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Abstract

The killing of Micah Johnson by Dallas police on 8 July 2016 by a teleguided exploding robot is the first known example of the use of a killer drone by US law enforcement in the domestic arena. This repatriation of the drone, under conditions of racialized urban unrest designated as exceptional, was predicted by Didier Bigo (2014) and follows a familiar pattern whereby coercive security technologies are tested abroad before finding their way 'home' to arm police forces which are becoming increasingly paramilitary in style and conduct. I use the Dallas incident to probe the cogency and limits of 'drone theory' and to consider its application in domestic policing contexts. I work through three broadly delineated areas of scepticism about drone theory as it intersects with policing and, in so doing, develop my own account of the weaponized policing drone as a defining techno-cultural element within the emergent form of neoliberal political rationality I call 'governance'.

Keywords

police militarization; drones; non-lethal weapons; Grégoire Chamayou; Micah Johnson; governance

In the early hours of the morning of 8th July 2016, Dallas Police Department used a bomb disposal robot, which officers had modified to carry an explosive charge, to kill Micah Johnson after, in their words, 'several hours' of 'negotiations' had 'broken down' (Farivar, 2016a). The preceding day, Johnson, a twenty-five year-old black US army reservist who had served in Afghanistan (2013-14), shot and killed five police officers, wounding a further nine and two civilians attending a Black Lives Matter rally taking place in Dallas to protest against the killings by police of two black men on the two preceding days elsewhere in the United States. This was not known at the time but following his return from Afghanistan Johnson had experienced symptoms of post-traumatic stress disorder and sought treatment for depression, anxiety, hallucinations, hearing voices and panic attacks; Johnson also reportedly wanted revenge for the killing of black men by white police officers. Following the shootings during the rally he fled to the second floor of a community college building, where he hid – among the computer servers at the end of a corridor of some 9m in length – from the SWAT team which had cornered him there. During the two to three hours of negotiations with police which followed there was intermittent shooting in both directions and police accounts relate that Johnson taunted the officers, asking them how many of their colleagues he had killed and expressing a desire to kill more. After several hours Dallas police chief David Brown, who had been trained in counter-terrorism policing by the Israeli

army, authorised officers to kill Johnson using an explosive charge attached to the extendible arm of a bomb disposal robot, a Northrop Grumman Remotec Andros V-A1. They used the robot to deliver 1lb of the plastic explosive C-4 to the end of the corridor, where they detonated it, killing Johnson. At a press conference afterwards, Brown – who has since retired – was adamant that his decision to authorise use of the robot was taken in order to prevent further loss of police life: “We saw no other option but to use our bomb robot”, he said, “other options would have exposed our officers to grave danger”. Technology correspondent for *The Washington Post*, Brian Fung (2016), reported that ‘the whole idea was improvised in about 15 to 20 minutes’. Security and robotics expert Peter W. Singer, among others, asserted that this was the first time a robot had been used by police to kill, although Singer also claimed that bomb disposal robots had been rigged up in an ad hoc fashion, to kill, by US troops in Iraq (Farivar, 2016a). Ian Shaw (2017: 456) notes that when the invasion of Iraq began the US had ‘zero ground robots’ but had purchased 12,000 by 2008 to counter the threat posed by improvised explosive devices.

Although Shaw calls these ‘ground robots’ rather than ‘drones’, as Grégoire Chamayou (2015: 11) notes, the US army’s official definition of a ‘drone’ is ‘a land, sea, or air vehicle that is remotely or automatically controlled’. Nevertheless, the focus in Chamayou’s *Drone Theory* (2015 [2013]) is explicitly restricted to ‘unmanned combat aerial vehicles’ (UCAVs), as opposed to land-based killer robots of the sort improvised by Dallas police; similarly, Shaw’s *Predator Empire* (2016: 239) draws its far-reaching conclusions about ‘a society that is fundamentally alienated’ principally from drones of the airborne variety, though he also considers in detail the likely uses of such drones in ‘domestic’ policing. Even though the Dallas police’s drone strictly satisfies the US army’s official definition, their contraption lies at the outermost limits of what is currently understood by the term ‘drone’: land-based, apparently artisanally confected on the spot (rather than part of an already existing systematic programme) and standalone (detached from the elaborate profiling and targeting intelligence network which undergirds the drones operated by the CIA and US military abroad). Nevertheless, the fact that the Dallas drone is in these significant respects different from the drones which are the principal concern of Chamayou’s account, as of most other scholarship on drones, enables a probing exploration to test the cogency and limits of ‘drone theory’. Is the drone still a sufficiently stable and pertinent category and is drone theory still a useful critical tool or would it be better

subsumed into longer histories of air power and vertical domination, or contemporary activism against ‘killer robots’ and other (semi-)autonomous robotized violence? Rather than providing a staunch defence, a stinging critique or even an exhaustive account of Chamayou’s position (in particular, I am largely leaving the Hobbesian dimension to Arthur Bradley in his article for this special section), I intend here to approach it from a different angle by prioritising this example of an artisanal land-based killer drone deployed by police on US soil. I aim to contribute to a developing discussion which seeks to envisage drone theory’s plausible ‘domestic’ future forms (Neocleous, 2014; Wall, 2016; Shaw, 2016 and 2017; this special section): ‘drones in the house’.

