The Drone Paradox

Fighting Terrorism with Mechanized Terror

CHRISTOPHER J. COYNE AND ABIGAIL R. HALL

> My time in captivity filled me with enormous sympathy for the Pakistani civilians trapped between the deranged Taliban and ruthless American technology. They inhabit a hell on earth in the tribal areas. Both sides abuse them.
>
> —David Rohde, "The Drone Wars" (2012)

Drones, or unmanned aerial vehicles (UAVs), are aircraft controlled remotely or autonomously via computer without a human pilot. Although drones have been in use for decades (see Hall and Coyne 2014), they have become closely identified with the U.S. government's transnational "war on terror." This association is justified. Since 2001, the drone has shifted from an instrument of training and surveillance to a tool for conducting offensive strikes against enemy targets. Over this time, the U.S. government's covert drone program has become institutionalized as a defining aspect of its military strategy and operations.

This institutionalization has raised a number of controversial issues related to the use of drones, including: (1) potential violations of international law and state sovereignty, (2) ethical issues regarding the use of robotics in warfare, (3) collateral damage (which includes the injury and death of innocent civilians from drone strikes),

Christopher J. Coyne is associate professor of economics in the Department of Economics at George Mason University and co-editor of *The Independent Review*. **Abigail R. Hall** is assistant professor of economics in the Department of Economics at the University of Tampa.

The Independent Review, v. 23, n. 1, Summer 2018, ISSN 1086–1653, Copyright © 2018, pp. 51–67.

(4) the lack of transparency by the U.S. government regarding its drone program, (5) appropriate checks on the U.S. government's use of drones as a tool for waging war, (6) adverse psychological effects on drone pilots, and (7) the precedent established by the U.S. government for the future use of robotics by other governments to engage in surveillance and warfare. (See Singer 2009; Martin and Sasser 2010; Gregory 2011a, 2011b; Benjamin 2013; Kaag and Kreps 2014; Calhoun 2015; Chamayou 2015; Cockburn 2015; Hall 2015; Plaw, Fricker, and Colon 2015; Woods 2015; Gusterson 2016; Kreps 2016; Scahill 2016.)

This paper considers another issue with the U.S. government's use of drones: they create and propagate widespread terror among foreign populations. This terror results from two factors.

First, the targets of drone strikes are rarely isolated. Instead, they are typically embedded in communities that include innocent civilians. This means that even where drone strikes are successful in annihilating a target identified by the intervening government, they will simultaneously produce negative externalities, or "neighborhood effects," which impose significant costs on the surrounding populace. These negative effects can be physical (bodily injury or death) or psychological (anxiety and terror) and can contribute to economic and social degradation. The remote and covert nature of drones is what makes them effective at killing targets. These same features, however, also make drones extremely effective and efficient at creating and promulgating a sense of terror among the broader populace within which targets are embedded.

Second, the intelligence associated with drone strikes is highly imperfect. Decision makers often rely on patterns of behavior that have been predetermined to be general "signatures" of terrorists. Subsequent "signature strikes" occur when a drone is used to target a person or group of people based not on their known identity but instead on their general behaviors observed from afar. In many instances, these pattern-of-behavior analyses are inaccurate, with the result that innocent people are injured or killed by signature strikes.

An associated issue is determining what constitutes an "accurate target." In many instances, the category "target" is so overly broad and abstract that it can include significant portions of a population. For example, absent clear evidence that demonstrates that a person killed in a strike was either not a military-age male or a military-age male but not an unlawful combatant, this person is automatically counted as an "enemy combatant" by the U.S. government (Scahill 2016, 157). This methodology obfuscates the true costs imposed by drones because it classifies ordinary, innocent civilians as enemies by default based on a small number of general characteristics.

Together, these factors contribute to a fundamental paradox regarding the use of drones to combat terrorism. The U.S. government justifies its use of drones as an efficient method for weakening and ultimately ending the threat of international terrorism while protecting members of the American military. The use of drones,

however, creates and perpetuates terror among foreign populations. These terror-creating aspects of drones are often neglected, which understates their net effect on global terror.

A central reason for this neglect is that treatments of drones typically evaluate their use and effectiveness from the perspective of the drone and those who control it. This framing advances and legitimizes categories such as "valid targets" and "collateral damage" while downplaying, if not altogether ignoring, the perspective of those experiencing the presence of drones in their everyday lives. From the perspective of the target population, the damage done by drones is not "collateral" but rather blunt, brutal, and devastating harm caused by an external state violently intervening in their lives. Understanding this perspective is crucial because what is perceived as "combatting terrorism" by the intervening government is simultaneously viewed as an act of state terrorism by the target population.

We proceed as follows. The first section discusses the collateral damage from the perspective of the drone. Contrary to the common rhetoric that drones are the equivalent of a scalpel that kills targets with surgical precision, the evidence indicates that drone strikes cause harm to nontargets. This creates and perpetuates widespread terror because people living in areas targeted by drones constantly fear the possibility of surveillance and attack from above. The second section pulls together existing evidence of drone-created terror. The perspective in this section shifts from that of the drone to that of the target populace who live under the presence of drones. The final section concludes with a discussion of the implications.

"Collateral Damage," or the Maiming and Killing of Innocents

Nearly every argument for the expansion of the U.S. government's use of drones stems from the idea that they are believed to be a more efficient means of achieving the government's foreign-policy goals relative to the alternatives (see Hall 2015). Drones minimize the potential harm to members of the U.S. military, it is argued, while accurately targeting terrorists. When in office, President Barack Obama explicitly stated that drones are better at targeting and killing foreign adversaries. Drones "are effective," he said. "Dozens of highly skilled al Qaeda commanders, trainers, bomb makers and operatives have been taken off the battlefield. . . . [T]he primary alternative to [drones] would be the use of conventional military options. . . . Conventional airpower or missiles are far less precise than drones" (Obama 2013). As this quote illustrates, the use of drones is typically compared and contrasted with conventional bombings assumed to be the relevant alternative.

