The Implications of Drones on the Just War Tradition

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In his Nobel Peace Prize acceptance speech in 2009, President Barack Obama referenced the importance of the just war tradition in guiding the use of force: "And over time, as codes of law sought to control violence within groups, so did philosophers and clerics and statesmen seek to regulate the destructive power of war. The concept of a 'just war' emerged, suggesting that war is justified only when certain conditions were met: if it is waged as a last resort or in self-defense; if the force used is proportional; and if, whenever possible, civilians are spared from violence."[1] At the same time that Obama was speaking, Unmanned Combat Aerial Vehicles were flying missions in Pakistan, Afghanistan, Iraq, Somalia, and Yemen, undertaking deadly strikes against perceived security threats. These combat drones, such as the Predator and Reaper, are a unique addition to the military arsenal.[2] Unbound by the subsistence needs of the human body and designed for refueling in midair, drones are capable of remaining aloft for days at a time. Their surveillance imagery is state of the art, and they can be equipped with laser-guided missiles. They offer precise airpower in almost any environment and, used effectively, are capable of targeting terrorists and insurgency groups across international borders, protecting soldiers from harm's way, and (in theory) minimizing the risk of civilian casualties.

It should be noted at the outset that the United States is not the only country that operates drones. For example, China, France, Great Britain, Italy, Iran, Israel, Russia, South Korea, and Turkey all have drone technology, but of these countries only the United States, Great Britain, and Israel have armed drones that have been used in combat. The rest have, to date, used drones for surveillance purposes only. That said, there is a marked trend for both state and nonstate actors (such as Hezbollah) to acquire increasingly sophisticated drone technology, which suggests that drones will become an ever more important tool in modern warfare. As with

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any tool, drones can be either helpful or harmful depending on how they are used, which means that our understanding of the ethics of war needs to be updated to take their use into account.

According to P. W. Singer, "the introduction of unmanned systems to the battlefield doesn't change simply how we fight, but for the first time changes who fights at the most fundamental level. It transforms the very agent of war, rather than just its capabilities."[3] Of course, warfare has constantly changed with the advancement of technology, but unmanned systems, Singer argues, mark a new shift insofar as they are a step toward semiautonomous machines taking the place of human warriors. As early as 2001, when combat drones were in their infancy, Lieutenant Colonel Anthony Lazarski of the U.S. Air Force raised concerns about drones and issues of sovereignty, command and control procedures, and rules of engagement.[4] Since then, a great number of legal scholars have addressed the legality of drones as weapons under international law.[5] At the time of this writing, the legal debates have proved inconclusive, while the use of drones has risen exponentially, a trend that is likely to continue. As Kenneth Anderson testified at a March 2010 U.S. House of Representatives hearing, "it is highly likely [drones] will become a weapon of choice for future presidents, future administrations, in future conflicts and circumstances of self-defense and vital national security of the United States."[6] Despite this prospective trend, the moral implications of drones have been under theorized in the just war literature.

The aim of this article is to explore some of the ethical issues raised by the use of drones, employing the just war tradition as a foundation. Specifically, our main goal is to start a conversation about how the brief history of drone warfare thus far affects and potentially alters the parameters of *ad bellum* and *in bello* just war principles. The just war tradition, as we understand it, is a moral framework with evolving normative categories that helps us talk about the ethics of war. To quote Cian O'Driscoll, the just war tradition "must be subject to the processes of negotiation and re-negotiation as its advocates seek to re-interpret and apply it to new scenarios and historical contexts."[7] Recent scholarship on the ethics of war by military personnel, robotics experts, and philosophers has tended to assume that semiautonomous drones are just like any other guided missile weapons platform, and therefore do not change the categories of *jus ad bellum* (how one determines the justice of *going to* war) and *jus in bello* (how one determines what one can do *in* war).[8] We, however, disagree. In what follows, we problematize this

assumption by exploring some of the ethical challenges posed by drones—not all of which are new—by turning to the categories of the just war tradition.

The rise of drones poses key questions for our understanding of *jus ad bellum*. For example, does increased reliance on drones help redefine the threshold of last resort? Do drones allow for a greater capacity to act on just cause in a more proportional way? Moreover, drones not only affect the ethics of whether we should go to war but also how we engage in conflict—that is to say, they complicate our conception of *jus in bello*. For instance, what effect might drones have on satisfying the standard of noncombatant immunity? Does removing the pilot from the battlefield affect adherence to the discrimination principle? Additionally, the use of drones by the CIA raises many concerns related to transparency and combatant/noncombatant distinctions. Do the targeted killings by drones of suspected terrorists in Pakistan satisfy the demands of international law or are they assassinations? How does the U.S. government compile its list of targets, and with what degree of secrecy? What is the trade-off between the *jus in bello* demand for transparency and military necessity?

We argue that the use of drones can serve as a coercive measure short of full-scale war and thus provide a more proportional response to certain security threats. To the extent they are successful, drones arguably raise the threshold of last resort of large-scale military deployment by providing a way to avoid deploying troops or conducting an intensive bombing campaign while still counteracting perceived threats. Paradoxically, however, the increased use of drones suggests that they may encourage countries to act on just cause with an ease that is potentially worrisome. Because drones are seen as a level of force short of war, their use may also be seen as a measure to which the principle of last resort does not apply.

We also argue that the use of drones faces the same *jus in bello* requirements as other war weapons, but their technological advantages coupled with the removal of risk to soldiers means they should, in theory, be better able to satisfy the principles of proportionality and discrimination. However, what we call the "drone myth" (that is, the belief that technologically advanced drones increase the probability of success while decreasing the risk to our soldiers and of collateral damage) coupled with the "separation factor" (the fact that the pilot can be situated thousands of miles away at a computer console rather than in the line of fire) can potentially make discriminating between combatants and noncombatants more difficult. Moreover, placing combat functions under the control of the

CIA, a nonmilitary body, blurs the traditional definition of *who has the right* to kill; while the question of *who can be* killed is also tested by the U.S. practice of using drones for the extrajudicial killing of alleged terrorists in places outside a traditional combat zone. Also of concern is the fact that current usage of drones by the CIA lacks transparency and clear rules of engagement.