Drone theory has achieved critical perspective to the extent that it has succeeded in understanding drones as ‘techno-cultural’ assemblages (Gregory, 2011: 193) rather than simply as gadgets detached – as though by magic – from the wider historical, cultural and socio-economic contexts of their making, deployment and intelligibility. Drawing on Donna Haraway’s cyborg feminism, Alison Williams (2011: 382, 386) defined the drone as ‘an assemblage of human and machine elements’ and used this definition alongside empirical research to query claims by (in)security professionals that drones enable “‘more-than-human” vision abilities’. Lauren Wilcox (2017a: 25) followed Williams in warning against “[d]isembodied” theories of drone warfare that fetishize the drone’ and Christiane Wilke (2017: 1041) has shown how the drone’s way of seeing and targeting is really the result of ‘collective, collaborative, and discursive’ practices of vision as they operate within rigidly hierarchical organizations with limited ‘spaces for contesting a dominant way of looking’. Although Chamayou’s *Drone Theory* examines the UCAV and its associated networks in considerable technical detail, which has led to him being accused of fetishizing the object of his critique (Noys, 2015: 4; Wilcox, 2017a: 13), he presents his book as a pointed intervention in the linguistic and cultural spheres against inflated rhetoric about drones from within commercial and governmental branches of the security establishment, which he claims has propagated ‘intense confusion’ about basic political and ethical concepts, even ‘crises of intelligibility’ (14). He similarly characterizes claims about the ‘surgical’ accuracy of drone strikes as ‘discursive self-intoxication’ (64). Vital though it is for a critical drone theory to query the inflated rhetoric used to promote this technology, and to analyse the political meanings and productive fantasies enfolded in such claims, and so to be vigilant about unwittingly reproducing deadly hype, it is nevertheless also worth asking, with Benjamin

Noys (2015: 3, 16), why the drone has come to be so fetishized and freighted, so charged with ‘metaphysical “aura”’, and I shall return to this point later. The most far-reaching drone theory (Chamayou, 2015; Shaw, 2016a and 2016b; Wall, 2016) takes a techno-cultural, a synecdochic and to some extent an anticipatory approach: the drone is worth analysing in itself but also because it stands in for something bigger of which it is a significant functioning part and because it can be considered a harbinger of a still more sinister configuration of power – the ‘Predator Empire’ (Shaw, 2016b), the ‘drone-state’ (Chamayou, 2015: 18) or ‘emerging *dronepolis*: the city of the drone’ (Shaw, 2016a: 19). The drone is thus understood synecdochally as a defining techno-cultural element within an emergent new form of political rationality, though I argue that what exactly this emergent form is has yet to be satisfactorily identified and I endeavour to contribute here to its elaboration.

Chamayou’s *Drone Theory* builds on his earlier book, *Manhunts: A Philosophical History* (2012), which developed a historico-philosophical account of ‘cynegetic’ (hunting) power. The terms of that analysis strongly recall Foucault’s typology of power (sovereign, disciplinary, pastoral, biopolitical), as supplemented with ‘necropower’ (Mbembe, 2001), and while it could be objected that pastoral power as Foucault conceived it already implied the power to hunt not only predators who menaced the flock but also individual lost sheep as part of a very muscular form of ‘care’, by giving it a name and identifying historical examples, Chamayou (2012) certainly draws dramatic attention to this dimension of pastoral power; in relation to Mbembe, cynegetic power could be described as the necropolitical dimension of pastoral power, although these three rival typologies cannot be entirely reconciled. Chamayou (2012: 59) defines the police in its Modern form as ‘a hunting institution, the state’s arm for pursuit, entrusted by it with tracking, arresting, and imprisoning’. In *Drone Theory* Chamayou (2015: 68) argues that US drone killings abroad have increasingly come to embody the policing paradigm of counter-terrorism as opposed to the military doctrine of counterinsurgency. Whereas counterinsurgency involves considering the side-effects of any intervention on the surrounding population, so is to that extent political, counter-terrorism involves hunting down individuals. Anticipating Chamayou’s argument, Tyler Wall (2013: 44) argued that ‘the unmanned military hunts so clearly important to the war on terror belong not only to the logic of war, but to the logic of police’, though he suggested that it was ‘too early’ to understand ‘the specific ways police drones might also induce fear and terror into citizens in the Global North’ (Wall, 2013: 48).

Five years later, it may still be ‘too early’ to be conclusive but the Dallas incident and some provocative scholarship on the imbrication of war power with policing power (Neocleous, 2014; Wall, 2016) in the intervening years invite a new critical appraisal of drone theory as it pertains to ‘domestic’ policing.

I will use the Dallas incident to frame a discussion of three sceptical views of drone theory as it intersects with policing: (i) the novelty, potency and significance of drones have been overstated and one particular type of drone (theUCAV) has dominated at the expense of other commercial and security drones, including ground-based and humanitarian drones – drones are not so special after all; (ii) a far richer, more historically literate and more critical understanding of policing is required to properly contextualize claims about ‘the militarization of the police’ – policing has always been violent; (iii) the drone operator may very well be a semi-automated extrusion of the repressive state apparatus but so is a marine or a police officer – like the police, drones are instruments of bureaucracy. As I traverse these three areas of doubt I build my own account of the policing drone.

(i) Drones are not so special after all

Mark Neocleous (2014: 155) asserts that ‘the drone is not as new or as revolutionary as many would like to claim’. Gregory (2011: 189) noted the ‘numerous dispiriting parallels’ between British aerial counterinsurgency in the 1920s along the North-West Frontier (later Pakistan) and in Mesopotamia (later Iraq) and US drone operations today but Neocleous (2014: 143, 156) draws much stronger conclusions from this same colonial precedent, describing ‘air police’ as ‘the colonial state’s main weapon of pacification between the two World Wars’ and arguing that ‘air power has *always been police power*’, a form of power for which – by contrast with conventional limits to military power exercised between sovereign nation states in the same era – ‘there are no civilian areas and there are no civilians’. According to Neocleous (2014: 145), air power was used by British colonial authorities in the 1920s to police, pacify and assert their new order, by destroying forms of subsistence which could have allowed the colonized population to evade the system of primitive accumulation being imposed upon them, as well as by targeting areas of resistance. In Neocleous’s analysis, the coercive material edge of this ‘air police’ – aerial bombardment – also

