

## Introduction

Krisis

The promise of modernity's drone-assisted conquest of air space is far from uncomplicated. As unmanned air vehicles become more ubiquitous, with implementations ranging from intelligence-gathering and covert military attacks to cultural production and everyday logistics, this special issue of *Krisis* captures the technical, aesthetic, economic, psychic, and political challenges facing the rise of the drone. Attending to the multiple deployment and employment of drones, the various contributions to this issue sustain a critical engagement with the conceptual confusions and practical contradictions in related debates, thus collectively generating a counterpoint to reductionist accounts of scientific determinism, drone fetishism, and political spectacle.

To invoke and provoke the everyday, “These Cryptical Skies” by Rob Stone (Emily Carr University of Art and Design) opens the issue by bringing home the unease of displaced technologies through sonic imagination and biomimicry. Moving from patterned cacophonies to discursive shifts, “Drone Visions: Tomas van Houtryve’s *Blue Sky Days* and the Rhetoric of Precision” by Øyvind Vågnes (University of Copenhagen) evaluates the role of euphemism in shaping public perception of the so-called War On Terror. Echoing the kind of precarious aesthetic that can lead to the uninvention of precision suggested by Vågnes, the next article tackles the

prominent image of the drone operator as PlayStation killer head-on—“Embodiment, Subjectivity, Affect in a Digital Age: Understanding Mental Illness in Military Drone Operators” by Alex Edney-Browne (University of Melbourne), by questioning the assumption that the virtualization of violence yields a decrease in empathy, argues that mediation can also constitute feelings of proximity and stimulate peer-recognition.

Continuing with the construction of complex understandings of drone capabilities, “*Those Who Feel the Fire Burning: Drone Perception and the Aesthetico-Political Image*” by Halbe Kuipers (University of Amsterdam) reflects on the metaphysical and ethical implications of image-making when drones participate in filmic world-making. To investigate the phenomenon of the drone further still, a 2015 debate transcript follows, in which *Krisis*'s own Eva Sancho Rodriguez (University of Amsterdam) moderates a discussion between Willem Schinkel (Erasmus University Rotterdam) and Rogier van Reekum (Erasmus University Rotterdam and *Krisis* member) in the context of Drift, an annual festival of contemporary philosophy organized by students of the University of Amsterdam. The issue ends with two book reviews: Tobias Burgers (Freie Universität Berlin) on Ian Shaw's *Predator Empire: Drone Warfare and Full Spectrum Dominance* and Sigmund Bruno Schilpzand (University of Amsterdam) on Grégoire Chamayous's *A Theory of the Drone*.

**These Cryptical Skies:  
Drones and the Image of *Nowhere***  
Rob Stone

Like many Americans, she was trying to make a life that makes sense from things she found in gift shops.

— Kurt Vonnegut, *Slaughterhouse 5*

High there, how he rung upon the rein of a wimpling wing  
In his ecstasy! Then off, off forth on swing.

— Gerard Manley Hopkins, *The Windhover*

Search for a natural or artificial canyon, forest or deserted municipal quad. Perform *Teach Yourself to Fly* in this space.

— Pauline Oliveros, 'Teach Yourself to Fly', *Sonic Meditations*

**Kindness in a World Without Work**

Unmanned aerial vehicle. Unmanned. It seems such a curious, ludicrous word to have knocking around in so contemporary a discussion of machines and modernity and ethics. It is so eighteenth-century, so florid, so ribald, so deliciously anachronistic, like something that Congreve or Sterne might use. But, it could be that the word and its verb is entirely purposeful here, and not at all misplaced.

I found my response to the lately announced prospect of Amazon's use of delivery drones to be not at all what I might have ordinarily expected. During one period in my life, I spent much of my time studying what I then took to be a significant monument in the historical fabric of Western urban modernity: the development of the London Underground in the 1930s, with all its riddles of land ownership and acquisition, changes in the spatial and temporal dimensions of home and work, the material and cultural emergence of suburbs and their nuanced sensibilities, the provision of services and amenities for them, as well as the literatures, the architectures, the listening habits and so forth that were formative of these things. Couple this old interest to my excitable penchant for futurologies of any kind and

it is easy to see that I could be expected to have been vitalized by the news of Amazon's plans.

Yet, rather than a ripple of intellectual pleasure at the knottiness of problems relating to how the low sky might next be commercially and judicially re-constellated, or a bubbling delight at puzzling out how this new approach to distribution might be made efficient, or simply a pneumatic happiness at the manifestation of yet another technological hope from the fantastic tomorrows that I grew up with – video calls in watches, jetpacks, that sort of thing – instead of any of these sensations, I was gripped by something like a faint anxiety, social in character.

I say something like an anxiety because I don't yet know what to call it. But, unmanned might help us along. By habit I am a diffident, even reticent, person, which may perhaps explain why, in place of any frisson, news of Amazon's initiative only prompted in me an unsettling concern regarding proper grace and delicacy in the decorums of the acceptance of goods, or the acknowledgement of service, the consideration of correct gratuities and such. How does one receive a drone? That is the question. What kind of *we* do we cultivate when we do that?

This anxiety was of course short-lived, at least initially. Companies other than Amazon, Uber for instance, have long since relaxed consumers with regard to appropriate etiquette in this area. On arrival at our destination in an Uber car, on leaving the climate of someone's well-tended vehicle and easy conversational hospitality, with appropriate comity, we simply express our thanks. Then we depart. It is as if there has been an ordinary, sociable, even familial obligation transacted, one unpolluted by financial exchange; perhaps of the same order of essential mutuality that William Morris had in mind as the treasure of the lovely life to be led in the future London he imagined in *News from Nowhere...* and yet it is not that. There has been payment, there has been tipping. It is simply unmoored from the experience of the ride by having happened *via* app at the time of booking.

There's another dimension to this sociability. Meditation on Amazon's dreams of

the lossless transfer of information and automated delivery, from browser to picking & packing and unpiloted dispatch, may also come to remind us perhaps of our involuntarily cheery replies to the greetings of our Car2Go Smart cars, or the fact that at a certain recent point we realized it was in our personal interests to be polite to our telephones. Not the people on the other end of the line so much as the telephones themselves. We cannot be sure why this is so.

We may not know why we talk to machines. In any case, *why* might not be the right kind of approach to the matter. We don't know even if we are at some special point of transition between one commonly accepted relationship to machines and another one. Nevertheless, in living memory, talking to machines, talking to the machines themselves, as it were, has become an unexceptional thing, and we are surrounded by accounts of that intersubjectivity or, at least, what appears as such. From the catastrophes of Gustave Meyrink's account of the Golem to the mode of existence and mentality granted to David in the last twenty minutes of *Artificial Intelligence*, and a thousand variations in between, any number of facets of the human condition have been explored through details of the mode of address of humans to machines, and vice versa. And if, during the last century, in their fables of totalitarianism, George Lucas and Douglas Adams brought drones and droids too close, made them too readily human, all too understandable, and failed to sufficiently push them away, to enigmatize or further encrypt them to the point where misunderstandings are less easily made, others, like Gilbert Simondon and Norbert Wiener, did not do that. The concepts that Simondon and Wiener established around the technological existence of machines (Simondon's perceptual practice of individuation and the identification of milieus) and their capacities to communicate (Weiner's coining of the term 'cybernetic') have played a significant part in freeing ideas of the agency and association of machines from romantic, anthropomorphic sentiment.