Before moving forward, a few points of clarification are necessary. First, we do not propose to provide a definitive statement about the ethics of drones in war or claim to explore all of the normative challenges posed by drones. Rather, this paper attempts to present a balanced analysis of what we see as the most important merits and pressing shortcomings of their use. Second, we recognize that the traditional tripartite structure of the just war tradition—*jus ad bellum*, *jus in bello*, and *jus post bellum*—is potentially problematic because, in the current fight against terrorism, the phases seem to be collapsing into each other. As the ongoing war in Afghanistan tests *jus in bello* standards, the United States weighs *jus ad bellum* questions to decide how to proceed in Pakistan, while commencing *post bellum* reconstruction in certain regions of Afghanistan, all the while conducting selective military operations across the globe. However, while the temporal distinctions may get blurred, the categories nevertheless provide the moral vocabulary to engage the ethical dilemmas posed by the use of drones. Finally, while such scholars as Brian Orend and Michael Walzer have argued for the importance of deepening our understanding of *jus post bellum*, we do not discuss it here.

A Brief History of Drones

Drones were first used for aerial reconnaissance during the Bosnia and Kosovo campaigns in the 1990s. Initially they were used only for surveillance purposes, as the U.S. government rejected the idea that they could be used for targeted killings. However, following the attacks on September 11, 2001, drones were equipped with laser-guided missiles.[9] President George W. Bush subsequently signed a secret Memorandum of Notification that gave the CIA the right to kill members of al-Qaeda in anticipatory self-defense virtually anywhere in the world. The first publicly reported strike by a CIA-operated drone occurred in November 2002, when Qaed Senyan al-Harthi, an al-Qaeda leader allegedly involved in the bombing of the USS *Cole*, was killed by a missile fired from a Predator drone in Yemen.[10]

As antiterrorist activities have spread from Afghanistan to Iraq, Yemen, and Pakistan, the United States has come to rely heavily on drones to monitor large swaths of land, to lend air support for soldiers on ground missions, and to strike at suspected terrorist leaders in remote locations. Troop numbers have waxed and waned, but the current U.S. fleet of drones has steadily increased from 167 in 2001 to more than 5,500 in 2009—a year in which they flew more than 16,000 flight hours per month in Iraq and Afghanistan.[11] While much of their use is geared toward surveillance, President Obama has dramatically escalated the targeted killing program begun by the Bush administration. For example, combat drone strikes in Pakistan have surged from approximately 33 in 2008 under the Bush administration to 118 in 2010 under Obama.[12]

While drones have arguably enjoyed significant success in limiting civilian casualties and protecting U.S. soldiers, their use has raised ethical concerns. In October 2009, Philip Alston, the UN Special Rapporteur on Extrajudicial, Summary, or Arbitrary Executions, expressed strong skepticism as to the legality of U.S. drone operations and asked the U.S. government to disclose how it was selecting and identifying targets, but the U.S. State Department declined to respond. In February 2010, the U.S. Air Force drew widespread attention after twenty-three civilians were killed in a drone-related incident in Afghanistan, prompting further concerns about rules of engagement and the chain of responsibility. An after-action report by the U.S. military released in May 2010 alleged serious misjudgments on the part of the drone operators and recommended significant revisions to the training program.[13] In the midst of these discussions, the U.S. House of Representatives hosted two committee hearings on the legality of targeted drone killings, which raised questions regarding who was being killed, where the strikes took place, who authorized the targeting, and the legality of the technology itself. Finally, in Yemen and Pakistan the sustained violation of their sovereignty coupled with the collateral damage caused by drones has led to public outrage.[14] Despite these concerns, however, the use of drones is not likely to cease given the belief, as Kenneth Anderson explains, that "drones are a major step forward toward much more discriminating use of violence in war and self-defense—a step forward in humanitarian technology."[15] In what follows, we address this claim by turning to the principles of the just war tradition.

Drones and *Jus ad Bellum*

One of the fundamental debates in the just war tradition today focuses on the question of how to interpret the criteria of *jus ad bellum* (just cause, right intention, legitimate authority, proportionality, last resort, and probability of success) in the context of fighting terrorism. As Michael Walzer recognizes, the Iraq War revealed "a significant expansion of the doctrine of *jus ad bellum*."[16] Such scholars as James Turner Johnson and Jean Bethke Elshtain privilege what they view as the core criteria (just cause, right intention) over the more prudential criteria (last resort, probability of success, proportionality) to argue for expanding the doctrine of *jus ad bellum* to include preventive war, regime change, and spreading democracy to restore civic peace to Iraq. As Mark Rigstad argues, such arguments marked a split within the just war tradition, as some scholars shifted away from the conventional view of just war working within the ambit of state sovereignty to argue for a broader view of *jus ad bellum* in light of 9/11.[17] However, the challenge of actually establishing viable democracies in Afghanistan and Iraq, coupled with the criticism that expanding what President Bush called "the global war on terror" to Iraq took our eye off the real threat, has led to a further renegotiation of the meaning of *jus ad bellum*. Thus, such scholars as Neta Crawford, Terry Nardin, Alex Bellamy, and Daniel Brunstetter have argued against the expansion of *jus ad bellum*, calling for a more stringent interpretation of just cause, a less value-laden understanding of right intention, and the reinvigoration of last resort.[18] The resulting scholarly debates reflect what Cian O'Driscoll calls the "renegotiation" of the just war tradition "as an ongoing project that is made and remade by those who engage it, while still allowing for the possibility that it respects certain parameters and boundaries."[19] Where do drones fit into this debate?

One of the initial critiques of what Bush labeled the global war on terror (a term that Obama has since shied away from using) is that it is a disproportionate response to the threat of terrorism. Bellamy, for example, is critical of a "war" against terrorism because he claims the actions justified under this rubric—invading Afghanistan and Iraq—expand the use of violence beyond those who committed the initial injury. However, he suggests that a "war" against "particular terrorists may nevertheless be justified" if "the state initiating the war is doing so in self-defense against enemy combatants who have committed a prior wrong or are demonstrably in the process of planning to execute a wrong . . . and

the proportionality principle is adhered to."[20] Drones arguably provide a government the means to act on just cause more proportionately in responding to such a threat because they require minimal on-the-ground logistics, are less expensive and less invasive than ground troops, and can more specifically target the threat itself—that is, individual terrorists. Their aerial capacity is superior to that of bomber aircraft equipped with smart bombs because their stealth, accuracy, and loitering ability enable them to better track suspected terrorists and deny them safe haven. Moreover, the absence of risk to a human pilot arguably increases the probability of success of any particular mission. Further, drones can go places where soldiers and planes cannot, and they can run more daring missions to satisfy *jus in bello* criteria of trying to avoid civilian casualties.

