Technology as Terrorism: Police Control Technologies and Drone Warfare*

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Abstract

Debates about terrorism and technology often focus on the potential uses of technology by non-state terrorist actors and by states as forms of counterterrorism. Yet, little has been written about how technology shapes how we think about terrorism. In this chapter I argue that technology, and the language we use to talk about technology, constrains and shapes our understanding of the nature, scope, and impact of terrorism, particularly in relation to state terrorism. After exploring the ways in which technology shapes moral thinking, I use two case studies to demonstrate how technology simultaneously hides and enables terroristic forms of state violence: police control technologies and Unmanned Aerial Vehicles (UAVs), or drones**.** In both these cases, I argue that features of these technologies, combined with a narrative of precision and efficiency, serves to mask the terroristic nature of the violence that these practices inflict and reinforces the moral exclusion of those against whom these technologies are deployed. In conclusion, I propose that identifying acts of terrorism requires a focus on the impact of technologies of violence (whether they are "high tech" or not) on those most affected, regardless of whether users of these technologies conceive of their actions as terroristic.

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The topic of this volume is terrorism and technology. Typically, discussions about the relationship between terrorism and technology focus on how new technologies, such as drones (Strawser 2013a; Kaag & Kreps 2014), artificial intelligence (UN News 2019), social media (Gelzer et al 2019), and surveillance technologies could be used either as a means of *fighting* terrorism or as a *method* of terrorism (Gartenstein-Ross et al. 2020).

Few authors, however, recognise how technology shapes and reflects the moral framework through which we think about terrorism, terrorists, and the victims of terrorism — particularly in relation to state terrorism. Instead, the standard view is that "what is good or bad about [technology] is not technologies themselves but the ends to which they are put" (McReynolds 2005, 72). In this chapter I argue that technologies of violence are not neutral objects that may be used for good or bad purposes, but instead limit and frame choices in morally significant ways, reflect and reinforce biases, and impact moral decision-making the nature and justification of violence. Section 1 outlines how the concept of technology and technological artefacts themselves create and embody normative associations and values that shape the moral landscape of their use. In Section 2, I apply David Rodin's moral definition of terrorism to the case studies of police control technologies and the US counterterrorism drone program. I argue that police control technologies, including riot technologies and tasers, function as a *terroristic display* that reflects and reinforces the long-standing and deeply entrenched association of criminality with blackness and thus plays a crucial "signifying role" in delineating who may be harmed, who is a threat, and who is to be protected. The US drone program is, I argue, also a form of terrorism. However, the nature of drone technology both masks the terroristic impact of drone warfare on those subjected to it and

contributes to the illusion that drone warfare is objective, precise, unbiased, and even inherently moral. In conclusion, I argue that debates about terrorism and technology must acknowledge the falsity of the assumption that these technologies are neutral tools, rather than technologies of violence whose development and use encodes and reinforces normative judgments about terrorism, the moral status of victims of terrorism, and moral responsibility for terrorism. The narrative of technologies of violence as neutral tools masks the terroristic nature of certain kinds of state violence and obscures the power dynamics inherent in that narrative. As will become clear from the discussions of police control technology and drone warfare, the view that these technologies are morally neutral or even benign objects reflects the privileged stance of the users of these technologies. From the perspectives of those who are subjected to these technologies, they are far from morally neutral. Thus, identifying acts as terrorism requires focusing on the impact of those acts (whether they are "high tech" or not) on those most affected, regardless of whether those involved in producing these affects conceive of their actions as terrorist.

1. The concept of technology

We could define "technology" simply as any human made artefact, including everything from basic tools, "specific devices and inventions," to "complex sociotechnological systems" (Rhodes 2007, 547). But if that is all we mean by "technology," there is no reason to think that the relationship between technology and terrorism poses any unique ethical questions: *of course* terrorists use technology (guns, planes, mobile phones, bombs, and so forth) to achieve their goals, to varying degrees of success, and *of course* technology can be employed to fight terrorism. But this way of thinking about the relationship between technology and terrorism ignores the fact that

"technology" is not a neutral term but brings with it a range of concepts and associations that are not always made explicit, but that shape our moral thinking in important ways.