Fritz Lang made his film *Metropolis* in 1927, right at the moment when synchronized sound became a commercial viability, right at the moment when mechanically-produced visual images could appear to speak, where a mechanism could appear to speak. The metaphors of his famous film are not limited to this. A

robot, Futura, is constructed to plausibly impersonate a human, Maria, and to shape and direct the actions of humans towards revolt. More, the political desiderata of the film, the agency of the machine in the liberation from labour, is figured by images of the de-humanization of uniformly trudging workers who are homogenized and reduced in their identity to the repetitive tasks they perform and the character of their dormitories.

Cinema has perhaps been the art form that has been most compelling in the representation of communicative machines. *Forbidden Planet*, *Blade Runner*, *The Day the Earth Stood Still*, *Silent Running*, *2001*, *Wall-E* and *I, Robot* are just the start of a long list of films in which the general intentions of machines, in expanded and restricted forms, have been explored. In all of these films, machines are both given and delve into human qualities. But, rather than seeing them as narcissistic failures on the part of their directors, I'd like to be able to assert that in this area of culture and through this mechanical art form, machines might already be trying to tell us something about their own prehension of humanity. What is clear, in any case, is that, by reconstituting a notion of machine sentience, whilst preserving ideas about embodied information and certain understandings of social and communicative capacity, Simondon and Wiener, in their different ways, succeeded in de-humanizing the machine. Unmanning it.

Theirs was one step towards evading the perceptual constraints of homophily. In the current context of a widespread revisiting of their work, it coincides too perhaps with the passing of the old visceral dread of machines that flows from the absence of some vital spark in them. Of course, one can never tell with these potentially oceanically-overdetermined, psychical relationships to objects, but it may be that the de-humanization of machines is the source of my own anxiety towards Amazon's drones, and that my worries about how to be polite to them stem from the difficulty of determining what politeness would mean in this context, and how it may or may not meaningfully appear as the recognition of a general shift in modern sensibility.

'Politeness' isn't quite the word required here, for whilst it is rooted in social

deportments in urban environments where one might be unsure of the intentions, mood or proclivity of others in an encounter, there is at stake here another kind of fear of machines. It is one that William Morris understood. The fear is that automation will take away someone's job. The fear is that one's garden (I don't have one of those) or one's balcony (I don't have one of those either) or wherever it is that one places the landing mat for Amazon's drone to be able to deliver its burden will become some kind of piste upon which a fundamental economic enmity might play out. William Morris's view of machines, the one that he laid out in an essay in 1885, 'Useful Work and Useless Toil', is simple. Freed from capitalism, machines, automation, will be free from that part of labour dedicated to commodification. People will then be rewarded with time, time to reflect upon themselves and the running of their society, time to create, make, farm, discourse, idle, speculate, swim, educate themselves and others, act, write, build, everything; become more.

Morris's position, central to the aesthetic ideology of the Arts and Crafts Movement in Europe and North America, has recently returned to both left and right in the political spectrum in the form of the concept of the basic income. Rejecting the melancholic view that every technological innovation, every increase in automation destroys jobs, cultures and identities (which they will, and which has long been celebrated in a strong tradition of socialist thought), proponents of the basic income see automated manufacturing as an opportunity to uncouple one's identity from one's source of income, unlink work from wage and cloud the distinction between work and leisure. Redundancy brought about by automation is genuinely seen in this model as the occasion for vast improvements in personal productivity and the cultivation of a society given over to art.

So, appearing as it will from the background noise of leafblowers, strimmers, automatic vacuum cleaners and other contributors to the cacophony of suburban industry, the advent of Amazon's drones marks a complex, potentially fraught threshold of political identifications and recognitions that the term 'politeness' isn't able to satisfactorily hold in relation to each other. The term that might help with that is *kindness*, a word that at once evokes principles of care, charity, generosity

and empathy towards the potentially misunderstood stranger whilst, at the same time, being able to address the issue of kindred characteristics, in terms of the similarities and differences between people and drones.

### **The Burnaby Commune**

My Dad, I remember, once, no, more than once, told me that you have to talk to crows. Starlings too, if you like. They are good company. But, you have to be certain to talk to crows. Formal greetings, amiable acknowledgements and the like will all do. They are happy enough with easy profundity too. Just be sure that they know who you are and where, and that they don't mistake you. Crows see things, they know and remember things, and they tell of them. I have lived by this paternal advice but, in fact, I am not at all sure if the memory itself is true. It is one of those impressions whose striking clarity suggests to me that I have likely made it up to fill in for some absence or other. Who knows? But, in any case, it seems somehow so. It is a kind of knowledge, I suppose, of something.

I'm of a family which seems to me uncommonly sprinkled with preternaturally insightful individuals: diviners, seers, or people just oddly capable of assessing the forces playing in a situation, making accurate guesses about forms of intention which may be hidden even from their agents. And, I feel I know more than an ordinary share of witches. Yet, unlike my grandfather, who was as blithe as a bird about his divining ability, my dad, who grinned sheepishly at the mention of his, or my, brother, who continues to hotly deny his own capacity, I remain drably ungifted in the area yet transfixed, if clumsily, by what is proposed there.

A month or so ago, and more in wry resignation than bitterness, I was thinking about this whilst watching a thin and seemingly endless line of crows trek across the sky. At about seven on a September evening, chilly at the time of year, and myself too early for a rendezvous at a gallery, I found myself sitting on the sill of a shop window; sipping something, filling time, gazing towards the north shore and the mountains. And, there it was. Again. This line of crows. It is a constant, a

temporal geographic feature of Vancouver; a recursive part of the city's *longue durée*. I like to think of it as something that Maurice Halbwachs might have seen as a concrete part of the collective memory of the city. Anyway, each evening, the birds that are going (not all of them do) head up from the west of the city, joined by others along the way through downtown and they follow a route east to Burnaby, to gather, to roost, to commune. Fact is that they converge at Burnaby in a similar manner from all directions. But, this particular route has an urban poetic, as I say, an almost memorial character ... recalling, maybe even honouring something. It presents a picaresque image too, one filled with allusive sociability, Chaucerian character and incident. The crows, as they flap steadily along, alone and in twos or threes, don't seem to be flocking; they seem to have none of that spectacular, organically unified mentality that starlings exhibit as they gather before nightfall. Instead, they caw, chat and detour, lag, scrap and drop out of the line, to rejoin it again having inspected some interesting thing or other. In all ways, rather than conveying the effect of coordinated movement, the crows have the look of a large group of otherwise unrelated but amiable individuals who, happening to be going in the same direction to the same event, nevertheless carry their own agendas.

As a line in the sky I have often wondered to what extent this activity (it seems to be more than mere behavior) might be an analog to other images of commuterly regularity. George Lucas, in his second bite at the Star Wars franchise, densely populated the skies of his cities with uncongested, rectilinear routes. In doing so, he simply seemed to repeat a familiar trope of modern urban fantasy; one seen in the propositional drawings of urban thoroughfares by Ludwig Hilberseimer and Le Corbusier, for instance. In fact, until the second world war, the ordered, reliable, knowable, policeable sky never was a modernist wish. In his application of regularity to aerial movements, as much it seems through the necessary economies of animation techniques as personal ideology, Lucas has been able to defeat the incalculably allegorical condition of the sky and its actors. It is quite an achievement, really.