produced a range of intimidatory psychotechnical effects, which made it a '*way of communicating*' to the dominated their 'subordination to the technical, military and political superiority of the force behind the bombing' (Neocleous, 2014: 150, emphasis original). Tyler Wall (2016) takes up Neocleous's reconceptualization of the drone as an expression of a policing power older and wider than that exercised by the domestic police forces which emerged in the nineteenth century and suggests that this 'helps to de-fetishize the seeming "newness" of drone violence by locating this terror not only within the police mandate, but within longer transnational histories of racial capitalism' (Wall, 2016: 1123-4). Neocleous's reconceptualization of drones in terms of police power is one moment in his wider intellectual project to resituate the institutional forms of Modern policing as they emerged in liberal nation states in the nineteenth century within a much longer and more sinister history of police power as 'a form of *governing*' bound up with primitive accumulation and capitalist domination more broadly (Neocleous, 2000: 4, emphasis original). I find the wider frame of Neocleous's project remarkably compelling but I would like to probe his treatment of the policing drone, in particular his analysis of one of its historical antecedents.

For Neocleous the British colonial 'air police' of the 1920s was bound up with a package of governing practices which blended the administrative, the coercive and the psychotechnical. Air power was a way of communicating to the colonized in so far as its bombing and strafing of civilians were useful not only for the damage they could directly inflict on rebels and the material substrate of the pre-colonial subsistence economy but also for their indirect psychotechnical effects on the wider population; moreover, RAF planes sometimes directly communicated with populations by dropping leaflets warning of impending attacks and allowing friendly tribes to display agreed signals to escape the bombing (Lieb, 2012: 638). The use of force in the form of air power was part and parcel of a system of administration geared for wealth-extraction. Conversely, techniques of colonial government such as the imposition of taxes, which may appear to be primarily administrative, were intended to have the coercive effect of destroying the subsistence economy and largely succeeded in this purpose; the authorities' response to rebels' refusals to pay new taxes was, in turn, bombing (Neocleous, 2014: 146-7). Peter Lieb (2012: 634-5) adds that British counterinsurgency operations in Mesopotamia were 'heavily influenced by racist stereotypes of a populace that would only react to the language of force, coercion, and suppression', a condescending yet curiously mixed empathic-punitive-pastoral view of

Arabs and Kurds as ‘semi-civilised’ peoples who had been schooled into savagery by long years under the Ottoman yoke, but who could yet be civilized by more civilized colonial rulers. A neo-colonialist latter-day variant of this empathic-punitive-pastoral understanding can be discerned in the intensive domestic policing of largely racialized ‘surplus populations’ (Wall, 2016a) in the Global North today, which registers the historic collective trauma of slavery and discrimination but only to infer that in its angry aftermath the language of coercion is best suited to conducting the conduct of these particular populations.

However, air power was not used in isolation by the British in Mesopotamia – at the height of the insurgency around 100,000 ground troops were also deployed (Lieb, 2012: 641, n.13) – and it was in conjunction that missions to raze hundreds of rebel villages to the ground were conducted, with ground troops taking care of other somewhat more precise punitive actions such as cutting off water, confiscating cattle, destroying crops and in all likelihood shooting armed rebel prisoners on the spot. In other words, the British ‘air police’ of the 1920s worked alongside large numbers of land-based ‘drones’ as parallel extrusions of a system of colonial rule. While British military strategists were favourably surprised by the impact of air power, they had started out with very low expectations of its capacity (Lieb, 2012: 638); from the subsequent flights of their theoretical fancy in the interwar years it would be a mistake to assume that air power was decisive in Mesopotamia or to ignore the sizeable accompanying deployment of ground troops but Neocleous’s account of historical antecedents of the drone tends at times in each of these directions.

Considered as a ‘way of communicating’ (Neocleous, 2014: 150), the drones of today – like the British colonial ‘air police’ of the 1920s and air power more generally – are saying significantly more than that somebody is watching and ready to strike, although they are certainly saying that. With their verticalizing transformation of the battlefield into the battlespace and their surveillant grasp of the electromagnetic spectrum, as Eyal Weizman (2002) argued in the case of the West Bank, ‘Every floor in every house, every car, every telephone call or radio transmission, even the smallest event that occurs on the terrain, can thus be monitored, policed or destroyed from the air’. Chamayou (2015: 54) quotes this remark of Weizman’s and suggests that the communicative effects of drones can be understood in terms of such a militarized ‘politics of verticality’ (53). Airborne drones communicate by way of verticalized power projection: their occupation of the vertical also speaks a crude positional allegory of the brute fact of domination and subordination, the

political reality of superiority and inferiority, above and below: 'In keeping with deep traditions in Western culture and language, commentators see their top-down view as one of inherent superiority over the subjugated, less important, and racialised people – or even dehumanised non-people – far beneath the gaze' (Graham, 2016: 68). In so doing, airborne drones tap into the same culturally charged – but thoroughly entangled – metaphysico-theological valorization of ascent up the vertical axis which arguably explains much enduring belief in the justice of social and institutional hierarchies, even among those who suffer most from them.

In their review of drone scholarship, Francisco Klauser and Silvana Pedrozo (2015: 285) complained that 'civil and commercial applications of drones have remained widely unnoticed in academic research'. Since then, the frenzy with which leading corporations have trumpeted their present and future investment in drone technology (Mercer, 2018) has mirrored the way in which the skylines of global cities now compete to erect 'super-tall towers' that are 'ultra-vain – and some would say suspiciously phallic – embodiments of the super-rich', designed to attract inward flows of global capital (Graham, 2016: ix). It should be presumed that state agencies, including the police and military, are anything but immune from these same cultural, metaphysical and psycho-sexual entanglements and that whatever practical rational justifications may be proffered for taking to the skies, the drive to project vertical power is, in the commercial as in the security sphere, to a significant extent about symbolizing dominance in order to lure inward flows of capital investment. Indeed, Mark Salter (2014) has suggested that state security agencies may be significantly less immune, by temperament and training, to such environing cultural pressures than their business counterparts: he recontextualizes the notion of 'police militarization' within what he argues is a pervasive militarization of the wider culture, in which 'idealised representations' of the technological superiority of weapons systems and military life have been 'surreptitiously militarising the subject positions available to consumers' (166). Noting that drones had been used by British police forces for two whole years before resulting in a single arrest, which achievement led indirectly to the comic death by drowning of the drone in question, Salter (2014: 171, 172) argues that it is evident that 'police interest in purchasing drones far outweighs their practical utility' and that 'drones may be appealing to police at least in part because their "excess capacity" for weaponisation operates as a signifier of the individual power of the police officer and collective status of the police

