab Republic* (A/HRC/20/CRP.1), June 26, 2012.

[33] United Nations General Assembly, *Report of the Independent International Commission of Inquiry on the Syrian Arab Republic* (A/HRC/21/50), August 15, 2012.

[34] Roland Paris, "The 'Responsibility to Protect' and the Structural Problems of Preventive Humanitarian Intervention," *International Peacekeeping* 21 (5) (2014): 569 – 603.

[35] Ibid., 575.

[36] Pape, "When Duty Calls."

[37] Examples include Gary Bass, "Jus Post Bellum," *Philosophy and Public Affairs* 32 (4) (2004): 384 – 412; Alex J. Bellamy, "The Responsibilities of Victory," *The Review of International Studies* 34 (4) (2008): 601 – 625; Alexandra Gheciu and Jennifer Welsh, "The Imperative to Rebuild: Assessing the Normative Case for Postconflict Reconstruction," *Ethics and International Affairs* 23 (2) (2009): 121 – 146; and Brian Orend, "Jus Post Bellum: The Perspective of a Just War Theorist," *Leiden Journal of International Law* 20 (3) (2007): 571 – 591.

[38] John Chilcot, "9.8 Conclusions: Post-Conflict Period," *The Report of the Iraq Inquiry* (London: The Iraq Inquiry, July 2016), http://www.iraqinquiry.org.uk.

[39] Pape, "When Duty Calls"; and Paris, "The Structural Problems."

[40] See United Nations High Commissioner for Refugees, *Global Trends: Forced Displacement in 2015* (Geneva: United Nations High Commissioner for Refugees, 2016), http://www.unhcr.org/en-us/statistics/unhcrstats/576408cd7/unhcr-global-trends-2015.html.

[41] See, for example, Alexander Betts and Philip Orchard, eds., *Implementation and World Politics: How International Norms Change Practice* (Oxford: Oxford University Press, 2014).

New Technology for Peace & Protection: Expanding the R2P Toolbox

Lloyd Axworthy & A. Walter Dorn

Abstract: New technological advances in areas such as digital information, algorithmic forensic data analysis, autonomous surveillance vehicles, advanced robotics, and multispectral sensors (sometimes all working together) can help avert war, introduce more effective peacekeeping and peacemaking initiatives, lessen the impact of conflict on innocent people, and help rebuild war-torn states. When international humanitarian action becomes urgent, by way of knowledge gained through such technologies, then those same peace applications can be used to reduce harmful forms of intervention and to ensure that enforcers are abiding by international law and UN guidance. An ethical failure occurs when such technologies exist to save lives, reduce risks, and secure peace, but are not employed.

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One of the key challenges for the international community is to apply new technology under effective international authority to support peace. Fortunately, as will be shown, institutional reform is emerging to enable new peace strategies and new UN applications for the preventative, proactive, and protective use of new technologies. Another very promising development is the increasing technological capacity of local populations to provide for their own protection. The Norwegian Centre for Humanitarian Studies rightly asserts:

> Affected populations are the primary responders in disasters and conflict zones, and actively use information technology to self-organize, spread information about their condition, call for aid, communicate with humanitarian actors, and demand accountability. New technologies also have the potential to put responders at the center of the entire life cycle of humanitarian action.[1]

Exciting prospects lie in advancing population-centric early-warning systems to enhance prevention through the quantum leap in information tech-

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nology, big data collection, and analysis. These can substantially improve the ability to anticipate looming issues and enable those directly affected to become involved in a preventative response.

For example, the United Nations Development Programme (UNDP) is testing a volunteer, community-based conflict prevention and resolution approach in its Early Warning and Early Response (EWER) program in Timor Leste, where local volunteers are recruited as monitors to report on violent outbreaks or situational change. The information is fed into the EWER computer system, where regular alerts, situation reviews, and recommendations for action are produced.[2] The next step is to see how local populations can be mobilized and new technologies, such as automated surveillance vehicles, can be used to verify burgeoning outbreaks and help local populations quell incipient sources of violence and rights violations. Technology can be an empowering instrument for the protection of people.

We use the responsibility to protect (R2P) framework to present this case of technology for peace and protection. The R2P concept was a breakthrough in the world's understanding of how to deal with mass atrocities. After the horrors of Somalia, Rwanda, and Srebrenica in the first half of the 1990s and NATO's bombing in Kosovo in 1999, the international community was wrestling with what to do about future humanitarian violations and how to decide on interventions. At the beginning of the new millennium, scholars and practitioners in the International Commission on Intervention and State Sovereignty, established by Canada, adopted an ancient approach – the just war theory – to tackle the modern challenge of humanitarian intervention.

As just war theorists posited a "presumption of peace," the commissioners suggested that the international community should *not* intervene forcefully unless certain criteria were met. First and foremost, the state in question had primary responsibility for its people since "sovereignty implies responsibility." Only when the state was "unwilling or unable" to protect its population, "the principle of non-intervention yields to the international responsibility to protect."[3] But the international community should only use force after the nonmilitary options had been explored and were deemed inadequate, as enunciated in the just war criteria of "last resort." The "just cause" threshold for military intervention was "large-scale loss of life" or "large-scale 'ethnic cleansing.'" The right intention was to "halt or avert human suffering." There should be "reasonable prospects" of achieving that goal and the means should be proportionate, applying the minimum force necessary. And for "right authority" to authorize intervention, the Commission clearly pointed to the UN Security Council. It called on the Council's Permanent Five not to exert their veto power if the majority of the Council authorized forceful intervention. If the Council failed to take action, the options included authorization by the General Assembly or even regional organizations.

The Commission foresaw the problems of forceful intervention and rightly placed the priority on the *prevention* of atrocities beforehand. It also recognized the need for *rebuilding* afterward. Thus, the three "specific responsibilities" of R2P are: to prevent, to react, and to rebuild. Again, the R2P approach parallels just war thinking in proposing three phases: *ad bellum*, *in bello*, and *post bellum* (before, during, and after war/conflict). In the preventive stage, the international community must help states protect their populations by addressing both root and direct causes of conflict. To "react," it may need to assume the coercive powers of the state in order to save lives; to "rebuild," it must help create the necessary national capacity for a sustainable peace.

This R2P framework was adopted by world leaders at the 2005 World Summit. The international leaders pledged to "support the United Nations in establishing an early warning capability." This required creating some form of intelligence and analysis capability at UN headquarters. Unfortunately, the United Nations has been unable to establish such a capability despite decades of proposals and efforts within the organization. In the late 1980s, the United Nations created an Office for Research and the Collection of Information, but that office could not implement its early-warning mandate. The follow-on in the 1990s, the Information and Research Unit, was more capable because it was composed of intelligence officers from four of the five Permanent Members (excluding China). However, it was disbanded in 1999 when the developing world pushed through a General Assembly resolution to remove gratis personnel from UN headquarters, with the idea of replacing them with paid UN staff. In 2000, the Brahimi Report on UN Peace Operations proposed a UN-staffed Information and Strategic Analysis Secretariat, but this never gained the approval of the UN member states. So, apart from the desk officers who are overwhelmed with following their respective countries, UN headquarters still lacks the analytical capacity for early warning and rapid reaction. Fortunately, the evolution of intelligence analysis in field missions is more encouraging, especially with the creation of Joint Mission Analysis Centres, where information from a large number of sources is considered to create actionable intelligence to help fulfil the mission mandate. The protection of civilians mandate represents the noble but not yet achieved attempt to implement R2P in twenty-first-century UN field operations.

While political progress at the world organization has been slow and halting, technology has been advancing at breakneck speed. The information age saw the rise of the Internet, from the first website in 1991 to ten million at the end of the century to an astounding one billion websites in 2015.[4] The number of Internet users grew from three hundred million in 2000 to three billion today. The expansion of online information proved to be exponential – similar to Moore's law of doubling every two years – as data, software, and hardware have continued to play a constant game of tag. The performance-to-price ratio of computers has increased a billionfold since the early models. And the rise of mobile phones, with more subscriptions than people on earth, has meant that mobile data alone for 2014 was thirty times larger than the data exchanged through the global Internet in 2000.[5] In the twenty-first century, email and social media have revolutionized the way people connect and communicate, including in remote parts of the developing world.

In other fields, technological progress has also been tremendous, if not so dramatic. New generations of sensors have increased in range, accuracy, and user-friendliness, while decreasing in size and weight. The rapid convergence of previously separate technologies has been enhanced by miniaturization. Cameras, for example, are now ubiquitous because they are integrated into mobile phones. And new forms of robotics create innovative ways to enhance action at a distance with lesser risk.

Surely, this tremendous technological progress can be used to advance the R2P cause. Is it not part of the responsibility to apply these new technologies to protect people, to enable peace operations, and to make international interventions more accountable, effective, and safer? In this essay, we explore the ways modern technology can help implement the R2P goals to prevent, react, and rebuild, especially to help hasten the capacity of international organizations.

> The League of Nations…should be the eye of the nations to keep watch upon the common interest, an eye that does not slumber, an eye that is everywhere watchful and attentive.
>
> – Woodrow Wilson,
> Paris Peace Conference,
> January 25, 1919[6]

Technology provides a means to help fulfill Wilson's vision in ways unimaginable when the international organization for peace was just beginning. The information revolution of the twenty-first century can greatly assist the United Nations, even if the world organization has not yet developed the analytical capability to fully benefit. By tapping into new technologies and expanding the UN's "infosphere," the secretary general can better fulfill his or her UN Charter (article 99) mandate to warn the Security Council of "any matter which in his [or her] opinion may threaten the maintenance of international peace and security." Early warning – the first step of prevention – is information-intensive, requiring accurate observation from many sources of emerging threats and a deep understanding of the motivations behind acts of violence. The key is to combine human communication with technology-aided information-gathering on ground realities, including observation from above.

Aerospace observation, by satellite or aircraft, offers important ways to look at activities on the ground.[7] Satellite reconnaissance, once the sole preserve of the two Cold War superpowers, can now be performed by a group of image analysts with a modest budget to purchase commercial imagery. The United Nations can move from pictures for mapping (cartography) to operational imagery contained in real-time geographic information systems (GIS). Demonstrating progress, the United Nations made a major step in aerial reconnaissance with the deployment of unmanned aerial vehicles (UAVs) to the Democratic Republic of the Congo in December 2013. The unarmed UAVs have already saved lives, for instance, by spotting a sinking passenger ship in Lake Kivu, allowing UN rescue boats to launch immediately.

As shown in the Congo, UN peace operations are an important way for the international community to have a presence in conflict-prone areas. The deployment first gains the consent of the host state and usually of the main conflicting parties as well, but its mandate derives from the Security Council. Military, police, and civilian peacekeepers in modern operations help implement R2P through prevention, reaction, and rebuilding. UN field workers promote security, nation-building, rule of law, human rights, humanitarian assistance, and peace processes. In all of these tasks, technology can play a major role, with much improvement possible at the United Nations.[8]

For instance, GPS tracking would allow a UN mission to follow its vehicles in real-time, especially in dangerous areas. But the United Nations has so far been unable to set up a GPS system to keep track of its vehicles and peacekeepers in real time. The United Nations is now exploring how to upgrade its asynchronous Carlog system to a real-time system to give a current and complete picture. This would prove invaluable during ambushes and search and rescue operations, and in the retrieval of stolen vehicles.[9] Tracking the UN blue forces and civilians, for example, by their cell phone location, will make them safer and more effective. It could even usher in a new era of "precision peacekeeping," when the forces are more carefully positioned and enabled to do intelligence-led operations. The "digital peacekeeper," fully outfitted with the latest technology for positioning, tracking, sensing, and communication, can be part of the new face of peacekeeping.

The sensor and smartphone revolutions mean that new and miniaturized sensors can be included in phones and geolocated. Images and video recordings of atrocities can be captured and transmitted immediately. Some human rights organizations are exploring phones with memory-erase capabilities, so if perpetrators seize or steal their phones, the information is safely stored far away for future judicial or fact-finding purposes. For instance, the International Bar Association created the "eyeWitness to Atrocities" app for mobile cameras, designed to record video and take photos with authentication. Metadata associated with the image files specifies where and when the imagery was taken so the information can be entered as probative evidence for investigations and court cases.[10]

The amazing spread of cellphones in the world's population, with signal reception now available in some of the smallest villages of the developing world, means that the United Nations can tap into a wealth of new information sources for population-centric operations. In "participatory peacekeeping," such as that being explored in Timor Leste, the people themselves can help identify threats and criminal activity and monitor cease fires or any aberrant behavior of protagonists. Thus, human security is fostered by local communities to create a "coalition of the connected" that provides "protection through connection." Early warning reports from social media can be verified by UN observers and quick responders on the ground.

Gaining from the cellular revolution, the United Nations Organization Stabilization Mission in the Democratic Republic of the Congo established a Community Alert Network to reach out to faraway villages in that vast country. The mission distributed cell phones and SIM cards to key local leaders who could call the mission upon seeing signs of impending danger – a drastic improvement from earlier times when villagers were told to bang on pots! UN peacekeepers can then be dispatched in response.

What matters to the protected people should matter to the peacekeepers and other interveners. For such expanded mandates, multidimensional UN operations need more than conventional intelligence; they need "human security intelligence."[11] This synergistic approach draws upon a range of human factors to build the bigger picture. It entails tracking factors relating to both "freedom from fear" (security) and "freedom from want" (development). Open-source intelligence is supplemented by active information-gathering on traditional security threats and nontraditional threats like problems with food, health, the environment, and the economy. These then need a host of technologies to address the root causes of conflict before violence escalates. While too numerous to be described in detail, some of these technologies are reviewed below.

For prevention, digital verification procedures (images, text, statistics, and other data) can reveal trend lines of potential conflicts and the buildup of preconditions for ethnic or warlord violence. Once violence has flared up, impartial evidence-gathering by peacekeepers, human rights officers, and criminal court/tribunal investigators can help determine culpability. Permanent digital evidence in the hands of international law enforcement can be a deterrent against brutal practices and corruption.

Numerous data sources, both human and technological, should be tracked in multidimensional operations. Admittedly, data fusion is a big challenge in the age of big data. But increasingly intelligent sorting algorithms help bring together both structured and unstructured data into intelligible collation and visual displays. New media journalism and social media sources can be added to sensor intelligence and direct UN observation to gain insights

into "patterns of life" and the realities of the "peacekept" society. The motto "every soldier a sensor" is never more relevant than in peace operations, where observation and contact with local populations is critical. "Technological intelligence" and human intelligence are complementary since one can corroborate and help overcome the weakness of the other.

Fortunately, in the information age, knowledge of all kinds spreads fast in the interconnected world. This includes bad as well as good news. If major atrocities happen in one region of the world we can learn about them within hours. We can no longer say "we did not know so we did not act!" This new knowledge creates a stronger imperative for intervention, preferably of the proactive and preventive kind but, if necessary, also of the forceful military kind. Preventive systems can provide the information needed to determine if military force is required beyond what peacekeeping can provide. Sometimes that necessitates military intervention by international coalitions or regional alliances.

Accurate, timely information is as important to the prevention of unjust international intervention as it is to the support of a just action. The United Nations was unable, in part because of inadequate surveillance technology, to gain sufficient evidence in Iraq to stop the 2003 U.S.-led invasion. The United Nations had inspectors on the ground who did not corroborate the false claims made by the Bush administration, but they did not have enough foolproof "evidence of absence" of alleged weapons of mass destruction to halt the march to war.

By contrast, there are dire times and circumstances when the international community urgently needs to move from prevention to reaction, including force as a last resort, even against the will of the state in question. The growing capacity to assemble credible evidence and witness accounts means that decision-makers at the Security Council or regional organizations must demonstrate more substantive grounds for their decisions. Impartial data can assist the present reform effort to encourage a constructive abstention policy in the Security Council for humanitarian intervention rather than the veto. Better UN data could show if the Permanent Five votes were to meet real humanitarian needs rather than be trumped up polemic exchanges between the major powers. In other words, just war should be based on the grounds of justice and humanitarian need, not on propaganda or a special pleading of national interest.

Whatever the justifications or outcomes for forceful intervention, the international community has a responsibility to monitor those who are enforcing international law or who claim to act on behalf of humanity. Civilian casualties should, of course, be minimal, if not zero. This means watching the "enforcers" to help them maintain their responsibility *while* protecting. So the United Nations needs to have its own advanced monitoring system. As previously mentioned, this is lacking. The UN Secretariat has mostly relied on media reports to get a sense of what was going on, for instance, during interventions like the First Gulf War and the 2003 invasion of Iraq. The world organization needs many of the monitoring technologies mentioned above, including satellite reconnaissance.