A related argument is that drones reduce the costs of conflict in terms of reduced civilian casualties or "collateral damage." CIA director John Brennan, for example, stated that drones have "surgical precision—the ability with laser-like focus to eliminate the cancerous tumor called al Qa'ida, while limiting the damage to the tissue around it" (Brennan 2012). Harold Koh, the former legal adviser of the State Department, stated

that "[b]ecause drone technology is highly precise, if properly controlled, it could be more lawful and more consistent with human rights and humanitarian law than the alternatives" (quoted in *The Economist* 2015). Other commentators have made similar claims, stating that "drones kill fewer civilians . . . than any other weapon" (Saletan 2013) and that "[drones are] actually the most humane form of warfare" (Lewis 2013). In 2011, Brennan, at the time counterterrorism adviser to the president, stated, "[T]here hasn't been a single collateral death [in a year] because of the exceptional proficiency, precision of the [drone] capabilities we've been able to develop" (quoted in Shane 2011).

As these statements suggest, the overarching idea is that the U.S. government can intervene in other societies and exterminate confirmed threats with precision while avoiding harming innocent civilians.[1] Moreover, it is claimed that drones are more effective than alternatives, with conventional bombing typically cited as the relevant substitute. The standard rhetoric and claims about drones raise a range of important issues.

For one, if we take the claim that drones are more accurate than conventional bombing as the appropriate comparison, it is not clear, ex ante, that the adoption of drones will result in fewer total deaths of innocent people. The economic logic underlying this claim is that drones reduce the price of an attack, which allows the military to move down the demand curve, increasing the quantity of drone strikes demanded. The result is that although the use of drones might reduce deaths in any single strike by substituting for another, more deadly alternative (conventional bombing), this reduction might be offset by an increase in the total death of innocents due to an increase in the overall number of drone attacks due to the lower relative price of employing drone technology to strike targets.[2]

In addition, presenting conventional bombing as an alternative to drone bombing is an artificially narrow dichotomy. If the U.S. government's foreign-policy goal is to eliminate individual enemy targets, then it isn't clear that conventional bombing should be presented as the appropriate alternative to drone bombing. The appropriate alternative should instead be something akin to special-operations missions against specific targets.[3] Drone strikes also raise a host of issues related to international law and

1. Even where drone strikes successfully kill the target, there is a lack of consensus as to whether this success actually contributes to achieving the U.S. government's foreign-policy goals (see Trofimov 2016). Evidence indicates that drones and military strikes in general are not the best method for eliminating terrorists (see Jones and Libicki 2008, 18–19). Further, there is evidence that terrorist organizations can use drone strikes as a recruiting tool (see Kilcullen and Exum 2009), an issue discussed further later in this article.

2. We thank Robert Whaples for bringing this point to our attention.

3. Even the standard dichotomy between drone bombing and conventional bombing is not as clear-cut as its proponents make it seem. According to one estimate, drone strikes conducted in Afghanistan from mid-2010 to mid-2011 were ten times more deadly for civilians than air strikes carried out by fighter jets (Ackerman 2013; Zenko and Wolf 2016). In writing about life in the Palestinian territories during the Israeli summer offensive of 2014, Atef Abu Saif (2015) describes, among other things, how the Palestinian population experienced different forms of bombing and how drones were no less terrifying than other forms

state sovereignty, the ethics of robotic warfare, and the international precedent being created by U.S. drone policy. But even if these (significant) issues are put aside, existing evidence calls into question the precision of drones in striking the desired target while avoiding the imposition of significant harms on innocent human beings.

To date, efforts to quantify the number of civilian casualties from U.S. drone strikes have led to different estimates. This variation is due in part to differing methodologies and definitions as well as to alternative sources of data regarding drone strikes and casualties (see Singh 2013). Another confounding factor is the secrecy of the U.S. government's drone program. The fact that these missions are so covert makes tracking drone strikes and their outcomes extremely difficult if not impossible. Nonetheless, existing estimates provide some range of civilian casualties from drone strikes and, more importantly, highlight the human cost of the use of drones despite rhetoric to the contrary by U.S. government officials.

The New America Foundation (NAF) collects from credible news sources data on U.S. drone strikes in Pakistan (2004–present), Yemen (2002–present), and Somalia (2003–present).[4] The Pakistan data include only U.S. drone strikes, but the Yemen data are broader and includes all U.S. air strikes, drone and nondrone. The Somalia data include air strikes and ground operations by special-operations forces. This means that the data for Yemen and Somalia capture the effects of drone strikes but also of other types of military operations.

For the 2004–16 (through June) period, the NAF calculates 403 total strikes in Pakistan. These strikes killed between 1,853 and 3,032 militants as well as between 255 and 315 civilians, with between 176 and 278 uncategorized deaths (NAF n.d.a). In Yemen, it estimated 156 strikes over the 2002–16 (through June) period. These strikes killed an estimated 895–1,129 militants and 87–93 civilians, with an estimated 33–52 uncategorized deaths (NAF n.d.c). Finally, in Somalia the NAF estimated that 36 strikes over the 2003–16 (through June) period killed 299–343 militants and 28–40 civilians, with an estimated 0–19 uncategorized deaths (NAF n.d.b).

The Bureau of Investigative Journalism (BIJ) tracks drone strikes in Yemen (2002–present), Pakistan (2004–present), Somalia (2007–present), and Afghanistan (2015–present). The data are collected from a variety of sources, including news sources, publicly available information (e.g., lawsuits), and field investigations. In addition to estimating total deaths, the BIJ presents estimates of civilian deaths as well as a separate death toll for children (up to seventeen years old) killed by drone strikes. It also presents an estimate of the number of people injured by drone strikes.