The technological advantages of drones have enabled a change in the perception of targeted killings. Prior to 9/11, the U.S. government was opposed to targeted killings because they were seen as violations of international law, but this policy has since been modified to permit certain forms of extrajudicial killings.[21] Critics have likened drone strikes to targeted assassinations, and thus claim that they are illegal under international law (a point we address below). However, proponents of drone strikes argue they are a more proportional response to the threat posed by terrorists. If one views drones through this lens, then drones arguably can raise the threshold of last resort for large-scale war. Essential to this view, however, is how one defines war. Walzer makes an important distinction between "measures short of war" (such as no-fly zones, pinpoint air/missile strikes, and sanctions) and "actual warfare" (ground invasion, large-scale bombing campaigns). While they all involve the use of force, the former lack the "unpredictable and often catastrophic consequences" of a "full-scale attack." Walzer calls the ethical concerns about these measures *jus ad vim*, or the justice of force, and recognizes that it is a gray area of moral ambiguity to which "the argument about *jus ad bellum* needs to be extended."[22] The rise of drones makes such a need even more urgent because, while potentially problematic, this distinction seems to inform leadership contemplating the use of drones to counter a perceived threat. In the minds of drone advocates, their strategic advantage is their ability to provide a "limited, pinprick, covert strike" in order "to avoid a wider war."[23]

Traditionally, the threshold of last resort does not mean that everything has to be tried before resorting to war because, as Walzer remarks, there is always something else to try. Rather, it is a marker that all reasonable alternatives—such as mediation, diplomacy, and sanctions—have been tried and failed "before you 'let loose the dogs

of war.'" For Walzer, political leaders must cross that threshold with "great reluctance and trepidation."[24] As Mark Totten argues in his recent book, *First Strike*, however, "against the new threat of global terrorism the point of last resort may arrive prior to the point of imminence." For Totten, the threshold is crossed when "other alternatives become unreasonable insofar as pursuing them would seriously jeopardize achieving the legitimate end of self-defense. An alternative that might obviate the need to use force is not necessarily a reasonable alternative, especially taking into account the magnitude of harm." Last resort thus becomes an index of necessity, meaning the legitimization of force is based not only on perceptions of imminence but especially on the nature of the threat and the potential of other means to quell it. He concludes that anticipatory force is "much more likely to justify military measures against terrorists than states," because states are more susceptible to deterrence; while the perceived imminence of the terrorist threat suggests the threshold of last resort has already been crossed and that some application of force is necessary to quell the threat.[25] Assuming this kind of anticipatory force is legitimate, the question becomes: How do states act on this necessity?

Drone technology arguably provides leaders with a minimally violent means of addressing a perceived threat. While not a nonmilitary method, such as diplomatic negotiation, the use of drones does appear to capture the essence of what Walzer views as the "truth contained in the 'last resort' maxim"—namely, a potentially effective way of avoiding broad military deployment while still confronting a perceived threat.[26] There is, however, something unsettling about viewing drones in this way. Clearly, drone strikes are acts of violence, but is their use an act of war? In war zones, such as Afghanistan and Iraq their use suggest that they are acts of an ongoing war against insurgents. However, in such states as Yemen and Pakistan, with which the United States is not at war, they are acts of violence carried out against targeted individuals in noncombat zones with the tacit consent of the state government.

Such use, however, has been a subject of controversy. Lt. Colonel Chris Jenks, Chief of the International Law Office of the U.S. Army Judge Advocate General, argued in 2009 that U.S. strikes against terrorists in Pakistan are "permissible as preventive use of force" even without the consent of the host country.[27] However, in an April 2010 statement from the House Congressional Subcommittee on National Security and Foreign Affairs, Mary Ellen O'Connell argued that drone strikes on alleged terrorists can be perceived as extrajudicial killings—that is, assassinations—and thus as illegal according to international law.

She asserts that drones are both lawful and beneficial to adhering to *jus in bello* principles in a combat zone (such as Afghanistan), but are not lawful outside the combat zone (Pakistan and Yemen) because war has not officially been declared. The crux of her argument is that one cannot "use military force against individuals in their territory when law enforcement measures are appropriate."[28] In order for such strikes to be legal according to O'Connell's interpretation of international law, Yemen or Pakistan must give explicit consent to the United States to undertake such strikes and a conflict must be legally declared. That said, if these countries do not adequately deal with the security risks within their borders, threatened nations, such as the United States, arguably have recourse to use force, including the use of drones. Several questions then emerge: What does *necessity* mean in relation to a drone strike? Are all active or alleged terrorists a sufficient threat requiring necessary military action? Does last resort apply to drone strikes—that is, do we already assume that other nonmilitary measures, such as arresting suspected terrorists, have been exhausted and the index of necessity claimed by Totten has already been reached? To quell the perceived threat of terrorism, can the United States act on just cause by targeting terrorists anywhere or should there be geographic limits?

The notion of a circumscribed combat zone is problematic given the nature of terrorism. Leaving the legal minutia aside, Walzer's distinction between a zone of war, a zone of peace, and somewhere in between can help to adjudicate the potential legitimacy of drone strikes. The rules that govern the zone of war make lethal attacks "unproblematic and, assuming the militants were correctly identified, certainly justified," while in a zone of peace, one must make every attempt to bring perpetrators to justice without killing them.[29] However, in the places in between, such as in states "that lose control of parts of their country or are wracked by civil war" in which terrorists can set up camp, the situation "has a different 'feel' because . . . it happens outside the moral and legal conventions of ordinary warfare."[30] Walzer argues that in these places violent means can be employed only after all other means—including trying to arrest the militants—have failed (assuming one adheres to *jus in bello* rules and excepting the rare cases of supreme emergency).[31] Although he does not mention drones, the crux of Walzer's argument suggests that we should try everything to quell the threat before resorting to killing.

However, if targeted drone strikes become legitimized in this context, the need to try other means first to quell the threat may be diminished. The risk

becomes that military leaders will bypass nonlethal alternatives, such as apprehending alleged terrorists and continued surveillance, and move straight to extrajudicial killing as the standard way of dealing with the perceived threat of terrorism. Stated differently, the risk becomes, somewhat paradoxically, that drones forestall the threshold of last resort for larger military deployment, but that the last resort criterion does not apply to drone strikes themselves because the targeted killing of (alleged) terrorists becomes the default tactic. Thus, the use of drones as a means to enhance a state's capacity to act on just cause proportionately and discriminately may lead to the propensity to do the opposite.