force'. Expressing mastery in and of the vertical, airborne drones have thus become potent phallic signifiers in a technophilic language of commercial and security supremacy, which is why feminist critique of inflated claims about their superhuman capacities to see, discern and embody their targets is so necessary (Williams, 2011; Wilcox, 2017a; Wilke, 2017). Nor is such critique merely discursive since these technologies sell on the strength of the claims made about them and in so far as they are successful in channelling unconscious fantasies of potential buyers or the wider public, who exert pressure on politicians and police to invest in these new technologies. Unfortunately, as Noys (2015: 12-13) has suggested, this line of critique has had little traction, possibly because it has too little exposure beyond the scholarly literature.

How is this discussion of airborne drones' projection of power up the vertical axis inflected when the focus shifts to horizontal land-based drones of the type used to kill Micah Johnson? As the rigged up bomb-disposal robot was manoeuvred into place down the 9m corridor, it was as though its gradual movement recaptured the horizontal for security: no longer would this plane signify equality and reciprocity – the space of those allegedly protracted 'negotiations' with which the police had probably lost patience, for it is too hard to credit their assertion that there was no other way to resolve the situation safely, as though making and detonating a bomb were safe. As the bomb robot advanced horizontally towards Johnson, its symbolic excess of force signified the technological prowess of the police and the exorbitance in their exercise of the 'necropolitical prerogative of the liberal state' (Wall, 2016: 1134). In the nearish future, it is probable that the domestic policing drone will move more along the horizontal and in the proliferating plurality of the swarm (Shaw, 2016b: 239) and less likely that it will resemble the solitary phallic projections of verticalized air policing said to be the antecedents of today's militarized drone strikes abroad: 'Swarms of tiny, armed drones, equipped with advanced sensors and communicating with each other, will thus be deployed to loiter permanently above the streets, deserts and highways' (Graham, 2010: xiii). Ironically, to better adapt to the compressed verticality of the global city, its policing drones will need to be able to move quickly from the verticality of their antecedents' power to track horizontally along the city's strata.

What it loses in symbolic potency by tempering its 'politics of verticality', the policing drone may gain in its pluralization as swarm. Wilcox (2017b: 26) has noted the disjuncture

between the way swarming insect life has been represented in utopian feminist science fiction and ‘Contemporary developments in artificial intelligence and warfare [which] suggest that the future of warfare will not be “robots” as technological, individualised substitutions for idealised (masculine) warfighters, but warfighters understood as *swarms*: insect metaphors for non-centrally organised, self-organising problem-solving’. There may be more at stake here than the reappropriation of a metaphor and Wilcox may be mistaken to read this as a disjuncture. Critics of ‘carceral feminism’ (Bernstein, 2010) have decried the excessive but often implicit investment of certain types of feminism in punitive and securitarian approaches: the swarming policing drone may also embody the disavowed punitive dimension of a carceral-feminist politics of ubiquitously watchful care. Anticipating the development of my argument in the third section, below, it may not be too fanciful to suggest that the policing swarm was already present at the killing of Johnson, himself a renegade military drone recently returned from the Afghan frontier, whose solitary acts of political violence were outsmarted by a swarm of police drones busying themselves along the horizontal plane of collaborative self-organised problem-solving to finally deploy themselves in the new human-machinic assemblage they had collectively improvised.

(ii) Policing has always been violent

The re-importation into domestic policing environments of weaponized drone technology first tried abroad was accurately predicted by Didier Bigo (2014: 134) as the logical development of trends within the (in)security industry. The land-based bomb disposal robot repurposed by Dallas police to deliver an explosive charge was one of many pieces of military hardware transferred to civilian law enforcement agencies under Section 1033 of the 1997 National Defense Authorization Act, which allows transfers of surplus military equipment from the Department of Defense, especially where it can be used for counter-drug and counter-terrorism purposes. From 2003, when transfers began, until May 2016 there were 717 transfers from military stock to 280 law enforcement agencies across the US – a total of 987 items (Bard, 2016). The convergence of policing and military institutions, styles, techniques, approaches and operations has been widely discussed within critical security studies over the last two decades (Bigo, 1995: 55) and prior to that in critical

policing studies, particularly scholarship focused on the paramilitary policing of Northern Ireland (Jefferson, 1990). The first transfers of military material to civilian police forces arguably occurred in the 1920s with tear gas and the United Kingdom led the way in the 1970s and 80s with rubber bullets and other techniques developed in Northern Ireland and the suppression of the Miners' Strike; it was only in the 1990s that the US became world leaders in this area (Balko, 2006; Kraska, 2007).

The 1033 Program offers sophisticated military technology to domestic law enforcement, which finds ways of using it. Indeed, as Peter Kraska (2007: 508) notes, such military-grade material is now deployed as a matter of routine in a wide range of US policing contexts in ways which were unheard of and would have been deemed unacceptable some three decades ago, for example in searches of private homes: 'It is critical to recognize that these are not forced reaction situations necessitating use of force specialists; instead they are the result of police departments *choosing* to use an extreme and highly dangerous tactic, not for terrorists or hostage-takers, but for small-time drug possessors and dealers.' As Kraska (2007: 506) also notes, the rise in use of such militarized policing tactics, units and equipment has been astonishing: in the early 1980s the yearly average of SWAT-team deployments or callouts stood at 3,000 whereas by 2007 this had risen to 45,000. As Anna Feigenbaum and Daniel Weissmann (2016) argue in their compelling study of the world's largest international security trade fair, Milipol – the very name of which advertises the convergence of policing and military – such widely attended expos 'can be seen as a space in which the values of police militarisation manifest' (Feigenbaum & Weissmann, 2016: 485), in particular the conflation between political dissent and insurgency, and such events also demonstrate that, for a security industry developing new technologies, 'the police and the military are increasingly regarded as two slices of the same pie' (482).