In Yemen, the BIJ identifies 120–40 confirmed drone strikes through June 2016 (all data from BIJ 2017). These strikes killed 535–782 people, including 65–101 civilians and 8–9 children. An additional 96–227 people are estimated to have been

of attack. This suggests that it isn't the technology itself that is the determining factor of precision but rather the manner and context in which the technology is employed.

4. For the NAF's general report on drones, see NAF n.d.d.

injured by these strikes. There were 424 drone strikes in Pakistan through June 2016, resulting in an estimated 2,499–4,001 total deaths. Of this total, it is estimated that civilian deaths range from 425 to 967, including 172–207 children. The estimated number of people injured by the drone strikes in Pakistan range from 1,161 to 1,744. In Somalia, the BIJ identifies 26–30 drone strikes through June 2016, resulting in 219–383 total deaths. It estimates that 3–10 civilians, including 0–2 children, have been killed by the strikes, with another 0–2 civilians injured. Finally, in Afghanistan, the BIJ estimates that the U.S. government has carried out 332–37 drone strikes (through June 2016), resulting in 1,610–2,123 deaths. Estimated civilian deaths range from 75 to 106, including 4–18 children. An estimated 163–69 people have been injured by the drone strikes.

Other efforts have been made to estimate the number of civilian casualties from drone strikes. For example, a report by the Human Rights Clinic (2012) at Columbia University draws on the data from the aforementioned two independent sources to compile estimates of civilian deaths. Other reports have studied the effects of a specific sample of drone strikes. For example, a report by Human Rights Watch (2013) reviews the effects of six targeted killings via drone strikes by the U.S. government in Yemen over the 2009–12 period. The report concludes: "Two [of] these attacks were in clear violation of international humanitarian law—the laws of war—because they struck only civilians or used indiscriminate weapons. The other four cases may have violated the laws of war because the individual attacked was not a lawful military target or the attack caused disproportionate civilian harm, determinations that require further investigation. In several of these cases the US also did not take all feasible precautions to minimize harm to civilians, as the laws of war require" (2013, 1). A report by Amnesty International (2013) reviews nine drone strikes in Pakistan during the January 2012–August 2013 period. The report details each strike and traces some of the costs incurred by innocent civilians, ranging from injury to death.

Further insight into the harm caused to civilians by drone strikes is provided by recently released government documents on Operation Haymaker, which targeted members of the Taliban and al-Qaeda along Afghanistan's northeastern border with Pakistan (see Scahill 2016, 154–76). Haymaker involved a combination of special-operations forces and other members of the intelligence community on the ground with drone strikes from above to carry out targeted killings. Among other things, the government documents reveal that "during a five-month stretch of the campaign, nearly nine out of ten people who died in airstrikes were not the Americans' direct target" (Scahill 2016, 156). Further, the documents include "a chart revealing that airstrikes killed 219 people over a fourteen-month period in 2012 and 2013, resulting in at least thirty-five jackpots [the killing of intended targets]" (Scahill 2016, 169). This means that the 184 other casualties—84 percent of the total people killed during this period—were not the intended targets of the U.S. airstrikes.

As this review of the existing, public evidence indicates, there is a lack of consensus on the specific number of civilian injuries and deaths caused by drone strikes. In some cases, the estimated number of civilian deaths and injuries falls within a wide range. For our purposes, this variance is irrelevant. What does matter is that there is evidence from numerous credible sources of drone strikes causing death and injury to innocent civilians.[5] At a minimum, this evidence suggests that drones lack the scalpel-like precision that their proponents often claim as a defining feature of this technology.

Despite their public rhetoric, U.S. government officials are cognizant of the fact that drones are not as accurate as they publicly claim. In June 2016, the Obama administration released information regarding the deaths of combatants and noncombatants outside of formal war zones (Afghanistan, Iraq, and Syria) for the January 2009–December 2015 period. According to its calculations, 473 strikes took place during that period, 2,372–581 combatants were killed in the strikes, and 64–116 noncombatants were killed (U.S. Office of the Director of National Intelligence 2016). These estimates of the number of civilians killed are significantly lower than those given by the aforementioned independent sources (see Zenko 2016).

Why is there a discrepancy between the Obama's administration's report and the reports of the independent sources discussed earlier? One explanation may be the methodology employed by the U.S. government to assess the death caused by drone strikes. According to one government source, "If there is no evidence that proves a person killed in a strike was either not a MAM [military-age male], or was a MAM but not an unlawful enemy combatant, then there is no question. . . . They label them EKIA [enemy killed in action]" (quoted in Scahill 2016, 157). By broadly defining who is counted as an enemy combatant, this methodology allows the U.S. government to understate and therefore to downplay the deaths of innocent civilians due to drone strikes.

The likelihood that innocent civilians will be harmed by drone strikes is exacerbated by the U.S. government's commitment to using "signature strikes" against targets (see De Luce and McLeary 2016). Instead of relying on a preidentified target, signature strikes involve targeting a person or group of people based on their geographic location and broad patterns of behavior that are determined to be suspicious. This means that the government cannot be sure exactly who is being killed by drone strikes. Intended targets may be killed by signature strikes, but so, too, might innocent civilians. There is no way to obtain concrete numbers for these two categories because of the lack of specific reporting in areas where drone strikes take place, the methodology of counting enemy combatants, and the general secrecy surrounding the government's drone program.

Appreciating drones' lack of precision in offensive strikes is important for two related reasons. First, innocent civilians are often maimed or killed as a result of drone strikes. This real and significant cost must be considered when discussing the efficacy of

5. It is important to note that innocent American citizens are not immune from death by their government's drone strikes (see Taylor 2015). In several instances, the U.S. government has killed its own citizens in the name of protecting all Americans from foreign threats.

drones. One might counter that the number of civilians killed by drones is less than the number killed by alternative forms of warfare, such as conventional bombings. But, as discussed earlier in this section, this dichotomy is artificially narrow given the stated operational goals of drone bombings, which is to surgically eliminate individual targets.