While increased reliance on drones may not stave off the recourse to full-scale war indefinitely, it is conceivable that a broad military intervention could be avoided so long as drones achieve the mission of disabling the perceived threat. That said, the extent to which drones can prolong the move to last resort seems to be limited by the need to have consent—explicit or tacit—to operate within the territorial borders of the states where terrorists are residing. Drones violate the territorial sovereignty of these states, but for the moment the foreign countries in which U.S. drones are currently operating do not interpret this as an act of war. This, however, could quickly change. For example, drone strikes in Pakistan are clearly a source of increasing friction between the United States and the Pakistani government, both for their frequency and for their resultant civilian casualties. Indeed, as recently as April 2011, the Pakistani opposition leader Imran Khan called on his government to end its tacit consent to drone use.[32] In short, the tacit consent given by allied governments could be revoked if, for example, civilian casualties rise, or the United States is no longer seen as welcome, or the government changes. Without such consent, U.S. drone strikes could be interpreted as an act of war and lead to military escalation with Pakistan, which would nullify the advantage of drones cited by drone proponents—that is, their capacity to act on just cause more proportionately.

One further caveat is in order: as noted above, faith in technology as a means to improve the way we wage war creates what we call the drone myth—the belief that technologically advanced drones increase the probability of success while decreasing the risk to our soldiers and of collateral damage—which may lead to more frequent and less stringent interpretations of just cause that actually reduce the long-term probability of success in diminishing the external threat. Just as smart bombs and laser-guided missiles have been lauded as a means for increasing

the hit ratio, the same assumption is being made about drones. But like all technologies before them, drones are fallible. They are bound by the limitations of their human operators and subject to malfunctions and errors. In the end, the information that determines drone actions is imperfect because it is only as accurate as its source and as reliable as the judgment of a decision maker, who very often is far from the theater of battle and who may lack the accompanying situational awareness (issues we address below). Further, as we know so well from Pakistan, the use of drones can contribute to alienating an indigenous population when they are perceived to kill civilians, which they have frequently been claimed to do. Thus, while a more intensive use of drones may succeed in killing terrorists and disrupting their activities, more frequent strikes also increase the likelihood of collateral damage, which can alienate shaky allies and create the context for terrorist recruitment. David Kilcullen, a counterterrorism expert, testified at a congressional hearing in March 2009 that drone strikes give rise to "a feeling of anger that coalesces the population around the extremists."[33] Such a scenario suggests that their use needs to be complemented by political and economic measures, something that is difficult to achieve given the way drones are employed (that is, to replace personnel on the ground) and the nature of the states in which they are being utilized (corrupt and undemocratic). However, there is one area in which the United States does have the capacity to ameliorate the use of drones: monitoring whether they follow the rules of *jus in bello* to ensure that everything possible is done to minimize civilian casualties.

Drones and *Jus in Bello*

Jus in bello attempts to codify what is appropriate and what is not in the conduct of war. The crux of the *jus in bello* debate centers on the concept of noncombatant immunity—that is, the idea that civilian casualties should be avoided to the greatest extent possible. Proportional application of force and discrimination among human targets are the two guiding principles of this goal. Proportionality attempts to balance the harm inflicted with the anticipated military advantage of an action, while discrimination entails making all efforts to distinguish between combatants and noncombatants, and avoiding harm to the latter while still fulfilling the military mission. Pursuing an asymmetrical war against nonstate actors raises questions involving both principles. Because terrorists often reside in civilian areas, it is difficult to determine who is a target and when and how much force is

warranted. Our analysis will focus on navigating a place for drones within these ethical challenges.

A Shift Toward More Proportional and Discriminatory Warfare?

Drones are currently used in two different capacities: the military predominantly employs them for surveillance and air support to accompany troops on the ground as they conduct various missions in combat zones, while the CIA uses drones to undertake targeted strikes on terrorists in areas far removed from the formal field of battle. Proponents argue that in both capacities drones, because of their technological advantage over other aircraft, should be more capable of adhering to the principle of proportionality. The localized application of drone strikes limits the destruction because it targets the actual individual threat, thus minimizing the force necessary to remove it. In addition, evidence suggests that drones are technically capable of satisfying the condition of discrimination, and that their use shows an improvement over other tactics. In the summer of 2009, when General Stanley McChrystal assumed command in Afghanistan, drones were a major part of his initiative to reduce civilian casualties. Under his command, the overall number of air strikes decreased, drone strikes increased, and a UN report cited a corresponding 28 percent reduction in civilian casualties.[34] Moreover, as the New America Foundation estimates:

> The 233 reported drone strikes in northwest Pakistan, including 20 in 2011, from 2004 to the present have killed approximately between 1,435 and 2,283 individuals, of whom around 1,145 to 1,822 were described as militants in reliable press accounts. Thus, the true non-militant fatality rate since 2004 according to our analysis is approximately 21 percent. In 2010, it was more like 6 percent.[35]

Assuming these number are accurate—other sources provide contradictory data—this downward trend marks a considerable improvement of discrimination, especially if one compares these statistics to those of civilians who perished in the large-scale campaign in Iraq in 2010 (2,405), and even more impressive if one compares them to the height of civilian casualties during the war in Iraq (34,500 in 2006 alone).[36] The point is that drones arguably cause less damage than the often unpredictable and destabilizing effects of large-scale uses of force.

The dramatic decrease in civilian casualties is the result of several factors. The first is surveillance. Drones operate from a bird's-eye view, providing live feed that allows analysts to judge potential threats while maintaining contact with soldiers in the field. With more information, drone operators may be better equipped to

make decisions about whether, for example, an oncoming truck is a threat and, thus, if force is warranted. Second, as discussed above, drones have the technical capacity to act on just cause on a smaller scale compared to an aerial bombing campaign or invasion, thus reducing overall military impact on the ground. While these factors help reduce collateral damage, the most novel improvement drones provide over other technologies—what we have called the separation factor—is potentially problematic. While in theory the fact that the pilot of a drone is safely far away from the drone itself should further reduce *jus in bello* collateral damage in both surveillance and air strike scenarios, we identify several issues of concern.