Neocleous (2014) has argued that the consensus among scholars that the elision of war with police power is a recent development rests on a misconception: both should rather be recognized as historically interdependent forms of state power deployed together in pursuit of primitive accumulation. Wall (2016: 1125-6) takes up Neocleous's argument to query the idea of police militarization, arguing that policing in North America emerged out of settler and plantation colonialism, such that 'at least in the US, police power has long been necropolitical, even if liberal ideology often works to mask this fact' (1126). Public dismay at the militarized response by Ferguson police department to protests following the

shooting of Michael Brown in August 2014 led Obama to sign Executive Order 13688, restricting the types of military equipment that could be supplied to police forces under the 1033 Program (Delehanty et al., 2017: 1). In August 2017, his successor lifted these restrictions with his own Executive Order (Johnson, 2017). Since Ferguson, several US legislators opposed to police militarization have attempted to introduce a number of different measures to limit or end the 1033 Program. Wall may be right that US policing's necropolitics has long been masked by liberal ideology; however, in framing his own bill, Congressman Hank Johnson appealed directly to that very ideology, in the form of James Madison's warning in 1787 against a standing army (Johnson, 2017). These recent developments suggest that notwithstanding doubts raised by Neocleous and Wall about the historical cogency of the idea of police militarization, the concept still has meaning in the practice of contemporary US politics and, moreover, that however problematic liberal ideology may be in occluding the colonialist past of domestic policing, it can nevertheless be put to use today in service of progressive causes. Empirical research on the 1033 Program (Delehanty, 2017: 3) has given scientific credibility to a widely held conviction among activists by showing that there is a statistically significant relationship between receipt of more military equipment and the number of civilians killed by the police. This suggests that police militarization, though it may not be an entirely satisfactory concept, can help to identify and articulate a serious problem. Wall and Neocleous could respond in turn that the problem with the liberal paradigm in which police militarization has meaning is precisely that its forgetting of the necropolitical colonialist past of US policing means it cannot adequately understand, still less satisfactorily address, disproportionate police violence against racialized populations – Johnson's bill and others like it, after all, are doomed to fail in the present political climate and figures for 2017 suggest that there has been a decline of 2% from 2016 in the numbers of police charged in relation to killings of civilians, to 1% (Mapping Police Violence, 2018). I cannot pursue further here this discussion of police militarization but suggest that despite serious historical and conceptual inadequacies identified by Neocleous and Wall, it would be unwise to discard a notion that nevertheless has meaning and use in the contemporary struggle against racist police violence.

Although there are no reports to my knowledge of police deploying weaponized aerial drones in the US, it is apparent that local police forces and federal agencies such as Border Control are continuing to invest very heavily in airborne surveillance drones (Farivar,

2016b) and, according to research published by the Bard College Center for the Study of the Drone (2017: 1), the pace of drone acquisitions has recently accelerated rapidly, with more acquisitions taking place in 2016 than in all of the years 2009-2015 combined. Most of these purchases have been of 'consumer drones' (Bard, 2017: 5), rather than specialist drones marketed by defence companies, and the vast majority are relatively inexpensive small drones manufactured by the Chinese company DJI. This is unlikely to be the expression of a 'China First' procurement policy and contrasts markedly with the May 2018 Federal Aviation Authority (FAA) decision to reject all of the dozen applications submitted by DJI in a competition to run two-year experimental projects for commercial and medical drones over US territory (BBC, 2018). I would suggest that US police departments have been wary of purchasing larger drones following regulatory and practical difficulties experienced by Montgomery County Sheriff's Office (near Houston), whose much larger \$220,000 Shadowhawk helicopter drone – mentioned in passing by Chamayou (2015: 203), who reports comments by police that they were 'open to the idea of adding non-lethal weapons like tear gas, rubber bullets or Taser-style rounds' – was probably too large to fly under FAA regulations and crashed spectacularly into one of the force's own armoured vehicles in 2012 during a photo-op (Musgrave, 2013; Salter, 2014: 170-1).

There has also been significant investment in surveillance drones in the UK, with Surrey Police, for example, having been given £250,000 in 2015 by the Home Office to expand its stock of surveillance drones from one to five; that force has also trained some thirty of its officers in their use (*Wired*, 2016). Devon and Cornwall Police announced a significant expansion of their use of drones in March 2017, including the recruitment of a 'drone manager' (*The Telegraph*, 2017). In total around fifty countries now operate drones within their national territory (Neocleous, 2014: 156).

There has been interest for some time among US police forces in the weaponization of airborne drones and it is a significant development that North Dakota has now legalized the weaponization of aerial police drones, though only with 'non-lethal' or 'less lethal' weapons systems (NLWs), and that some other states such as Connecticut have seriously contemplated permitting lethal weaponization (Wagner, 2015; Ortiz, 2017). Although hitherto police have been restricted in the types and sizes of drones they can operate, by FAA regulations, which in turn restricts the scope for weaponization, these rules could be changed overnight.