Perhaps more importantly, this response misses the second issue: given drones' potential to cause significant damage to innocent civilians, their use creates terror among the populace in targeted areas. This sense of terror can exist among targeted individuals, but it also spills over onto the broader populace, who recognize that they and the members of their community may also be surveilled, maimed, or killed by drone strikes. The implication is that even a full and accurate accounting of civilian deaths caused by U.S. drones still understates the true cost of the technology. Beyond injury or death, the use of drones generates a range of psychological costs that fall on the target population. These broader costs are typically neglected in discussions of drones and are entirely ignored by U.S. policy makers, who are reluctant to recognize that there are *any* negative consequences associated with their use of drones. Understanding the range of costs and negative consequences of drone use requires shifting one's perspective from that of the drone and of those in the U.S. government who control it to the perspective of members of the target population.

Mechanized Terror from Above

Terror is an emotional state caused by some real or perceived extreme threat. Public terror involves shared fear of an extreme threat to the collective well-being of a group. Public fear can often lead to widespread support for strong responses by the state to combat the cause of fear (see Higgs 2006). For example, the public terror caused by the attacks on American soil on September 11, 2001, and the fear of potential attacks in the future led to public support for the U.S. government's global war on terror, which aims to eradicate terrorist threats. Drones are a central component of this war given their supposed efficiency in killing targets who pose such threats. The use of drones to combat terrorism, however, results in a paradox because drones, which are intended to kill terrorists, thereby reducing terrorism, create terror among the populace living in the targeted area. Even as drone-created terror affects the lives of intended targets, it also creates a negative externality that falls on the population living in the targeted area.

The U.S. government documents associated with Operation Haymaker offer some insight into the psychological effects of drones on the members of targeted terrorist organizations. According to a Taliban detainee identified only as "Ahmad" in the documents, "Hands down the scariest/most intimidating message for the Taliban, at any level, from fighter to Taliban senior leadership, is anything to do with drones or aerial bombings." "The Taliban," he continued, "has no way to defend against them and they are certain to end in absolute destruction of whatever their target is" (quoted in Scahill 2016, 169). Similarly, David Rohde, a journalist who was a prisoner of the Taliban for seven months, notes that "for months the drones had been a terrifying

presence. Remotely piloted, propeller-driven airplanes, they could easily be heard as they circled overhead for hours. To the naked eye, they were small dots in the sky. But their missiles had a range of several miles. We knew we could be immolated without warning" (2009).

This "target terror" is desirable from the perspective of members of the U.S. government. It disrupts the operations of targeted organizations and creates a constant sense of uncertainty and fear (see Rohde 2009, 2012). Moreover, living under the constant threat of drone strikes may, on the margin, discourage people from joining the efforts of the target organization. Under this scenario, drone-created terror extends beyond the current members of the organization to potential members, who realize they, too, will be the subject of surveillance and potential strikes if they join the target organization.

Terror, however, is not limited solely to the segment of the population consisting of target organizations and potential recruits. These targets are typically embedded in broader communities populated by innocent civilians. The civilian segment of the population is not immune from drone-created terror and also suffers psychological costs from living in constant fear of surveillance, injury, or death. The following thought experiment captures some of these negative neighborhood effects:

> Imagine that you are living somewhere in Pakistan, Yemen, or Gaza where the United States and its allies suspects a terrorist presence. Day and night, you hear a constant buzzing in the sky. Like a lawnmower. You know that this flying robot is watching everything you do. You can always hear it. Sometimes, it fires missiles into your village. You are told the robot is targeting extremists, but its missiles have killed family, friends, and neighbours. So, your behaviour changes: you stop going out, you stop congregating in public, and you likely start hating the country that controls the flying robot. And you probably start to sympathize a bit more with the people these robots, called drones, are monitoring. (Owen 2013)

There is ample evidence to suggest that the externality aspects of drone-created terror are not merely a hypothetical thought experiment. Indeed, the generalized terror created by the use of drones has been well documented in a variety of geographic contexts.

David Rohde captures this widespread sense of terror based on his firsthand experience as a prisoner of the Taliban in Pakistan: "The drones were terrifying. From the ground, it is impossible to determine who or what they are tracking as they circle overhead. The buzz of a distant propeller is a constant reminder of imminent death" (2012). This terror was experienced not just by the Taliban but also by the broader community who lived under the constant presence of drones overhead.

In 2012, the International Human Rights and Conflict Resolution Clinic at Stanford University and the Global Justice Clinic at New York University released

a joint report detailing the effects of drone strikes on the civilian populace in northwestern Pakistan. The content of the report was based on more than 130 interviews with "victims and witnesses of drone activity, their family members, current and former Pakistani government officials, representatives from five major Pakistani political parties, subject matter experts, lawyers, medical professionals, development and humanitarian workers, members of civil society, academics, and journalists" (2). The report concludes that "US drone strike policies cause considerable and under-accounted for harm to the daily lives of ordinary civilians, beyond death and physical injury" (vii).

One interviewee, a humanitarian worker in Pakistan, captured the general climate of drone-created terror: "Do you remember 9/11? Do you remember what it felt like right after? I was in New York on 9/11. I remember people crying in the streets. People were afraid about what might happen next. People didn't know if there would be another attack. There was tension in the air. This is what it is like. It is a continuous tension, a feeling of continuous uneasiness. We are scared. You wake up with a start to every noise" (82).

The report also discusses the U.S. government's tendency to carry out repeated drone strikes in the same area and the perverse consequences of these secondary strikes: "The US practice of striking one area multiple times, and evidence that it has killed rescuers, makes both community members and humanitarian workers afraid or unwilling to assist injured victims. Some community members shy away from gathering in groups, including important tribal dispute-resolution bodies, out of fear that they may attract the attention of drone operators. Some parents choose to keep their children home, and children injured or traumatized by strikes have dropped out of school" (International Human Rights and Conflict Resolution Clinic and Global Justice Clinic 2012, vii). As this quote suggests, secondary drone strikes in the same area create systematic terror among the general populace, which severely and adversely effects the daily well-being of citizens. Indeed, the use of secondary strikes, which often end up harming both first responders and innocent civilians responding to the initial attack, is a hallmark of terrorist organizations, as recognized by the U.S. government in the past (see Greenwald 2012a, 2012b).