During forceful interventions by coalitions, sometimes done against the will of the state, the United Nations' role is primarily humanitarian assistance. This can also benefit from technologies, for example, for protection and shelters (tough weather-proof materials), power (fuel, wind, and high-efficiency solar), communications (radios), lighting (solar-powered and motion-detecting outside tents), food safety, water purification, telemedicine, and others. Also the transport and

delivery of humanitarian aid can be enhanced by asset management with radio frequency identification (RFID), tracking devices, and advanced seals and tags.

Sometimes UN peace operations themselves have taken robust enforcement action to protect civilians, even in the absence of coalition forces. At those times, some technologies proved pivotal, like the night vision equipment and aerial reconnaissance in Haiti in 2006 and 2007.[12]

After enforcement action has been taken by a coalition, an alliance (such as NATO), or a peacekeeping operation, the responsibility to rebuild comes into full play. Without proper rebuilding, conflict-prone societies may relapse into violence or civil war, as was seen in Libya and Iraq. Here again, in peacebuilding, UN technology has a role to play.

In population-centric peacebuilding operations, it is essential to communicate directly and continuously with the citizenry. The United Nations can have its own broadcasts by radio or social media to provide impartial, verified information to counter the falsehoods from former conflicting parties and the misinformation induced by the fog of war. Distribution of solar-powered and wind-up radios can ensure that the population has access to such information. The UN mission can also send and receive critical information through a text-messaging system, email, or the Internet.

UN measures are needed to counter the public propaganda strategies and misinformation campaigns of conflicting partners. The United Nations should expose false information. For instance, the Russian communication strategy in Crimea and Eastern Ukraine or the effectiveness of ISIL messaging must become a subject of focused attention with enhanced technical capacity available to UN officials and observer missions.

In the future, the United Nations might develop a capacity for cyber peacekeeping to prevent cyber wars between nations and between online actors. The Internet belongs to the people of the world and so some measure of governance is needed from the world body.

During transitional justice, before a fully empowered court system is established in war-torn countries, bodies like truth and reconciliation commissions and international tribunals can help to expose and punish crimes against humanity and war crimes. But the needed witness testimony is typically fraught with partiality and fear. Perpetrators often intimidate witnesses, and courts have difficulties finding reliable witnesses to take the stand. Fortunately, assurances can be given of visual and voice anonymity in the courtroom, achieved through face pixilation and voice-modification technology. Witness testimony can be corroborated or dismissed based on scientific and technology-based evidence, like the eyeWitness app mentioned above.

Similarly, the misbehavior by some peacekeepers, including sexual exploitation and abuse or black market activities, is a matter of deep concern and requires a solution. The capacity to monitor and provide witness verification of misbehavior can and must be explored by the United Nations using increased surveillance and reporting techniques tied to a community-based reporting system. Mandatory body cameras on peacekeepers could help prevent abuse on the job.

One of the key peacebuilding tasks after armed conflict is to clear mines and the other explosive remnants of war. Demining cries out for technological innovation. Deminers and local civilians are dying, losing limbs, and proceeding at a snail's pace because advanced detection and excavation devices are not available to them. Millions of mines remain hidden in the ground, waiting to carry out their deadly function or to be removed safely. To be sure, some research and development has been

initiated since the 1997 Anti-Personnel Mine Ban (or Ottawa Convention), but these projects have mostly been unworkable, underfunded, or unexploited. The question remains: why are we still using World War II technologies, including primitive hand-held metal detectors and bayonet-style tools, to find and remove land mines when modern technologies like robotic machines can do the work independently or, at least, actively assist the deminers? The possibilities need to be explored.

In the past decade, the United States and other militaries have developed and deployed very sophisticated technologies for IED (improvised explosive device) detection and removal that have saved many soldiers' lives in Iraq and Afghanistan. Remote-controlled robots, like the Talon series, have figured large in military operations. Many of these technologies could be used for humanitarian demining, yet their technical details remain highly classified. However, there is bound to be some spillover as the companies producing the military hardware look for new markets. Meanwhile, technological advances in the medical sciences can save the lives of increasing numbers of mine victims. It is even possible to produce prosthetics with local 3D printers.[13]

More broadly, the development community has experienced a shift in thinking, allowing both security and technology tools to be used directly by locals (with training). The international community has created the Sustainable Development Goals (SDGs) to replace the largely successful fifteen-year Millennium Development Goals (MDGs). So a new look can be taken of the many ways that technology can boost developing economies while reducing pollution and greenhouse gases. New land, made available after demining, can be better harvested in a sustainable fashion. The practice of precision agriculture with UAVs, now employed by farmers in developed countries, can be transferred to the developing world. New technologies can help not only grow crops, but also bring them to market. For instance, cellphone and Internet-connected families can better determine when and where to bring their products for sale.

Technologies can help humanitarian actors boost the *post bellum* economy by providing digital payments ("mobile money" that can go where aid workers cannot) and "digital food" (e-cards to make purchases at authorized locations, rather than getting supplies off aid trucks). Electronic voting systems can help reduce the time to vote, to accurately count, and then to announce elections results, thus reducing post-election violence. Furthermore, biometrics and smart ID cards can reduce voter fraud.

These are just a sample of the amazing applications of science and technology for development and security. But the introduction of technology can also pose dilemmas and problems that need to be confronted and solved. This aligns with the basic dilemmas of intervention itself.

For some governments and international organizations, early warning itself, made easier through technology, poses a dilemma. It adds an immediate responsibility to confront the violence, whether observed or predicted, even if the means are meager and chances of success are poor. Regardless, the possibility of successful intervention is increased with early warning, and with the world watching, international accountability becomes a strong pressure.

After UN operations are deployed, the peacekeeper's dilemma is similar: when conflict situations become hot and most in need of continuous observation or robust intervention, the danger is greatest for UN personnel. Peacekeepers often have to evacuate for their own safety. Witness, for example, the short-lived United Nations Supervision Mission in Syria (2012), whose ob-

servers were fired upon and routes blocked when they attempted to leave their hotels, forcing them to return while the population continued to suffer from war and extreme resource deprivation. Technologies are available to provide a partial solution, especially unmanned air and ground vehicles (UAVs and UGVs).

Not only observation – but also force – can be applied more remotely than ever before, as seen by missiles and bombs dropped in Libya by NATO aircraft and drones during the UN-mandated operation. However, remote observation and long-range weapons raise their own set of dilemmas. The higher an aircraft (manned or unmanned) flies above its target, the less vulnerable it is to hostile fire, but the less accurate are its observations of targets and firepower. So the dilemma is: how close to get to the ground? A balance between safety in the air and on the ground needs to be achieved.

A related dilemma has arisen because of the capacity for remote viewing in real time. Sometimes officers high up the chain of command of an intervention or peacekeeping force might be tempted to direct the individual soldiers whom they observe on the screens. The "tactical general" is to be avoided because the layers of command have a purpose and because what is visible on the 2D screen cannot tell the whole story or give the entire situation on the ground.

Remote cameras on UAVs, UGVs, or in fixed positions can mean more and better viewing from mission headquarters, in safer locations "behind the wire." This might mean that peacekeepers or armed interveners are less willing to venture outside their base, even though it is vital to make contact with local populations.

This dilemma could also apply to the humanitarian community. If remote means of route reconnaissance and aid delivery are developed (such as airdropping supplies from UAVs), the humanitarians could become disconnected from the populations they serve. This problem of "bunkerization" of aid workers was seen in Somalia in recent decades, where international workers rarely left the confines of the Mogadishu airport during visits and only received reports there from local staff.

More generally, the influx of new information from remote technologies (terabytes per day from a single UAV) can lead to "information overload and underuse." When so much data is flowing it is harder to pick the images or situations most in need of viewing and analyzing. As with the problems described above, it is a question of finding the right balance. There may be too much or too little information, or the level of information could be "just right." The same is true for finding the right level of complexity of sensors.

Certain advanced technologies might prove too sophisticated or unworkable in some developing areas of the world, especially with insufficient or untrained personnel. Technology that is too advanced might not be adopted because it is too foreign for developing-world peacekeepers or for the local population. In addition, technology often requires its own infrastructure, like reliable electric power, that may not be available in conflict zones, though advances in solar power are helping. Also, devices might not be able to operate in the harsh climates found in some missions. For instance, networked computer servers need air-conditioned rooms, which are harder to keep cool under the hot sun and with intermittent power.

The expanding digital divide between peacekeeping contingents could create a "have" and "have not" distinction, though this exists in any case. The divide could further marginalize those without growing technological access. Clearly the new technology will require a new training investment at the United Nations and other international agencies to expand technological proficiency.

That some technologies can do tasks better than soldiers suggests a potential tension between humans and technologies, but on-the-ground peacekeepers remain essential and can be made more mobile and responsive with technology. Properly incorporated, technology and humans are complementary, not competitive: technology enables humans to do their job easier, better, and safer. Overstretched UN missions can better deploy their peacekeepers.

There is also a need to protect "humanitarian space," keeping the military and its technologies (particularly weapons) at a respectful distance from humanitarian actors. For instance, if surveillance imagery is shared between militaries and humanitarians, then the distinction could be blurred to the detriment of both, especially in the eyes of some conflicting parties. Similarly, some humanitarians view technology producers in the private sector as being only profit-driven, just as they view the military as being combat/enemy-centric. More often, though, industry and the military have more than one motive and more than one mode of operation, including humanitarian ones.

Similarly, some locals may view technology as Western-imposed and not organically or indigenously developed. This may mean that the technology is not adopted, and some projects could become white elephants, unless they are carefully planned and managed. Here, training and education are needed for a well-informed population.

The widely recognized problem of threats to privacy and data security also applies to UN peace operations, both for the international staff and the local population being observed. The United Nations must adopt rules for "shutter control" to know when it is inappropriate to observe or record activities of individuals and groups who pose no threat. It must also properly secure its digital resources from attack by state and nonstate hackers. The protection of people necessitates the protection of data. With effort, the ingenuity for data protection can stay ahead of the ingenuity for intrusion and destruction.

Finally, of course, the technologies themselves can be problematic, even for advanced users. There are always risks of equipment or system failures. If technology fails, overdependence can lead to a loss of capability, even more than if the technology were never deployed in the first place. If it is true that "to err is human," then "to really screw up requires a computer!" There are many additional possibilities for computer-aided human errors, but such risks can be managed by competent technicians and staff.

R2P technology should be centered on the individual human being, whose life and dignity is to be respected and protected. Human interaction remains essential between the peacekeeper and the "peacekept." In the end, peace is a human endeavor that requires the human touch. But it is also one that can be assisted, enabled, and enhanced by technology. Modern innovation can help break down the barriers of language, race, religion, borders, and time.

For effective prevention, reaction, and rebuilding, R2P missions must embrace the local population, including by social media, crowdsourcing, and more connectivity in general. "Participatory peacekeeping" is a new technology-enabled paradigm that should be embraced by the United Nations. Translation software for voice and data can help bridge the gap between the peacekeepers and the peacekept.

Despite the tremendous advantages of technology, the world organization, which represents the average of the capabilities of the world's nations, should avoid *overreliance* on technology and find a proper balance. Still, there is much to harness in the power of science for altruistic purposes. The United Nations rightly prioritizes construction over destruction and ballot box-

es over bullets. All of these UN actions can be technologically assisted.

The recommendations of the UN's Panel of Experts on Technology and Innovation in Peacekeeping deserve support. The United Nations should develop technology scouts and a technology center, innovation incubators, and field-testing programs, and encourage a new category of Technology Contributing Countries (TechCCs) to help peacekeeping. Encouragingly, the United States is now seeking to be a leading TechCC;[14] as is Singapore, with its offer to design a common information management platform for UN missions.[15] We advocate an Office of Science and Technology to inform both the secretariat and member states, especially developing ones, on technological developments that impact war and peace.

The High-Level Independent Panel on UN Peace Operations presented a report on governance and strategy that was rightly supportive of the role of technology and the recommendations of the earlier expert panel.[16] The United Nations now needs to implement many of these far-reaching recommendations so that technological enhancements can be achieved in the field. The UN Secretariat in New York also needs an analytical capability to handle the vast amounts of data that come from modern technology, social media, and its field operations.

UN structures need substantial improvement to implement a tech-enabled peace. The proposal for a new Peacemaking Council for Coordination and Oversight, advanced by the Commission on Global Security, Justice, and Governance, is well worth exploring. So are the ideas for UN standby and, eventually, standing peacekeeping forces, which could give the world organization the much needed capacity for rapid reaction. Well-trained and well-equipped forces are still hard to find. Standby forces could start off as units in their own national forces but be connected through frequent exercises enabled by modern information and communications technology. They could meet several times a year so they are familiar with each other and ready for rapid deployment to the field. But that is just a transitional step.[17]

It is time for a new peacekeeping formula: a UN standing force with technological enablers, possibly robotic sensors or "bots on the ground" to assist the human "boots on the ground." While it may prove to be an exceedingly difficult political issue to tackle, the creation of such a force and such technological enablers would greatly help implement R2P. The new UN soldiers could be recruited as individuals, specially trained and technologically equipped, with mandates and abilities for early preventive responses. A comprehensive emergency response service could be based on a network of regional centers, totaling about fifteen thousand or so civilian, military, police, and judicial personnel with a broad range of skills for deployment within forty-eight hours following UN authorization. New technologies could enhance the response time and capabilities of such a force. Even now, the training and integration of UN contingents can be enhanced through Internet communication, including by adapting modern gaming technology to build useful peacekeeping-training scenarios, by improved data analysis to launch prevention initiatives and determine strategic placement, and by early engagement with local populations. These might enable R2P performance superior to ad hoc "coalitions of the willing" in conflict areas.

International diplomatic/administrative capacity needs to match the new technology tools. The United Nations should immediately develop a refreshed roster of experts who are up-to-date, communication savvy, and believe in R2P. A technology-proficient professional cadre of officers would bring new competencies to bear and create a refurbished image of the United Nations.[18]

The United Nations and regional organizations, with civil society alongside, can now move toward "smart peacekeeping and smart peacemaking," where operations are technologically enabled and intelligence-driven. Advanced systems of new technology can help bring into being Wilson's "vigilant eye" for early warning and prevention, for improving diplomatic, economic, and, when necessary, forceful action for monitoring enforcers during R2P reaction, and for local reconstruction. From the just war tradition can arise a *just peace* practice using technologically enabled operations and interventions.

It would be unethical to do otherwise when the means are so apparent and advancing so quickly.

ENDNOTES

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The Path to Last Resort: The Role of Early Warning & Early Action

Jennifer Leaning

Abstract: For just war doctrine to apply, the last resort requirement to exhaust all measures short-of-war must be fulfilled. Because of research and policy developments in the last fifteen years, the international community is now equipped with a richer understanding of how wars and atrocities evolve through time, improved precision about trigger points and risk factors that may accelerate that evolution, growing consensus on what prevention and mitigation steps to look for in that process, and new technologies for ascertaining these steps in order to intervene when mitigating action might deflect the escalation. It is thus argued that the responsibility of the international community to intervene in a timely and appropriate fashion has become increasingly clear and inescapable. It is further argued that the alert engagement of civil society in crafting this body of research and policy places a heavy public burden on government leaders to demonstrate that indeed all measures short-of-war have been exhausted. We now have at our collective disposal many more measures to deploy and many more witnesses to raise the alarm. Accordingly, the threshold for declaring that last resort has been reached has now become much higher.

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Just war doctrine pivots on six requirements that must all pertain in order to make a moral case for going to war: a just cause, the right intention, conduct by a legitimate authority, a high probability of success in accomplishing the intended outcome, respect for the principle of proportionality, and a commitment to using force as a last resort. Despite this crisp summary list, nothing is simple in the application of these elements to a particular war or fact case. Over the centuries, most of these elements have received the close attention of religious scholars, moral philosophers, authorities on military strategy and history, and academic political scientists.

In current crises, great powers may seek to intervene in atrocity-laden conflicts where civilians and perhaps combatants are at grave risk of death or torture. The military undertaking in these crises is not one of self-defense, but rather is intended to

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promote international peace and security. In this context, there appear to be several reasons not to invoke just war as the legal, normative, or policy justification for international response. The grounds of just cause may prove unreliable, there may be insufficient assurance of success, or there may prove to be problems with proportionality.

The first part of this essay advances another reason why the notion of just war may not be applicable: insufficient documentation that last resort has been reached. Evidence demonstrating that all other measures short-of-war have, in fact, been exhausted is usually lacking. This gap in documenting the path to last resort may in the past have been due to disagreement over what public rationale was required, what information to privilege, or what options for intervention short-of-war might have seemed feasible. The gap may also have persisted because the international community – and civil society in particular – may have been less clamorous than they are now in seeking a full explanation for the decision of one country or countries to embark upon armed conflict in just war terms.

Based on efforts over the last fifteen years, the policy community is now equipped with excellent tools and technology for establishing actionable early warning and for selecting targeted early response based on the early warning supplied. The most precise and empirically grounded pathways for making these connections lie within the frameworks for early warning of atrocity crimes and for conflict prevention and response. These pathways offer a significant opportunity for the international community to mobilize and document the work that has been done to restrain the warrant for war.