In the case of surveillance, the separation factor arguably offers increased control over decisions that ought to reduce errors. When in doubt about a certain situation, a drone operator has the ability to confer with a superior officer. As Singer notes, a "commander can see the exact same footage that the operator sees, at the exact same time, and even take over the decision to shoot."[37] However, the removal of drone operators from the combat zone may have psychological effects that magnify the challenges of adhering to the principle of discrimination. The fact that the information the operator receives is assessed in a safe environment may alter a pilot's ability to assess threats. For example, if a drone operator working from a cubicle in Nevada sees video feed of an oncoming truck, *jus in bello* protocol would say that the drone operator should not fire at the truck (or call for someone in the field to do so) unless it represents a threat to the soldiers in the area. Intuitively, the lack of risk to the operator in Nevada should lead him to be more cautious in assessing the danger. However, as Air Force Major Matthew Morrison noted, "When you're on the radio with a guy on the ground, and he is out of breath and you can hear the weapons fire in the background, you are every bit as engaged as if you were actually there."[38] Indeed, reports suggest that drone operators suffer from "similar psychological stress as their comrades on the battlefield."[39] It is thus possible to surmise that a drone operator's assessment is affected by the fact that the ground forces could be in danger, and that the lives of these soldiers depend on making the right call, which may induce a tendency to err on the side of protecting one's troops. It is conceivable that the fear a drone operator feels for the men in the line of fire is accentuated by the fact that he is operating safely from a distance. Moreover, drones may increase the likelihood of scenarios wherein operators feel tempted, or are conditioned, to fire despite the proximity of what looks like

civilians, rather than employ caution. While there is a dearth of evidence to either confirm or deny such a possibility, the drone myth outlined in the previous section should be questioned until we fully understand how the separation factor affects the assessment capabilities of drone operators.

The separation factor also removes one of the biggest handicaps in carrying out aerial attacks that minimize civilian casualties: the risk to one's own soldiers. During the 1990s the just war tradition was mired in debate over the use of aerial campaigns to stop the ethnic cleansing in the Balkans. One of the focal points of these debates was the degree of risk that allied pilots needed to accept to avoid civilian causalities. According to the principle of discrimination, soldiers need to make "every effort" to avoid civilian casualties. Michael Walzer thus argued that pilots needed to take a "reasonable risk" to avoid civilian casualties—that is, put their own lives in danger—without jeopardizing their mission.[40] However, the notions of "every effort" and "reasonable risk" are open to interpretation. In the months leading up to the Balkan campaign, there was continuous debate in the United States and among NATO members over the merits of an aerial campaign versus ground troops, weighing the eventual cost to one's ground troops versus the ability to avoid civilian casualties. Walzer saw NATO's dilemma as centered on the level of commitment to the just cause of stopping the violence: inefficient air power versus more risky, but more effective, ground forces. For Walzer, acting responsibly implied military escalation by sending in ground troops because they would be more discriminatory, even though they would risk greater Allied casualties.[41] In the context of combating terrorists, the challenge is similar. Bellamy, for example, argues that the United States is not making every effort to avoid civilian casualties because it has not deployed enough ground troops in the combat zone to obtain reliable information about target zones. He goes on to observe that "it seems a clear pattern has emerged whereby the protection of U.S. combatants takes precedence over the protection of non-combatants near the areas of operation . . . non-combatants will be protected so long as their protection does not require taking measures that may endanger the lives of soldiers." Bellamy takes issue with this pattern "because it values the lives of combatants more than non-combatants."[42]

Drones, because they remove the risk factor to U.S. combatants altogether, arguably change the way we think about discrimination. As noted, without a pilot fearing for her life, drones should be able to take more extreme measures to avoid civilian casualties. Further, because they presumably have an easier

time than field soldiers getting into strike positions, the costs of aborting a mission to protect civilians is diminished. In addition, the absence of a pilot in the cockpit reduces the instinctual human response toward self-preservation, which should reduce the likelihood of mistakes made due to haste or fear. Thus, the absence of a pilot should increase adherence to discrimination rules.[43] However, the use of drones in this context often suffers from insufficient and potentially unreliable ground information to contextualize the tactical situation. Unbounded by geographic borders, drones operated by undercover CIA operatives can strike almost anywhere, even outside the defined combat zone. Yet the lack of a military presence in these distant places arguably diminishes the contextual knowledge needed to ensure compliance to *jus in bello* principles. As Bellamy points out, information gained in Afghanistan in areas where there is a minimal presence of U.S. soldiers has tended to be less reliable in distinguishing between combatants and noncombatants, which in turn has tended to lead to greater noncombatant casualties.[44] A similar lack of reliable ground intelligence to complement the information gained through aerial surveillance by drones arguably complicates their use in Pakistan.

While this is a problem with any technology that is employed from a distance, the increasing propensity to rely on drone strikes as a dominant tactic in combating terrorism means there could be an increase in potential civilian casualties because drones rely on imperfect intelligence. In other words, despite the absence of human agents in drone aircraft, the human element remains present on the ground. Thus, drones do not solve concerns about discrimination; rather, increased reliance on drones makes discerning clear rules in the context of combating terror more pressing. Drones are only discriminate to the extent that their human operators choose to employ them discriminately. Insofar as their technical advantages allow the United States to deploy force more liberally, the risk of doing so without a deeper understanding of how the drone myth and separation factor complicate adherence to *jus in bello* principles may make them an ethical liability.

Finally, the need for rules of engagement points to an additional concern that centers on the question of targeting. As we argued in the previous section, drone strikes allow a national leader to act on just cause to counter the threat of terrorism more proportionately. Assuming that we accept the argument that these strikes are permissible, one still needs to determine whether they would be discriminate. One possible way to determine who constitutes a legitimate target is to turn to international law. As we noted above, arguments against the legality of targeted strikes outside the combat zone have been raised in U.S. House of

Representative hearings. However, as the legal scholar Adam Pearlman asserts, the "unprecedented mobility and adaptability [of the enemy we face] were not considered when formulating the key facets of international law." He thus argues that the calculations of military necessity and proportionality "cannot be judged by traditional principles that [were] developed in the context of state-to-state engagements."[45] Pearlman implies, as Michael Gross recently argued, that the asymmetric nature of the fight against terrorism opens the door for reconsideration of tactics previously considered against international law, such as assassination and torture. Regarding assassination, Gross argues that this tactic could be legitimate if it serves a military purpose and prioritizes the protection of civilians from undue harm—that is, paying heed to *jus in bello* principles.[46] This is the same conclusion reached by Philip Alston in June 2009:

> While there may be circumstances in which the use of such techniques is consistent with applicable international law, this can only be determined in light of information about the legal basis on which particular individuals have been targeted, the measures taken to ensure conformity with the international humanitarian law principles of discrimination, proportionality, necessity, and precaution, and the steps taken retrospectively to assess compliance in practice.[47]

The U.S. government defends the use of drones by claiming that they serve the military purpose of self-defense—that is, they allow the United States to take the fight to terrorists and deny them safe haven anywhere. That said, the United States has a mixed track record in satisfying the *jus in bello* principles cited by Alston.