In 2013, Momina Bibi's family appeared before the U.S. Congress to testify about a U.S. drone strike in North Waziristan, Pakistan, that resulted in her death. According to Bibi's thirteen-year-old grandson, "Now I prefer cloudy days when the drones don't fly. When the sky brightens and becomes blue, the drones return and so does the fear. Children don't play so often now, and have stopped going to school. Education isn't possible as long as the drones circle overhead" (quoted in McVeigh 2013). This testimony illustrates some key negative neighborhood effects of drone strikes and how they may affect children and the broader community. It also highlights the fact that, from the perspective of the target population, the harm from drones is not some overly broad notion of "collateral damage" but rather an act of blunt death and destruction that involves not just potential injury and death but also social and economic degradation on numerous margins.

More recently, *The Guardian* conducted a series of interviews with six people in Pakistan and Yemen who have lost family members to drone strikes. The common themes across the interviews is summarized as follows: "The people [subject to drone strikes] are left impoverished, anguished and infuriated. Justice, let alone apologies, never arrives, even as a modest amount of blood money flows from the local governments. The United States, which styles itself a force for justice in the world, is to them the remote force that introduced death into their lives and treats them like they are subhuman, fit only to be targeted. At any moment, they fear, another drone could come for them" (Ackerman 2016).

Mohammed Tuaiman, a thirteen-year-old boy living in Yemen, stated that "a lot of the kids in this area wake up from sleeping because of nightmares from them [drones] and some now have mental problems. They turned our area into hell and continuous horror, day and night, we even dream of them in our sleep" (quoted in Madlena, Patchett, and Shamsan 2015). Six months after being interviewed, Mohammed was killed by a subsequent U.S. drone strike.

The terror created by the U.S. government's drones can also be indirect. For example, there are reports of militant groups in Pakistan seeking to punish supposed informants for allegedly providing the U.S. government with intelligence regarding the location of targets. Suspected informants are often publicly kidnapped in order to create terror among the rest of the community. Village elders have indicated that many of the people kidnapped, who are typically tortured and killed, are, in fact, innocent (see Rodriguez 2011).

The negative neighborhood effects produced by drones can be far reaching and extend well beyond the local communities where immediate surveillance and strikes occur. In Pakistan, for example, "public outrage at the strikes is hardly limited to the region in which they take place—areas of northwestern Pakistan where ethnic Pashtuns predominate. Rather, the strikes are now exciting visceral opposition across a broad spectrum of Pakistani opinion in Punjab and Sindh, the nation's two most populous provinces" (Kilcullen and Exum 2009). In Yemen, Human Rights Watch notes, based on its interviews, that many Yemenis fear U.S. drone strikes more than they do al-Qaeda (2013, 26). A similar dynamic is at work in Pakistan, where although "violent extremists may be unpopular, for a frightened population they seem less ominous than a faceless enemy that wages war from afar and often kills more civilians than militants" (Kilcullen and Exum 2009).

Organizations targeted by the U.S. government use drone-created fear to bolster support for themselves and to recruit new members. When this occurs, it runs counter to the purported purpose of the drone strikes, which is to weaken these very organizations in order to combat global terrorism. In response to drone strikes, "terrorists and ordinary people are drawn closer to each other out of sympathy, whereas a critical function of any successful counter-terrorism policy is to win over public confidence so that they join in the campaign against the perpetrators of terror" (Abbas 2013). David Rohde notes that during his time as a prisoner of the Taliban in Pakistan, "[t]he drones

killed many senior commanders and hindered their operations. Yet the Taliban were able to garner recruits in [the strikes'] aftermath by exaggerating the number of civilian casualties" (2009). The net effects of drone strikes on the viability of target organizations are unclear and context specific. That said, the implication is that even when drone strikes do kill intended targets, the benefits are at least partially, if not altogether, offset by the strengthening of the targeted organization through increased sympathy, support, and recruitment due to the public perception that the U.S. government is a terrorist threat.

Conclusion

Offensive drone strikes are an institutionalized centerpiece of the U.S. government's global war on terror and will remain in use for the foreseeable future (De Luce and McLeary 2016). Drone technology is often presented as a scalpel that can precisely and effectively annihilate genuine terrorist threats. Under this scenario, an isolated target who is known to pose a legitimate threat can be identified and killed without negative spillover effects. This first-best scenario, however, is unlikely due to imperfect intelligence about targets and the embeddedness of targets in communities. These realities result in a wide range of potential damages to civilians, which include not just potential injury and death but also a range of other psychological harms, including a constant sense of terror.

The fundamental features of drones exacerbate this sense of terror. Drones tend to be ubiquitous in the geographic space where they are used. Unlike special-operations forces, which strike and exit, drones can remain in the sky for significant periods of time to survey the target population. They can strike at any time and typically don't leave after doing so. In some cases, they have been used to carry out secondary strikes of targeted areas. Those who employ drones in military operations typically highlight these features as desirable characteristics of drones. Yet the same features that make drones desirable from the perspective of the intervener make them especially terrorizing for the population being intervened upon.

The main implication is that even to the extent that drones are effective at killing intended targets, they do so only by exporting state-produced terror to distant populations. Drone strikes may annihilate specific targets, but they do not remove terror, which is instead propagated by the U.S. government's drone program. U.S. policy makers and citizens might embrace this reality on the grounds that terror abroad is preferable to terror at home. This reasoning, however, requires abandoning the strong claim that the purpose of the U.S. government's war on terror is to eradicate global terrorism and replacing it with the weaker claim that the goal of the U.S. government's actions is to export terrorism to other societies. This also assumes that the use of drones by the U.S. government will reduce the incidence of domestic terror in America. It is not clear that this assumption is correct, for two reasons.