1.1 Technology as progress

According to Leo Marx, the word "technology" first gained widespread usage in the late 19th century, where it was associated with the "relation between innovations in science, the mechanic arts, and the prevailing belief in progress" (1997, 969). Thus, more sophisticated technological capacity is associated not just with increasing efficiency but with moral values and social and political progress. This is particularly true in relation to technologies of state violence. To illustrate, in the US, each time a new technology of execution (electric chair, gas chamber, lethal injection) was introduced, it was heralded as offering not just a more *efficient* means of killing, but a more *moral* means of killing, thereby conflating technological capacity with moral values. For example, one newspaper described the electric chair as providing a death that was "less painful and *more dignified*" (Linders et al 2020, 4, emphasis added). Another claimed that "science has devised a much more effective and *decent* way of putting to death" (Linders et al 2020, 12, emphasis added). Similar statements were made about the gas chamber and lethal injection. Yet, in each case the supposed humanity of the new technology was undermined by the botched executions and visible suffering that occurred almost as soon as the technology was put into use, leading to a further search for a technological solution to the problem of capital punishment and humane state killing (Linders et al 2020, 22). But what this (futile) search demonstrates is that the problem of reconciling capital punishment with values like humaneness and dignity is not a technological problem that will one day be solved. Instead the search for a technological solution to capital punishment and the narrative of progress that accompanies this search serves to hide the

irresolvable moral tension that resides in the very concept of a humane execution. As we shall see, a similar moral tension, and the use of a narrative that conflates efficiency with moral progress, also underlies the search for technological solutions to police brutality, and in the development and use of drones.

The association between technological development and moral values also plays out in the distinction between "high tech" and "low tech," which not only marks out a distinction in terms of the complexity of a technological artefact but carries normative implications. "High tech" is associated with civilization, progress, and professionalisation. In contrast, "low tech" suggests primitive societies and backward moral thinking. As Phillip McReynolds argues in his discussion of the discrepancy between Al Qaeda's low tech terrorism and the high tech counterterrorism response of the United States, "the low technology of terrorism [suicide bombs, box cutters, and so forth] bears the marks of a lack of respect for human life in general, for individualism, and for freedom whereas high technology as located within an ideology of progress is understood of leading directly to a greater respect for human life, individuality, and freedom … the notion of high tech violence as opposed to the more direct, low-tech variety carries as sense of moral superiority" (2005, 82–83).[1]

[1] McReynolds attributes this to the ways in which high tech weapons, such as drones and long-range missiles, make killing seem "less violent … the more direct connection to it [violence] that accompanies low-tech violence tends to reflect poorly on the human and moral status of the person who carries it out." (2005, 83). I discuss drone warfare in Section 3.

1.2 Technology as moral mediation

It is a mistake to see technologies as inert objects with which we interact with the world. Instead, as Peter-Paul Verbeek argues, technologies "give shape to what we do and how we experience the world. And in doing so they actively contribute to the ways we live our lives" (2011, 1). Technologies "mediate moral decisions and help to attribute responsibilities and instill norms" (Verbeek 2011, 2)

This process occurs along several dimensions. Firstly, technology organises "situations of choice and suggest[s] the choice that should be made" (Verbeek 2011, 5). As Bruno Latour explains, technology can "authorise, make possible, encourage, make available, allow, suggest, influence, hinder, prohibit, and so on." (Latour 2005, 104, in Schwartz 285). Because technologies mediate our relationship to the world around us, different technologies amplify some aspects of the world and reduce the prominence of others, and thereby "direct" or "organise" our perceptions in particular ways (Verbeek 2011, 11). This has significant, but often underappreciated, moral implications. For example, the mere *availability* of a technology may be viewed as a *moral* reason for selecting it, as occurred when the Dallas Police Department used a bomb-disposal robot carrying C-4 explosives to kill a man who had shot five officers. In defending this action, Police Chief David Brown stated that "*We had no choice,* in my mind, but to use all tools necessary" (Schwarz 2018, 281, emphasis added). The availability of the robot thereby played a role in "directing … moral deliberations" (Schwarz 2018, 281) and was "influential in justifying such extreme means" (Schwartz 2018, 285). Once a technology is utilised in this way, further use of the technology rapidly becomes normalised and justified: "legitimating the use of a technology is linked to its naturalization" (Qaurooni & Ekbia 2017, 65). The robot was utilised because it was

available, and its use in that one situation then justifies its use in similar future situations. Continued use of the technology thus becomes self-justifying and simultaneously diverts attention away from other possible courses of action. Lorna Rhodes makes this point in her discussion of the technology of solitary confinement: "once the option of isolation exists, it tends to be normalized as a 'common sense' fix for inadequate mental health care, overcrowding, and failure to adequately protect prisoners in the general population." (Rhodes 2007, 551).

The failure to recognise the interaction between a choice of technology and our moral decision-making can lead to a conflation between moral concepts such as justification and concepts such as efficiency. Elke Schwarz makes this point in relation to the choices of technology in thought experiments to do with justified killing and moral liability to harm: "A failure [in thought experiments] to acknowledge the moral significance of choosing technological means might make some means that are not necessarily justified *seem* justified; it might make means that are not absolutely necessary *seem* necessary, and it might make technological tools that for whatever reason appear to be the most attractive option in a collection of available options seem like the *only* option" (2018, 284–85).