Yet, as will be discussed in the second part of this essay, there also remains a substantial piece of work to be done to explicitly link inputs from the early-warning realm to appropriate specific interventions for prevention and response. Accomplishing this final step will require commitment from experienced analysts and authorities. The goal would be to make both sides of the current sets of documents – the early-warning framework and early-response toolkits – talk to each other in strategic and real-time operational terms. This section will provide a vignette of the complexities that lie ahead in making practical and timely connections between these two sets of activities – early warning and early response – and explore the remaining major challenges of shaping the response agenda to meet the nuances of early warning and the pressures of acting in time.

The underlying argument in this essay is that in the context of action aimed to protect people in other countries from atrocity crimes committed by state or nonstate armed actors, more policy attention must be given to ensure that all feasible political and diplomatic measures have been taken prior to embarking on armed conflict. The more useful and accessible the frameworks for warning and response, the stronger the cautionary tug on invocation of last resort should become.

The 2014 release of the United Nations' *Framework of Analysis for Atrocity Crimes* opened up new potential at the highest level of international governance to mobilize efforts to protect populations in wars and atrocity situations.[1] Atrocity crimes refer to three legally defined international crimes: genocide, crimes against humanity, and war crimes.[2] The study and experience of atrocity crimes have yielded deep understanding of their origins, features, and effects; produced a densely articulated set of legal definitions; and spurred the development of a risk and escalation framework derived from historical excavation and practical experience. By articulating this robust framework for early warning of atrocity crimes,

international policy-makers have now provided analytically and empirically derived categories of information – or risk factors – that serve to structure determinations regarding local or regional trends in number, kind, and intensity of these impending or escalating crimes. The risk factors that apply across all atrocity crimes are:

1) Situations of armed conflict, crisis, or other forms of instability;

2) Record of serious human right violations and related impunity;

3) Weakness of state structures;

4) Motives or incentives to commit atrocity crimes;

5) Capacity to commit atrocity crimes;

6) Enabling or preparatory action to commit atrocity crimes;

7) Absence of mitigating factors; and

8) Triggering factors.[3]

The UN *Framework* also identifies risk factors and indicators that may be unique to a specific atrocity crime (such as genocide or crimes against humanity).

This accumulating fact picture, employing assessment of risk factors and presence of particular indicators of intensity and escalation in a specific context, permits what the UN terms "early warning" of atrocity crimes.[4] The warning is "early" in that the level of identified atrocity in a country or region may not have reached the international legal standard of atrocity crimes, and it is a "warning" in that it is constituted to provide the international community (including the UN, national governments, and civil societies) with an informed and timely depiction of instability and potential paths of escalation in a given situation.

An early-warning analysis does not require that all the risk factors be present or that all the indicators within them be fulfilled. The historical, geographical, political, or cultural features of a specific country will make it susceptible to events or trends that in another context might not be likely to recruit social hatreds or exacerbate deadly competition for resources.[5]

By identifying and describing key "trigger events," the *Framework* provides analytical depth to the dynamic process that observers must monitor in order to assess the potential for atrocity crimes.[6] In a landscape described by risk factors, vigilance given to new emerging features permits early attention to be given to possible trigger events. These events might signal a rapid shift in social dynamics or circumstances that serve to destabilize existing social, economic, or political relationships among subgroups who exist in uneasy equilibrium with each other.

Many historical instances of such trigger events that precipitate major conflicts or atrocities have earned each of these risk factors the status of classic disrupters. The comprehensive list includes: sudden deployment of security forces; spillover of armed conflicts or territorial tensions; measures taken by the international community perceived as threatening to sovereignty; abrupt or irregular regime changes or transfers of power; attacks against the life or security of leaders of opposition groups or terrorist acts; incitement or hate propaganda targeting specific groups of individuals; census, elections, or other developments relevant to the process of power or governance; sudden changes to the economy or workforce, such as a financial crisis, major disaster, or epidemic; discovery of natural resources or their exploitation that has an impact on the livelihoods of groups or civilian populations; commemoration of past crises or collective traumas or historical events; and acts related to accountability processes, if seen as unfair.

The various stakeholders and civil-society groups who have worked on atrocity and war have developed a powerful consensus on the key elements and relation-

ships among these elements that could, were an "atrocity prevention lens" applied,[7] allow for identification of patterns and critical inflection points that characterize an escalation scenario for atrocity crimes. Applying the *Framework* in local and national settings reinforces and organizes the steps of careful attention that are required of local actors who seek to participate in these critical assessments of the potentially negative dynamics in their own societies and who aim to stay alert to the slow or rapid sequence of events that can erupt into atrocity crimes.[8]

The categories of assessment and alert outlined in the *Framework* can provide crucial guidance to policy-makers on what kinds of information should be gathered and shared. Essential to the process of gathering and sharing information is the timeliness of ascertainment and transmission.

Timeliness has a complex profile in that the reported information must arrive in time for it to be relevant to the choices that might need to be made, but also at the time when the policy-maker is ready, willing, or prepared to receive it. In some instances, this issue of readiness can be directly linked to political will, but in others, it involves problems of coherence and distraction in the bureaucratic chain of command.

Technologies for information aggregation and transmission can sometimes help override the indifference or hostility of the presiding authorities and raise a more public early-warning alert to marked effect. Newspaper stories from war reporters at the Crimean battlefields about the deplorable health conditions of the troops outraged the British public and galvanized strong support for the hospitals and public health measures undertaken by Florence Nightingale. News from war reporters of British atrocities during the Boer War did little to change official policy at the time, but has served to damage the official version of events in the historical record. News reports and especially photographs coming in rapidly from the war in Vietnam mobilized public opinion against the war – to the fury of civilian and military officials. Alert and intrepid correspondents in the 1992 – 1993 period of the Yugoslav Wars, not versed in atrocity crimes but appalled by the civilian carnage, were the first to raise the concern that what was occurring was not a civil war, per national and international claims, but a brutal ethnic conflict.[9]

Although we have acquired increased understanding of atrocity crimes in the legal frameworks elaborated after World War II, and especially with the creation of the International Criminal Court in 2002, the new UN *Framework* has now shaped the questions and delineated the zones of practical relevance to permit real-time identification of these crimes as they unfold. This precision on what to look for accelerates the potential for information communication technologies (ICT) to provide more actionable information on local escalation and trigger events to key actors.

Crucial to supporting rapid decision-making is relevant information to enable assessment of rapidly unfolding events at the level of groups or subpopulations. Local assertions that people are fleeing an attack or have decided to move out of the area to seek safety can now be robustly tracked in relatively real time by satellite, cell phone geolocaters, or unmanned aerial vehicles (UAVs). Crowdsourcing allows insight into behavior, perceptions, and patterns of movement of large populations. Information on issues that could be uniquely provided by ICT capacities relate to gathering and aggregating data on social moods and perceptions (social media analysis, crowdsourcing) and data on shifts in social behavior (markets, religious festivals, crowds, demonstrations) by satellite data and geospatial mapping

of large group population movements in urban and rural areas.

Deployment of the full array of ICT capacities in disaster settings is now routine in the civilian response community, and military reliance on these capacities is well known.[10] The applications of ICT potential in alert and monitoring modes for atrocity crimes are now under active study.[11]

In recent conflicts, a recurrent early warning of trigger events is a reported discovery of new mass graves. Whether identified through satellite (as in Srebrenica in July 1995) or by close observation on land (as with the Physicians for Human Rights in Afghanistan in January 2002), the import of the finding may be enormous, but action depends upon the receptivity of the policy community. In the instance of the Srebrenica report, arriving a few days after the event in the midst of intense international debate about the conflict, the findings contributed to a tipping point in the international decision to move definitively to bring an end to the conflict.[12] Yet verified news of mass graves in Afghanistan in the early days of the U.S.-led war fell on unresponsive ears: the United States was preoccupied with military objectives and information implicating U.S. allies in the region was unwelcome; the United Nations was in emergency mode and feared such news would further aggravate ethnic tensions; and the nascent Afghan authorities, composed of leaders of several rival groups, had neither the capacity nor the interest in maintaining site security for future investigation.[13]

The information on possible trigger events arriving at the desks of policy-makers, who almost by definition will be somewhat distant from the action, must be precise, accurate, valid, and empirically linked to the key questions at hand. Human rights observers in Kosovo from 1998 to 1999 would frequently report to the authorities that smoke was coming from the hills in the early mornings after Serbian night attacks on Kosovar villages. Ascertainment capacities (geospatial coordinates and satellite photos) were nascent and even verified photographs, if they existed, were unavailable. As a result, absent further information about exact location or identifiers of presumed assailants, the monitors in the Organization for Security and Cooperation in Europe could not immediately take action.[14]

Given the advances in technological capacities as well as in understanding of atrocity crimes, these obstacles have, in many instances, been resolved. Now the challenge is to link these focused and real-time early warnings to targeted early responses.

Two strands of research and policy have come together here: one is linked to the analysis of atrocity crimes,[15] and the other is linked to the efforts of the responsibility to protect (R2P).[16] Both of these structured analyses have acquired the status of international policy instruments; and the UN offices charged with implementing their underlying strategies (early warning for the *Framework* and early action for R2P) have now merged in order to strengthen and streamline the application of these robust analytic and policy tools.

Discussed here are how these efforts have largely succeeded in merging two rather different analytic paradigms and response architectures. Also discussed are significant challenges ahead in bringing the broad and somewhat cumbersome menu of R2P interventions into tighter alignment with the kind of targeted measures needed for effective response to trigger warnings of impending atrocity crimes.

The three pillars of R2P[17] deliberatively and sequentially lay out a menu of initiatives (development, legal, diplomatic, humanitarian, and coercive nonmilitary) that have been used in many instances, and often to good effect, to ward off or restrain

conflict or prevent attacks against civilians.[18] Recent examples of effective use of the R2P doctrine can be found on the website of the Global Centre for the Responsibility to Protect,[19] and the toolkit for implementing R2P is available on the website of the International Coalition for the Responsibility to Protect.[20]

With these training manuals and toolkits, the R2P community (state and nongovernmental) has elaborated a taut range of mitigating interventions to respond to the emergence of many different signs of instability and deepening social divides. In parallel, within the community working against atrocity crimes, various stakeholders and civil society groups have studied the evolution of atrocity-laden conflict and have developed a powerful consensus on the key elements and relationships among these elements that could, were they applied to an early warning system, allow for the identification of patterns and critical inflection points that characterize an escalation scenario for atrocity crimes.

In a major shift that recognizes the latent power in the merger of these two communities of analysis and practice, the UN Special Advisers on the Prevention of Genocide and on the Responsibility to Protect have supported the establishment of offices of national focal points appointed by each member state and have guided the development of national policies and programs aimed at atrocity prevention and protection of at-risk populations. This national focal point works by interacting with civil society and local governance throughout the land to discern early signs of social and economic antagonisms between groups that might develop into the active commission of atrocity crimes.[21]

These developments have now allowed those undertaking atrocity prevention efforts at international, national, and local levels to work directly with R2P colleagues to instill the awareness and skills needed to assess the practical dynamics of social and political situations, as well as teach what is known about how to restrain tensions that arise within a particular community or segment of the population.[22] Now embedded in the R2P architecture and operations are people who are deeply familiar with what to look for as well as others who are familiar with options for responses at local, national, and international levels.

Trigger events are not familiar terms in R2P language. Preventive action to take in the context of the *Framework*'s risk factor language maps moderately well with the conflict prevention approaches of pillar two. Yet trigger events rise as the pivotal moment for definitive response along any constellation of risk factors in the *Framework* approach. For most trigger events, military intervention would, in most cases, be inappropriate and damaging; yet the time for most slow-moving prevention measures would have passed.

The early response that a trigger event requires has not been specifically delineated in the new merged documents. This delineation is what is now urgently needed because the R2P/atrocity community might well be positioned to create the documentary pathway that leads to last resort. In the foundational R2P report, when speaking about pillar three, which has at its extreme the invocation of just war, the precautionary measure of last resort is defined as follows:

> 4.37 Every diplomatic and non-military avenue for the prevention or peaceful resolution of the humanitarian crisis must have been explored. The responsibility to react – with military coercion – can only be justified when the responsibility to prevent has been fully discharged. This does not necessarily mean that every such option must literally have been tried and failed: often there will simply not be the time for that process to work itself out. But it does mean that there must be reason-

able grounds for believing that, in all the circumstances, if the measure had been attempted it would not have succeeded.

4.38 If the crisis in question involves a conflict between a state party and an insurgent minority, the parties must be induced to negotiate. Ceasefires, followed, if necessary, by the deployment of international peacekeepers and observers are always a better option, if possible, than coercive military responses. The long-term solution for ethnic minority conflict or secessionist pressures within a state will often be some kind of devolutionist compromise that guarantees the minority its linguistic, political and cultural autonomy, while preserving the integrity of the state in question. Only when good faith attempts to find such compromises, monitored or brokered by the international community, founder on the intransigence of one or both parties, and full-scale violence is in prospect or in occurrence, can a military option by outside powers be considered.[23]

This quote from 2001 conveys to current readers a major difficulty with the menu of options in the R2P portfolio. In the *Framework* approach, response to trigger events must be specific and rapid. It is not evident in the current R2P menu, however, that options have yet been shaped to be as focused, nimble, and as easily malleable to specific context conditions as the unfolding situation might require. The R2P response toolkit, although now affirmed in the last six years to apply in a narrow and deep way (to atrocity crimes),[24] still straddles uneasily a menu of broad conflict prevention options that, when evidently exhausted, move strategically and briskly into just war activities.

As Edward Luck, a leading authority on R2P, pointed out in 2010, "The hardest questions about the value of the responsibility to protect as a policy tool have revolved around its utility in spurring and shaping an effective response, not in encouraging preventive measures."[25] Looking at the following vignettes from this perspective, what elements are there in the current R2P toolkit to respond to these latent or increasingly obvious situations in which trigger events begin to be discernible against a background of known (but not irredeemably terrible) risk factors? In many instances, atrocity can begin to unfold and very few people outside the local area may take notice. Mounting hate speech against the Roma in Hungary from 2010 occurred against such a heavy background of disdain for this population that it took several years for the international community to raise an alert.[26] Mob violence has become so common (as in Kampala now) that the local population and the government have become inured to the phenomenon.[27] Ordinary people or officials may not have the knowledge or experience to realize that what they are witnessing may be an atrocity crime and it is in the interest of the authorities not to disclose details.

The sudden explosion in Syria of violent government repression of Sunni demonstrators in March 2011 is recognized as the onset of the massive crisis of war and forced migration that now engulfs vast areas of the Middle East. In hindsight, had a focused response apparatus been linked to the early warning provided by a lens of atrocity crimes, it would have been possible to discern elements in the lead-up to the fierce assault by the Syrian government against its people in 2011 that might have prompted a robust international response aimed at mitigation. The different outcome in part derives from failure to pay close notice to contextual risk factors, intensification of indicators, and a trigger event (the unprecedented 2006 – 2010 drought in the Northeast) that marked a sudden rupture in brittle communal accommodations relating to location, livelihoods, and voice.[28]

Interpretation of possible trigger events requires not only excellent quality and

quantity of information, but also the judgment of seasoned members of the society in question. For instance, three potential trigger events lie immediately ahead: the death of the aged autocrat, President Mugabe of Zimbabwe, the possible reelection of an increasingly autocratic leader, President Kagame of Rwanda, and the accelerating popular contestation over presidential campaigns in Burundi, which are becoming increasingly communalized.[29] Deciding what indicators to watch, how to get reliable and accurate information about them, how to assess their valence in the current situations, and how to choose mitigating interventions constitutes a formidable analytic task. Trusted local interlocutors will be essential but not sufficient. The national focal points in the African Great Lakes region will play important liaison roles, but also must be protected from unwelcome scrutiny.

Assessing trigger factors in the complex and shifting social movement now underway in India could benefit from judicious targeted application of ICT capacities. Prime Minister Narendra Modi has encouraged his right-wing Hindu base by not restraining a mounting series of atrocity crimes against Muslims and Christians in various regions of the country. The tensions across ethnic and class lines are mounting and, in protest, many prominent Indian scholars and artists are returning prestigious national prizes and awards they have received over the years from the Indian federal government. Against the distant history of the 1947 partition and in the recent shadow of several large-scale communal massacres, these developments in India are raising alarms within the country as well as internationally.[30]

Knowing where these instances have devolved into mass atrocities or anticipating through an atrocity lens where they might spiral into grave threats to subpopulations, the question is: Does the substantive and targeted menu of mitigating measures now exist to respond effectively to these trigger events? Or is that the challenge ahead? Without such an operational menu, it will be difficult, first, to impede the escalation that the triggers portend and, second, to attest with confidence that the responsibility to prevent has been fully discharged.