Weaponized land-based and airborne drones equipped with ‘non-lethal’ or ‘less lethal’ weapons systems (NLWs) such as pepper spray and tear gas exist, as the invaluable inventory report, *Tear Gassing by Remote Control* (Remote Control project, 2015), attests: the Skunk Riot Control Copter, manufactured in South Africa, has reportedly been sold to police in India, Turkey and South Africa itself, as well as to mining companies (*Sputnik*, 2015; Remote Control project, 2015). There are already numerous land-based drone equivalents kitted out with NLWs, for example the Spanish-manufactured RiotBot, and the Israeli-manufactured Dogo, a ‘tactical combat robot’, available with an integrated pistol as standard or with ‘less-lethal’ options (Technorobot, 2016; General Robotics, 2016). The expanding market for chemical NLWs in policing capitalises on a loophole in the Chemical Weapons Convention forbidding the use of non-lethal chemical agents in inter-state war while allowing them for domestic law enforcement. As Marijn Nieuwenhuis (2016: 512) notes, the worldwide market for airborne chemical NLWs for policing purposes is forecast to grow from US\$3201.6m in 2014 to \$4868.1m in 2021.

As Chamayou’s earlier book (2012) on the cynegetic power of the police manhunt indicates, he also rejects many of the liberal assumptions about police militarization critiqued by Neocleous and Wall: in particular, the nostalgic misconception forgetful of colonialism and other forms of primitive accumulation that policing was once a humane and benign activity, before it was taken over by militarism. Chamayou (2015: 32-3) emphasises the convergence of policing and military logics in US killer drone operations abroad, which he calls ‘hybrid operations, the enfants terribles of the police and the army’ (2015: 32-3). He argues that the paradigm under which these operations have been conducted has shifted from the military doctrine of counterinsurgency to the policing logic of counter-terrorism, with the dramatic escalation of drone warfare under Obama signalling the triumph of the counter-terrorism paradigm among senior figures in the US security establishment: ‘Whereas counterinsurgency strategy implies (apart from brute force) compromise, diplomatic action, pressure, and agreements, all of which operate under constraint, antiterrorism precludes any political treatment of the conflict’ (Chamayou, 2015: 69). Whereas counterinsurgency strategy focuses not only on those carrying out armed resistance but also on the surrounding population to which they are connected (though primarily to manipulate and subdue them, I would add), the ‘policing logic’ of anti-terrorism ‘individualizes the problem and reduces its objectives to neutralizing, on a case-by-case

basis, as many suspects as possible' (Chamayou, 2015: 68). Individualizes and also, in line with Louise Amoore's (2014) Deleuzian analysis of contemporary security technologies, 'dividualizes', in the sense that the identification of most targets abroad now relies far less on individual identity in any personalised, psychological or developed biographical sense and instead on algorithmic detection of anomalous patterns, terrorist 'signatures', in the subpersonal data, as unknown dangers are envisaged as mere possibilities against which intervention can still be justified, even when they are not in an actuarial sense probabilities.

Although the convergence of policing and military logics is clear enough in the Dallas case, the use of the killer robot there did not, of course, involve any of the background technologies of targeting and profiling by algorithmic and semi-automated systems which is so significant a dimension of US drone operations abroad. Nevertheless, as David Garland (1997: 181) and Bernard Harcourt (2007: 16) have noted, domestic policing already relies to a very large extent on 'actuarial' approaches, in the sense that operational decisions about the distribution of resources rely on 'statistical methods – rather than clinical methods – on large datasets of criminal offending rates in order to determine the different levels of offending associated with a group or with one or more group traits and, on the basis of those correlations, to predict the past, present, or future criminal behavior of a particular person and to administer a criminal justice outcome for that individual.' Moreover, it is relatively easy for politicians elected on a security mandate – whether in New York City or the Paris area, say – to have a sharp impact on crime figures by using a coordinated combination of, on the one hand, actuarial analysis and targeted resource distribution and, on the other, police performance management techniques to produce massive increases in arrest and conviction rates for petty offenses committed in deprived neighbourhoods (Schneider, 2014: 141; Fassin, 2015: 65). While this may produce a superficially tidier and more orderly city, it also creates through securitization a far less equal, more discriminatory and more fearful society. In light of the powerful supporting role which the 'broken windows theory' of crime played, alongside CompStat and new locally accountable reporting practices, in thus reducing crime rates in New York City after Rudolph Giuliani's election as mayor in 1993, it is not difficult to envisage a new iteration of his 'quality of life' ('zero tolerance') policing in which drones kitted out with disabling NLW 'options' would systematically be deployed for the immediate disuasion of those spraying graffiti, for example. The project would be piloted in a 'troubled' area, data would be gathered to show

it had been 'effective' – this term being understood in a socially limited but rigorously measurable sense – and it could then be rolled out; it would start out by targeting individuals *in flagrante delicto* and gradually expand into pre-emptive interventions. Such a prospect would be the logical continuation of a trend in British and US policing noted over the last forty years by Garland (2002: 171) towards identifying 'criminogenic situations that can be altered in ways that make them less vulnerable to criminal events, less inviting to potential offenders'. Would communities targeted by such measures accept them? Shaw (2016a: 20) predicts that automated drone policing would target the very same 'surplus populations' produced in part by automation in other sectors of the economy, those 'disposable' members of the community lurking 'in the shadows of skyscrapers and shopping malls [...] great blocs of humanity unable to find work', who are not especially profitable consumers because they lack purchasing power. One answer is thus to suggest that such populations would simply not be given a say in the matter, any more than surplus populations of the Paris suburbs policed by the paramilitary Brigade anti-Criminalité documented by Didier Fassin (2013) are consulted about whether that is their preferred style of policing. However, Shaw's gloomy yet plausible prognosis assumes not only that these populations will not rise up in armed insurgency against these very methods but also that they will have been entirely abandoned to their fate – affectively, ethically and politically – by an overwhelming majority of other more privileged segments of the population. Of course, this is possible and one can point to some areas in which such abandonment has arguably already occurred but equally in such circumstances states tend – with some notable exceptions – to eschew forms of policing likely to provoke mass armed insurrection. Furthermore, supposing there were such a largely indifferent, quiescent and more privileged majority, the spectacle of excessive policing force deployed against a surplus population might awaken that slumbering majority to a politics of solidarity.