1.3 Technology and bias

Technologies often embody and reinforce the moral, social, and political norms and biases of those who create and use them, including racist beliefs and practices. As Schwarz explains, "how an algorithm functions and how it is trained reflects the values and principles of its intended uses and its designers … They regularly reflect the aims and intentions of their makers and normalize their positions and priorities (values)" (2018, 292).

Consider, for example, Kodak's Shirley card. In its original form, this featured a model with "ivory skin, brown hair, and red lipstick." If Shirley's features looked "right" in an initial printing, "photographers could expect subsequent printings to look 'right' as well." (Liao & Huebner 2020, 3). But a Shirley card also *prescribed* normality because it depicted what "'natural skin' color should look like [i.e., white]" (Liao & Huebner 2020, 3). As Liao and Huebner explain, "Shirley cards became the standard against which photo printing was calibrated, leading to calcified forms of bias to emerge in any context where skin-tone diverged from Shirley's ivory complexion. Darker skin tones ended up being over saturated, or under-lit, so the only images that always looked 'right' were images of light-skinned people." The Shirley card thus both reflected the racial biases of its creators and continued use of the Shirley card then reinforced the view that white skin was the ideal aesthetic standard and the standard of "normal" skin tone (Liao & Huebner 2020, 4. See also Benjamin 2019, 103–109).

The embedded bias in algorithms can have extremely harmful consequences. For example, studies on facial recognition technologies in the context of law enforcement have found that these technologies reflect and reinforce racial bias. Ruha Benjamin describes the scale of this "default discrimination": "At every stage of the process — from policing, sentencing, and imprisonment to parole — automated risk assessments are employed to determine people's likelihood of committing a crime." Yet, not only have multiple studies found that these automated processes encode and reinforce racial bias, they are "remarkably unreliable in forecasting violent crime" (2019, 81). The impact of this encoded bias can be devastating: "Black people are overrepresented in many of the databases faces are routinely searched against" which means that "black people are

more often stopped, investigated, arrested, incarcerated and sentenced as a consequence of facial recognition technology … Black people are more likely to be enrolled in face recognition systems, be subject to their processing and misidentified by them" (Bacchini & Lorusso 2019, 326).

The problem of biased algorithms in facial recognition systems (and, as we shall see, in drone targeting procedures) is exacerbated by the phenomenon of "automation bias." Research demonstrates that humans have an unwarranted belief in the neutrality and accuracy of technological systems: "humans have a tendency to disregard or not search for contradictory information in light of a computer-generated solution that is accepted as correct" (Schwarz 2018, 290). This means that the "results" of facial recognition algorithms are likely to be assumed to be objectively correct, leading to a vicious cycle that reinforces the long-standing association of blackness with criminality [2] that is correlated with the disproportionate prosecution and incarceration of people of colour compared to white people who commit similar crimes (Swartzer 2019, 11).

2. Technology and terrorism

Just as technology, and the ways in which we talk about technology, shapes our moral decision making and reflects and reinforces biases in ways that may not be apparent to users and designers

[2] This association is so deeply embedded in US society that "the more stereotypically Black a person's physical features are perceived to be, the more that person is perceived as criminal" (Hetey & Eberhardt 2014, 1949)

of technology, so technology and its associated rhetoric reflects and shapes our moral thinking about the nature, function, and meaning of terrorism.

What do I mean by terrorism? In this chapter, I adopt elements of David Rodin's *moral definition* of terrorism. A moral definition is "an analysis of the features of acknowledged core instances of terrorism [such as the 9/11 attacks] which merit and explain the moral reaction which most of us have toward them" (2004, 753). He identifies the moral opprobrium many of us feel toward terrorism as deriving from the fact that core instances of terrorism are characterised by "the use of force against those who should not have forced used against them" (2004, 755). He then defines terrorism as "the deliberate, negligent, or reckless use of force against noncombatants, by state or nonstate actors for ideological ends and in the absence of a substantively just legal process" (2004, 755).[3] The reference to force against noncombatants for ideological ends is consistent with many other definitions of terrorism. However, Rodin's inclusion of reckless and negligent acts in his definition is controversial, but because the case studies I discuss here are instances of deliberate

[3] Rodin defines "ideological ends" to "signify a commitment to some systematic and socially directed end beyond the motives of fear, anger, lust and personal enrichment, which are the typical motives of common violent crimes" (2004, 756). The term "noncombatants" is intended to capture the fact that the victims of terrorism are not engaged in activities that would render them liable to the use of force, such as combat. Thus, attacks against military targets can count as terrorism (2004, 757). Reference to the absence of a "substantively just legal process" is intended to distinguish terrorist violence from the use of force accompanying just legal processes (2004, 759–60).

actions, I do not need to weigh in on this controversy.[4] Given this definition, we can now turn to the case of police control technologies.