Clearly, and since we haven't ever seen Amazon's drones in action in large or, indeed, any numbers, these crows probably constitute something of their *'object*

*petit a – hood'*. Is there a parallel here? Is this what they are going to look like? We think of crows as mischievous, vindictive, hilarious, rogue-ish, thieving, warring, resentful, vengeful, arrogant, amorous, unruly, garrulous, raucous, innovative, witty, enigmatical, sometimes charmingly bedraggled, sometimes shining creatures. That is a lot of things to think about one animal, and from this complex vantage we generally regard them as rather OK, as charismatic. But some of us call a lot of them a murder and we will on occasion join to kill them in large numbers, for whatever reason we can find, and as readily as they seem to kill each other. We have a vast and vivid pedagogical literature of gothic moralities built around the human-like assemblages that we use to scare and ward them off.

Ward them off. Crows, like bats and, well, drones are part of that species of flying fucking pointy black things that might get caught in our hair, tear at our eyes and ears, entangle themselves, whirring, flapping, screaming; terrifyingly, hysterically. The panicked crow, uncontrolled, disordered, is the very totem of unreasonable horror; perhaps all the more so for the equation between calculating violence and mystical intelligence that, in repose, it otherwise describes. It is important to recognize this fear as a kind of neurotic one in which actual danger has no real part to play. Thus figured, it is difficult to imagine how one might interact with such a drone or how it might fit its unregulatable, poetically excessive self into the cognitive schema of a modern, settled social order and the way in which that society circulates and distributes its goods. But it seems better to attempt this and see what failure brings than try to compare the drones to humans. That is, it seems better to rethink perceived relations between animals and machines, and to imagine a civil compact that might arise from that, than to lose the machines entirely to the guises of humanity.

Crows have a great capacity to support allegoresis. Seen as a feature in a meteorology of information and as a cipher for the erotics of information in commodity form, it is possible that crows can put drones in a certain kind of light. Certainly when the birds commune in their thousands in Burnaby, people report a gathering sense of unease, a sense of being noisily appraised, discussed, recalled, possibly even hailed. As a form of knowledge then, crows and drones have

commonalities. They share information and have a capacity to locate you in a kind of spatial perspective. In that sense, crows do point to the ways that delivery drones are also instruments of surveillance and represent a counterpart to the symbolically subjugative aptitude of Western visual perspective. Delivery drones, like crows, know who you are, where you are and what you are like.

Possibly this recourse to canonical, modernist, Western spatial narrative is the most important thing to draw out from this othering and making-strange of the delivery drone. This is not so much in the sense of visual vanishing points and so forth in conventional perspective techniques, but more in the sense of the fabular construction of mythical space. Chaucer's 'Manciple's Tale', one of the travelling episodes in *The Canterbury Tales*, depicts the crow in a way that gets at some essential human weakness that perhaps seemed bawdily legible to Chaucer, and is certainly readable now. Those readings may not represent quite the same things, however. Ted Hughes's collection of crow poems seems to be part of a modern, European theological rage. But again, their boughs are cast in such a way as to support a range of interpretative morphologies. And there they are. Crows. Again. Yet, from the point of view of Vancouver, there are a host of older, local, more complex and often contradictory stories about crows that bring different types of worldview and different epistemes to the drone. Some of these stories appear as low-stake affairs and their affective regimes are equally low-impact, relating accounts of cherishable, yet eventless, affability. Others are more intricately wrought narratives of vanity, deceit and victimhood, outlining trans-historical reasons for the modern behavior of crows. These are indigenous stories and, produced with different social and pedagogical intentions, different modes of signification and different understandings of symbolic cartography, questions of travel and purpose. What they offer, apart from a regionalized tempering of a global enterprise, is a type of mediation of modern and non-modern vantages on association and intersubjectivity where, despite the consistency of the character of the crow, the fungibility of things is denied and haecities underlined.

### Coda

Acoustically, although we are stuck with a particular image for the crow in its expletive, exclamative bark, the vocality of crows is in practice an impossibly accomplished, plurally allusive, even deceptive thing. The aesthetic and perceptual value of listening to crows is something one discovers with time and appropriate absorption. It is quite possible that our newly *unmanned* aerial vehicle could be both a harbinger of that kind of creative-cognitive, explorative time, as well as an object of that interpretative attention. William Morris saw art as a form of new and properly speculative association coming about in exactly this manner. That his views on the sociability of art arose from a kind of technophany, as we've seen, shouldn't be a surprise.

The salient aesthetic quality of the drone is, well, it is its droning. The sibilant, monotone buzz of the whirring blades of a UAV supplies the kind of sound that really caught the attention of those experimental musicians who, in the late 1960s and early 1970s, had enough of conventional musicking and who sought not only new sources of sound to relate to, but also the new models of social cohesion that those relations might be rhymes for. Lamonte and Zazeela Young are very good examples of this. As is Pauline Oliveros. There are lots of important things to say about Pauline Oliveros as someone who has a long established and influential project concerning the intellectual practice of staying with, communing in, inhabiting, extended tones, drones. She also has a history of working at a kind of interface between technological and animal perception (listen to her *Alien Bog*, 1967, for example). Moreover, she has been able to bring the kinds of profound attention to sounds that are made possible through aesthetic leisure to bear on a set of social questions relating to gender and sexuality, animality and ecology.

If we think of Amazon's drones as being as much part of an acoustic ecology as they are a part of technical and commercial milieu, then it might be worth thinking of Oliveros's piece 'Teach Yourself to Fly' (1972), and think about it possibly in terms of how an Amazon drone in its blue and gold livery might perform here.

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But not just that, for there are other concerns about gender identity at play in her work. There is a sense in this vignette that presents the drone to thought as a means of access to human difference; one that lies ahead of the moment when one of them says not, like Pinocchio, I want to be a boy, or even a girl, but rather a they.

Teach Yourself to Fly goes as follows:

Any number of persons sit in a circle facing the centre. Illuminate the space with dim blue light. Begin by simply observing your own breathing. Always be an observer. Gradually allow your breathing to become audible. Then gradually introduce your voice. Allow your vocal cords to vibrate in any mode which occurs naturally. Allow the intensity of the vibrations to increase very slowly. Continue as long as possible, naturally, and until all others are quiet, always observing your own breath cycle. Variation: translate voice to an instrument.

## **Biography**

### **Rob Stone**

Rob Stone is a lecturer at Emily Carr University, Canada. Author of *Auditions: Architecture and Aurality* (MIT Press, 2015), he lives in Chicago and Vancouver.

**Drone Vision: Towards a Critique of the Rhetoric of Precision**

Øyvind Vågnes



Figure 1: U.S. government overflight zone. Photograph: Tomas van Houtryve. Tomas van Houtryve / VII.

In coming upon images that present to us perspectives that seem unfamiliar we tend to search the contents within the frame with a probing gaze: what are we looking at? With Tomas van Houtryve's photograph (figure 1) placed before us, various captions that have accompanied the picture upon publication might help us on the way: we are looking at people practicing baseball in a sunbathed court in Montgomery County, Maryland.<sup>1</sup> This description, however, does not prepare us for our sense of perplexity in taking in the visual information we are confronted with. For that first question of "what" seems indeed inextricably linked to questions of "how" and "why": what are the implications of this invitation to take in a very particular pictorial composition that shows us something so familiar in

such an unfamiliar way? Furthermore, an image like this pleads with us to consider yet another aspect of its depiction: is there something important that we do *not* see in the photograph - something unseen that is instrumental in its absence?

The picture is part of the Belgian photographer's series *Blue Sky Days*, which consists of images resembling this first one: we are always looking down, from above, often on unknowing civilians who go about their lives, or on carefully controlled landscapes. Tomas van Houtryve travelled across the United States to photograph either the sort of gatherings that have been struck by numerous US-coordinated air-strikes over foreign countries in recent years – weddings, funerals, groups of people praying or exercising – or domestic areas typically surveilled by drones – prisons, oil fields, and borders – by attaching a camera to a small drone, which he then flew over what he wanted to capture. In what follows I will argue that *Blue Sky Days* ultimately engages the spectator in a critique of what I describe as a "rhetoric of precision". The portfolio does so, I will argue, by insisting that seeing is never merely a technical question: it is also always an ethical question. I will frame my discussion with reference to three of the photographs van Houtryve took for the series.