First, in institutionalizing the use of drones to combat terrorism, the U.S. government has harmed its credibility among segments of foreign populations and,

in the process, has created support for the very organizations it seeks to combat. This is important because "credibility is a crucial resource both with your own people and among the pool of potential sympathizers for your terrorist enemies" (English 2009, 140). U.S. credibility is undermined by the fundamental tension in the U.S. government's strategy of fighting terrorism with a terror-creating technology.

This irony is only intensified by public statements by U.S. officials, such as the following made by Mary McLeod, legal adviser to the State Department, before a United Nations panel: "The United States is proud of its record as a leader in respecting, promoting and defending human rights and the rule of law, both at home and around the world" (quoted in Savage 2014). The disconnect between this type of public rhetoric and the actions of U.S. government officials—the unchecked use of drones to execute people outside of a formal battlefield—is not lost on many key international constituencies, whose support is ultimately necessary to genuinely reduce the threat of terrorism. By adopting and endorsing the use of terror-creating technology to fight terrorist threats, the leaders of the U.S. government have in the eyes of many failed to differentiate themselves from the very evil they seek to destroy.

Second, even if drone strikes are effective in exterminating legitimate threats, the associated negative spillover effects mean that the overall strength of terrorist organizations may very well increase. Drone strikes embolden and empower terrorist organizations in two ways. First, the militarized response from the U.S. government gives credibility and legitimacy to terrorist organizations. The fact that these organizations are perceived as a legitimate and significant threat by the U.S. government assists in their recruiting and fund-raising efforts. Second, the neighborhood effects associated with drone strikes can produce a public backlash not only against the U.S. government and its citizens but also against the broader values it claims to represent and foster. Distant populations' perception of the U.S. government as a terrorist organization leads to resentment both of the United States and of the associated ideals repeatedly stated by its leaders in public. It also validates the claims regarding global imperialism and militarism made by terrorist organizations about the United States government and its actions.

Together, these factors suggest that it is possible that the use of drones may have the counterproductive effect of strengthening terrorist organizations and reducing the security of American citizens. In the process, the U.S. government has abandoned the very principles that it purports to defend and protect through its activist drone foreign policy and the terror it propagates among innocent human beings.

References

Abbas, Hassan. 2013. How Drones Create More Terrorists. *Atlantic,* August 23. At http://www.theatlantic.com/international/archive/2013/08/how-drones-create-more-terrorists/278743/.

Abu Saif, Atef. 2015. *The Drone Eats with Me: A Gaza Diary.* Manchester, U.K.: Comma Press.

Ackerman, Spencer. 2013. US Drone Strikes More Deadly to Afghan Civilians Than Manned Aircraft. *The Guardian,* July 2. At https://www.theguardian.com/world/2013/jul/02/us-drone-strikes-afghan-civilians.

———. 2016. After Drones: The Indelible Mark of America's Remote Control Warfare. *The Guardian,* April 21. At https://www.theguardian.com/us-news/2016/apr/21/drone-war-obama-pakistan-cia.

Amnesty International. 2013. *"Will I Be Next?" US Drone Strikes in Pakistan*. New York: Amnesty International. At http://www.amnestyusa.org/sites/default/files/asa330132013en.pdf.

Benjamin, Medea. 2013. *Drone Warfare: Killing by Remote Control.* New York: Verso.

Brennan, John. 2012. The Efficacy and Ethics of U.S. Counterterrorism Strategy. At http://www.wilsoncenter.org/event/the-efficacy-and-ethics-us-counterterrorism-strategy.

Bureau of Investigative Journalism (BIJ). 2017. *Drone Wars: The Full Data*. London: BIJ. At https://www.thebureauinvestigates.com/category/projects/drones/drones-graphs/.

Calhoun, Laurie. 2015. *We Kill Because We Can: From Soldiering to Assassination in the Drone Age*. London: Zed Books.

Chamayou, Gregoire. 2015. *A Theory of the Drone*. New York: New Press.

Cockburn, Andrew. 2015. *Kill Chain: The Rise of High-Tech Assassins.* New York: Holt.

Cradle of Aviation. 2016. Curtiss-Sperry Aerial Torpedo. At http://www.cradleofaviation.org/history/permanent_exhibits/world_war_i/curtiss_sperry_aerial_torpedo.html.

De Luce, Dan, and Paul McLeary. 2016. Obama's Most Dangerous Drone Tactic Is Here to Stay. *Foreign Policy,* April 5. At http://foreignpolicy.com/2016/04/05/obamas-most-dangerous-drone-tactic-is-here-to-stay/.

The Economist. 2015. Drone Strikes and International Law: Fallout Reaches the Ivory Tower. April 22. At http://www.economist.com/blogs/democracyinamerica/2015/04/drone-strikes-and-international-law.

English, Richard. 2009. *Terrorism: How to Respond*. New York: Oxford University Press.

Greenwald, Glenn. 2012a. New Stanford/NYU Study Documents the Civilian Terror from Obama's Drones. *The Guardian,* September 25. At https://www.theguardian.com/commentisfree/2012/sep/25/study-obama-drone-deaths.

———. 2012b. US Drone Strikes Target Rescuers in Pakistan—and the West Stays Silent. *The Guardian,* August 20. At https://www.theguardian.com/commentisfree/2012/aug/20/us-drones-strikes-target-rescuers-pakistan.

Gregory, Derek. 2011a. The Everywhere War. *Geographical Journal* 177, no. 3: 238–50.

———. 2011b. From a View to a Kill: Drones and Late Modern War. *Theory, Culture, and Society* 28, nos. 7–8: 188–215.

Gusterson, Hugh. 2016. *Drone: Remote Control Warfare.* Cambridge, Mass.: MIT Press.