Transparency and Accountability

Examining whether drones satisfy these principles points to another set of concerns regarding current drone deployment: the need for transparency and accountability to ensure everything possible is done to avoid civilian casualties. At the time of writing, such concerns have only partially been addressed. While the U.S. military is working toward establishing rules of engagement and transparency, the CIA acts under a fog of secrecy that may afford more legal flexibility to undertake targeted killings that serve a broad conception of national security. In 2002 President Bush authorized the agency to carry out targeted killings. According to James Risen and David Johnston of the *New York Times* experts, "The president is not legally required to approve each name added to the list, nor is the C.I.A. required to obtain presidential approval for specific attacks . . . . The list is updated

periodically at the intelligence agency, in consultation with other counterterrorism agencies . . . [although] the precise criteria for adding someone to the list are unclear." That said, there appears to be some level of oversight: "In response to past abuses, the decision-making process has grown into a highly formalized review in which the White House, Justice Department, State Department, Pentagon and C.I.A. take part," although the decisions are "known only to a small circle of executive branch and Congressional officials."[48] Under the Obama administration, the clandestine nature of the CIA program continues to prevent officials from speaking openly about alleged drone strikes. This, coupled with the dramatic increase in the number of such strikes since Obama took office has, according to one national security expert, "prevented journalists or researchers from consistently reporting on each individual strike. Thus, it is impossible to . . . evaluate whether the most recent drone attacks have met their intended political and military objectives."[49] Despite internal checks and balances, the inherent lack of transparency regarding CIA missions, coupled with reports of rising civilian casualties resulting from drone strikes, raises deep ethical concerns about the agency's adherence to *jus in bello* principles.

In fact, it was an unfortunate drone error that prompted the U.S. military to elaborate on its operational protocols and intensify its training program. In 2010 in Uruzgan, Afghanistan, surveillance drone operators monitoring the area around a U.S. convoy ignored, or failed to observe, signs that civilians were among the passengers in the oncoming convoy. They recommended that air support intervene, resulting in the death of twenty-three civilians. A report released by the U.S. Forces–Afghanistan on May 29, 2010, stated that a Predator drone crew operating from a base in Nevada provided inaccurate intelligence to attack helicopters in Afghanistan, prompting them to open fire. The report concluded that the Predator command post "failed to provide the ground force commander with the evidence and analysis that the vehicles were not a hostile threat and the inaccurate and unprofessional reporting of the Predator crew . . . deprived the ground force commander of vital information."[50] As a result, four officers were reprimanded and two junior officers were disciplined. General McChrystal subsequently ordered "training on the targeting process, responsibilities, and engagement criteria at all levels in accordance with the Rules of Engagement and Tactical Directives." He also recommended that the U.S. Air Force "quickly codify command level guidance on Distributed Common Ground System/Remote Piloted Vehicle tactics, techniques, and procedures and conflict resolution in the Air

Force Tactics Techniques and Procedures manual."[51] Indeed, the Pentagon has created elaborate formulas weighed by computer algorithms to help the military make lethal calculations that take into account the specific person being targeted, the location of the target, and (imperfect) on-the-ground intelligence.[52]

While the Uruzgan incident illustrates that the U.S. military is instituting an intensive after-action investigation to establish procedural recommendations that will bring drones into the fold of *jus in bello* norms, the sectors of the drone program controlled by the CIA, notably in Pakistan, lack the same public transparency and accountability. This secrecy is presumably rooted in national security concerns, and does not in itself mean the CIA does not follow any rules of engagement; but the fact that alleged *jus in bello* violations have occurred raises important ethical considerations. Without transparency, there is no way to know why a specific strike was undertaken, if it was undertaken with discrimination and proportionality in mind, or even whether it reflected military necessity.

Several consequences emerge from this public accountability void. First, there is no public system of checks and balances to guide the targeting decisions being made. According to Mary Dudziak, "Drones are a technological step that further isolates the American people from military action, undermining political checks" on the use of force.[53] While there is certainly some protocol that guides the CIA drone program, the lack of public accountability raises ethical concerns similar to the privatization of military forces. As James Pattison argues, the use of private military companies allows "a government to deploy military force without the blatancy of state action—for instance by enabling foreign policy by proxy." He goes on to say that these personnel "operate largely outside the effective jurisdiction of national and international law," and concludes that "there is currently no effective system of accountability to govern the conduct of [private military company personnel], and this can lead to cases where the horrors of war—most notably civilian casualties—can go unchecked."[54]

Arguably, such is the case with the CIA drone program. Critics of the program have pointed to the trend of an ever-widening target list over the last few years to suggest that more targets are being deemed legitimate and that military planners are starting to use drones in a broader context. Initially, only top terrorist leaders were targeted; today, lower officials and even drug lords who may not have a terrorist affiliation are also allegedly being targeted.[55]

The principles of the just war tradition demand accountability to adjudicate these *jus in bello* concerns. However, the CIA's use of drones points to an apparent

tension that emerges between transparency and upholding national security by acting on just cause in secrecy. While Walzer argues that "there can be no justice in war if there are not, ultimately, responsible men and women,"[56] Anderson asserts that drone technology "forces onto the table" a bigger discussion about the CIA's role in future conflicts, raising questions about the need for public accountability and whether justice can be achieved behind closed doors.[57] To the extent that military leaders perceive that engaging in just cause requires secrecy, then we as citizens are at the sufferance of a specific leader's interpretation of just war principles. In addition, the current lack of transparency stymies a public forum for debate about the moral complexities that arise from drone usage. The lack of such a forum, as Anthony Lang argued with regards to international criminal justice, will likely lead to a lack of shared normative consensus on drone usage within the international community.[58] This is potentially problematic given that, as noted above, the United States is not the only country using drones. The just war tradition, however, does provide a framework for debate that scholars can turn to to deliberate on the scope of drone usage today, and in the future.

Conclusion

The arguments that we make here are not intended to suggest that drones should not be used to fight wars, but rather to highlight the need to update our moral thinking in ways that take into account the technological advantages (and disadvantages) of drones. Just as terrorism and the pervasiveness of conflicts with non-state actors have transformed the context in which we evaluate the traditional principles of the just war tradition, so too should the increased trend of drone usage. To assume that they are just like any other weapon, and therefore do not challenge the way just war principles are understood, is to underestimate their current impact and postpone what must be an inevitable renegotiation of just war principles as drone technology (and eventually robotics) becomes more integrated into military strategy.