**The Rhetoric of Precision**

The use of armed drones, the argument goes, is "very precise and very limited in terms of collateral damage," to quote then-director of the CIA Leon Panetta in a much-cited statement that dates back to May 2009 (Panetta 2009). Obama echoed this view three years later, arguing that "drones have not caused a huge number of civilian casualties," adding that "[f]or the most part they have been precise, precision strikes against al-Qaeda and their affiliates" (Holewinski 2015, 42). "Drones enable great precision," argues Michael Waltz, a former counterterrorism advisor to Vice President Dick Cheney and a Special Forces officer in the reserves, according to himself one "among the last of the pre-drone combat generation" (Rotherberg 2015, 214). Thus the rhetoric of precision, perhaps the clearest expression of how arguments for the implementation of new warfare technology



are steeped in the calculative logic George Lakoff refers to as “cost-benefit analysis” (Lakoff 1991, 25).

It is my contention that the use of the word “precision” – to describe, and equally importantly, argue for the escalating use of drone warfare in recent years – has become euphemistic under Obama, and represents yet another instance of the imperial ambition to create reality.<sup>2</sup> “Euphemism,” R. W. Holder suggests, citing Henry Watson Fowler’s definition in *Modern English Usage* in his own *Dictionary of Euphemisms*, “means the use of a mild or vague or periphrastic expression as a substitute for blunt precision or disagreeable truth” (Holder 2008, vi). In warfare rhetoric it can often figure as a substitute for both. As Lakoff observes, in the context of Clausewitz’s metaphors “War is Politics pursued by other means” and “Politics is business,” war becomes a matter of maximizing political gains and minimizing losses: war is justified when there is more to be gained by going to war than by not going to war. If we set up an alternative metaphor, Lakoff suggests, such as: “War is Violent Crime: Murder, Assault, Kidnapping, Arson, Rape, and Theft,” then war would be understood in terms of its ethical dimension, and not its political or economic dimension (Lakoff 1991, 25-26, 28). Specific systems of metaphorical thought serve to present the language of war as rational: drone strikes are understood in terms of their technological precision rather than their ethical justification (Kaag and Kreps 2014).

Euphemism – “abuse” for torture, “collateral damage” for unintended killing or for unwanted political consequences – is the linguistic equivalent of obstructed, censored vision, Marianne Hirsch wrote in 2004, responding to the U.S. government’s control over images at the time – images of coffins, of wounded soldiers, of scenes of torture. As Hirsch observed, as George Orwell and Hannah Arendt did before her, euphemism is thus also an assertion of the power and danger of language (Hirsch 2004, 1214). Orwell, in “Politics and the English Language”, argued in 1946 that in political speech “words fall upon the facts like soft snow, blurring the outline and covering up all the details” (Orwell 1968, 136-137). Arendt pointed out, in her coverage of the Eichmann trial (1963), that the very word “Sprachregelung” – the strategy used by the Nazis in order to describe their machinery of death – was in itself a euphemism for lying, with terms such as

“Gnadentod” (“death of mercy”) for the killing of psychiatric patients, or “Endlösung” (“final solution”) for the systematic extermination of the Jewish population of Europe through genocide. In drawing our attention to this systematic, deliberate obfuscation, Arendt pointed to what can perhaps be regarded as the matrix of the contemporary use of euphemism in power politics. It is no accident that one of the editions of Holder’s euphemism dictionaries has been given the title *How not to say what you mean*.

The rhetoric of precision is substantiated by the visual culture that surrounds the drone strikes, in which images of drones flood the internet and the media, but few human beings are to be seen. With a few exceptions the drone operators are faceless and voiceless. A faux secrecy surrounds the drone program, which comes to exist as an “open secret” – everyone knows that strikes are carried out, and they are reported, but the military and the US government seldom participate in discussions about the circumstances around specific strikes, and often do not acknowledge the basic facts provided by humanitarian organizations and the like.<sup>3</sup> Victims are often reduced to numbers of deaths in the news. The visual equivalent of the rhetoric of precision becomes a form of abstract, sanitized imagery where all we see are stock images of drones hovering mid-air over unspecified territories. One of the icons of high-tech contemporary warfare, the image of the body of the windowless, unmanned aircraft is a visualization that allows us to glimpse the machinery, but that ultimately renders accountability invisible.

Yet, if the proponents for an ever-escalating use of armed drones keep returning to the figure of precision, so do the opponents, arguing that strikes are in fact imprecise, with reference to high rates of civilian casualties under the drone program. When the so-called *Drone Papers* were published online by *The Intercept* in October 2015, containing new information leaked by a whistleblower, it appeared that 90 percent of people killed in recent strikes in Afghanistan were in fact not the intended targets. According to *The Intercept*’s source, these numbers illustrated the fact that the U.S. military had become overly reliant on signals intelligence, and significantly, on the use of metadata from phones and computers (“The Drone Papers”, 2015). In *Drone*, his small book in Bloomsbury’s “object lessons” series, Adam Rothstein points out that as of 2004, 50 percent of military

drone accidents were attributable to human factors (Rothstein 2015, xiii). The precision of the weapon cannot erase the imprecision of bad intelligence. Furthermore, as Grégoire Chamayou observes, precision in terms of firing accuracy does not mean that the impact of a strike is reduced, since the “kill radius” of the projectile, or the perimeter of the explosion, can be up to 15 meters (Chamayou 2014, 141-142).

The over-reliance on precision technology can turn into a self-serving argument, enabling what Donald MacKenzie describes in *Inventing Accuracy* as “the plasticity of implications” (MacKenzie 1990, 363). Widely different and often conflicting arguments all tend to lead to the same conclusion: an increased use of armed drones. As MacKenzie points out, the introduction of new weaponry is often described as “modernization,” “as if it were the natural and unproblematic outcome of technological progress,” producing something like a technological determinism in the military (MacKenzie 1990, 383). Thus the persistent myth of precision is used to argue for ever-new generations of warfare technology, even in the face of increased knowledge. Andrew Cockburn has described how enormous amounts of money went into the development of so-called “precision guidance” in the 1970s, and kept flowing, in spite of meager results (Cockburn 2015, 36-37). “The military mission from Desert Storm through this post-Iraq, post-Afghanistan period of no-name war is ever more obsessed with perfecting the process of finding and killing the target,” William M. Arkin remarked in 2015: “only the imprecision of using such a euphemism is left” (Arkin 2015, 219).

As a concept, “precision” and the metaphorical matrix that surrounds it (“surgical precision”) attest to the intersecting lines of scientific and military cultures. “The generalized drive for precision”, M. Norton Wise points out in the introduction to the anthology *The Values of Precision*, a sort of cultural and scientific history of quantitative precision, “has regularly been linked to attempts to extend uniform order and control over large territories [...]. Precision values always have another face, often hidden, the face that reveals the culture in which instruments of particular kinds are important, because the quantities they determine are valued” (Wise 1995, 4, 5). Quantification and calculation are not neutral processes. In fact, when Antoine Lavoisier (1743-1794) made use of measuring instruments in his

research in the 1770s and 1780s, and quantified methods were introduced into chemistry, quantification was strongly connected with argument, and the scientific use of the language of precision appeared clearly as a rhetoric, according to Jan Golinski (Golinski 1995, 74). The chemist’s precision measurements gained its significance in a specific context of use, as eighteenth-century science was marked by the quantifying spirit, and other disciplines envied the certainty and predictive power of Newton’s *Principia* (Golinski 1995, 72). The concepts of “accuracy” and “precision” have emerged, and have always been interlinked, with the development of military culture: in the course of the nineteenth century, for instance, precision measurement was manipulable and became infused with political values in the nuclear arms race, observes Kathryn Olesko (Olesko 1995, 126).