To summarise the current situation: 'actuarial' profiling is well established in domestic policing in the US and Britain (among other countries), as is the frequent use of lethal force across what are plainly discriminatory demographic distributions (yet which have a certain basis in a certain kind of evidence, confected in large part by what Harcourt (2007: 28-9) terms the 'ratchet' effect of actuarially-driven policing). So too is the precedent for drone-delivered lethal force, although it is indeed important to recognise that policing has always been violent, long before drones. However, possibilistic interventions and

robotically-delivered lethal or incapacitatory force have yet to be connected in policing contexts in the systematic way which characterizes US drone operations abroad. In the next section I envisage possible forms of the domestic policing drone.

(iii) Like the police, drones are instruments of bureaucracy

Chamayou (2015: 214) suggests that the drone ‘pilot’ in his container in Nevada is ‘already little more than the fetishized avatar of the state’s bureaucratic machine’. In choosing future drone pilots, selectors prefer those who can ‘compartmentalize’ (Chamayou, 2015: 123) – the French is *cloisonner*: those who can partition, who can subdivide their own lives into compartments in which they do their work in a metal box in a carpark in the desert, in networked communication with dozens or hundreds of other compartments across the world, the deadly effects of which work are felt in yet another compartment, the ‘kill box’ thousands of miles away, before driving to the supermarket and home to their families. Echoing Chamayou, Ian Shaw and Majed Akhter (2014) have argued that bureaucracy, specifically the analysis of the bureaucratization of violence and politics in Hannah Arendt’s work, offers a valuable critical perspective on drone killings abroad and Shaw (2016b) has made a similar claim about the future of domestic drone policing. Shaw and Akhter (2014: 220) argue that the CIA has been operating largely within a counter-terrorist paradigm since the mid-1980s but whereas Chamayou calls this a policing paradigm, they characterize it in terms of bureaucracy. Since then, a series of presidential directives has led to the expansion of US sovereignty, ‘connecting battlefield with boardroom’ (221), and culminating in Obama’s ‘Terror Tuesday’ business meetings with their PowerPoint presentations and ‘disposition matrix’, ‘the bureaucratic knife-edge’ (211) of his administration’s programme of targeted killings. However, they also suggest that because the programme has been established by gradual bureaucratic accretion, nobody owns or is accountable for it in a full sense since ‘a well-oiled bureaucratic machine soon automates the very “masters” who are meant to be in control’ (230).

In his later book, Shaw (2016b: 24) extends this approach to domestic policing, asserting that ‘Today, a hyperrational form of bureaucratic authority governs technological civilization. Arendt called this a “rule by Nobody”, an abstract system of control, a “tyranny

without a tyrant”, in which Nobody is held accountable for their actions. With the sophisticated machines that enclose the planet, there is a sense that the rule by Nobody is fundamentally a rule by technics.’ Drawing variously on Sloterdijk, Deleuze, Neocleous and radical historiography on the enclosure of the commons, Shaw suggests compellingly that contemporary bureaucratic systems of surveillance and intervention seek to construct modulatory capsular enclosures which would transform the world into an open prison: ‘the Predator Empire uses satellites, drones, and software algorithms to secure the spheres in which individuals are born, become, and die’ (Shaw, 2016b: 7). It is clear that the drone functions synecdochally here for the contemporary system of bureaucratic government in which it plays a major role and that the dangers which Shaw is using it to designate are extremely wide-ranging: ‘The existential emergency we face is real and pressing: at its most dangerous level, humans dissolve entirely into the machines that enclose them’ (Shaw, 2016b: 175). Philosopher of technology Bernard Stiegler (2016: 46-8, 50) briefly addresses Chamayou’s drone book in very similar terms: what interests Stiegler most is the disappearance of the operator into the drone, a process which Stiegler – after Debord and Marx – calls ‘proletarianization’: ‘Soldiers who operate drones disappear into the weapon that replaces them, just as workers disappear into the machines that turn them into proletarians’. Thus the drone and its operator become for Stiegler a particular illustration of a general concept designating one degraded form of, or moment in, the evolving relationship between human beings and technical objects: ‘proletarianization’. Like Shaw, Stiegler is concerned that without adequate theoretical and practical understanding of the process of automation which the drone designates synecdochally, human subjects will become definitively alienated in the technical objects and machinic worlds they have created. Stielger has expressed greater optimism about the prospect of our harnessing these technologies to resist our own proletarianizing disappearance into a controlling machine but Shaw and Akhter are far more alert to the sinister creeping process of anti-democratic accretion which has already given us drone killings, a process which they characterize in terms of bureaucracy.

Is it possible to integrate Chamayou’s emphasis on counter-terrorism as a policing technique with Shaw and Akhter’s characterization of the same paradigm in terms of bureaucracy? Although Arendt’s critique of bureaucracy is invaluable, I would suggest that bureaucracy under neoliberalism, which the policing drone would serve, functions rather

differently from the systems with which Arendt was concerned. In his polemical analysis of bureaucracy today, David Graeber (2015: 73) notes that contrary to popular belief most police work has nothing to do with fighting or solving crimes: 'it has to do with regulations, or, to put it slightly more technically, with the scientific application of physical force, or the threat of physical force, to aid in the resolution of administrative problems [...]. Police are bureaucrats with weapons.' Graeber (2015: 74) also makes an important point about the way in which this bureaucratic police order has expansionist designs: 'It has come to the point that it's not at all unusual for a citizen in a contemporary industrialized democracy to spend several hours a day reading books, watching movies, or viewing TV shows that invite them to look at the world from a police point of view, and to vicariously participate in their exploits'. The process of attentional capture Graeber describes would better be characterized in terms of lure or seduction than invitation but he nonetheless identifies the insidious ideological counterpart of the process by which the security state's productive narrativization of insecurity seeks to enlist citizens and their perceptual organs as auxiliaries or prostheses: 'You are not only the object of security but also the subject. You answer the call to be vigilant, constantly on watch for suspicious activity on the subway, devious designs of your seatmate on the airplane, malicious motives of your neighbours. Fear justifies volunteering your pair of eyes and your alert attention to a seemingly universal security machine.' (Hardt and Negri, 2012: 20). Such suspicion of others' motives is arguably a defining principle of the police perspective (Jobard and de Maillard, 2015: 101) and to that extent that this way of looking is spreading societies are becoming more individualized or capsular.