The ethical questions raised in this article are not the end of the story, but a point of departure for future research. If P. W. Singer is correct, then robotics will be the next revolution in military affairs, with advancements in drone technology leading the way. Projecting into the not-so-distant future, one can imagine a series of scenarios that may further alter our understanding and application of just war principles. Experts predict the eventual development of a fleet of drones

forming expanding web-of-surveillance centers, capable of staying aloft for up to five years and providing rapid armed responses across the globe.[59] This would arguably facilitate targeting terrorism and upholding the principles of the Responsibility to Protect, while further diminishing the importance of state sovereignty. But will all states agree to such a distribution of drones? Can any state, or set of states, employ such a network? Under what conditions? In addition, robotics experts are currently developing drones the size and shape of a hummingbird capable of surveillance and, eventually, lethal action. Other drones the size of bumblebees capable of swarming are being imagined. Presumably, such drones could dramatically reduce collateral damage. Would they render traditional methods of warfare, such as the use of bombs and missiles, so disproportionate as to be obsolete? What rules would govern their use? What would their just use entail?

The day in which drones and/or robots *entirely* replace humans on the battlefield may be a long way off (if it ever comes), but drones have already attained, and will likely continue to gain, a vital role in military affairs. Before technical developments outpace our capacity to navigate the ethical challenges introduced by human ingenuity, just war theorists need to recognize that drones change (and their continued evolution will continue to change) the nature of warfare. The just war tradition spans several thousand years. Over time, our idea of what constitutes a just or unjust war has undergone a process of negotiation and renegotiation. The next challenge for just war theorists is to bring this unique and profound body of knowledge to bear on the relationship between drones and military ethics.

NOTES

[1] "Obama's Nobel Remarks," *New York Times*, December 10, 2009; www.nytimes.com/2009/12/11/world/europe/11prexy.text.html.

[2] While the military employs a wide range of unmanned aerial vehicles, this paper will focus exclusively on Unmanned Combat Aerial Vehicles, which we refer to as drones. Drones are different from robots, which denote completely autonomous machines, whereas "unmanned" systems are remotely controlled by human operators either prior to and/or during their flight. There are currently three kinds of drones: fully autonomous (preprogrammed before flight), semiautonomous (requiring ground input during critical portions of flight, including weapons employment), and fully ground-controlled.

[3] "P. W. Singer, *Wired for War: The Robotics Revolution and Conflict in the 21st Century* (New York: Penguin Press, 2009), p. 194.

[4] Anthony Lazarski, "Legal Implications of the Uninhabited Combat Aerial Vehicle," *Air & Space Power Journal* (March 27, 2001).

[5] For example, see the *North Dakota Law Review* special issue in 2009 on "Complying and Flying: Legal and Technical Issues Relating to the Operation of Unmanned Aerial Systems": *North Dakota Law Review* 85, no. 3 (2009).

[6] Kenneth Anderson, U.S. Congress, House of Representatives, Committee on Oversight and Government Reform, "Rise of the Drones: Unmanned Systems and the Future of War," Hearing before the Subcommittee on National Security and Foreign Affairs, 111th Cong., 1st sess., March 23, 2010.

[7] Cian O'Driscoll, "Learning the Language of Just War Theory: The Value of Engagement," *Journal of Military Ethics* 6, no. 2 (2007), pp. 107–16, at 113.

[8] See, e.g., Diederik W. Kolff, "Missile Strike Carried Out With Yemini Cooperation—Using UCAVs to Kill Alleged Terrorists: A Professional Approach to the Normative Bases of Military Ethics," *Journal of Military Ethics* 2, no. 3 (2003), pp. 240–44; Ronald C. Arkin, "The Case for Ethical Autonomy in Unmanned Systems," *Journal of Military Ethics* 9, no. 4 (2010), pp. 332–41; and Bradley Jay Strawser, "Moral Predators: The Duty to Employ Uninhabited Aerial Vehicles," *Journal of Military Ethics* 9, no. 4 (2010), pp. 342–68; for an exception, see Noel Sharkey, "Saying No! to Lethal Autonomous Targeting," *Journal of Military Ethics* 9, no. 4 (2010), pp. 369–83. The author, however, does not address the ethical challenges drones pose to just war principles.

[9] Christopher Drew, "Drones Are the U.S. Weapons of Choice in Fighting Qaeda," *New York Times*, March 17, 2009; www.nytimes.com/2009/03/17/business/17uav.html.

[10] Kolff, "Missile Strike," p. 240.

[11] Drew, "Drones Are the U.S. Weapons of Choice."

[12] New American Foundation, "The Year of the Drone"; counterterrorism.newamerica.net/drones; accessed March 29, 2011. Information about drone attacks in Pakistan is often contradictory and widely divergent. The New America Foundation research "draws only on accounts from reliable media organizations with deep reporting capabilities in Pakistan, including the *New York Times*, *Washington Post*, and *Wall Street Journal*, accounts by major news services and networks—the Associated Press, Reuters, Agence France-Presse, CNN, and the BBC—and reports in the leading English-language newspapers in Pakistan—the *Daily Times*, *Dawn*, the *Express Tribune*, and the *News*—as well as those from Geo TV, the largest independent Pakistani television network".

[13] Major General Timothy McHale, U.S. Army, "Memorandum for Commander, U.S. Forces-Afghanistan, Subject: Executive Summary for AR 15-6 Investigation, 21 February 2010 CIVAS incident in Uruzgan Province," *U.S. Forces Report*, May 29, 2010.

[14] Scott Shane and Eric Schmitt, "CIA Deaths Prompt Surge in U.S. Drone Strikes," *New York Times*, January 22, 2010; www.nytimes.com/2010/01/23/world/asia/23drone.html.

[15] Anderson, "Rise of the Drones."

[16] Michael Walzer, *Just and Unjust Wars: A Moral Argument with Historical Illustrations*, 4th ed. (New York: Basic Books, 2006), p. xiii.

[17] For a summary of recent arguments in the tradition, see Mark Rigstad, "*Jus ad Bellum* After 9/11: A State of the Art Report," *ITP Beacon* 3 (2007), pp. 1–30, at 3–4.

[18] Neta Crawford, "Just War Theory and the U.S. Counterterror War," *Perspectives on Politics* 1, no. 1 (2003), pp. 5–25; Alex J. Bellamy, "Is the War on Terror Just?" *International Relations* 19, no. 3 (2005), pp. 275–96; Daniel R. Brunstetter and Dana Zartner, "Just War against Barbarians: Revisiting the Valladolid Debates between Sepúlveda and Las Casas," *Political Studies*, no. doi: 10.1111/j.1467-9248.2010.00857.x; and Terry Nardin, "Humanitarian Imperialism: Response to 'Ending Tyranny in Iraq,'" *Ethics & International Affairs* 19, no. 2 (Summer 2005).