Hall, Abigail R. 2015. Drones: Public Interest, Public Choice, and the Expansion of Unmanned Aerial Vehicles. *Peace Economics, Peace Science, and Public Policy* 21, no. 2: 273–300.

Hall, Abigail R., and Christopher J. Coyne. 2014. The Political Economy of Drones. *Defence and Peace Economics* 25, no. 5: 445–60.

Higgs, Robert. 2006. Fear: The Foundation of Every Government's Power. *The Independent Review* 10, no. 3 (Fall): 447–66.

Human Rights Clinic. 2012. Counting Drone Strike Deaths. October. At http://web.law.columbia.edu/sites/default/files/microsites/human-rights-institute/files/COLUMBIACountingDronesFinal.pdf.

Human Rights Watch. 2013. *"Between a Drone and Al-Qaeda": The Civilian Cost of US Targeted Killings in Yemen*. New York: Human Rights Watch. At https://www.hrw.org/sites/default/files/reports/yemen1013_ForUpload.pdf.

International Human Rights and Conflict Resolution Clinic and Global Justice Clinic. 2012. *Living under Drones: Death, Injury, and Trauma to Civilians from US Drone Practices in Pakistan*. Stanford, Calif.: Stanford Law School. At http://chrgj.org/wp-content/uploads/2012/10/Living-Under-Drones.pdf.

Jones, Seth G., and Martin C. Libicki. 2008. *How Terrorist Groups End: Lessons for Countering al Qa'ida*. Santa Monica, Calif.: RAND Corporation. At https://www.rand.org/content/dam/rand/pubs/monographs/2008/RAND_MG741-1.pdf.

Kaag, John, and Sarah Kreps. 2014. *Drone Warfare*. Malden, Mass.: Polity Press.

Kilcullen, David, and Andrew McDonald Exum. 2009. Death from Above, Outrage Down Below. *New York Times,* May 16. At http://www.nytimes.com/2009/05/17/opinion/17exum.html?pagewanted=all&_r=0.

Kreps, Sarah. 2016. *Drones: What Everyone Needs to Know*. New York: Oxford University Press.

Lewis, Michael W. 2013. Drones: Actually the Most Humane Form of Warfare Ever: How Better Targeting and Surveillance Can Reduce the Number of Civilian Casualties. *Atlantic*, August 21. At http://www.theatlantic.com/international/archive/2013/08/drones-actually-the-most-humane-form-of-warfare-ever/278746/.

Madlena, Chavala, Hannah Patchett, and Adel Shamsan. 2015. "We Dream about Drones," Said 13-Year-Old Yemeni Before His Death in a CIA Strike. *The Guardian,* February 10. At https://www.theguardian.com/world/2015/feb/10/drones-dream-yemeni-teenager-mohammed-tuaiman-death-cia-strike.

Martin, Matt J., and Charles W. Sasser. 2010. *Predator: The Remote-Control Air War over Iraq and Afghanistan: A Pilot's Story*. Minneapolis: Zenith Press.

Mazzetti, Mark. 2013. *The Way of the Knife: The CIA, a Secret Army, and a War at the Ends of the Earth*. New York: Penguin Press.

McVeigh, Karen. 2013. Drone Strikes: Tears in Congress as Pakistani Family Tells of Mother's Death. *The Guardian,* October 29. At https://www.theguardian.com/world/2013/oct/29/pakistan-family-drone-victim-testimony-congress.

New America Foundation (NAF). n.d.a. Drone Strikes: Pakistan. In Depth: America's Counterterrorism Wars. At http://securitydata.newamerica.net/drones/pakistan-analysis.html.

———. n.d.b. Drone Strikes: Somalia. In Depth: America's Counterterrorism Wars. At http://securitydata.newamerica.net/drones/somalia-analysis.html.

———. n.d.c. Drone Strikes: Yemen. In Depth: America's Counterterrorism Wars. At http://securitydata.newamerica.net/drones/yemen-analysis.html.

———. n.d.d. *World of Drones.* Washington, D.C.: NAF. At http://securitydata.newamerica.net/world-drones.html.

Obama, Barack. 2013. Speech on U.S. Drone and Counterterror Policy. *New York Times,* May 24. At http://www.nytimes.com/2013/05/24/us/politics/transcript-of-obamas-speech-on-drone-policy.html?pagewanted=all&_r=0.

Owen, Taylor. 2013. Drones Don't Just Kill: Their Psychological Effects Are Creating Enemies. *Globe and Mail,* March 13. At http://www.theglobeandmail.com/opinion/drones-dont-just-kill-their-psychological-effects-are-creating-enemies/article9707992/.

Plaw, Avery, Matthew S. Fricker, and Carlos R. Colon. 2015. *The Drone Debate: A Primer on the U.S. Use of Unmanned Aircraft outside Conventional Battlefields.* Lanham, Md.: Rowman and Littlefield.

Rodriguez, Alex. 2011. Pakistani Death Squads Go After Informants to U.S. Drone Program. *Los Angeles Times,* December 28. At http://articles.latimes.com/2011/dec/28/world/la-fg-pakistan-death-squads-20111228.

Rohde, David. 2009. A Drone Strike and Dwindling Hope. *New York Times,* October 20. At http://www.nytimes.com/2009/10/21/world/asia/21hostage.html?pagewanted=all.

———. 2012. The Drone Wars. Reuters, January 26. At http://www.reuters.com/article/us-david-rohde-drone-wars-idUSTRE80P11I20120126.

Saletan, William. 2013. In Defense of Drones: They're the Worst Form of War, except for All the Others. *Slate,* February 19. At http://www.slate.com/articles/health_and_science/human_nature/2013/02/drones_war_and_civilian_casualties_how_unmanned_aircraft_reduce_collateral.html.

Savage, Charlie. 2014. U.S. Tells U.N. Panel of Steps to Revise Interrogation Policy. *New York Times,* November 12. At http://www.nytimes.com/2014/11/13/us/us-vows-to-stop-using-torture-against-terrorism-suspects.html?_r=0.