2.1 Police control technologies as terroristic display

The association of blackness with criminality that is reflected and reinforced through the use of facial recognition technology in the criminal justice system also infects other kinds of policing control technology, such as the use of tasers, stun guns, tear gas, rubber bullets, and the increasing use of militarised weapons, tactics, and uniforms "that were once the preserve of military units in war zones" (Dobos 2020, 110). Those against whom these technologies are deployed (and the purported justifications for such deployment) reveal much about who is perceived as a threat, who is judged liable to be killed and wounded, and who is judged worthy of protection. Two examples illustrate the role of this technology in reinforcing norms regarding the moral status of those against whom the technology is deployed, in ways that mask the terroristic impact of these technologies.

2.1.1 Riot technology

In the wake of the killing of George Floyd, Black Lives Matter (BLM) protesters were subjected to tear gas and other "non-lethal weapons" such as rubber bullets and stun grenades, wielded by police and federal forces clad in militarised riot gear, including face shields, external bullet-proof vests, and knee-high boots. In comparison, armed white protestors who rallied against stay at home orders in Wisconsin and elsewhere were not subject to these technologies and police who monitored these rallies were not clad in riot technology (Marcotte 2020). This stark and visible

[4] See Woodside 2013 for a critique of Rodin's claim that terrorism can be unintentional.

disparity in the use of violent control technologies serves a powerful signifying function: BLM protestors are dangerous but white protestors are not, even when carrying assault rifles; the technologies of violence and suppression are *necessary* (and therefore justified) when interacting with BLM protestors, but not when interacting with majority white protestors. The visual image of the police response to these different groups of protestors communicates, more effectively than words or political speeches, the criminalisation of blackness and the belief that people of colour (and those who support them) may be harmed or killed. The deployment of these technologies, and the visual impact of their use, thereby "symbolically excludes the citizens from the state" (Dobos 2020, 114) and reflects a resurgence of the "escalated force" policy of "a dominant show of force" that governed police responses to anti-war and civil rights protestors in the 1960s (groups also characterized as threats to the state) (Maguire 2015, 75).

These technologies not only communicate and reinforce the criminalisation of blackness and the moral exclusion of people of colour from the moral and political community; they have concrete traumatic effects that justify the claim that the deployment of these technologies is terroristic. Firstly, the use of these technologies against peaceful protestors signifies to those subjected to them that they may be killed or harmed with impunity. Secondly, these technologies cause severe and lasting physical injuries, fear, and ongoing trauma (Schwarz 2020). The fact that these technologies are used disproportionately against people of colour and other groups deemed to be outside the moral and political community (such as anti-war protestors in the 1960s and 1970s) indicates that their use is ideologically driven. The ideological nature of these technologies is further evidenced by the origins of their use: "the so-called non-lethal crowd control weapons that are used to disperse protests today have their origins in colonial policing" (Schwarz 2020), where

there were used to violently reinforce white supremacist colonial regimes against resistance. As a scholar on the history of tear gas argues, these technologies (then and now) were "deployed to both physically and psychologically destroy people engaging in resistance" (quoted in Schwarz 2020). The way these technologies are deployed is, therefore, clearly meets Rodin's definition of terrorism as "the use of force against those who should not have force used against them" that serves an "ideological end" (Rodin 2004, 753).[5]

The terroristic impact of riot technology is compounded by the ways in which these technologies affects those who wield them. There is substantial evidence that when police adopt military-style tactics and "start using weapons and equipment that were designed for soldiers in combat" (Dobos 2020, 109), this alters their perception of their role and their relationship with the community, particularly with people of colour: "pacifying and defeating the enemy becomes more important than protecting and serving the public" (Dobos 2020, 110). The adoption of military technology also has a measurable impact on incidents of police killings. One study found that "more than twice as many civilians are likely to be killed by police in a county after its material militarization than before" (Dobos 2020, 111). This risk is not distributed evenly among the community, however: "Risk is highest for black men, who (at current levels of risk) face about a 1 in 1,000 chance of being killed by police over the life course. The average lifetime odds of being killed by police are about 1 in 2,000 for men and about 1 in 33,000 for women … For young men of color,

[5]Someone might object that violent protesters count as combatants. However, riot technologies are used against peaceful protestors and there is little to no attempt to restrict such uses of force to those who act violently.

police use of force is among the leading causes of death" (Edwards et al. 2019). Thus, the deployment of riot control and other militarised technologies reinforces the association of blackness with criminality and terrorises those who are subjected to them, and directly contributes to the ongoing and pervasive vulnerability of people of colour to violent interactions with criminal justice system. In that sense, it is not a stretch to say that these technologies are part of a broader system of terroristic control of people of colour. This is also demonstrated by the use and development of tasers and stun guns.