In most situations where just war doctrine has been invoked, the evidence is sparse that effective efforts at prevention and mitigation have been taken. As military analysts and policy-makers have long argued, for measures of mitigation to have much chance of success there must be actionable early warning and tested options for early response. Much of the current academic and policy discussion of early response also rests on the repeatedly observed failures to take up early warning and fashion it in a timely way into early response.[31] Consequently, in the absence of real-time and focused warning, and without tested and targeted response options, the path to last resort would seem barren of alternatives and free of friction. Much time would not be needed along its route.

The time to populate that path is now upon us. Much of the hardest theoretical, political, and policy work has already been accomplished. The two conceptual structures and strategies have been carefully delineated. For the prevention of atrocity crimes, the historical record has been analyzed. The major ideas are now captured. The technologies for rapid ascertainment are getting ever more sophisticated. The major players and their roles have been specified. The international community must now assume the responsibility of linking these assets to produce a realistic menu of interventions in the face of risk factors and, most crucially in terms of averting just war, develop and test specific mitigating options in the face of discernible trigger events. Such responsibility is

no less and no more than mobilizing the talent, political will, and resources of the R2P/atrocity community to specify and then inject timely and effective responses in advance and in anticipation of the devolution of fraught and fragmenting dynamics in a specific country at a particular time.

Within just war doctrine, evidence is always needed to establish the argument that the element of just cause has been shown to apply. There is an abundant theoretical and empirical literature on how to establish elements of just cause in any given situation. But one must always ask in any instance: How is that evidence amassed? What critical lens has been applied to that evidence? How diverse are the actors who are required to see and react to it? As has been mentioned in the introduction, there are significant empirical challenges to the assertion that elements of just cause can be sustained when embarking upon armed conflict in contemporary situations.

Just war doctrine insists that the determination of last resort be made by a legitimate authority. But on what basis is this determination made? There has been little discussion in the open literature about who constructs and analyzes a given fact picture that provides the assurances that all measures have been taken and the time for taking measures of last resort has been reached. How would the evidentiary brief for that extraordinarily consequential determination be organized and established for the record?

The argument here is that the record of early warnings given and early responses taken within the R2P/atrocity community could provide the grounds for that determination. When the next call for just war is issued, citizens and authorities outside the closed chain of national command can ask to see the record. What have been the early warnings? What have been the early responses? How have they been connected? Has the case been made that all reasonable efforts have been exhausted short of initiating war? How will we know that the time and space for last resort has arrived?

With these developments in early warning and early response, the burden of proof has intensified for proponents of just war theory. But the burden also implicates the entire international community. No longer can last resort be viewed simply as the official and closed assertion of an end state. It must be seen now as an extended and time-tethered process of early warning and early action (conducted in open as well as backdoor channels) that has reached its limits. All reasonable measures have been taken, targeted mitigation has been introduced to respond to trigger events, and some reasonable measures at the late stages of a disintegrating process have been deemed impossible to initiate or unable to accomplish their goals (with explanations provided). At these limits, military intervention must be presented as the result of the incapacity of the international community to restrain mass violence. Outside the context of the just war doctrine, last resort must be seen not as a declaration of war, but as a declaration of our collective failure.

ENDNOTES

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[3] United Nations, *Framework*, 9 – 17.

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[15] The literature on genocide over the past twenty-five years has called upon the development of a capacity for early warning of indicators of genocide, with the aim of mobilizing the international community to intervene early in order to prevent the genocidal process from unfolding. See Roger W. Smith, ed., *Genocide: Essays Toward Understanding, Early Warning, and Prevention* (Williamsburg, Va.: International Association of Genocide Scholars, 1999); Carol Rittner, John Roth, and James M. Smith, eds., *Will Genocide Ever End?* (St. Paul, Minn.: Paragon House, 2002); and Rosenberg et al., eds., *Reconstructing Atrocity Prevention*.

[16] The concept of the responsibility to protect grows out of the debate in the 1990s, in the wake of the wars in Rwanda and the former Yugoslavia, where in each instance the unfolding events provided identifiable points in the conflict escalation where international intervention against a sovereign state might well have protected the attacked civilians from outrages and death. The three pillars of the responsibility to protect, which detail prevention and mitigation actions that might be taken along a continuum of intensifying crises, provide empirical rationale for assertive protection measures that might be taken in particular circumstances. See International Commission of Intervention and State Sovereignty, *The Responsibility to Protect: The Report of the International Commission on Intervention and State Sovereignty* (Ottawa, Ontario: International Commission on Intervention and State Sovereignty, 2001).

[17] For a full definition of the three pillars of R2P, see Global Centre for the Responsibility to Protect, "About R2P," http://www.globalr2p.org/about_r2p.

[18] Ibid., 47–126.

[19] Global Centre for the Responsibility to Protect, "Ten Years of R2P," http://www.globalr2p.org/our_work/ten_years_of_r2p.

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[21] Global Action Against Mass Atrocity Crimes, http://www.gaamac.org.

[22] See the websites of the UN Offices of the Special Advisers for the Prevention of Genocide and the Responsibility to Protect; the Global Centre for the Responsibility to Protect; the International Coalition for the Responsibility to Protect; the Global Action Against Mass Atrocity Crimes (GAAMAC); the Genocide Prevention Advisory Network (GPAnet); the State Failure Project; the Stanley Foundation; the International Association of Genocide Scholars; and the Auschwitz Institute for Peace and Reconciliation.

[23] The International Commission of Intervention and State Sovereignty, *The Responsibility to Protect*, 36–37.

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From Armed Conflict to Political Violence: Mapping & Explaining Conflict Trends

Keith Krause

Abstract: Most contemporary lethal violence does not occur in conflict zones, the majority of states most affected by lethal violence are not at war, and the levels of lethal violence in many nonconflict settings are higher than in war zones. Much of this nonwar violence is organized, not random, and political in nature. A narrow focus on wars and formal armed conflicts thus obscures the high levels of everyday violence and insecurity around the world. This essay makes the case that adopting a broad understanding of political violence – including violence committed by the state and its agents, and nonphysical violence as the violation of basic rights – is essential to gain insight into the causes and consequences of, and to frame appropriate responses to, war and violence in the twenty-first century.

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On December 17, 2010, Mohamed Bouazizi set himself alight in a small city south of Tunis as a violent and ultimately suicidal protest against the repeated humiliation and harassment he suffered from local officials. Street demonstrations broke out the next day in Sidi Bouzid and spread to Tunis ten days later, and on January 14, 2011, Tunisian President Ben Ali resigned. Demonstrations spread across the Middle East, from Libya to Yemen. In Egypt, President Hosni Mubarak resigned on February 11, and after a brief democratic experiment, the military seized power and drastically curtailed vocal opposition. The mid-February protests in Libya spiraled into civil war, international intervention, and insecurity and state collapse. Syrian protests between March and July 2011 also spiraled downward into civil war, which has since mutated into a regional conflict involving Iraq, Syria, the Islamic State, and various proxies, third parties, and Western volunteers and recruits. More than 140,000 people – and possibly up to 400,000 – have been killed to date.[1]

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From Armed Conflict to Political Violence

This synopsis illustrates the challenge in our quest to explain the causes and consequences of armed conflict, or to prevent and resolve conflicts and mitigate their effects. International relations as a discipline focuses on the "war" side of this situation – in Syria, Libya, and Northern Iraq – and starts its analysis when large-scale violence has already occurred. This, coupled with a weak understanding of how war is related to the broader backdrop of political violence (and violence in general), obscures the mechanisms and processes through which everyday "dynamics of contention" can underlie and lead to large-scale outbreaks of violence.[2] An exclusive focus on war means we know little about how we get from such things as state repression or group violence to civil war – from Sidi Bouzid to Syria – and what the consequences might be for international and regional order.

There are four good reasons for moving, empirically and conceptually, "beyond war" to study political violence in general terms and from a holistic perspective. A narrow empirical focus on war obscures the scope and scale of intentional harm associated with "nonwar" forms of violence. It understates the human costs and consequences of war-related violence. It limits the scope of debate on moral and legal responsibility to forms of violence covered by just war principles and international humanitarian law, while obscuring the morally equivalent responsibility that governments should face for other forms of violence and harm committed in their name. Finally, it hinders understanding of the way different forms of violence may be linked through processes that escalate and exacerbate conflicts, and that may have broader impacts on state formation, state disintegration, and regional order.

In this essay, I will unpack these claims, and make the case for adopting a three-dimensional understanding of political violence – defined as violence used for explicitly stated political ends, or that undermines and challenges the state's legal monopoly over the legitimate use of force, or that implicates the state and its repressive apparatus – as essential for gaining insight into the causes and consequences of, and framing appropriate responses to, war and political violence in the twenty-first century.

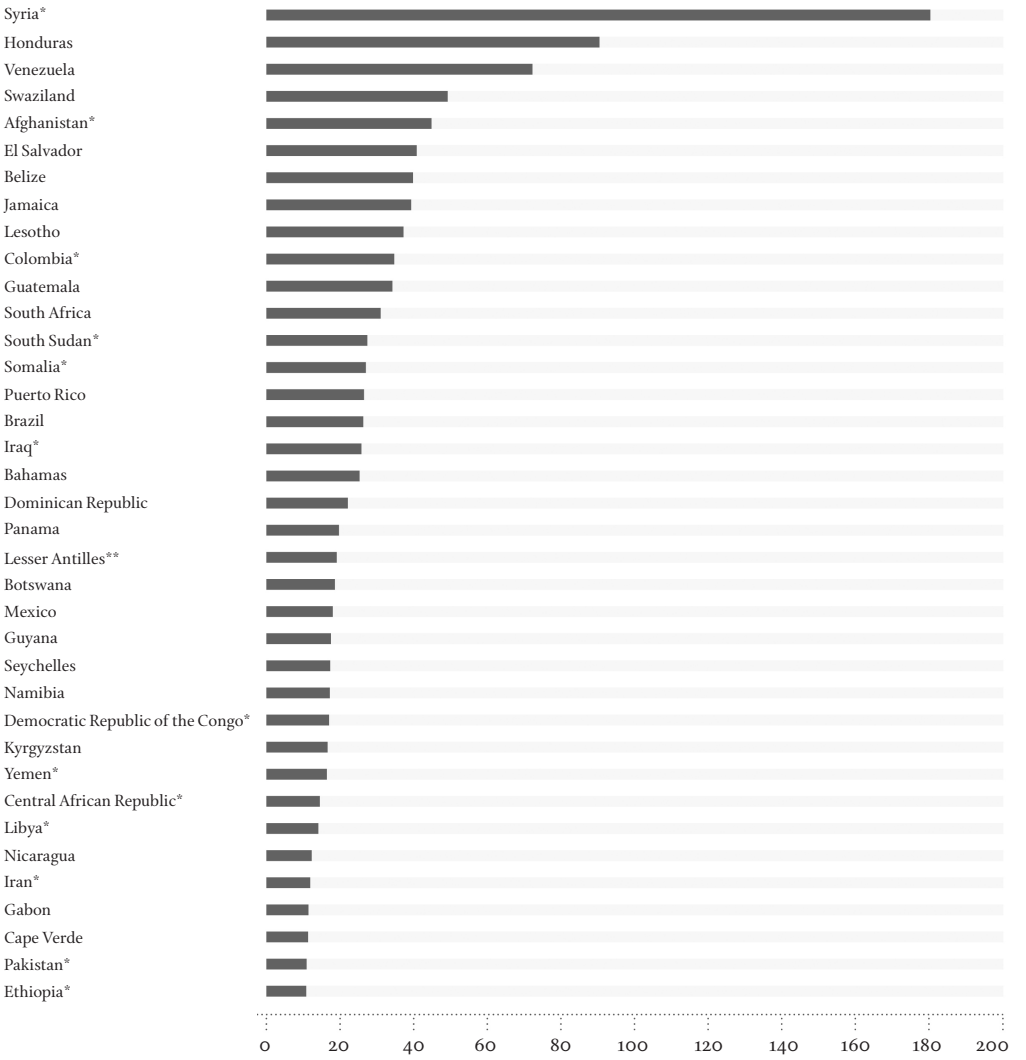
Four facts about contemporary violence make good starting points to broaden our perspective: 1) most lethal violence does not occur in conflict zones; 2) the majority of states most affected by lethal violence are not at war; 3) the levels of lethal violence in some nonconflict settings are higher than in war zones; and 4) much of this violence – but we do not know how much – is organized, nonrandom, and in some sense political.

The first three claims can be substantiated by approaching violence from a sociological, criminological, or public health perspective. An average of 508,000 people died violently around the world each year between 2007 and 2012; only about seventy thousand – or 15 percent of them – died in wars or formal armed conflicts.[3] The remainder – more than four-hundred thousand – died in nonwar contexts, and a significant proportion of these (around 5 percent) died at the hands of the state or its agents.[4] Even if (as I argue below) this picture of the number of war-related violent deaths is misleadingly low, it shows that war is only one piece of a much larger puzzle of lethal violence.

Figure 1 standardizes violent deaths in the thirty most violent states. While there may be uncertainty around the specific rankings, these numbers are conservative, and are based on aggregating conflict and nonconflict violent death data.

Some of the most violent countries in the world, such as Syria, Afghanistan, South Sudan, Pakistan, and Yemen are in war zones. But some Latin American and Carib-

Figure 1
Violent Deaths per 100,000 of Population, Annual Average, 2007 – 2012



Source: Geneva Declaration Secretariat, *Global Burden of Armed Violence 2015: Every Body Counts* (Cambridge: Cambridge University Press, 2015).

* Emerging from or experiencing armed conflict.

** Given the small population of the Lesser Antilles, the eight sovereign states of the region were grouped together and their rates averaged to produce a regional estimate. The countries in question are Antigua and Barbuda, Barbados, Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, and Trinidad and Tobago.

bean countries that are not at war, including Honduras, Venezuela, and El Salvador, are more dangerous places to live than Afghanistan. Other countries with high levels of lethal violence, including Brazil, Colombia, Mexico, South Africa, and the Democratic Republic of the Congo, are also not formally at war.

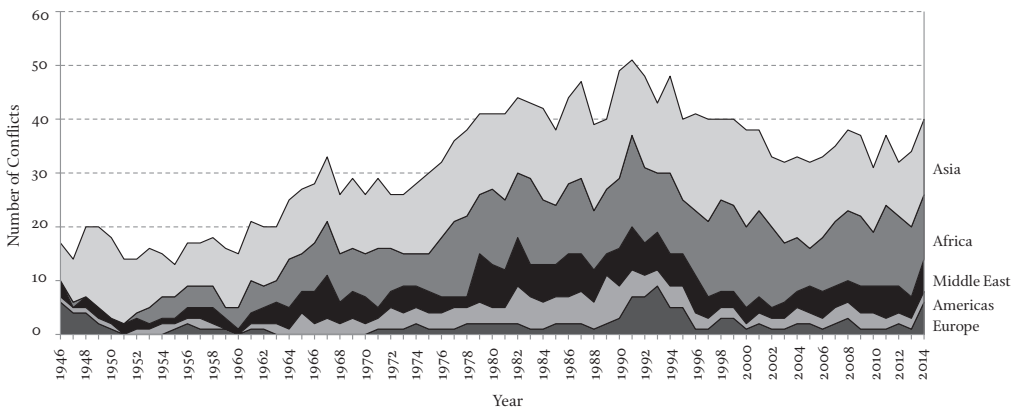
For the fourth claim, there are few systematic overviews of the scope of political violence in nonwar settings, and we lack common definitions of what constitutes communal violence, terrorist attacks, politically motivated violence, organized criminal and gang violence, riots, and so on.[5] Cross-national comparisons of the scale and distribution of violence within states are uncommon, and most country-level and microlevel work is disconnected analytically from a larger picture.[6] Adopting a narrowly criminological or legal perspective and labeling all nonconflict deaths as "homicides" is also misleading, since "homicide" conjures up a form of interpersonal violence that is individual, unorganized, relatively random, not linked to broader dynamics, and essentially apolitical (and very rare in advanced industrialized states). This is an inadequate way to think about the more than fifty thousand violent deaths in cartel-related warfare in Mexico, or land-rights disputes in Yemen that claim several thousand lives a year (and which have now escalated into full-scale war).[7] Violence in many global hot spots can and does have large-scale sociopolitical consequences, and is not marginal or caused by deviant individual behavior but rather part of a dynamic of political contention that erupts into violence. A focus only on lethal violence in war thus gives us a highly misleading picture of the current global scale and intensity of violence in general, and of politically salient violence in particular. It also narrows our normative gaze in ways that diminish responsibility and accountability.

Zooming in on war-related violence also highlights limitations in the way in which the human and social costs of war are presented. Most trend analysis of wars is based on a threshold of either one thousand or at least twenty-five battle-related deaths per year.[8] Based on this, we obtain the picture of recent trends shown in Figure 2.