### **An Aesthetic of Precariousness**

I would like to argue that what we might think of as an “aesthetic of precariousness,” evident in a range of artworks over the most recent years, has emerged in response to this rhetoric of precision. The aerial view figures prominently in all these works, which tend to confront the spectator with the sense that the unknowing individuals we are looking at are in harm’s way. They all envision an expanded battlefield in what Derek Gregory has deemed “the everywhere war” and many of them hint at a radically pervasive militarization of urban space and of border control (Gregory 2011). Finally, several of them reflect how images currently often circulate in ways that makes it hard to distinguish too sharply between spheres of media, art and public and political culture. They can all be said to share a “documentary impulse,” in the sense that they employ documentary materials and forms, at the same time as they are heavily invested in styles and strategies we traditionally associate with fiction formats, including enactments and stagings of various kinds. Which works am I referring to? I will mention five of them in order to provide a context for *Blue Sky Days*.

A most central figure in such a context is Trevor Paglen, whose work consistently and deliberately blurs the lines between science, investigative journalism, and contemporary art. “Migrants Seen By Predator Drone, U.S.-Mexico Border,” one

of 100 photographs collected for the project *The Last Pictures* (2012), is a public domain image which lays bare the essential quality of the drone gaze: below us, unknowing individuals attempt to cross the border, as they are caught in the crosshairs of a weaponized, unmanned aircraft. *The Last Pictures* were collected on a disk encased in a gold-plated shell mounted to a satellite in geostationary orbit, an art show designed to last billions of years, as the ghost ship continues to circle our planet even after we are gone. It was not Paglen's first use of such imagery. His 2010 video *Drone Vision*, which exploits a security flaw in the transmission of video from a drone to a pilot in the States, confronts the spectator with a similar sense that the drone is anthropomorphized as a pair of eyes, equipped with something resembling a searching gaze.

Such anthropomorphosis is perhaps nowhere clearer than in George Barber's unnerving *The Freestone Drone* (2013), a gallery installation consisting of various objects and video projections combining found and made footage. The work revolves around the journey of a drone that has taken on a life of its own, and as spectators we look down at the machine as it glides over the landscape, sharing its perspective. A few minutes into the video we are introduced to a spoken-word narrative belonging to the drone, which turns out to have a lonely, rather poetic, childlike voice, making it eerily resemble a figure from children's television (the video makes a direct reference to Thomas the Tank Engine). As the aircraft approaches the southern tip of Manhattan – "I popped over, you know, ignored orders to see it all myself" – and drifts solitarily over the iconic cityscape, inevitably reminding the viewer of the attacks on September 11, 2001 – it confesses to be "lightly armed". "Underneath I had a couple of missiles," it says, "nothing much, I could take out an apartment or a car, that kind of thing". Tiny against the canyons of Manhattan, the aircraft gives expression to a nagging sense of ambiguity: "I didn't like being me. Even with just two rockets I make people feel uneasy. Could I ever be a nice drone? I admit I give no warning. I'm a bit creepy".

James Bridle's *Drone Shadow* (2012–), a series of installations detailing the outline of a drone in 1:1 representations on the ground in various urban settings such as London, Washington, DC and Istanbul, also brings the drone to town, locating the machinery in environments markedly different from the landscapes of countries

such as Afghanistan or Yemen. One of the major effects of the work is that it ascribes size, proportion and materiality to the aircraft, at the same time as it does not visualize it directly. Absent, the drones nevertheless appear remarkably physical in Bridle's photographs, where the white lines on the ground are visible enough to be documented by a camera from above. Startlingly, the "shadows" appear in the midst of almost quotidian scenes, in which people go about their ordinary lives, as mindless of what might hover above them as the traffic that surrounds them. In the picture from Istanbul, the shadow appears on the forecourt of a Greek Orthodox church, bleeding into what is a busy road in the city, as a yellow taxi passes by; in Washington, DC, we see the contours of the aircraft on the rainy pavement right outside the Corcoran Gallery.

One of the best known artworks to raise questions concerning drone warfare in recent years is Omer Fast's half-hour-long installation video *5,000 Feet is the Best* (2011). Based on days of conversation with a traumatized drone pilot in a hotel room in Las Vegas, Fast's work combines fictionalized interview reconstruction of these events with aerial footage and segments that resemble narrative fiction film. At times we cannot be certain of the nature of the footage, as when Fast makes use of conventional strategies of anonymization through the blurring of a face. The hybrid mix also raises questions about the relationship between image and sound, as audio from what appear to be the original, authentic conversations with the pilot are incorporated. Visualizing what uncannily resembles the targeting of an individual, a segment forces us to follow a kid on his bike in a suburb in Las Vegas, as we hover over him for unknown reasons. This re-location to suburbia reappears in what can perhaps be called the film's constitutive narrative, in which we follow a family of four taking off in their car for a road trip. Everything seems relatively normal until they reach a checkpoint. The drive continues, from the freeway and eventually into a hilly, barren landscape, where the family comes upon three armed men digging a hole in the narrow, dusty road. The perspective changes, and we watch the car, now tiny as a toy, from above, as it appears in sharp black and white, under the cross hairs of the camera eye. Then the perspective changes back to the ground again, as a hellfire missile shoots through the air, killing the men, leaving the members of the family bloody and hurt, stumbling out of the car and away from the scene, severely, perhaps mortally, wounded and maimed.

What is it that makes these aerial perspectives so disturbing? In the case of Paglen's found image, the answer should be clear. Unlike the other images it documents a very real instance of border surveillance. Predator drones are weaponized, and the cross hairs in the image signal the capacity to inflict violence on the individuals we see, who are reduced to mere dark dots in the greyish, blurry landscape. We understand immediately that we are not looking at a conventional documentary image, but rather at what Harun Farocki has described as an "operative image". Such images, according to Farocki, "do not represent an object, but rather are part of an operation" (Farocki 2004, 17). This influential notion, originally offered in an essay about automated warheads, reflects an understanding of an image that "is not only showing things, but doing things" (Hoelzl 2014). "Images are no longer limited to a political and iconic representation", Ingrid Hoelzl writes, "they are not only an interface, but play an active role in synchronic data exchanges" (Hoelzl 2014).<sup>4</sup> As Niels Van Tomme observes, the effects of the emergence of operative imagery "points to a man-made reformatting of our entire field of vision, suggesting a world of images that has moved beyond our reach" (Van Tomme 2014, 29). Thomas Elsaesser sees a "more general shift of our culture towards recoding seeing into a form of action," in which technologies of imaging:

"are not means of assisting sight, whether of real or imagined things, but technologies of probing and penetration. As vision machines, they generate knowledge that has little to do with human perception or seeing, in the sense of 'I see' meaning 'I know', and more to do with controlling territory, occupying space, monitoring a situation, and mining it for useful information or active intervention" (Elsaesser 2013: 242).<sup>5</sup>

Re-mediated and re-circulated by Paglen, the image, whose original purpose and operational quality was to assist in armed border surveillance, now plays a different role, as a document of the fact that such an operation once took place.