2.2.Tasers and stun guns

The development and use of stun guns and tasers demonstrate many of the moral contradictions seen in the development of execution technologies. Tasers, for example, were touted as being "safe, effective alternatives to … lethal force" (Sierra-Arévalo 2019, 421) that would solve the ongoing problem of the use of excessive (sometimes lethal) force by police. Similar claims have been made about body cameras. Yet, the problem of excessive force has not in fact diminished (Levin 2020). This suggests that framing the use of tasers as part of an ongoing search for the "technological control of excessive force" (Sierra-Arévalo 2019, 422) rests on the assumption that the problem with excessive police violence against people of colour is a problem with *technology*, and not a problem arising from a moral framework of racism that underpins policing engagements with and attitudes toward people of colour in the US. Additionally, the now widespread acceptance and normalisation of the use of stun guns and tasers masks the history of these devices in the contexts of torture and the control of animals. While those who defend these technologies may frame them as technologies of non-lethal restraint and control that can (if properly used) "not appear cruel or beneath human dignity" (Rejali 2003, 157), this is not how they appear to those

subjected to them. From the victim's perspective, electric control technologies do not signify respect for their dignity, a reduction in force, or a humane method of control. As Lorna Rhodes relates, prisoners in Supermax prisons (where stun guns are used as control mechanisms), "speak of these technologies as particularly degrading both for their extreme intrusion into the body (they cause muscle weakness as well as pain) and for their association with the control of animals" (2007, 556). But the experience of these technologies from the victims' point of view is overshadowed by the dominant narrative of efficiency and control, which illustrates the ways in which this narrative both upholds and masks the true function of these technologies and privileges the perspectives of users of the technology above the perspectives of those who are subjected to it.

The association of tasers and stuns guns with torture (a long-standing method of state terrorism) is also visible from the point of view of the victims. As Darius Rejali explains, stun guns and other electric devices are popular in states that use torture because, like other "modern" torture techniques (such as sensory deprivation), they "cause suffering and intimidation without leaving much in the way of embarrassing long-term visible evidence of brutality" (2003, 153). The use of these technologies in the context of torture was not driven by a concern for human dignity or a reduction in cruelty, but by a desire to avoid charges of human rights violations. Given this history, the widespread acceptance and availability of electric control technologies in the context of law enforcement is astonishing. It represents "an incredible sociotechnical achievement, the work of corporations, politicians, and engineers who have woven this technology into the fabric of everyday life, creating instruments, markets, citizens, and consumers" (Rejali 2003, 154–55). As with riot technologies, those against whom this technology is disproportionately wielded (prisoners and people of colour, and those who threaten the state in other ways) are "marked out"

as deserving or requiring such treatment. Thus, use of this technology operates as what Rejali calls "a civic marker" (2003, 154) delineating the moral boundaries of civic membership and moral concern through the infliction of instruments associated with terror and torture.

2.2. Drone technology as terrorism

There is a substantial literature on the ethics of drones (see, for example, Kaag & Kreps 2014 and Strawser 2013a), which I do not have space to discuss here. Ethical issues raised by authors include concerns about the asymmetry of drone warfare (Killmister 2008; Steinhoff 2013), the impact of drone warfare on the moral equality of combatants (Skerker et al 2020), the moral disengagement of drone operators (Sharkey 2010, 371–72), drone operators' moral responsibility (Sparrow 2007; van der Linden 344), and the effect of drone warfare on conceptions of traditional military virtues (Sparrow 2013). Several authors regard the ethics of drone use as no different from the ethics of any long-range technology (Lucas 2013; Kershnar 2013). For example, George Lucas argues that, "[a]s with most exotic new technologies, the novelty [of drones] blinds us to the fact that the moral issues involved are entirely familiar and conventional and not appreciably different from those associated with the development of previous and current weapons technology" (2013, 211).

Here, however, I argue that the terroristic nature of drone warfare becomes evident when we shift our focus from the technology itself (and the ethical issues that tend to dominate philosophical discussions of drones) to the impact of the drone program on those who are subjected to it. The terroristic nature of drone warfare results from a combination of unique features of drone technology, in particular the capacity for long-term surveillance and the use of algorithmic targeting decisions, but is hidden by the persistent narrative of precision that dominates military

and political discourse about drones. As the Center for Civilians in Conflict reports, "as covert drone strikes by the United States become increasingly frequent and widespread, reliance on the precision capabilities and touted effectiveness of drone technology threatens to obscure the impact on civilians" (2012, 7). First, however, we need to clarify the current scope of the US drone program.