[19] Cian O'Driscoll, *The Renegotiation of the Just War Tradition and the Right to War in the Twenty-First Century* (New York: Palgrave Macmillan, 2008), p. 163.

[20] Bellamy, "Is the War on Terror Just?" p. 286.

[21] Jane Mayer, "The Predator War: What Are the Risks of the C.I.A.'s Covert Drone Program?" *New Yorker*, October 26, 2009; www.newyorker.com/reporting/2009/10/26/091026fa_fact_mayer.

[22] Walzer, *Just and Unjust War*, pp. xv–xvi.

[23] Anderson, "Rise of the Drones."

[24] Michael Walzer, *Arguing About War* (New Haven, Conn.: Yale University Press, 2004), pp. 155, 88.

[25] Mark Totten, *First Strike* (New Haven, Conn.: Yale University Press, 2010), pp. 186, 172, 183.

[26] Walzer, *Arguing About War*, p. 88.

[27] Chris Jenks, "Law From Above: Unmanned Aerial Systems, Use of Force, and the Law of Armed Conflict," *North Dakota Law Review* 85, no. 3 (2009), pp. 649–71, at 671; compare pp. 656–62.

[28] Mary O'Connell, U.S. Congress, House of Representatives, Committee on Oversight and Government Reform, "Rise of the Drones II: Examining the Legality of Unmanned Targeting," Hearing before the Subcommittee on National Security and Foreign Affairs, 111th Cong., 2nd sess., April 28, 2010.

[29] Michael Walzer, "On Fighting Terrorism Justly," *International Relations* 21, no. 4 (2007), pp. 480–84, at 480.

[30] Ibid., p. 484.

[31] Ibid., p. 482.

[32] CNN Wire Staff, "Pakistanis Protest U.S. Drone Action," April 24, 2011; www.cnn.com/2011/WORLD/asiapcf/04/24/pakistan.drone.protest/index.html?iref=allsearch; accessed April 26, 2011.

[33] "Effective Counterinsurgency: The Future of the U.S. Pakistan Military Partnership," Hearing of the House Armed Services Committee, April 23, 2009.
[34] Spencer Ackerman, "Under McChrystal Drone Strikes in Afghanistan Quietly Rise as Civilian Casualties Drop," *Washington Independent*, January 14, 2010; washingtonindependent.com/73915/under-mcchrystal-drone-strikes-in-afghanistan-quietly-rise-as-civilian-casualties-drop.
[35] New America Foundation; counterterrorism.newamerica.net/drones; accessed March 30, 2011.
[36] Saban Center for Middle East Policy, "Iraq Index: Tracking Variables of Reconstruction & Security in Post-Saddam Iraq," *Brookings Institute*, December 30, 2010; www.brookings.edu/iraqindex.
[37] Singer, *Wired for War*, p. 349.
[38] Drew, "Drones Are the U.S. Weapons of Choice."
[39] Associated Press, "Predator Pilots Suffer War Stress," August 8, 2008; www.military.com/news/article/predator-pilots-suffering-war-stress.html?col=1186032310810&wh=news.
[40] Walzer, *Just and Unjust Wars*, p. 156.
[41] Michael Walzer, "Kosovo," *Dissent* (Summer 1999), pp. 5–7.
[42] Bellamy, "Is the War on Terror Just?" p. 289. For more information on the question of the degree of risk soldiers should be required to undertake in order to protect civilians, particularly in the context of drones, see Strawser's arguments in "Moral Predators," pp. 343–46.
[43] This logic may not always be the case; for instance, during the hunt to kill Baitullah Mehsud, a Taliban leader in Pakistan, it allegedly took sixteen missile strikes over a fourteen-month period during 2008–09 that killed between 207 and 321 additional people; see Mayer, "The Predator War."
[44] Bellamy, "Is the War on Terror Just?" p. 289.
[45] Adam R. Pearlman, "Legality of Lethality: Paradigm and Targeted Killings in Counterterrorism Operations," Social Science Research Network, March 23, 2010; ssrn.com/abstract=1583985.
[46] Michael Gross, *Moral Dilemmas of Modern War: Torture, Assassination, and Blackmail in an Age of Asymmetric Conflict* (Cambridge: Cambridge University Press, 2010).
[47] "UN Rights Expert Voices Concern over Use of Unmanned Drones by United States," UN News Centre, October 28, 2009; www.un.org/apps/news/story.asp?NewsID=32764&Cr=alston&Cr1.
[48] James Risen and David Johnston, "Threats and Responses: Hunt for Al Qaeda; Bush Has Widened Authority of C.I.A. to Kill Terrorists," *New York Times*, December 15, 2002; www.nytimes.com/2002/12/15/world/threats-responses-hunt-for-al-qaeda-bush-has-widened-authority-cia-kill.html.
[49] Micah Zenko, *Between Threats and War: U.S. Discrete Military Operations in the Post–Cold War World* (Stanford: Stanford University Press, 2010), p. 159, n. 6.
[50] McHale, "Memorandum."
[51] General Stanley McChrystal, U.S. Army, "Memorandum for Record, Subject: AR 15-6 Investigation, 21 February 2010 U.S. Air-to-Ground Engagement in the Vicinity of Sahidi Hassas, Uruzgan Province, Afghanistan," *U.S. Forces Report*, May 29, 2010.
[52] Sharkey, "Saying No!" p. 376.
[53] Mary L. Dudziak, "To Whom Is a Drone Loyal?" Balkinization blog, September 27, 2009; balkin.blogspot.com/2009/09/to-whom-is-drone-loyal.html.
[54] James Pattison, "Just War Theory and the Privatization of Military Force," *Ethics & International Affairs* 22, no. 2 (Summer 2008), pp. 143–62, at 151–52.
[55] Mayer, "The Predator War."
[56] Walzer, *Just and Unjust Wars*, p. 288.
[57] Anderson, "Rise of the Drones."
[58] Anthony F. Lang, Jr., "The Politics of Punishing Terrorists," *Ethics & International Affairs* 24, no. 1 (Spring 2010), pp. 3–10.
[59] Singer, *Wired for War*, p. 172; and "Boeing Wins DARPA Vulture II Program," September 16, 2010; boeing.mediaroom.com/index.php?s=43&item=1425.