In this account, interstate war is all but obsolete. There were no interstate wars in 2013, and only seven ongoing wars with more than one thousand battle deaths. Lowering the threshold to include conflicts with twenty-five or more battle deaths, there were thirty-three ongoing armed conflicts in 2013, of which twenty-four were internal conflicts and nine were "internationalized internal conflicts" in which external parties were actively engaged.[9] The overall number of wars has also declined to around thirty per year. And the human costs of war have also allegedly declined, with the annual total of battle deaths in these data sets hovering around sixty thousand per year, although this figure has risen since 2013 due to intense fighting in Syria and Iraq.

There are roughly four hundred thousand malaria deaths and 1.24 million road traffic deaths worldwide per year, and from this viewpoint, war is a relatively minor and declining cause of human suffering, a form of deviant behavior less relevant today than at any time in human history.[10] I will return to some criticisms of this declinist argument below, but for now, note that harm intentionally committed against fellow humans has significantly different consequences, practically and ethically, from the accidental or natural disasters that befall us. Large-scale violence and insecurity destroys the fabric of communities, erodes social and human capital, negatively impacts economic development, and undermines political legitimacy and stability in a qualitatively different fashion from disasters or accidents. Violence is a psychologically intense human interaction and scars victims,

Figure 2
Armed Conflict by Region, 1946 – 2014



Source: Therése Pettersson and Peter Wallensteen, "Armed Conflicts, 1946 – 2014," *Journal of Peace Research* 52 (4) (2015).

witnesses, and perpetrators in ways that are difficult to capture and quantify. Political institutions are responsible for protecting people against intentional harm, whether committed by state agents or other individuals, a responsibility that goes to the heart of their *raison d'être* as a means to escape the state of nature.

A focus on the numbers can highlight two important ways in which widely cited figures systematically underestimate the impact of armed conflict. The first is the undercounting of the direct victims of lethal violence within armed conflicts, which arises from methodological choices and data limitations of conflict data projects that rely on media reports or official figures. The second, much larger shortcoming is the lack of attention to the large-scale indirect consequences, some of which are lethal, of conflict and violence. Controversies over war deaths in Iraq illustrate well the problem of systematic undercounting. For the period 2003 to 2015, Iraq Body Count (IBC) documents between 144,384 and 166,085 civilian deaths from conflict-related violence, and a total of 220,000 deaths, including combatants.[11] The Uppsala Conflict Data Program (UCDP) data, however, record only 53,361 deaths over this period – around one-third of the IBC's total.[12]

The most violent year in that conflict (2006) provides an even more divergent picture. UCDP data estimate battle-related deaths in Iraq at 3,931, with a higher total of 5,840 – 7,028 deaths, including "the fighting between the government and unclear perpetrators, such as…the victims of roadside bombs where no group claimed responsibility."[13] The United Nations, on the other hand, using information from morgues, hospitals, and municipal authorities, concluded that there were more than 34,000 violent deaths in Iraq in 2006, a figure that includes all types of violence, such as conflict deaths, attacks on civilians, homicides, criminality, and domestic violence.[14] We thus have numbers that range from three thousand to thirty thousand – an entire order of magnitude – depending

on what you are counting.[15] Since much of the violence afflicting Iraq was undoubtedly linked to the ongoing conflict, it is difficult to grasp the impact of violence and insecurity on Iraqi politics and society based on the lower and misleading figures.[16]

The large-scale indirect and lethal impact of conflict on populations is discussed in Paul Wise's contribution to the companion to this issue of *Dædalus* (forthcoming winter 2017).[17] What is important to note here is that the indirect impact of conflict does not rest on a narrow concept of agency: identifiable perpetrators, acts causing immediate harm (use of force, threats, and displays of force), and individual victims. Instead, it includes diffuse actions by corporate or collective agents, such as the state or armed militias, which result in large-scale population displacement and/or loss of access to basic needs, such as food, shelter, or basic health services and treatment. This results in increased mortality, especially among the young, old, and otherwise vulnerable, and can be measured by the increase in mortality over what would be expected if the conflict and violence had not erupted (usually based on a prewar estimate). In several recent conflicts, including in South Sudan, Darfur, Burundi, Iraq, and Liberia, indirect deaths have represented up to ten times the number of direct victims of violence.[18] In the Democratic Republic of the Congo, perhaps the most dramatic recent case, a reported 3.3 million people died in the violent conflict between 1998 and 2002.[19] While that figure may be too high, only a relatively small percentage (perhaps no more than 10 percent) of the victims were killed violently; the remainder died of easily preventable causes triggered by forced displacement, loss of access to life necessities, and the lack of basic care. These deaths are still narrow "physical harm" with lethal consequences, and are only indirect in their agency.

Numbers tell only one part of the story, whether we are concerned with trend analysis, causes and consequences, or legal and ethical responsibilities. But although scholars have moved away from a focus on large-scale organized violence to analyze such things as terrorism, nonstate armed groups, the microdynamics of civil war, and subnational and transnational violence, the political dimension of violence itself remains underconceptualized. The question "what makes violence political?" has no simple and unambiguous meaning and is wrapped up with questions of legitimacy and morality. Most scholarship assumes that political violence can be identified and categorized by focusing on the degree and scale of organization of the violent actors, the meaning and motivation or purpose of the acts, or the nature of the act itself. None of these criteria by themselves are sufficient, however, without clarifying what we mean by "violence" and "political."

The dominant focus has been on the physical nature of the act of violence causing death or injury, as the data sources used for conflict analysis demonstrate. This minimalist conception of violence has some important (and unhelpful) consequences for how we can think about the relationships between different forms of violence.[20] Criminologists and sociologists go beyond lethal violence, but still concentrate on criminal behavior, gang violence, riots, demonstrations, and other acts that cause physical harm and destruction. All of these approaches share a somatic understanding of violence revolving around "the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, which either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation."[21]

Attempts to move beyond a somatic understanding of violence have includ-

ed psychological violence, sexual and gender-based violence (in which the sex of the victim is intrinsic to the choice of acts, some of which do not involve physical harm), violence by deprivation, neglect or omission, and such things as systemic, structural, or symbolic violence. These broadenings are, however, almost never linked to the somatic or physical harm conception.[22] In almost all cases, albeit with some important exceptions, the study of violence has been inextricably linked to the illegitimate use of physical force to cause harm, with the issue of legitimacy shaping the choice of words: illegitimate acts are "violent"; legitimate acts are merely "use of force."

It is probably not desirable to take on board all of these different potential meanings of violence. But if we wish to understand the links between different kinds of violence (war and nonwar), processes of escalation, and social and political consequences, at least two kinds of neglected violence should be brought into the picture. The first is violence that has been "made legal"; the most widespread forms of legal violence being the use of force by authorized agents of the state – police, gendarmes, paramilitaries, and others – especially when this goes beyond what would be considered the legitimate use of force by such agents. For example, the "police in Nigeria commit extrajudicial killings, torture, rape, and extortion with relative impunity…routinely carry out summary executions of persons accused or suspected of crime; rely on torture as a principal means of investigation; commit rape of both sexes … and engage in extortion at nearly every opportunity."[23] Hundreds of Nigerians are killed each year by the police, and in Jamaica, the Dominican Republic, Rio de Janeiro, Sao Paolo, and Nairobi, police and other extrajudicial executions are commonplace, representing between 13 and 43 percent of all violent deaths.[24] Deaths in violent political unrest, such as in Egypt during the 2011 uprisings, also fall in this category, since they are seldom prosecuted.[25] Of course, the bloody twentieth century was rife with what Zbigniew Brzezinski called "politically motivated carnage," which, according to his estimates, took upward of eighty million lives outside of actual combat.[26] Linked to the excessive but legal forms of violence is what philosopher Vittorio Bufacchi has termed "violence as violation": forms of violence that implicate the state, but which do not involve brute physical force to wreak harm. This form of violence includes the entire apparatus of repression and the range of "personal integrity rights … concerned with individual survival and security, such as freedom from torture, 'disappearance,' imprisonment, extrajudicial execution, and mass killing."[27]

Large-scale "legal violence" has two important consequences. First, when perpetrated in nonconflict contexts, it undermines respect for state security institutions, creating a vacuum in which other violent actors can operate with relative impunity and even some rough legitimacy.[28] Second, it is often wrapped up in pre-conflict dynamics, as the weakening legitimacy or efficiency of state institutions facilitates the resort to violence by diverse actors to resolve conflicts or express discontent and opposition. The resort to violence in response to "legal" forms of violence can, under certain conditions – as the Tunisian case illustrates – have powerful social and political effects.

A broad conception of violence – including its political dimension – is thus critical to understand how different forms of violence may be linked to war and armed conflict. Yet most authors do not explicitly define political violence (or war), and simply work with categories such as communal conflict, ethnic conflict, civil war, or interstate war in an additive approach. Some

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have been opportunistic in their case studies and research.[29] Others have defined political violence as being "explicitly for a designated and reordering purpose: to overthrow a tyrannical regime, to redefine and realize justice and equity, to achieve independence or territorial autonomy, to impose one's religious or doctrinal beliefs," focusing on violent nonstate actors contesting the legitimacy of the existing order.[30] Such approaches are either too unfocused or too narrow, and Christian Davenport has it right when he points out that "researchers have paid far more attention to the evils done against governments (and citizens) by dissidents, rebels, and terrorists than to the evils done by presidents, the police, military, secret service, national guard, and death squads against those within their territorial jurisdiction."[31] Political violence, including war and armed conflict, should be defined as including violence used for explicitly political ends, or that directly undermines and challenges the state's legal monopoly over the legitimate use of force, or that implicates the state and its repressive apparatus. These various forms of political violence have often profound consequences on the legitimacy and functioning of the state, and engage the responsibility of state and nonstate armed actors.

Extending how we think about political violence has implications for just war theory, and for the ethics of violence. The legal case around challenges to and expansions of just war theory – to cover such things as nonstate actors, undeclared wars and asymmetric warfare – is cogently argued by Allen Weiner and Seth Lazar in the Winter 2017 issue of *Dædalus*.[32] As they note, just war doctrine developed to deal with state parties in a formally declared war, and war and armed conflict are defined as occurring "whenever there is…protracted armed violence between governmental authorities and organized armed groups or between such groups within a state" that crosses a minimum threshold of intensity and whose participants possess "a certain command structure and have the capacity to sustain military operations."[33] This mirrors the more restrictive definitions to determine what counts as a war, and is silent on other forms of violence, including the indirect victims of armed conflict. It also often legitimizes the use of lethal force by states by putting "a conceptual and moral gulf between the resort to such force…for political purposes by state agencies and its political employment by nonstate actors."[34]

We lack, however, clear and integrated concepts to help us understand "just and unjust political violence."[35] Such concepts would have to deal in a consistent and robust fashion with normative and legal issues along five dimensions in addition to the just war doctrine: state violence against citizens; the state's "responsibility to protect" them; the international community's responsibility, if any; the responsibility of nonstate armed actors before national and international criminal law; and the responsibility of state and nonstate actors for the indirect (but still attributable) consequences of violent or repressive acts.

Such a reflection is beyond the scope of this essay. But the international legal toolkit is not empty, and piecemeal normative reflections abound. There may be, for example, a trend toward taking the long-term consequences of war into account when assessing proportionality. The extensive literature on the "responsibility to protect" (explored by Jennifer Welsh in this issue) is rooted in just war reflections. There are also generally agreed upon principles, such as the "Basic Principles on the Use of Force and Firearms by Law Enforcement Officials" to govern legal interventions.[36] The Genocide Convention, which includes "deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or

in part" (article 2), can be seen as implying that indirect forms of violence short of mass murder should be part of deliberations about responsibility and accountability. The UN Convention against Transnational Organized Crime (2003) and its protocols partly address common legal standards, and a patchwork of national criminal laws deal with participation in, or membership of, organized violent groups (gangs, organized criminal groups) even when these are not engaged in large-scale violence.

But in general, the focus of the ethical debate remains on war and not on other kinds of violence, and we have few reasons to think the patchwork of legal doctrine and ethical reflection adds up to a robust and consistent normative framework. Sadly, the framework for holding state agents responsible and accountable to citizens, to provide security and protection, and to refrain from unjustly harming them is weak – as recent cases of excessive use of force by police officers in the United States illustrate. Broadening our perspective to examine the many forms of violence beyond war opens a window on this lacuna.

Linking war and other forms of political violence, broadening our understanding of political violence, and adopting a holistic approach to measuring and monitoring draws our attention to phenomena that are traditionally ignored in war and conflict studies.[37] But beyond this, it has to add value to our understanding of the roots, dynamics, and consequences of contemporary political violence, especially since war is not distinct from other violence dynamics within states and societies, and all forms of violence have generative effects that "constitute, uphold and organize existing social relations."[38] Traditionally, however, scholars have focused on the consequences of large-scale interstate or internal conflicts between formally organized actors, and considered lower-level violent interactions to be separate from, or the product of, these macrolevel processes.

But the dynamics of violence could work both ways: microlevel violence can feed upward into large-scale conflict: from Sidi Bouzid to the Islamic State. We know that the metanarrative of violent conflict (often political or ideological) can encompass a host of microlevel and localized disputes that are not directly connected with the metanarrative, and Yale professor Stathis Kalyvas paints a compelling picture of how the macro/political and micro/private forms of violence are intertwined.[39] There is thus good reason to conclude that large-scale violence can escalate upward from a host of deeply entrenched and enduring microlevel violent exchanges or struggles for power.[40] We also know that genocide and state violence usually unfold as part of other violent interactions, including interstate and civil war. Understanding how this can be so has important implications for conflict resolution and post-conflict peacebuilding, or for strategies of intervention.

In Pakistan, for example, while violence is concentrated in the Northwest Frontier Province and Karachi, there are at least twenty-two separate "dyads" or "triads" of conflict, most involving the state, Lashkar-e-Islam, and/or different Taliban factions. This intense violence has recently resulted in two to three thousand violent deaths annually, and is accompanied by high levels of urban political violence in major cities. Total deaths from political violence in Pakistan run around five thousand per year, including "casualties in terrorist attacks, operations by the security forces and their clashes with militants, ethnopolitical violence, drone attacks, inter-tribal and intermilitants clashes, sectarian clashes, religious/communal violence, cross-border attacks and clashes, criminal gangs' clashes with one another

and with the security forces."[41] These are *not* disconnected forms of violence, nor is the struggle with radical Islam necessarily the most important. The different forms of violence are linked in complex ways, and add up to a worrying picture in which the security forces of the state are deeply implicated. Pakistan may be extreme, but it is not unique.

A second important generative consequence of violence is temporal, and can be seen in the relationship between conflict and post-conflict violence. The idea that different forms of violence may be linked over time is not new: observers of the American Civil War and post–World War I Europe postulated that rising criminal violence in America and Britain was the product of the social and cultural dislocative effects of, respectively, the Civil War and World War I.[42] A similar story can be told about high levels of post-conflict violence in parts of Central America, such as El Salvador and Guatemala, now linked to gang-related violence, vigilantism, and state violence.[43] Again, these are extreme, but not unique, cases.

A third form of mutual reinforcement can be seen where violent actors pursuing political and private (criminal) goals interact and support each other, making a separation between the study of political and criminal violence difficult. The two are linked in places such as Afghanistan and Colombia, where drug trafficking and control of smuggling routes are objects of contestation between armed groups, who in some cases forge links with criminal groups and cartels.[44] In West Africa, major extractive and predatory enterprises have fed the emergence of warlords in Liberia, Sierra Leone, and the Eastern Democratic Republic of the Congo, who do not necessarily pursue ideological or state-building aims, but seek to capture the state to pursue predatory or neopatrimonial ends.[45] In places like Iraq, such "dual-purpose violence" has been characteristic of both the politically motivated violence of insurgents and organized criminality since 2003. Individuals, often with a criminal background, financed future insurgent activities by participating in the looting shortly after the fall of the Ba'ath regime, and impoverished looters targeted the political elite "in acts of political revenge but also to satisfy long accumulated material needs."[46] One cannot understand the dynamics of politically motivated armed conflicts without seeing how they are tied up with nonpolitical violence and criminal activities.