2.2.2 Current status of the drone program

The use of drones as a means of killing suspected and known members of Al Qaeda and other terrorist and militant organisations began under the Bush administration, expanded under the Obama administration (Kaag & Kreps 2014, 3–4), and has expanded further under the Trump administration. According to one report, "As of May 18, 2020, the Trump administration had launched 40 airstrikes in Somalia in 2020 alone." In contrast, "from 2007 through 2016, the administrations of George W. Bush and Barack Obama conducted 41 airstrikes in Somalia total." (Atherton 2020). Additionally, the Trump administration broadened the designation of "battlefields" to include areas of Yemen and Somalia, thereby loosening the restrictions on drone targeting in those areas (Atherton 2020)[6] and simultaneously "removing the reporting requirement for causalities outside of designated battlefields" (Atherton 2020). It is, therefore, reasonable to

[6] The Obama administration's Presidential Policy Guidance (PPG) designated looser targeting restrictions for battlefields and tighter ones for nonbattlefields, to allow drones greater freedom in "providing support fire for soldiers in firefights in places such as Afghanistan, while holding tighter restrictions for targeted killing flights in places where the United States did not actively deploy troops on the ground, such as Yemen or Somalia" (Atherton 2020).

conclude that the drone program will continue to operate and that there will be less transparency about the impact of drone warfare on those who are subjected to it.

2.2.3 The narrative of precision and targeting algorithms

From their introduction drones have been heralded as "precision weapons" that allow war to be conducted in a more humane way:

> US intelligence officials tout the drone platform as enabling the most precise and humane targeting program in the history of warfare. President Obama has described drone strikes as "precise, precision strikes against al-Qaeda and their affiliates." Leon Panetta, Secretary of Defense, has emphasized that drones are "one of the most precise weapons we have in our arsenal," and counterterrorism adviser John Brennan has referred to the "exceptional proficiency, precision of the capabilities we've been able to develop." (Center for Civilians in Combat 2012, 35).

As a result of this narrative, "public concerns with civilian casualties in targeted killing campaigns—concerns that are generally weak or even nonexistent to begin with—are put to rest" (van der Linden, 2016, 335).[7] As we saw with the language that accompanied the development of

[7] It is extremely difficult to know the precise number of civilians who have been killed by drone strikes. This is a result of a combination of factors, including difficult terrain that makes on-the-ground verification impossible, and the ways in which the category of "militant" is sometimes used to describe any "military-aged male" killed in a strike (Center for Civilians in Combat 2012).

new execution technologies and the use of tasers by police, the emphasis on precision and efficiency connects a *technological* value (efficiency) with a moral value ("humaneness" or "dignity"). The view that the technical capacity of drones to distinguish between targets is also a moral capacity is shared by some philosophers. Bradley Strawser, for example, argues that a drone's capacity to discriminate between targets combined with the fact that drone use reduces the risk to the operator to essentially zero means that "we are morally required to use drones over … manned aircraft to prevent exposing pilots to unnecessary risk" (2013b, 18). But the assertion that the capacity of drones for precision targeting means that drones precisely distinguish between combatants and noncombatants is simply false. As Harry van der Linden notes, "precision in finding and hitting the target does not imply that there is precision in the *selection* of the target" (2016, 336, emphasis in original). John Kaag and Sarah Krepps make the same point: "The distinction between militants and non-combatants … is a normative one that machines cannot make" (2014, 134). Put simply, we cannot assume that the categories of combatant and noncombatant are either clearly defined or justly applied by drone operators and/or political and military decision-makers in the drone program. In fact, we have good reason to doubt that this is the case. For example, claims by US officials in the Obama administration that drones strikes caused very few civilian casualties (Center for Civilians in Combat 2012, 31) were complicated by the fact that these assertions were based on "a narrowed definition of 'civilian,' and the presumption that, unless proven otherwise, individuals killed in strikes are militants" (Center for Civilians in Combat 2012, 32). The assumption that the targets of drone strikes are chosen on the

However, my argument for the terroristic nature of drone warfare does not rest only on the numbers of civilians who are killed.