In doing so, the image comes to represent an aesthetic of precariousness. The image invites us to consider the fact that the very concept of precariousness works, with its connotations of uncertainty and risk, *against* our notions of precision. The "precarious" individual, etymology teaches us, is "dependent on the will of

another," although its meanings were extended through the decades of the seventeenth century, leading the word to describe a more general sense of insecurity. Antonyms to "precarious," such as "safe" and "secure," in fact lead us in the direction of the connotative realm of "precision": "Precision is everything that ambiguity, uncertainty, messiness, and unreliability are not. It is responsible, nonemotional, objective, and scientific," Wise points out in the introduction to *The Values of Precision*.

Drones present a particular risk that *technical* precision is confused with *moral* or *legal* precision, John Kaag and Sarah Kreps argue in *Drone Warfare*. Whereas the first is an issue of fact, the second is an issue of value (Kaag and Kreps 2014, 132-135). Likewise, Grégoire Chamayou observes the confusion between the technical precision of the weapon and its capacity to discriminate in the choice of targets in *A Theory of the Drone*. "The fact that your weapon enables you to destroy precisely whomever you wish does not mean that you are more capable of making out who is and who is not a legitimate target," writes Chamayou: "The precision of the strike has no bearing on the pertinence of the targeting in the first place" (Chamayou 2014, 143).

Now appearing to us as a document of its operative quality and its powers as vision machine, "Migrants Seen By Predator Drone, U.S.-Mexico Border" stirs us into awareness of what kind of aerial view we are confronted with. In her timely interrogation into the ethics of representation in *Precarious Life: The Powers of Mourning and Violence*, Judith Butler sees an "evacuation of the human through the image" in the contemporary mainstream media coverage of war:

"The war coverage has brought into relief the need for a broad de-monopolizing of media interests, legislation for which has been, predictably, highly contested on Capitol Hill. We think of these interests as controlling rights of ownership, but they are also, simultaneously, deciding what will and will not be publicly recognizable as reality. They do not show violence, but there is a violence in the frame in what is shown. That latter violence is the mechanism through which certain lives and deaths either remain unrepresentable or become represented in ways that effects their capture (once again) by the war effort. The first is an

effacement through occlusion; the second is an effacement through representation itself” (Butler 2004, 146).

As Butler points out, “the aerial view” is often preferred to graphic photos of dead soldiers or maimed children, “an aerial view whose perspective is established and maintained by state power” (Butler 2004, 149). But even if the photographs of children burning and dying from napalm during the Vietnam War shocked the US public to its core, the images also, despite their graphic effectivity, “pointed somewhere else, beyond themselves, to a life and to a precariousness that they could not show,” Butler contends (Butler 2004, 150). To her, “[f]or representation to convey the human [...] representation must not only fail, but it must *show* its failure. There is something unrepresentable that we nevertheless seek to represent, and that paradox must be retained in the representation we give” (Butler 2004, 144). Re-mediated and re-circulated by Paglen, the image of the migrants, rendered as shadowy, faceless individuals, unknowingly under threat by an unseen force from above – a visualization that was never intended to reach a general audience – is marked precisely by its failure to represent the precariousness of the human beings it monitors, who appear as possible targets in a surveillance operation in an aerial view now wrested from the control of state power.

Even if the works by Barber, Bridle and Fast make use of collage and staging in their depiction of drone vision, a fact that give them a status that is different from Paglen’s found image, they can nevertheless be said to emerge in response to the rhetoric of precision and represent an aesthetic of precariousness. In creating quasi-operative images, images that pose as operative so to speak, the artists question the capacity of the technology to “see” the individuals that are depicted with various degrees of precision. In Barber’s video the drone flies so high that we are looking down at a city population rather than a group of people, at the buildings and vehicles that house and transport human bodies, rather than the bodies themselves. In Bridle’s and Fast’s works, we are confronted with what Hugh Gusterson calls “remote intimacy,” a conflicted sense of closeness and distance at the same time, as we peek right into their everyday life activities.<sup>6</sup> One would suspect that few things are more familiar than the sight of a kid on a bike riding through quiet suburban streets, and yet the gliding eye in the sky in Fast’s video more than hints at

targeting, even without the cross hairs, filling the footage with anticipation of something terrible to come.

### Shadows on the Ground



Figure 2: A playground seen from above in Sacramento County, California. Photograph: Tomas van Houtryve. Tomas van Houtryve / VII.

Having outlined what I find to be an aesthetic of precariousness in a selection of contemporary artworks I would now like to return to Tomas van Houtryve’s *Blue Sky Days*, a series of photographs which share several of the characteristics of the images I have already discussed, but also represents something new. More often than not, van Houtryve’s pictures appear in a narrative context in which the reader or viewer is explicitly invited to reflect on their quality as quasi-operative images – that is, to imagine that what we see are images captured by a possibly weaponized drone used for surveillance and/or warfare. Consulting van Houtryve’s own

presentation of the project on his web page (<http://tomasvh.com/>) for instance, the reader can download a media kit in which the photographer explains his purpose with *Blue Sky Days* in a two-page statement, where he writes: “By creating these images, I aim to draw attention to the changing nature of personal privacy, surveillance, and contemporary warfare”. Like Bridle’s activist work, van Houtryve’s pictures are motivated by social and political commitment, and the availability of a downloadable kit adds a significant didactic dimension to the project.

The distinctive, defining formal aspect of van Houtryve’s photographs, apparent even to any viewer that would come upon them without any narrative context whatsoever, is their particular rendering of the human individuals on the ground. Either taken very early or late in the day, the pictures consistently create a contrast in scale and proportion between the shadow and its source, inviting reflection on the relationship between the two. The pictures give the spectator a double vision: taking in the visual information in what we can decode to be a playground (figure 2), we first see shadows, and then go on to look for the individuals that correspond to these shadows. This movement, in which we trace the material bodies indicated by the immaterial traces of shadows, is fundamental, since it confronts us with a drone vision which is simultaneously a top view and a lateral view. On the one hand, the physical bodies we see are mere coordinates, reminding us that the drone operator’s perspective is “remote and objectifying” (Gusterson 2016, 8-9), an aerial view that reduces precarious life to “tiny figures” (Chamayou 2014, 114) – a view which in the *Blue Sky Days* photographs is marked by the technical precision of the high-definition imagery. On the other hand, this sense of precision is threatened by the visual information provided by the shadows, which paradoxically allows us to recognize and “see” the figures on the ground as human beings, and to acknowledge their state of precariousness. It is in this movement from registration to acknowledgment that the central tension of the images lies, their insistence that seeing is never merely a technical question, but also always an ethical question. It lends a performative quality to the pictures in *Blue Sky Days*, which, in spite of being quasi-operative images, have an operative function of their own: to not as much document what exactly is happening on the ground, as to document the nature of the gaze that observes it.



Figure 3: Signature behavior. Photograph: Tomas van Houtryve. Tomas van Houtryve / VII.

Carefully chosen by van Houtryve, several of the titles and captions of the project add to this sense of conflicted, double vision. By titling a photograph of a yoga class in a San Francisco public park “Signature Behavior” (figure 3), the photographer draws our attention to the intelligence that allows the US to carry out so-called “signature strikes” based on calculations of patterns of behavior. These differ from “personality strikes,” which are carried out based on information about individuals. Upon publication of the picture of the yoga class, van Houtryve took to asking viewers what they thought they were seeing in the image. About half tend to answer that they see people practicing yoga; as many think they are looking at people praying (Silverman 2014, Radnor 2014). This interrogation of the image and its visual information – the fraught attempts to distinguish its patterns of movement – reflects back on the entire series, including the picture of the playground: the mundanity of everyday life, with all its regularity and repetition, is recognizable in the rhythm of the swing, in the circling motions of

the carousel, in the interaction between children and adults on a sunny day, but this social interactivity in a communal space seems to entangle these individuals in a shared precariousness, as they appear in each other's radius, whether in the playground, on the baseball field, or in the public park.