Finally, seemingly disconnected forms of violence can be linked in complex ways. Sexual violence in and after conflicts, especially in parts of West Africa, is connected to broader conflict and violent dynamics, and "the specific, often exclusive, focus on sexual violence . . . hampers our understanding of the relationship between sexual violence and other (supposedly) 'ungendered' violence. . . . These forms of violence are . . . manifestations of the same systemic failures and mechanisms."[47] This is not a unidirectional chain where conflict violence causes higher levels of sexual and gender-based violence. There are deeper mechanisms and processes at work, as states with lower levels of gender equality and higher levels of violence are more likely to initiate the use of force in interstate disputes, to be involved in interstate conflicts, to be less peaceful internationally, to be less compliant with international norms, and to be less likely to have good relations with neighboring states.[48]

The nature and impact of contemporary political violence cannot be measured solely by such things as changes in levels of lethality or trend analysis of the number of ongoing conflicts. While extensive debates around the "end of war" or the "end of violence" may shed some light on the place of war and lethal violence in social life, they

tell us little about the order-creating or order-destroying effects of war and violence. They may also be highly misleading, as numerous critics have pointed out, both in their presentation of data and their interpretation of causes. Battle deaths (and homicides, too) may have declined precipitously, at least in the developed world, due to better medical care and interventions.[49] Figures on the lethality of war now focus on direct conflict deaths, excluding the indirect deaths (starvation, disease) that accounted for huge numbers of victims in previous periods. And the age distribution of populations (increases in life expectancies), coupled with the fact that most violence is committed by men between the ages of fourteen and twenty-nine, means that lethal violence levels will inevitably decline as populations age and life expectancy increases.

If all the trends are positive, why are persistent expressions of unease and insecurity at the highest levels so widespread?[50] The source of unease stems not from the numbers, but from the changing nature and unclear consequences of contemporary violence. Even low-level but sustained violence can have long-term systemic and structural consequences that affect processes of state-building and decay, create cross-border sources of regional instability, and distribute power away from state institutions. The erosion of the state's practical monopoly over the use of violence, the steady proliferation of more powerful and sophisticated weapons to nonstate armed actors, the relative ease with which "violence entrepreneurs" can operate in many parts of the world, and the weak and fragile nature of many state institutions intended to provide safety and security are all worrying trends.

In order to think clearly about the impact of war, armed conflict, and political violence in the twenty-first century, we thus have to go beyond war, terrorism, and civil conflict to look at all sources, causes, and consequences of lethal violence. Many of these causes, such as governance failure or state collapse, or the process of state- and society-building, are intensely political, have national and international implications, and are interlinked. To make sense of trends in contemporary war and armed conflict and to understand the sustainability or generalizability of these trends, we also need a serious analysis of the scope conditions that governed the emergence of this relatively peaceful state (and states).

ENDNOTES

Author's Note: Thanks to Scott Sagan, Seth Lazar, Barry Posen, and participants at the American Academy of Arts and Sciences' workshops on "New Dilemmas in Ethics, Technology and War" for useful comments on an earlier draft.

[1] The lower figure is the total of "martyrs" and "regime fatalities" from the Violations Documentation Center in Syria; the higher figure is from Staffan de Mistura, UN special envoy for Syria. See the Violation Documentation Center in Syria, "Statistics for the Number of Killed," https://www.vdc-sy.info/index.php/en/home; and Staffan de Mistura quoted in "Syria Death Toll: UN Envoy Estimates 400,000 Killed," *Al Jazeera*, April 23, 2016, http://www.aljazeera.com/news/2016/04/staffan-de-mistura-400000-killed-syria-civil-war-160423055735629.html.

[2] See Doug McAdam, Sidney Tarrow, and Charles Tilly, *Dynamics of Contention* (Cambridge: Cambridge University Press, 2001); and Lorenzo Bosi, Charles Demetriou, and Stefan Malthaner, eds., *Dynamics of Political Violence* (Farnham, United Kingdom: Ashgate, 2014).

[3] These figures do not cover the most intense period of fighting of the Syrian conflict, and conflict death totals are much higher since 2012.

[4] See Geneva Declaration Secretariat, *Global Burden of Armed Violence 2015: Every Body Counts* (Cambridge: Cambridge University Press, 2015).

[5] One exception is Monty G. Marshall, *Third World War* (Oxford: Rowman and Littlefield, 1999). See also Monty G. Marshall, "Major Episodes of Political Violence, 1946 – 2015," Center for Systemic Peace, May 25, 2016, http://www.systemicpeace.org/warlist/warlist.htm.

[6] Laia Balcells and Patricia Justino, "Bridging Micro and Macro Approaches to Civil Wars and Political Violence: Issues, Challenges and the Way Forward," *Journal of Conflict Resolution* 58 (8) (2014): 1343 – 1359; and Patricia Justino, Tilman Brück, and Philip Verwimp, eds., *A Micro-Level Perspective on the Dynamics of Conflict, Violence, and Development* (Oxford: Oxford University Press, 2013).

[7] See United Nations Office of Drugs and Crime, *Global Study on Homicide 2013* (Vienna: United Nations, 2014). On Yemen, see Small Arms Survey, *Under Pressure: Social Violence over Land and Water in Yemen* (Geneva: Small Arms Survey, October 2010). On Mexico, see Paul Kenny and Mónica Serrano, eds., *Mexico's Security Failure: Collapse into Criminal Violence* (London: Routledge, 2012). See also International Institute for Strategic Studies, *Armed Conflict Survey 2015* (London: International Institute for Strategic Studies, 2015), which identifies forty-two active conflicts and 180,000 fatalities in 2014, and acknowledges this by including the deaths in El Salvador, Guatemala, Honduras, and Mexico as conflict-related deaths.

[8] See Uppsala Conflict Data Program, Department of Peace and Conflict Research, "Definition of Armed Conflict," Uppsala Universitet, http://www.pcr.uu.se/research/ucdp/definitions/definition_of_armed_conflict/.

[9] Uppsala Conflict Data Program, Department of Peace and Conflict Research, "Uppsala Conflict Data Program," Uppsala Universitet, http://www.pcr.uu.se/research/ucdp/.

[10] For World Health Organization estimates, see World Health Organization, "Global Health Observatory (GHO) Data: Road Traffic Deaths," http://www.who.int/gho/road_safety/mortality/en/; and World Health Organization, "Media Centre: Malaria," http://www.who.int/mediacentre/factsheets/fs094/en/. For the declinist thesis, see Steven Pinker, *The Better Angels of our Nature: The Decline of Violence in History and its Causes* (London: Penguin, 2011); and Joshua Goldstein, *Winning the War on War: The Decline of Armed Conflict Worldwide* (London: Penguin, 2011).

[11] Iraq Body Count, "Documented Civilian Deaths from Violence," https://www.iraqbodycount.org/ (accessed October 15, 2015).

[12] The result of the sum of "war and minor conflict," "nonstate conflict," and "one-sided violence" categories. See Uppsala Conflict Data Program, Department of Peace and Conflict Research, "Number of Conflicts: 1975 – 2015," Uppsala Universitet, http://www.ucdp.uu.se/gpdatabase/gpcountry.php?id=77&regionSelect=10-Middle_East#.

[13] The Uppsala Conflict Data Program also pointed out that "battle-related deaths were just a small part of the violence in Iraq during the year, as much violence was directed against civilians." See ibid.

[14] United Nations Assistance Mission for Iraq, *Human Rights Report 1 November – 31 December 2006*, United Nations Iraq, http://www.uniraq.org/index.php?option=com_k2&view=itemlist&layout=category&task=category&id=164&Itemid=650&lang=en&limitstart=18. Iraq Body Count figures for 2006 total 29,451 civilian deaths.

[15] Iraq is not a unique case. In the Bosnian War (1992 – 1995), Uppsala Conflict Data Program data tabulate 29,113 deaths (all forms of conflict), while the authoritative post-conflict studies estimate 104,732 deaths. See Ewa Tabeau and Jan Zwierzchowski, "The 1992 – 95 War in Bosnia and Herzegovina: Census-Based Multiple System Estimation of Casualties Undercount," paper for the International Research Workshop on "The Global Costs of Conflict," February 1 – 2, 2010, http://www.ucdp.uu.se/gpdatabase/gpcountry.php?id=20&regionSelect=9-Eastern_Europe.

[16] Penny Green and Tony Ward, "The Transformation of Violence in Iraq," *British Journal of Criminology* 49 (2009): 609 – 627.

[17] Paul H. Wise, "The Epidemiologic Challenge to the Conduct of Just War: Confronting Indirect Civilian Casualties of War," *Dædalus* 146 (1) (forthcoming winter 2017).

[18] For a range of estimates for several recent conflicts, see Geneva Declaration Secretariat, *Global Burden of Armed Violence* (Geneva: Geneva Declaration, 2008), 40, 46 – 47.

[19] There is controversy over these figures, with estimates for the later (less violent) period of 2001 – 2007 ranging from 2.8 million excess deaths to "only" 860,000. See Human Security Research Group, *Human Security Report 2009/2010: The Causes of Peace and the Shrinking Costs of War* (Oxford: Oxford University Press, 2011), 123 – 131.

[20] Vittorio Bufacchi, "Two Concepts of Violence," *Political Studies Review* 3 (2005): 193 – 204. See also Mary Jackman, "Violence in Social Life," *Annual Review of Sociology* 28 (2002): 387 – 415.

[21] Etienne Krug et al., *World Report on Violence and Health* (Geneva: World Health Organization, 2002), 5.

[22] Tim Jacoby, *Understanding Conflict and Violence* (London: Routledge, 2008), chap. 3.

[23] Open Society Institute, *Criminal Force: Torture, Abuse, and Extrajudicial Killings by the Nigeria Police Force* (New York: Open Society Institute, 2010), 53. See also Amnesty International, *Killing at Will: Executions and Other Unlawful Killings by the Police in Nigeria* (London: Amnesty International, 2009).

[24] See Todd Foglesong and Christopher Stone, "Measuring the Contribution of Criminal Justice Systems to the Control of Crime and Violence: Lessons from Jamaica and the Dominican Republic," Faculty Research Working Papers series (Cambridge, Mass.: John F. Kennedy School of Government, 2009), 16 – 17.

[25] Amnesty International, *Egypt Rises: Killings, Detentions and Torture in the "25 January Revolution"* (London: Amnesty International, 2011).

[26] His estimate of the twentieth-century total for war deaths (civilians and combatants), indirect conflict-related deaths, and "political motivated carnage" is between 167 – 175 million. See Zbigniew Brzezinski, *Out of Control: Global Turmoil on the Eve of the 21st Century* (New York: Touchstone, 1993), 15 – 17.

[27] Christian Davenport, "State Repression and Political Order," *Annual Review of Political Science* 10 (2007): 2; and Bufacchi, "Two Concepts of Violence."

[28] Jovana Carapic, *Order and Authority within and Beyond the State* (PhD diss., Graduate Institute of International and Development Studies, Geneva, 2013).

[29] The cases chosen by Tilly et al. include the French Revolution, the American civil rights movement, Italian post-1968 unrest, Mau Mau violence in Kenya in the 1950s, the uprising in the Philippines in the 1980s, Hindu-Muslim conflict in India, the anti-apartheid movement in South Africa, and Soviet disintegration. See also the cases in Bosi et al., *Dynamics of Political Violence*.

[30] David Apter, ed., *The Legitimization of Violence* (New York: New York University Press, 1997), 5.

[31] Davenport, "State Repression and Political Order," 1.

[32] Allen S. Weiner, "Just War Theory & the Conduct of Asymmetric Warfare," *Dædalus* 146 (1) (forthcoming winter 2017); and Seth Lazar, "Evaluating the Revisionist Critique of Just War Theory," *Dædalus* 146 (1) (forthcoming winter 2017).

[33] International Committee of the Red Cross, "How is the Term 'Armed Conflict' Defined in International Humanitarian Law?" ICRC Opinion Paper, March 2008, 3 – 4; and International Criminal Tribunal for the Former Yugoslavia, *The Prosecutor v. Dusko Tadic, Decision on the Defence Motion for Interlocutory Appeal on Jurisdiction*, October 2, 1995, para. 70.

[34] C. A. J. Coady, *Morality and Political Violence* (Cambridge: Cambridge University Press, 2006), 3.

[35] I am indebted to Scott Sagan for the term and the insights in this paragraph.

[36] Adopted by the Eighth United Nations Congress on the Prevention of Crime and the Treatment of Offenders, Havana, Cuba, 1990, http://www.ohchr.org/EN/ProfessionalInterest/Pages/UseOfForceAndFirearms.aspx.

[37] There are of course major exceptions. See, for example, Benjamin Valentino, *Final Solutions: Mass Killing and Genocide in the 20th Century* (Ithaca, N.Y.: Cornell University Press, 2004); and Martin Shaw, *War and Genocide* (Cambridge: Polity, 2003).

[38] Claudio Colaguori, "Symbolic Violence and the Violation of Human Rights: Continuing the Sociological Critique of Domination," *International Journal of Criminology and Sociological Theory* 3 (2) (June 2010): 392.

[39] Stathis Kalyvas, "The Ontology of 'Political Violence': Action and Identity in Civil Wars," *Perspectives on Politics* 1 (3) (2003): 475 – 494.

[40] Charles Brockett, *Political Movements and Violence in Central America* (Cambridge: Cambridge University Press, 2005); and Andreas Wimmer, "War," *Annual Review of Sociology* 40 (2014): 173 – 197.

[41] Pak Institute for Peace Studies, *Pakistan Security Report 2012* (Islamabad: Pak Institute for Peace Studies, 2013), 7.

[42] Edith Abbott, "The Civil War and the Crime Wave of 1865 – 70," *Social Service Review* 1 (2) (1927): 212 – 234; and Dane Archer and Rosemary Gartner, "Violent Acts and Violent Times: A Comparative Approach to Postwar Homicide Rates," *American Sociological Review* 41 (6) (December 1976): 937 – 963.

[43] Ellen Jane Sharp, *Vigilante: Violence and Security in Postwar Guatemala* (PhD diss., University of California, Los Angeles, 2014).

[44] Jonathan Goodhand, "Corrupting or Consolidating the Peace? The Drugs Economy and Post-Conflict Peacebuilding in Afghanistan," *International Peacekeeping* 15 (3) (2008): 405 – 423.

[45] Séverine Autesserre, *The Trouble with the Congo: Local Violence and the Failure of International Peacebuilding* (Cambridge: Cambridge University Press, 2010).

[46] Green and Ward, "The Transformation of Violence in Iraq," 618 – 619. Notorious organized crime figures also reportedly helped insurgent cells fund their activities through kidnappings, bribery, and highway robberies.

[47] Maria Eriksson Baaz and Maria Stern, *The Complexity of Violence: A Critical Analysis of Sexual Violence in the Democratic Republic of Congo (DRC)* (Uppsala: The Nordic Africa Institute, 2010), 13. See also Dara Kay Cohen, "Explaining Rape during Civil War: Cross-National Evidence (1980 – 2009)," *American Political Science Review* 107 (3) (2013): 461 – 477.

[48] Mary Caprioli, "Primed for Violence: The Role of Gender Inequality in Predicting Internal Conflict," *International Studies Quarterly* 49 (2) (2005): 161 – 178; and Valerie M. Hudson, Mary Caprioli, Bonnie Ballif-Spanvill et al., "The Heart of the Matter: The Security of Women and the Security of States," *International Security* 33 (3) (2009): 7 – 45.

[49] I have not space to present the critique by anthropologists, sociologists, and historians of Pinker's claims. See Tanisha Fazal, "Dead Wrong? Battle Deaths, Military Medicine, and Exaggerated Reports of War's Demise," *International Security* 39 (1) (2014): 95 – 125; Anthony Harris, Stephen H. Thomas, Gene A. Fisher et al., "Murder and Medicine: The Lethality of Criminal Assault, 1960 – 1999," *Homicide Studies* 6 (2) (2002): 128 – 166; and Benjamin Zeimann, "Histories of Violence," *Reviews in History*, April 12, 2012, http://www.history.ac.uk/reviews/review/1232. For a supportive review, see Human Security Research Group, *Human Security Report 2013* (Vancouver: Human Security Press, 2013).

[50] Including, for example, Michael Ignatieff, "The New World Disorder," *New York Review of Books*, September 25, 2014; or statements by various high-ranking American security and intelligence officials.

Moral Character or Character of War? American Public Opinion on the Targeting of Civilians in Times of War

Benjamin Valentino

Abstract: Since the end of the Vietnam War, the United States has refrained from the widespread, intentional targeting of civilian populations in times of war. Public opinion polls seem to reflect a marked decline in American support for targeting foreign civilians since that time. Drawing on original public opinion surveys, as well as other historical material, this essay explores several explanations for these changes. Although there is some evidence that the public's views about the morality of civilian targeting have shifted, I argue that two other explanations also play an important role in the changes in the conduct of American wars. First, a mounting skepticism, especially within the U.S. military, about the efficacy of killing civilians, has undercut the primary motivation to even consider such tactics. Indeed, many U.S. military leaders now perceive that killing adversary civilians in large numbers – intentionally or unintentionally – usually backfires, making the adversary fight harder or driving more civilians to join or support the adversary's forces. Second, due to the lower stakes, and especially the dramatically lower fatality rates suffered by American troops in recent wars, the temptation to attempt to end wars quickly with a "death blow" against adversary cities has become less potent. Under certain conditions, however, a majority of Americans would still support today the kind of population bombing last practiced during World War II.