The ongoing expansion of the bureaucratic 'police order' (Rancière, 1995) may be most apparent in security settings but it is at work across all levels of society, including in the proliferation of control mechanisms (Garland, 2002: 194-5), the extension of audit culture, the increasingly enveloping regulation of middle-class labour by individualized performance management (Lane, 2018) and the oppressively proletarianizing stipulation of 'best practices' (Brown, 2015: 139). I would suggest that the most apt name for the contemporary bureaucratic police order I have been describing is the one it invariably uses to describe itself: 'governance'. As Wendy Brown (2015: 123) argues, "'Governance" signifies a specific mode of governing that is evacuated of agents and institutionalized in processes, norms, and practices'. Governance is the neoliberal form of anti-democratic

bureaucracy and it is governance which policing drones will serve. Certainly, the police officer who detonated the C-4 to kill Johnson and a marine on the battlefield could both be thought of as drones – semi-automated extrusions of the bureaucratic apparatus – but they are far from alone in that. The key point about governance is that it incites all subjects to become its self-automating drones, to plug themselves into its assemblage, to serve as its prosthetic organs, to choose to confine themselves to its modular flexible cages of role and function. More than ever, subjects are incited to view the world from the police perspective of governance, to identify with an administering power of control, to become drones.

The bureaucratization of the kill chain has been characterized by Elke Schwarz (2016: 70) in terms of a ‘adiaphorization’, a term taken from theology by Zygmunt Bauman and used by Schwarz to refer to the artificial production of an amoral space. Such production is typical of the bureaucracy of neoliberal governance: the ethical is subsumed as just one moment in an articulated chain of administrative *processes* and ethical deliberation is dissolved into a calculus of risk which still permits and indeed often justifies the killing of innocents.

Conclusion: a theory of the weaponized policing drone and a response to Arthur Bradley

I started out from the deployment of an artisanally confected land-based killer policing drone in the hope that the facts of that unprecedented incident in Dallas would, in the shifts of emphasis they effected, enable a probing discussion of drone theory, in particular that of Chamayou’s. I also wanted to use the incident to speculate in an informed way about the future of weaponized drones as techniques of domestic policing. I proceeded by working through three broadly delineated areas of scepticism about drone theory as it intersects with policing and shall present a synthesis of these findings before responding briefly to Arthur Bradley’s essay.

Today’s military drones are not unprecedented technologies but nor can their singularity be completely subsumed into the history of their antecedents; moreover, the ‘politics of verticality’ essential to their psychotechnical projection of power is likely to be tempered in tomorrow’s swarming horizontal police drones. Discussions of the future of policing drones which construe them as symptoms of police militarization operate, as

Neocleous and Wall have demonstrated, with a historically and conceptually inadequate understanding of policing, even if the idea of police militarization remains politically meaningful. Sceptics of drone theory have suggested that describing drones as extrusions of the bureaucratic apparatus is not sufficient to distinguish them from marines or other disciplined servants of order. While I concede that police, marines and drones can certainly all be construed as extrusions of this sort, the contemporary police order of bureaucracy I have called 'governance' seeks to enlist all subjects as its drones. The ongoing expansion of this order incites subjects to identify with administering power and at the maximal synecdochic reach of critical drone theory, this is what the universalising ambition of the policing drone implies: the saturation of mental, physical and metaphysical space, objects and subjects, buildings and ideas, with human-machinic assemblages that continually view and reconstruct the world from the perspective of governance. Does this mean the policing drone has become too general to define? I suggest not. The policing drone, be it mainly human, mainly machinic, or a composite assemblage, effects the cynegetic 'snap-to-grid' function of governance: the policing drone detects and *moves towards* the anomalous and the suspicious, as a hunter-shepherd, seeking to bring it back within the flexible lines of governance's nevertheless all too controlling modular grid.

One prominent defender of US drone killings abroad, Amitai Etzioni (2010: 69), suggests how the policing drone will function as a synecdoche for neoliberal governance: he argues that collateral damage could be reduced by 'enabling the general population to leave an area before an attack'. This implies that when confronted by possibilistic algorithmic profiling which establishes dividual connections of association and uses them to mark out individuals for preventative extrajudicial killing, it will now be the duty of the targeted to display their own dissociation from suspect elements, to actively exhibit their self-distancing from designated risks or face the possibility of annihilation as part of a generalized duty of showy self-entrepreneurship. This is the strong form which normalization takes in neoliberalism's police order of governance.

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Arthur Bradley, in his essay for this special section, develops the Hobbesian strand of Chamayou's drone theory to such an extent that what appears to be a repatriation of killer

drones seems no more, or less, than the radical realization of one of the possibilities inherent in the relationship between subject and sovereign: subjects pre-authorize automated acts of self-killing directed against them. However exactly we understand such a repatriation (or, as it appears in Bradley's account, a radicalization of already inherent possibilities), I would suggest that the scope for resistance lies in continually exposing the entirely fictive though technically efficacious quality of the act of authorization as Hobbes and his followers envisage it, for example by cultivating first an inner secession from such manipulative storytelling followed by an outer secession which secures, alone or with a swarm of like-minded others, zones of refuge against the sovereign's weaponized policing technologies, whether permanently or in temporary fields of mobile insurrection.

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