Scahill, Jeremy. 2013. *Dirty Wars: The World Is a Battlefield.* New York: Nation Books.

———. 2016. *The Assassination Complex: Inside the Government's Secret Drone Warfare Program.* New York: Simon and Schuster.

Serle, Jack. 2015. Almost 2,500 Now Killed by Covert US Drone Strikes since Obama Inauguration Six Years Ago: The Bureau's Report for January 2015. Bureau of Investigative Journalism, February 2. At https://www.thebureauinvestigates.com/2015/02/02/almost-2500-killed-covert-us-drone-strikes-obama-inauguration/.

Shane, Scott. 2011. C.I.A. Is Disputed on Civilian Toll in Drone Strikes. *New York Times,* August 12. At http://www.nytimes.com/2011/08/12/world/asia/12drones.html?_r=0.

Singer, P. W. 2009. *Wired for War: The Robotics Revolution and Conflict in the 21st Century.* New York: Penguin Books.

Singh, Ritika. 2013. Drone Strikes Kill Innocent People: Why Is It so Hard to Know How Many? *New Republic,* October 25. At https://newrepublic.com/article/115353/civilian-casualties-drone-strikes-why-we-know-so-little.

Taylor, Adam. 2015. The U.S. Keeps Killing Americans in Drone Strikes, Mostly by Accident. *Washington Post,* April 23. At https://www.washingtonpost.com/news/worldviews/wp/2015/04/23/the-u-s-keeps-killing-americans-in-drone-strikes-mostly-by-accident/.

Trofimov, Yaroslav. 2016. Do U.S. Killings of Militant Leaders Work? *Wall Street Journal,* May 26. At http://www.wsj.com/articles/do-u-s-killings-of-militant-leaders-work-1464255002.

U.S. Office of the Director of National Intelligence. 2016. Summary of Information Regarding U.S. Counterterrorism Strikes outside Areas of Active Hostilities. At https://www.dni.gov/files/documents/Newsroom/Press%20Releases/DNI+Release+on+CT+Strikes+Outside+Areas+of+Active+Hostilities.PDF.

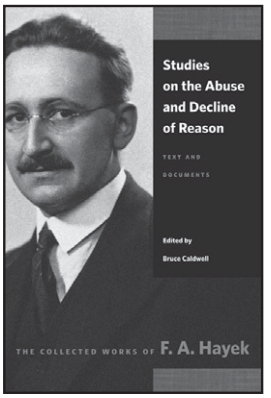
Woods, Chris. 2015. *Sudden Justice: America's Secret Drone War*. New York: Oxford University Press.

Zenko, Micah. 2016. Don't Believe the U.S. Government's Official Numbers on Drone Strikes and Civilian Casualties. *Foreign Policy,* July 5. At http://foreignpolicy.com/2016/07/05/do-not-believe-the-u-s-governments-official-numbers-on-drone-strike-civilian-casualties/.

Zenko, Micah, and Amelia Mae Wolf. 2016. Drones Kill More Civilians Than Pilots Do. *Foreign Policy,* April 25. At http://foreignpolicy.com/2016/04/25/drones-kill-more-civilians-than-pilots-do/.

Acknowledgments: We thank Virgil Storr and Robert Whaples for comments and suggestions. Any remaining errors are our own.

LIBERTY FUND
www.libertyfund.org



April 2018
Paperback: 978-0-86597-907-9
$14.50 | £10.95 | $23.20

Studies on the Abuse and Decline of Reason

Text and Documents
By F. A. Hayek
Edited by Bruce Caldwell

In 1939, Hayek conceived of a grand project to "incorporate intellectual history, methodology, and an analysis of social problems, all aimed at shedding light on the consequences of socialism." He published the foundational works for this project separately, and this volume collects them all. Editor Bruce Caldwell has provided translations where they were absent and has revised and corrected the text. The introduction, as Caldwell writes, tells "the story of Hayek's greatest unfinished piece of work."

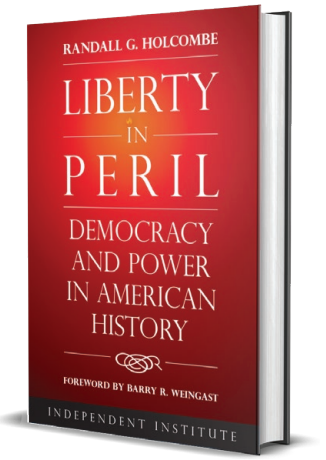
Save 20% Today!
Order this book online and save 20%. Use promo code LFHAYEK18 on your order at libertyfund.org.
Offer expires July 31, 2018.

SUBSCRIBE NOW AND RECEIVE A FREE BOOK!

"***The Independent Review*** does not accept pronouncements of government officials nor the conventional wisdom at face value."
—**JOHN R. MACARTHUR**, Publisher, *Harper's*

"***The Independent Review*** is excellent."
—**GARY BECKER**, Nobel Laureate in Economic Sciences

Subscribe to ***The Independent Review*** and receive a free book of your choice such as ***Liberty in Peril: Democracy and Power in American History***, by Randall G. Holcombe.



Thought-provoking and educational, ***The Independent Review*** is blazing the way toward informed debate. This quarterly journal offers leading-edge insights on today's most critical issues in economics, healthcare, education, the environment, energy, defense, law, history, political science, philosophy, and sociology.

Student? Educator? Journalist? Business or civic leader? Engaged citizen? This journal is for YOU!

Order today for more *FREE* book options

SUBSCRIBE

The Independent Review is now available digitally on mobile devices and tablets via the Apple/Android App Stores and Magzter. Subscriptions and single issues start at $2.99. **Learn More.**

Download on the App Store | GET IT ON Google Play | Available on MAGZTER

INDEPENDENT INSTITUTE, 100 SWAN WAY, OAKLAND, CA 94621 • 1 (800) 927-8733 • ORDERS@INDEPENDENT.ORG