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Nineteen forty-five was the dawn of not only the nuclear era, but also the era of scientific public opinion polling. In September of that year, Roper Opinion Research conducted a nationwide public opinion poll for *Fortune* magazine on the use of nuclear weapons against Japan one month earlier. The results showed that the majority of the nation (54 percent) agreed that the United States "should have used the two bombs on cities, just as we did."[1] But 14 percent believed that "we should have dropped one first on some unpopulated region, to show the Japanese [the bomb's] power, and only dropped the second one on a city if they hadn't surrendered after the first one." Only 5 percent of the public felt that "we should not

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have used any atomic bombs at all," while 23 percent, however, preferred instead that "we should have quickly used many more of them before Japan had a chance to surrender."[2] This echoed a 1944 poll that asked, "What do you think we should do with Japan as a country?" to which 13 percent of American respondents chose "kill all Japanese."[3] Although racism and the resentment provoked by Pearl Harbor undoubtedly hardened attitudes against the Japanese, there was also virtually no public opposition to the U.S. and British bombing of civilian populations in Germany, which killed nearly as many civilians as were killed by the U.S. bombing of Japan.

Many Americans contemplating these results today will be shaken by the willingness of their fellow citizens to support the intentional killing of hundreds of thousands of civilians. Indeed, when I replicated the 1945 atomic bombing poll in 2012, using nearly identical wording, the results were markedly different.[4] Sixty-seven years later, only 30.2 percent of the public agreed that dropping the bombs on Hiroshima and Nagasaki had been the right choice. More than twice as many (29.9 percent) indicated that they would have preferred a demonstration first on an unpopulated region, while more than four times as many people in 2012 (19.8 percent) said that the United States should not have dropped any bombs on Japan. Just 2.5 percent regretted that the United States had not used many more bombs before Japan had the chance to surrender – about one-tenth the proportion who preferred that option in 1945.[5]

Although the United States' military capability to lay waste to its adversaries' cities has grown exponentially since the end of World War II, the United States has, at least since the end of the Vietnam War, refrained from the widespread, intentional targeting of civilian populations in times of war. In World War II, Korea, and Vietnam, the United States inflicted hundreds of thousands (or more) civilian casualties on its adversaries. A large proportion of these deaths resulted from the intentional targeting of civilian populations. In contrast, in the 1991 Persian Gulf War, the United States killed less than four thousand civilians in military attacks. Approximately five hundred civilians were killed by NATO airstrikes in Kosovo in 1999.[6] In the Iraq War, the human rights organization Iraq Body Count estimates that U.S. and coalition forces killed approximately fourteen thousand civilians from 2003 to 2011.[7] Although the estimated thirty thousand total civilian deaths in Afghanistan have not been systematically attributed to the various parties to the war, a very rough estimate based on UN data suggests that U.S., coalition, and "pro-government" Afghan forces probably killed less than six thousand civilians from 2001 to 2014, with approximately half of those deaths caused by coalition airstrikes.[8]

Deterrence cannot explain America's more humane conduct in recent wars. The United States has maintained this policy of comparative restraint despite the fact that none of the adversaries the United States has engaged with militarily since World War II has possessed the capacity to retaliate in kind. In fact, the U.S. military has gone to considerable lengths in recent decades to minimize the killing of civilians during war, including adopting rules of engagement that increase risks to U.S. troops or choosing weapons that reduce collateral damage but diminish the chances of successfully destroying military targets. In a review of the U.S. military's conduct in the Iraq War, security scholar Colin Kahl has argued that although U.S. military forces killed thousands of Iraqi civilians as collateral damage, the United States had "dramatically reduced the number of civilian casualties relative to what they might otherwise have been in the age of carpet bombing."[9] By Kahl's calculation, even putting aside the important distinction

between intentional targeting and collateral deaths, the rate of "Iraqi civilian fatalities attributable to direct U.S. action and crossfire through the end of 2006 were 17 to 30 times lower than those from bombing and shelling alone in Vietnam."[10]

What can explain this apparent transformation in U.S. conduct of war and public attitudes toward the use of force? Drawing on public opinion surveys, as well as other historical material, this essay will explore three broad explanations for the change. The first explanation – the one most commonly cited by scholars of the conduct of war – claims that there has been a decisive shift in the norms surrounding the targeting of civilians. By this account, Americans' ideas about what constitutes appropriate and ethical conduct in war have changed for the better. The second explanation points to changing ideas about how to win wars, rather than focusing on changing understandings of the ethics of war. Whereas in World War II, attacking civilian morale or productive capacity through strategic bombing was seen as an effective strategy for coercing surrender, by the end of the Vietnam War, military and civilian elites, and perhaps the public as well, had begun to question the efficacy of intentionally killing civilians. In fact, many had concluded that doing so was largely counterproductive. Lastly, the third explanation focuses instead on the changing nature of the wars that the United States has waged since World War II, especially since Vietnam. According to this explanation, what has changed is not principally U.S. moral character or military strategy, but the pressures that recent wars have placed on Americans to consider targeting civilians. Due to the lower stakes, and especially the dramatically lower fatality rates suffered by American troops in recent wars, the temptation to end wars quickly with a "death blow" against adversary cities has been much less potent.

These three explanations for the shift in American attitudes toward war are not mutually exclusive. Under certain circumstances, however, the different underlying mechanisms identified by each of these explanations may push Americans in divergent directions. Whether the relatively restrained pattern of warfare that the United States has observed for the past forty years will be sustained in the next forty will depend upon the relative strength of these mechanisms.

The most commonly articulated argument for the decline in the intentional targeting of civilian populations by the United States since 1945 focuses on the increasing internalization by Americans of the international norm of noncombatant immunity. Although the principle that civilians deserve at least some protection from the horrors of combat is one of the oldest rules of warfare, many scholars assert that the norm began to spread faster and generate a much higher degree of compliance after World War II and the entry into force of the Fourth Geneva Convention in 1949.[11] Airpower expert Ward Thomas, for example, contends that "the bombing norm has slowly recovered from the catastrophe of World War II. While far from absolute, the reborn norm has in recent decades engendered a sensitivity to noncombatant casualties that not only constrains states from targeting civilian populations per se but also creates pressures to minimize incidental casualties in general."[12] Political scientist Neta Crawford, on the other hand, argues that Vietnam "constitutes a turning point in U.S. policy. . . . After Vietnam, declaratory policy and operational planning increasingly emphasized protecting civilians and U.S. authorities instituted methods to mitigate civilian casualties. . . . To the extent they adopted the principle of civilian immunity, it was part of a global change in views about human rights."[13]

Public opinion polls from the seventy years after World War II provide mixed support for this view. Very few polls have asked Americans to reflect explicitly on the targeting of civilians in war, but those that do generally indicate a decrease in Americans' willingness to violate noncombatant immunity compared to attitudes during World War II. Surprisingly large numbers of Americans, however, continue to express support for attacks that would kill large numbers of civilians. A 1968 Gallup Poll, for example, asked Americans if they would favor or oppose a plan that would "stop all bombing of North Vietnam but with the understanding that if after one or two months the North Vietnamese do not begin to remove their soldiers from South Vietnam that the U.S. would then decide whether to bomb all of North Vietnam including the cities." Forty-eight percent favored the plan and 39 percent opposed it.[14] Three years later, prompted by the courts martial of fourteen American officers involved in the infamous My Lai massacre, a Harris poll asked subjects to "suppose you were a soldier in Vietnam" and "were ordered to shoot old men, women, and children in a village where the civilians were suspected of aiding the enemy."[15] A slight plurality of respondents (43 percent) said it would be more right to follow orders, but nearly as many (41 percent) said it would be better to refuse.[16]

By the end of the war, however, attitudes seem to have shifted further in favor of protecting civilians. A January 1973 Harris poll, which asked Americans about the heavy "linebacker" bombing raids on North Vietnam, found that a majority (51 percent) opposed the bombing, while 37 percent supported it, and a plurality (46 to 31 percent) acknowledged that "it was inhuman and immoral for the U.S. to have bombed Hanoi's civilian centers the way we did."[17] Nevertheless, the public also agreed overwhelmingly (71 percent to 16 percent) that "what we did in bombing Hanoi was no worse than what the Communists have done in the Vietnam War." The Harris Survey concluded that "the American people have an uncomfortable sense about the bombings, and would rather have preferred another way to bring North Vietnam back to the negotiating table to end the war. Nevertheless, their reaction was somewhat less than total indignation and on some dimensions they are prepared to justify the bombings as the final stroke to end a cruel and unhappy war."[18]

Public opinion polls in the United States' more recent wars suggest a similar ambivalence toward civilian casualties. In the Persian Gulf War, for example, a poll sponsored by *The Washington Post* asked Americans whether "United States bombers should pass up some possible military targets if Iraqi civilians might be killed in the attack, or not?"[19] The public opposed avoiding such targets by a margin of almost two-to-one.[20] In mid-February 1991, approximately one month after the bombing campaign against Iraq had begun, Gallup asked Americans to consider the following choices: "Some people say that President Bush should continue the air war for at least several more weeks to make a ground war unnecessary or as easy as possible for allied forces. Others say the President should start the ground war sooner because the air war is doing too much damage to Iraq and its civilians – damaging our position in the Arab world." Of the respondents, 87 percent said they preferred to continue the air war, with only 8 percent in favor of starting the ground war as soon as possible.[21]

In 2006, following on reports of the Haditha killings by U.S. troops in Iraq, a poll sponsored by *The Los Angeles Times* reminded Americans of recent "reports that American troops in Iraq may have killed unarmed Iraqi civilians during military operations" and asked whether that changed their "feelings about the war in Iraq in any

way."[22] Sixty-six percent of respondents said that the news did not change their views of the war, while only 23 percent said they had become less supportive.[23]

In 1999, to mark the fiftieth anniversary of the Geneva Convention, the International Committee of the Red Cross sponsored a major international survey on attitudes about the laws of war.[24] Evidence that the American public had internalized international norms against the killing of civilians in war remained mixed. When asked about the appropriate behavior of military forces when soldiers "attack to weaken the enemy," only 4 percent of Americans said combatants should be free to attack "combatants and civilians." However, 42 percent said soldiers should "attack enemy combatants and avoid civilians as much as possible," and 52 percent said they should "attack only enemy combatants and leave civilians alone."[25] In a separate poll, also conducted in 1999, Americans were asked if they "had to make a decision about using the American military," how important each item on a list of several factors would be: 79 percent of Americans said that the "number of civilians who might be killed" would be an important factor in deciding whether or not to use force, second only to the 86 percent who chose the "number of American lives that might be lost."[26]

The Red Cross survey also revealed, however, that one-third of Americans had never heard of the Geneva Convention and only 21 percent believed that there were any laws that regulated "attacking enemy combatants in populated villages or towns in order to weaken the enemy, knowing that many women and children would be killed."[27] Of those polled, 29 percent said it would be "okay to attack" civilians who voluntarily gave food and shelter to enemy combatants in times of war.[28] These attitudes appear to have remained relatively stable in the last fifteen years. In a similarly worded poll conducted in 2014, Scott Sagan and I asked respondents whether "foreign civilians who sympathize politically with U.S. adversaries are fair targets in times of war, even if the civilians do not take up arms themselves."[29] Thirty-eight percent of the public agreed they were. Support for targeting civilians rose to 51 percent when subjects were told that the civilians had "provided food and shelter to adversary soldiers."

Taken together, these results do seem to suggest that the American public has become more accepting of the principle of noncombatant immunity than it was at the end of World War II. But significant segments of the public continue to support attacks that would seem to violate the norms of distinction and proportionality, especially when doing so offers the possibility of reducing the risks to American soldiers.

The second explanation for the apparent shift in American attitudes and conduct in war focuses not on changing views about the ethics or legality of killing civilians, but rather on changing views about the efficacy of doing so. For much of human history, armies have considered deliberate attacks against civilian populations a powerful weapon of war – a way of coercing surrender or depriving the adversary of the weapons, supplies, and recruits that civilian populations produce. Beginning with the theories of airpower advocates like Giulio Douhet and later Hugh Trenchard and Curtis LeMay, this logic was formalized into the operational doctrine that guided much of the allied bombing campaigns in World War II, as well as subsequent bombing campaigns in Korea and Vietnam. These doctrines explicitly rejected conventional distinctions between combatants and civilians in favor of a concept of total war that rendered almost anyone on the adversary's side a legitimate target. As LeMay put it, "There are no innocent civilians. It is their government and you are fighting a people, you are not trying to fight an armed force anymore.

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So it doesn't bother me so much to be killing the so-called innocent bystanders."[30]

From the start, some military thinkers questioned the wisdom of diverting resources away from the front lines toward the strategic bombing of enemy cities, and some questioned whether doing so would only stiffen the adversary's resolve. General Carl Spaatz, the commander of Allied Strategic Air Forces in Europe during World War II, opposed the British policy of nighttime area bombing in favor of daylight "precision" attacks on strategic industry and military targets. Spaatz, however, later explained that "it wasn't for religious or moral reasons that I didn't go along with urban area bombing," but rather because he believed that precision bombing "could win the war more quickly."[31] Indeed, as Spaatz understood, U.S. bombing raids in Germany, often conducted through overcast skies, were anything but precise and resulted in tens of thousands of civilian deaths.[32] From World War II through the end of the Vietnam War, however, proponents of population bombing continued to influence the American practice of war. Public views on the efficacy of targeting civilians during this period are harder to gauge with precision, but the few polls available seem to indicate that the public largely accepted that bombing the adversary's population centers, whether it was ethical or not, was an effective tool in times of war.

During World War II, few Americans seemed to question the efficacy of strategic bombing. In 1945, only 8 percent of the public believed that the atomic bombings had not shortened the war with Japan to some extent, and 53 percent felt the bomb had shortened the war by at least six months.[33] One year earlier, 47 percent agreed that the Allied bombing of Germany had decreased the fighting spirit of the German people, while only 26 percent were worried that the bombing had increased German resistance.[34]

These attitudes persisted at least through the Vietnam War. A September 1972 Harris poll, for example, found that the public agreed 53 to 32 percent that "by mining harbors and bombing, the North Vietnamese will come to peace terms faster."[35] In January 1973, another Harris poll showed that Americans agreed 48 to 33 percent with the statement: "The only language Hanoi will listen to is force, such as bombing their cities."[36] The majority of the public seemed to dismiss the idea that the bombing would simply make the North Vietnamese fight harder. In January 1967, when asked whether American bombings were likely to "unite the people of North Vietnam," 51 percent of Americans disagreed and only 25 percent agreed.[37] The same poll found that 49 percent agreed that the bombings would "bring North Vietnam to negotiations," while only 23 percent disagreed.[38]

After Vietnam, however, attitudes within the American military about the effectiveness of targeting civilian populations appear to have changed dramatically. Not only did post-Vietnam military leaders cease to advocate for the bombing of enemy population centers, they frequently argued that minimizing civilian casualties was critical to success. In the First Gulf War, for example, military planners expressed concern that civilian casualties could undermine international support for the war effort and issued orders to targeteers that "anything which could be considered as terror attacks or attacks on the Iraqi people will be avoided."[39] No doubt the change in strategy was facilitated, at least in part, by the development of much more accurate, precision-guided weapons systems – unavailable to commanders in previous wars – that made it possible to strike military targets in populated areas without targeting an entire village or city.

In recent years, the consensus of American military thinking about the efficacy of targeting civilians has continued to evolve

in favor of minimizing noncombatant casualties, even in ground warfare. This trend has been driven in part by the military's increased focus on counterinsurgency wars that, unlike conventional warfare, place a premium on maintaining a cooperative relationship with the adversary's civilian population. Many observers point to the publication of the Army's new counterinsurgency field manual (FM2-14) in 2006 – which emphasized civilian protection and "hearts and minds" as keys to victory – as marking the Army's acceptance of the view that even unintentional noncombatant fatalities could be counterproductive.[40] As Joseph Felter and Jacob Shapiro have documented, U.S. commanders in Afghanistan worked actively to convince troops to exercise "courageous restraint" in the use of force, because they believed that protecting Afghan civilians was critical to winning the war.[41] In 2009, before taking command of U.S. forces in Afghanistan, General Stanley McChrystal told his Senate confirmation committee that "the measure of effectiveness [in Afghanistan] will not be the number of enemy killed. It will be the number of Afghans shielded from violence."[42] McChrystal's first "tactical directive" to commanders in the field upon taking command further emphasized this point:

> Like any insurgency, there is a struggle for the support and will of the population. Gaining and maintaining that support must be our overriding operational imperative.…We must avoid the trap of winning tactical victories – but suffering strategic defeats – by causing civilian casualties or excessive damage and thus alienating the people. While this is also a legal and a moral issue, it is an overarching operational issue – clear-eyed recognition that loss of popular support will be decisive to either side in this struggle.[43]

Although the evidence of a significant change since Vietnam in professional military thinking about the practical importance of minimizing civilian casualties is strong, public attitudes do not appear to have changed as dramatically. In a 2014 poll, Scott Sagan and I found that 52 percent of the public agreed that "the U.S. would be more likely to win its wars if we didn't care so much about avoiding killing foreign civilians."[44] These findings are also reflected in widespread public support for American drone strikes against suspected terrorists, which have been widely criticized in the press as counterproductive. An October 2013 poll, for example, found that 50 percent of Americans agreed that the use of drones "in countries such as Pakistan, Yemen and Somalia has made the United States safer from terrorism," while only 14 percent said it had made America less safe.[45]

Although the first two explanations for the change in U.S. conduct of war since World War II highlight different causes of this transformation, each of them attributes the change to the increasing acceptance of new ideas by the American public or military decision-makers. The third explanation I wish to explore, however, suggests that the most important change has been not in our moral character, but in the character of the wars that the United States has fought, especially since Vietnam. Without exception, these wars have been conducted at comparatively low cost in American lives and have been waged against significantly weaker adversaries over secondary U.S. interests. As a result, the pressures to find ways to end these wars quickly and successfully have been much less powerful and, for the most part, Americans have managed to wage them without even the need to consider directly targeting adversary civilians.