In *Blue Sky Days*, the figure of the shadow also appears, then, as a visual trope, as an ambiguous mark of human presence, which resonates with various implications in cultural history. The shadow is of course the constitutive figure of Plato's cave allegory, but it also holds a particular place in the origin myths of the visual arts; some readers will know Pliny the Elder's story in *Naturalis Historia* of how a shadow on the wall, delineated and thereafter recreated as plastic art, is transformed into a token of memory of the absent lover.<sup>7</sup> The figure of the shadow appears both as a metaphor for epistemological uncertainty and for cultural commemoration, and it is often associated with death. In his magisterial reading of the shadow as a trope in poetry, *The Substance of Shadow*, John Hollander reminds us how shadows "are related to our eternal condition – to our contours, rather than to our more substantial mass. And yet their very insubstantiality has allowed shadows to be seen both as residues or traces of something palpable and more profoundly animated and, more enigmatically, as emanations of something internal to us" (Hollander 2016, 3).

This doubleness informs van Houtryve's pictures, in which the cast shadows are both a form of signature and indexical trace, and also appear as a visualization of fragile, precarious life – or even as a kind of prefiguration of death. Caught up in their everyday life activities, the individuals on the ground only really appear to us through their shadows, and thus take on an uncanny, ghostly quality – and yet it is through this aspect of their existence, however phantasmatic it may appear, that we are able to see them and recognize them as human.

As Hollander observes, shadows might appear in the depiction of objects and bodies – say, in a human face – or as here, as separate, cast shadows, and then there is also the "covering, sheltering, beneficent *shade*," into which the individuals in *Blue Sky Days* have not retreated, directly exposed as they are to the sun. The title of the portfolio is certainly accurate, but it turns out to be more than a

meteorological description. In fact van Houtryve is quoting Zubair Rehman, the grandson of a 67-year-old woman who died while picking okra outside her house in a drone strike in northeast Pakistan in October 2012. At a briefing in Washington, DC, Rehman, then 13, who was injured by shrapnel in the attack, spoke to a group of lawmakers, and said: "I no longer love blue skies. In fact, I now prefer gray skies. The drones do not fly when the skies are gray".<sup>8</sup> The clarity that allows for precision in the strike is a source of trepidation and anxiety, because the weather conditions in themselves serve as an argument for a strike. The body that casts a shadow is thus in danger, exposed to far worse a threat than the damaging rays of the sun. Perhaps the most important function of the shadows in van Houtryve's photographs, then, is to muddle the precision of their technical vision, and introduce an ethical vision into our encounter with the images.

"Every history is really two histories. There is the history of what actually happened, and there is the history of the *perception* of what happened". On the face of it, this observation, which opens W.J.T. Mitchell's 2011 book *Cloning Terror*, might seem obvious: certainly it has always been so. But as Mitchell goes on to explain, today "[t]he shaping of perceptions of history does not have to wait for historians or poets, but is immediately represented in audio-visual-textual images transmitted globally" (Mitchell 2011, xi). *Blue Sky Days* intervenes into this ongoing transmission, and problematizes the ways in which a rhetoric of precision is mobilized in order to shape public perceptions of drone warfare. As Donald MacKenzie claims in *Inventing Accuracy*, technologies are always socially conditioned, and "it follows from this that there may be a very real, and politically important, sense in which accuracy can be uninvented" (MacKenzie 1990, 4). "Precision," as we have noted, is a concept with its own history, with its own genealogy, but its meanings are not carved in stone. Perhaps one might say that van Houtryve's photographs, through their double vision, in fact perform a sort of language work, laying bare the euphemistic character of the rhetoric of precision, thus enabling a strategy of "uninventing precision".

## Notes

1] Images from the series have been published by various outlets, several of which state this information about the image, including Pete Brook, "Here's What Drone Attacks in America Would Look Like", *Wire*, April 14, 2014, <http://www.wired.com/2014/04/tomas-van-houtryve-drones/> (accessed June 28, 2016). *Blue Sky Days* first appeared in print as a portfolio in the April 2014 issue of *Harper's*, and was commissioned by VII, van Houtryve's agency, for the magazine.

2] I am thinking here of a statement made by Karl Rove in a now legendary interview in the *New York Times Magazine* in 2004. A Senior Advisor and Deputy Chief of Staff for the George W. Bush administration at the time, Rove anonymously told reporter Ron Suskind that he and the rest of the press lived in "the reality-based community", since they believed that "solutions emerge from a judicious study of discernible reality". "That's not the way the world really works anymore", Rove told Suskind: "We're an empire now, and when we act, we create our own reality". Ron Suskind, "Faith, Certainty and the Presidency of George W. Bush", *New York Times Magazine*, October 17, 2004. The quote, Mark Danner points out, "is widely known" to have come from Rove; see Mark Danner, *Stripping Bare the Body: Politics, Violence, War* (New York: Nation Books, 2009), 555.

3] As Hugh Gusterson observes, the use of drones for "targeted killings" by the United States was not formally acknowledged until CIA director John Brennan made a reference to it in a 2012 speech, and even after that, CIA censors prevented Leon Panetta, the previous CIA director, from mentioning drone strikes in his memoir (Gusterson 2016, 1). For more on the notion of "open secrets", see Roberts (2012).

4] Hoelzl's piece is part of a dossier, *The Operative Image*, available online (Hoelzl 2014). The development of computer vision techniques, she writes, "seems to indicate a turn towards what we could call a 'post-human operativity': while the imminent task at hand is to perfectly simulate how humans see and make sense of the world, the ultimate goals are fully autonomous systems of image creation, analysis and action, capable of substituting human observers and operators altogether".

5] In a conversation with Alexander Alberro, Elsaesser indeed posits that operative images today can be considered "the new default value of all image-making, against which more traditional images, i.e. images meant merely to be contemplated, watched disinterestedly, or which function as either 'window on the world' or 'mirror to the self', have to define themselves" (Elsaesser and Alberro 2014).

6] See "Remote intimacy", the third chapter in Gusterson 2016.

7] For two accounts of the story, see Newman 2003, 93-96 and Rosand 2002, 4.

8] Rehman's story appears both in the portfolio printed in *Harper's* and in the materials concerning the project on van Houtryve's web site.

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## Biography

### Øyvind Vågnes

Øyvind Vågnes is Associate Professor at the Department of Information Science and Media Studies at the University of Bergen, Norway. A writer, scholar and journal editor Vågnes has updated widely on visual culture; among his most recent publications are "Lessons from the Life of an Image: Malcolm Browne's Photograph of Thich Quang Duc's Self-Immolation", in Frances Guerin, ed., *On Not Looking: The Paradox of Contemporary Visual Culture* (London: Routledge, 2015), and *Zaprudered: The Kennedy Assassination Film in Visual Culture* (University of Texas Press, 2011), which received honorable mention at the American Publishers Awards for Professional and Scholarly Excellence in 2012.