basis of clear and justly applied categories of combatant and noncombatant is particularly problematic in relation to the use of drones for signature strikes. Unlike targeted strikes, where the identity of the target is confirmed before a strike is permitted, signature strikes may be initiated on the basis of perceived patterns of suspicious behaviour: "Signatures may encompass a wide range of people: men carrying weapons; men in militant compounds; individuals in convoys of vehicles that bear the characteristics of al-Qaeda or Taliban leaders on the run, as well as 'signatures' of al-Qaeda activity based on operatives' vehicles, facilities, communications equipment, and patterns of behavior" (Center for Civilians in Combat 2012, 33). But, the value of signature identifications is dependent on a host of normative and culturally-biased assumptions about what counts as "suspicious" behaviour.[8] As Elke Schwarz argues, the use of algorithms to determine the targets of signature strikes "summon[s] the perception that patterns of normality (benign) and abnormality (malign) can be clearly identified" (2018, 288). However, as we saw with the use of facial recognition algorithms in law enforcement, the success of such algorithms in correctly ascertaining or predicting malign intent is questionable. Yet, the assumptions underpinning drone targeting algorithms, combined with the phenomenon of automation bias discussed in Section 1, mean that the "output" of the algorithms used for signature strikes is unlikely to be questioned, thereby further reinforcing problematic assumptions about "suspicious" behaviour. Additionally, and of particular relevance to the terroristic impact of the drone program, the use of signature strikes based on these algorithms normalises the view that a person may be killed not because they are

[8] As related in *The Civilian Impact of Drones*, "As one Yemeni official said, 'Every Yemeni is armed...so how can they differentiate between suspected militants and armed Yemenis?'" (2012, 33).

currently engaged in combat or are known to be part of a militant group, but merely because their behaviour *resembles* that of someone who *might* be a future threat. The technology translates "probable associations between people or objects into actionable security decisions" (Amoore 2009, 52). This represents an extraordinary broadening of the concept of a combatant that has devastating consequences:

> US experiences in Afghanistan illustrate the risks of targeting with limited cultural and contextual awareness. On February 21, 2010, a large group of men set out to travel in convoy. They had various destinations, but as they had to pass through the insurgent stronghold of Uruzgan province, they decided to travel together so that if one vehicle broke down, the others could help. From the surveillance of a Predator, US forces came to believe that the group was Taliban. As described by an Army officer who was involved: "We all had it in our head, 'Hey, why do you have 20 military age males at 5 a.m. collecting each other?'... There can be only one reason, and that's because we've put [US troops] in the area." The US forces proceeded to interpret the unfolding events in accordance with their belief that the convoy was full of insurgents. Evidence of the presence of children became evidence of "adolescents," unconfirmed suspicions of the presence of weapons turned into an assumption of their presence. The US fired on the convoy, killing 23 people. (Center for Civilians in Combat 2012, 47)

The fact that there is so little public outcry or even discussion of this aspect of the drone program reveals how normalised the use of drones in this way has become. The killing of people based

purely on problematic computer-predicted assumptions about the meaning of their behaviour is taken for granted.

2.2.3 Drone surveillance as terrorism

The use of signature strikes significantly increases the risk that noncombatants will be killed and wounded and reinforces the view that suspicious behaviour warrants the use of deadly force. But this is only one part of why I argue that the drone program is terroristic. To see the terroristic nature of the drone program it is necessary to understand the impact of living under drone surveillance. Unlike other long-range weapons systems, "only drone killing involves detailed surveillance of the target, including post-strike observation" (van der Linden 2016, 345–46), yet philosophers writing on drones rarely consider how this might affect those who are subjected to it. For example, Mark Coeckelbergh explores the impact of conducting long-term surveillance on drone pilots' ability to engage empathetically with surveillance subjects (2013) but does not at any point discuss the experience of those who are surveilled. This focus on the experiences of drone operators rather than on the experiences of those who are subjected to the drone program is typical of most philosophical discussions of this topic. It is also characteristic of media depictions of drone warfare. Whereas media depictions of police riot technologies make visible and reinforce the criminalisation of blackness, media depictions of drones are almost always images of the aircraft themselves, or the cockpits. It is extremely rare that media images show the impact of drone attacks. Thus, viewers are constantly reminded of the technological "marvel" of these weapons and rarely confronted with what these weapons do to the people killed and wounded by them. This

focus on the technology itself and the users of drone technology further prioritises the perspective of users over those of victims of these technologies.[9]

Harry van der Linden is one of the few philosophers who does consider the victims' perspective. While he does not describe the drone program as terroristic, he argues that the "deadly surveillance" of drone warfare explains why drones may be "inherently immoral" (2016, 345). For van der Linden, drone surveillance is immoral because drone strikes kill people when they are engaged in their ordinary lives; at funerals, while they are under medical care, and in their homes. He writes, "operators often become familiar with the target as a person, watch his everyday life, his home, even his family. Thus it seems that a person is killed rather than a combatant or individual engaged in hostile action" (2016, 348).[10] In van der Linden's view, this "eliminate[s] humanity in the other" (2016, 349) and further erodes the distinction between combatant and noncombatant and between battlefield and nonbattlefield.