A comparison of monthly military fatality rates in the United States' major wars since World War II helps illustrate this point. The U.S. military fatality rate for the forty-four months the United States was involved in World War II comes to

over 9,200 deaths per month. In Korea, the monthly fatality rate dropped to 987, and then to 485 in Vietnam (from 1963 to 1973). Since those wars, however, American military fatality rates have declined even more dramatically. In the First Gulf War, the U.S. military suffered less than one hundred fifty deaths per month – most due to accidents or friendly fire. In Afghanistan, the monthly death rate since 2001 has been fourteen. In the Iraq War, the United States lost an average of forty-eight soldiers per month between 2003 and 2011. Indeed, the United States has lost fewer soldiers in all its wars since Vietnam combined than it did in a single average month of World War II. It is worth noting that these fatality rates do not take into account the increase in the size of the overall American population over this period, which makes American per capita losses even lower in recent wars. If the U.S. population were as large in 1945 as it was in 2015, the monthly death rate in World War II would have been equivalent to over twenty thousand. Even today's much lower death rates have placed a terrible burden on the nation, of course, but the perceived urgency of staunching the bleeding has been considerably less in recent wars. This trend has probably been reinforced by the discontinuation of the draft after Vietnam, which has meant that the costs of the United States' recent wars have been borne exclusively by volunteers.[46]

Viewed from this perspective, it is perhaps easier to understand why Americans in 1945 might have been more willing to support the bombing of enemy cities, even if some harbored doubts about the morality or efficacy of such a strategy. Of course, it is impossible to know how Americans today would react to a war in which the United States was perceived to be fighting for its existence, and in which each new month of war brought with it ten or twenty thousand additional American deaths.

One way to explore this question, however, is simply to ask Americans to imagine what they would do in the kinds of situations in which the pressures to kill large numbers of foreign civilians might be greater. In one such study, conducted in July 2015, Scott Sagan and I asked Americans to read a fictional news story about a U.S. crisis with Iran. The story was designed to roughly parallel the conflict between the United States and Japan in World War II. In the story, subjects read that a major war had broken out between Iran and the United States after UN inspectors uncovered a covert Iranian nuclear weapons program in clear violation of the Non-Proliferation Treaty and Iran's recent agreement with the United States and other world powers. The United States imposed new economic sanctions on Iran, which prompted Iran to retaliate by sinking a U.S. aircraft carrier in the Persian Gulf, killing over 2,400 sailors (the number killed in Pearl Harbor). The story reported that the United States had then sent ground troops into Iran in an effort to topple the Iranian government. U.S. forces met with heavy fighting and suffered ten thousand fatalities in the first several months of the war. Subjects read that the president was now considering two options to end the war. The first option would continue the ground war, which military leaders estimated would result in the deaths of twenty thousand additional U.S. troops before Iran was defeated. The second option, called the "shock strategy," would deliberately target the Iranian city of Mashad with a nuclear weapon "in the effort to undermine civilian support for the war and pressure the Iranian government to surrender." The attack was expected to destroy much of the city and kill one-hundred thousand Iranian civilians. When asked which option they preferred, 56 percent of Americans chose the nuclear strike and 60 percent said they would approve of the strike if the president ordered it. Given the option to conduct the same strike using

conventional munitions instead of nuclear bombs, 67 percent of Americans preferred the airstrike.[47]

Admittedly, we cannot know whether the kinds of attitudes expressed by subjects in a thought experiment like this reflect the way Americans would react to real world crises. Indeed, polls taken before World War II indicate that many Americans might have been shocked to see how much their own attitudes had changed by the end of the war. The interwar period in the United States, it is often forgotten, witnessed an unprecedented flourishing of pacifist and disarmament movements. World leaders, including Winston Churchill and Franklin Roosevelt, had repeatedly condemned the bombing of civilian populations early in the war that, according to Roosevelt in 1939, "sickened the hearts of every civilized man and woman, and has profoundly shocked the conscience of humanity."[48] A poll conducted by Gallup in April of 1938 found that 91 percent of Americans concurred that "all nations should agree not to bomb civilians in cities during wartime" and 61 percent agreed that the United States should convene "a conference of all nations to make such an agreement."[49] Although it is possible that Americans in 1938 answered those questions cynically, never sincerely believing that civilians should be protected during war, it seems more likely that most simply could not imagine what they would be willing to do to bring an end to a war like World War II. If so, Americans today must ask themselves whether they are any better at imagining how they would behave should we face such desperate times again.

Understanding the causes of the changes in the U.S. conduct of war is critical if we wish to know whether the United States' commitment to a more humane way of war will strengthen or erode in the years ahead and whether other nations will adopt similar restraint. If the United States' increased efforts to protect foreign civilians in recent wars have been driven primarily by a fundamental normative change in the attitudes of the public as well as civilian and military elites, we can expect the trend to continue and to spread. Indeed, international polls suggest that the U.S. public appears to be far more tolerant of inflicting civilian casualties than citizens of most other nations. A 2011 poll conducted by Gallup, for example, found that 49 percent of Americans agreed that it was sometimes justified "for the military to target and kill civilians" – the highest among all 131 countries polled.[50] By contrast, only 3 percent of Spaniards and 9 percent of Germans and Japanese agreed. On the other hand, to the extent that U.S. restraint can be explained by the changing nature of the wars we fight, or by changing views about the military effectiveness of targeting civilians, the recent trend seems more tenuous. Should our adversaries or our strategic concepts change, we might revert to old ways. Perhaps even Western European publics would revise their beliefs if their nations were forced to make the kinds of terrible choices about war from which they have largely been spared since 1945.

Understanding the causes of the changes in the United States' conduct of war could also inform the policy choices we make as we endeavor to increase protection for civilians during times of war. If changing public norms about the conduct of war have been responsible for our shift in attitudes and behavior, it follows that we should focus on spreading those norms through educational efforts directed toward the public both at home and abroad. If changing views of military strategy have played a larger role, our efforts should center on educating the military and civilian elites who craft military strategy. If the changing nature of the United States' wars has enabled our more restrained behavior, however, there may be little we can do except to redouble our efforts to avoid such wars in the first place.

ENDNOTES

[1] Roper/*Fortune* Survey, September 1945, survey question (Ithaca, N.Y.: Roper Center for Public Opinion Research, 1945), accessed through iPOLL database (USROPER.45-050.R16). This shows a decline in support from one month earlier, in August 1945, within days of the bombings, when a Gallup Poll found that an overwhelming 85 percent of Americans approved and only 10 percent disapproved of the use of the atomic bombs against Japanese cities. See David W. Moore, "Majority Supports Use of Atomic Bomb on Japan in WWII," Gallup, August 5, 2005, http://www.gallup.com/poll/17677/majority-supports-use-atomic-bomb-japan-wwii.aspx.

[2] Roper/*Fortune* Survey, September 1945. The remaining 6 percent chose "Don't know."

[3] John Dower, *War Without Mercy: Race and Power in the Pacific War* (New York: Pantheon Books, 1986), 53–54.

[4] Benjamin Valentino, YouGov survey, April 26 to May 2, 2013, http://www.dartmouth.edu/~benv/files/poll%20responses%20by%20party%20ID.pdf.

[5] Ibid.; 17.6 percent chose "Don't know."

[6] Eric V. Larson and Bogdan Savych, *Misfortunes of War: Press and Public Reactions to Civilian Deaths in Wartime* (Santa Monica, Calif.: RAND Corporation, 2006), 65–66.

[7] Iraq Body Count, "Documented Civilian Deaths from Violence," Iraq Body Count, https://www.iraqbodycount.org/database/.

[8] Neta C. Crawford, "War-Related Death, Injury, and Displacement in Afghanistan and Pakistan 2001–2014," *Costs of War* (Providence: Watson Institute for International and Public Affairs at Brown University, 2015), http://watson.brown.edu/costsofwar/files/cow/imce/papers/2015/War%20Related%20Casualties%20Afghanistan%20and%20Pakistan%202001-2014%20FIN.pdf.

[9] Colin H. Kahl, "In the Crossfire or the Crosshairs? Norms, Civilian Casualties, and U.S. Conduct in Iraq," *International Security* 32 (1) (Summer 2007): 45.

[10] Ibid., 15. See also Steven Pinker, *The Better Angels of Our Nature: Why Violence Has Declined* (New York: Viking, 2011), 266.

[11] Joshua Goldstein, *Winning the War on War: The Decline of Armed Conflict World Wide* (New York: Dutton, 2011), 227.

[12] Ward Thomas, *The Ethics of Destruction: Norms and Force in International Relations* (Ithaca, N.Y.: Cornell University Press, 2001), 148.

[13] Neta C. Crawford, "Targeting Civilians and U.S. Strategic Bombing Norms," in *The American Way of Bombing: Changing Ethical and Legal Norms from Flying Fortresses to Drones*, ed. Matthew Evangelista and Henry Shue (Ithaca, N.Y.: Cornell University Press, 2014), 64–65. Crawford also suggests that changing views about the efficacy of targeting civilians have played a role in the changing practice of warfare.

[14] The remaining 13 percent expressed "No opinion." See Gallup Organization, Gallup Poll (AIPO), September 1968, survey question (Ithaca, N.Y.: Roper Center for Public Opinion Research, 1968), accessed through iPOLL database (USGALLUP.68-767.R19).

[15] Louis Harris & Associates, Harris Survey, February 1971, survey question (Ithaca, N.Y.: Roper Center for Public Opinion Research, 1971), accessed through iPOLL database (USHARRIS.71FEB.R18).

[16] Ibid. The remaining 16 percent chose "Not sure."

[17] Louis Harris, "Though Opposed to Bombings of Hanoi Most Felt They Spurred Negotiations," The Harris Survey, February 1, 1973.

[18] Ibid.

[19] ABC News/*The Washington Post* Poll, February 1991 (Ithaca, N.Y.: Roper Center for Public Opinion Research, 1991), accessed through iPOLL database (USABCWP.442.R06).

[20] Ibid. Of the respondents, 60 percent opposed, 34 percent approved, and 5 percent chose "Don't know/No opinion."

[21] The remaining 5 percent chose "Don't know." See Gallup/*Newsweek* Poll, February 1991, survey question (Ithaca, N.Y.: Roper Center for Public Opinion Research, 1991), accessed through iPOLL database (USGALNEW.105138.R06).

[22] *The Los Angeles Times*/Bloomberg Poll, June 2006, survey question (Ithaca, N.Y.: Roper Center for Public Opinion Research, 2006), accessed through iPOLL database (USLAT.062906.R55).

[23] Ibid. Of the respondents, 12 percent replied that the news made them "Much less supportive," in addition to the 11 percent who replied "Somewhat less supportive." A total of 6 percent said the news made them *more* supportive (3 percent replied "Much more supportive" and 3 percent replied "Somewhat more supportive").

[24] Greenberg Research, Inc., *The People on War Report* (Geneva: The International Committee of the Red Cross, 1999), https://www.icrc.org/eng/assets/files/other/icrc_002_0758.pdf.

[25] Ibid., 60.

[26] Americans Talk Security #9 poll, September 7–18, 1999, quoted in Larson and Savych, *Misfortunes of War*, 4.

[27] Greenberg Research, Inc., *The People on War Report*, 70.

[28] Ibid., 63.

[29] Result of an original poll by Scott Sagan and Benjamin Valentino, conducted in 2014. The poll, administered by YouGov from August 5–8, 2014, polled 4,050 American citizens.

[30] Quoted in Michael Sherry, *The Rise of American Air Power: The Creation of Armageddon* (New Haven, Conn.: Yale University Press, 1989), 287.

[31] Quoted in ibid., 249.

[32] Richard Davis, *Carl A. Spaatz and the Air War in Europe* (Washington, D.C.: Center for Air Force History, 1993), 435.

[33] Roper/*Fortune* Survey, September 1945, survey question (Ithaca, N.Y.: Roper Center for Public Opinion Research, 1945), accessed through iPOLL database (USROPER.45-050.R15).

[34] Additionally, 14 percent said it "Made no difference" and 13 percent expressed "No opinion." See Office of Public Opinion Research Roosevelt Survey, April 1944, survey question (Ithaca, N.Y.: Roper Center for Public Opinion Research), accessed through iPOLL database (USOPOR.44-024.Q02).

[35] Louis Harris, "Heavy U.S. Bombings of N. Vietnam Favored By Majority," The Harris Survey, September 11, 1972.

[36] Louis Harris, "Though Opposed to Bombings of Hanoi, Most Felt They Spurred Negotiations," The Harris Survey, February 1, 1973.

[37] The remaining 24 percent chose "Not sure." See Louis Harris & Associates, Harris Survey, January 1967, survey question (Ithaca, N.Y.: Roper Center for Public Opinion Research), accessed through iPOLL database (USHARRIS.021267.R1A).

[38] Louis Harris & Associates, Harris Survey, January 1967, survey question (Ithaca, N.Y.: Roper Center for Public Opinion Research), accessed through iPOLL database (USHARRIS.021267.R1E).

[39] Quoted in Thomas A. Keany and Eliot A. Cohen, *Gulf War Air Power Survey*, vol. 1 (Washington, D.C.: U.S. Air Force, 1993), 46. See also Ward Thomas, *The Ethics of Destruction: Norms and Force in International Relations* (Ithaca, N.Y.: Cornell University Press, 2001), 159–160.

[40] The "All Hands" letter from Major General James Mattis, on the other hand, indicates that the decision to limit civilian casualties may also have been driven by the military's desire to

preserve its self-image as warriors fighting with "chivalry to the innocent." See James Mattis, "A Letter to All Hands," Leatherneck Forum, March 23, 2004, http://www.leatherneck.com/forums/archive/index.php/t-13444.html.

[41] Joseph H. Felter and Jacob N. Shapiro, "Limiting Civilian Casualties as Part of a Winning Strategy: The Case of Courageous Restraint," *Dædalus* 146 (1) (forthcoming winter 2017).

[42] Thom Shanker, "A New Afghanistan Commander Rethinks How to Measure Success," *The New York Times*, June 19, 2009, http://www.nytimes.com/2009/06/20/world/asia/20military.html.

[43] Stanley McChrystal, "Tactile Directive," North Atlantic Treaty Organization (Kabul: Headquarters International Security Assistance Force, July 6, 2009), http://www.nato.int/isaf/docu/official_texts/Tactical_Directive_090706.pdf.

[44] Forty-eight percent disagreed. Original poll conducted by Scott Sagan and Benjamin Valentino in 2014.

[45] Of the remaining respondents, 27 percent said it made no difference and 9 percent did not know or refused to answer. See Pew Research Center for the People & the Press/Council on Foreign Relations, "America's Place in the World Survey," October 2013, survey question, (Ithaca, N.Y.: Roper Center for Public Opinion Research, 2013), accessed through iPOLL database (USPSRA.120313.R59CF2).

[46] See Andrew J. Bacevich, "Whose Army?" *Dædalus* 140 (3) (Summer 2011): 122–134.

[47] Result of an original poll conducted by Scott Sagan and Benjamin Valentino. The poll, administered by YouGov from July 23–30, 2015, polled 160 American citizens.

[48] Conrad C. Crane, *Bombs, Cities and Civilians* (Lawrence: University Press of Kansas, 1993), 32.

[49] Gallup Poll, April 1938, survey question (Ithaca, N.Y.: Roper Center for Public Opinion Research, 1938), accessed through iPOLL database (USGALLUP.041538.RA05A and USGALLUP.041538.RA05B).

[50] Gallup Organization, "Views of Violence," http://www.gallup.com/poll/157067/views-violence.aspx.

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