I agree with van der Linden that this element of drone warfare is deeply morally problematic and perfectly illustrates the "intrusion of fear into everyday life" that Michael Walzer identifies as one

[9] I thank Desiree Valentine for raising this issue.

[10] For example, he quotes drone pilot Colonel William Tart saying, "We watch people for months. We see them playing with their dogs or doing their laundry. We know the patterns like we know our neighbors' patterns. We even go to their funerals" (2016, 350).

of the key moral harms of terrorism (2001).[11] However, the terroristic nature of this surveillance becomes even clearer when we consider the psychological toll it inflicts of those surveilled.

The *Civilian Impact of Drones* report produced by the Center for Civilians in Combat and the Columbia Law School Human Rights Clinic outlines the traumatic effects of living under drone surveillance.[12] Firstly, drones engaged in surveillance are constantly visible and audible to all those being surveilled, regardless of whether they are the target or not. As van der Linden describes, "[e]veryone is swept up in the surveillance, and living under drones is living under constant fear since, even as a civilian, one may at given moment be wounded or killed" (2016, 351–52). In an important sense, then, "drones are in their psychological impact indiscriminate weapons" (van der Linden 2016, 351). This psychological impact is extremely traumatic. An interviewer for a UK charity who spoke to a Pakistani man reported that this man "saw 10 or 15 [drones] every day. And he was saying at nighttime, it was making him crazy, because he couldn't sleep. All he was thinking about at home was whether everyone was okay. I could see it in his face. He looked absolutely terrified" (Center for Civilians in Combat 2012, 24).

The secrecy of the drone program compounds the constant fear of being killed and wounded and the constant fear for one's family and loved ones because those living under drone surveillance

[11] Walzer is not using this term in a discussion of the drone program, however. I do not think he would necessarily agree with my characterisation of the drone program as terroristic.

[12] The report *Living Under Drones,* produced by Stanford University and NYU, also details the psychological trauma caused by living under drones (2012, 55–99).

may have no idea who is being targeted or why they have been selected: "With US targeting criteria classified, civilians in Pakistan, Yemen, and Somalia do not know when, where, or against whom a drone will strike. The US policy of 'signature strikes' … substantially compounds the constant fear that a family member will be unexpectedly and suddenly killed. A civilian carrying a gun, which is a cultural norm in parts of Pakistan, does not know if such behavior will get him killed by a drone" (2012, 29). Those who survive a drone attack have no way of discovering who attacked them. They are denied access to the norms of accountability: "For victims in particular, there is no one to recognize, apologize for, or explain their sorrow; for communities living under the constant watch of surveillance drones, there is no one to hold accountable for their fear" (Center for Civilians in Conflict 2012, 24).

In sum, the use of targeting algorithms, signature strikes, and the long-term surveillance that characterises the current US drone war is terroristic. It is terroristic because it is an ideologically driven program[13] that inflicts extreme and ongoing psychological and physical trauma to all those who are affected by it, whether they are targets or not. Because of the nature of the technology, the US drone program is indiscriminate in these effects and thus it (as with the case of police control technologies) meets Rodin's definition of terrorism. Given that we have no reason to believe that the targeting decisions and technological features of the US drone program will change in the foreseeable future, I argue that the drone program is inherently terroristic. While there may

[13] It is ideologically driven because it is in service of US foreign policy, which is a "systematic and socially driven end" (Rodin 2004, 756).

be idealized hypothetical conditions under which drone use is not terroristic, such scenarios are irrelevant to the moral evaluation of the current US drone program.

3. Conclusion: terrorism from the victim's point of view

Terrorism, as characterised by Rodin as the use of force against those who should not have force used against them, is a morally abhorrent practice. The moral abhorrence of terrorism is shared by most writers on terrorism, including myself, and is reflected in common usages of the term. Yet, in this chapter I have argued that two forms of state violence—police control technologies and drone warfare—are forms of terrorism, despite rarely if ever being described as such. I have shown that the terroristic nature of these forms of violence is hidden by features of the technologies themselves and by the dominant narratives accompanying their use. These narratives of efficiency, neutrality, and precision masquerade as moral values and serve to normalise and justify these forms of violence and mark out those subjected to them as deserving of such treatment. To understand the terroristic nature of these practices, therefore, we must reject the point of view that treats technologies of violence as neutral objects and shift our focus to the experiences of those who are subjected to them. This should always be our starting point when asking whether a practice is a form of terrorism. Such a victim-centred approach to terrorism would destabilise the power dynamics that privilege the perspectives of users and designers of technologies of violence and allow a better understanding of the nature of terrorism and the ways in which commonly accepted forms of state violence might themselves be forms of terrorism.

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