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**Embodiment and Affect in a Digital Age: Understanding Mental Illness among Military Drone Personnel**

Alex Edney-Browne

**Drone Personnel: Digital Age Soldiers**

The US-led coalition's increasing reliance on drone technology has provoked concern about the 'virtualisation of violence' (Der Derian 2009, 121). It is feared that technological mediation in drone warfare de-humanises victims and distances drone personnel, physically and psychologically, from the violent reality of their actions. The human victim of drone surveillance or attack is 'reduced to an anonymous simulacrum that flickers across the screen' (Pugliese 2011, 943), while drone personnel perpetrating that violence are 'morally disengaged from [their] destructive and lethal actions' (Royakkers and van Est 2010, 289). Discussions about physical and psychological distance are not new to twenty-first-century violence. Hannah Arendt (1963) and Zygmunt Bauman (1989), in their efforts to better understand the Holocaust, pointed to an intrinsic link between technology, distance and twentieth-century genocides. The Nazis, they argued, relied heavily upon technologies and techno-scientific discourses to justify, sanitise and commit mass violence. Perpetrators of violence were distanced from their victims: government bureaucrats and medical professionals became hyper-rational murderers with the help of techno-science's distancing and de-humanising effects.

This was one of Arendt's (1964 [orig. 1963], 26) famous insights in *Eichmann in Jerusalem: A Report on the Banality of Evil*. Katherine Hall Kindervater has elucidated the historical trajectory of military drones, tracing their emergence back to the UK's development of the 'Larynx' and the 'Ram' in World War II. These unmanned aircrafts were designed in the hope that they would, among other objectives, 'extend the range and kind of attack' to 'limit risk to the pilot's life' and overcome conditions in which 'the human pilot was at a disadvantage' (2016, 4). Snipers, aerial assaults and other long-range weapons all attempt to distance perpetrators of violence from their victims, lowering the risk of return fire and, potentially, making killing physically, emotionally and psychologically easier for the soldiers.

Killing-from-a-distance appears only to have intensified in the 'Digital Age', as globally-networked technologies allow violent perpetrators to maim and kill their victims from a completely different spacio-temporal sphere. Academics of a more techno-utopian bent celebrate networked technologies for their 'democratising' effects: in the digital age, citizens can transcend the spacio-temporal borders of the nation-state to communicate with each other worldwide (Castells 1996; Held 1999; Beckett and Mansell 2008). The nation-state's power to include and exclude people from the community – to manage national identity and the body politic – is undermined, as people use networked technology to create communities and mobilise politically across the globe. Conversely, nation-states can harness networked technologies to bolster their power, increasing their surveillance capacity and ability to inflict violence world-wide. This is what the United States has achieved through its National Security Agency programs, cyberattacks and military drones. As James Der Derian (2000, 775) puts it, 'sovereignty [...] now regains its vigour virtually'. Caren Kaplan likewise argues that despite 'all the flashy theorising about cyberculture and its utopian potential, the technologies of war may seem to be the epitome of triumph of a world without boundaries or limits - where the subjects eliminate their objects without regret or discomfort of embodied proximity' (Kaplan 2006, 397). Military drone technology is particularly effective at bolstering the US's power in its amorphous 'war on terror'. The mobility of drones, and their dual capability of surveillance and assassination, is

perfectly suited to meeting the US government's changing security imperatives, as 'de-territorialised' militant organisations shift locations and new organisations (or individuals) gain traction. From roughly 7000 miles away, drone personnel can collect vast amounts of signals intelligence and geolocation data in Iraq, Afghanistan, Pakistan, Syria, Yemen, Somalia and Libya, and maim and kill people when this surveillance identifies 'suspicious' activity.

Drone personnel – the soldiers of the digital age – are often constructed in academic literature as present-day Eichmanns or videogame players. Drone technology is allegedly 'distancing soldiers from the consequences of their actions' (Benjamin 2013, 87). Drone teams may be connected to the battlefield 'via a wireless signal or fibre optic cable', but they are not connected 'emotionally or psychologically' (Singer 2009, 335). As Joseph Pugliese (2016, 3) writes, 'tele-techno mediations work to generate a type of causal disconnect [...] of the US-based drone operator's relation to the killing'. Medea Benjamin (2013, 86) warns that 'undertaking operations entirely through computer screens and remote audio feed' can 'blur the line between the virtual and the real worlds'. 'Suburban pilots' work from the Nevada desert 'in air-conditioned units and scan video screens, adjusting their soda straw digital view of the world with a joystick' (Shaw 2013, 545). The videogame analogy is also common: 'from Afghanistan to Iraq, virtuous war has taken on the properties of a game, with high production values, mythic narratives, easy victories and few bodies' (Der Derian 2011; 272). In his report to the UN, Special Rapporteur Philip Alston states that 'because operators are based thousands of miles away from the battlefield [...] there is a risk of developing a 'Playstation' mentality to killing' (2010, 25). A 2010 non-government organisation (NGO) report titled *Convenient Killing: Armed Drones and the Playstation Mentality* likewise warns of 'a culture of convenient killing' whereby 'at the touch of a joystick button the operator can fire missiles or drop bombs on targets showing on a computer screen' (Cole, Dobbing and Hailwood 2010, 4; 6). 'Rather than seeing human beings', drone personnel 'perceive mere blips on screens' (Cole, Dobbing and Hailwood 2010, 4). Mediation is equated to an instrument of psychological distancing: one that allows drone personnel to de-humanise their victims and disconnect themselves from the violent reality of their actions.

The alleged psychological ease with which drone personnel carry out their work is undermined by psychological studies and the handful of available personal testimonies from drone personnel (more on these testimonies later). The phenomenon of drone personnel suffering Post-Traumatic Stress Disorder (PTSD) has been well-reported by journalists over the last five years. Psychological studies reveal equal, sometimes higher, prevalence rates of PTSD in active-duty drone pilots as manned-aircraft pilots, despite drone personnel's complete spacio-temporal removal from the battlespace (Asaro 2013, 217). Otto and Webber's study of 709 US drone pilots finds '1 of every 12 pilots received at least one incident MH [Mental Health] outcome' (defined as diagnoses or counselling for anti-social behaviour, depression, anxiety or PTSD) between 2003 and 2011 (2013, 5). They conclude that there was 'no significant difference in the rates of MH diagnoses, including post-traumatic stress disorders, between RPA [Remotely Piloted Aircraft] and MA [Manned Aircraft] pilots' (2013, 3). Another comparative psychological study of 670 drone pilots and 751 manned-aircraft pilots found that 5% of drone pilots presented with symptoms that placed them at high risk of PTSD (Chappelle and McDonald 2012, 6). This was higher than their findings for manned-aircraft pilots, of whom only 1% were at high risk for PTSD (Chappelle and McDonald 2012, 6). A 2014 study of 1084 USAF drone operators found that 4.3% of respondents reported 'clinically significant PTSD symptoms' (Chappelle et al. 2014, 483). This was considered to be 'on the low end of rates (4-18%) of PTSD among those returning home from the battlefield' (Chappelle et al. 2014, 483). Despite this, it is still clear that drone personnel cannot be homogeneously characterised as psychologically removed videogame players. Psychological studies on PTSD prevalence in drone personnel complicate the popular notion of the unfeeling videogame warrior.

There is a danger, however, in constructing PTSD prevalence rates as the primary point of entry for discursive engagement with drone personnel's psychological health. The researchers of the above-mentioned studies note that their findings are limited, as respondents – particularly active-duty personnel – may avoid self-reporting PTSD symptoms. PTSD diagnoses require 'severity and persistence' of a cluster of symptoms (intrusive recollections of traumatic event/s, avoidance of stimuli and increased arousal) for over a month, and are considered more serious

than other diagnoses such as anti-social behaviour, anxiety and depression. Active-duty drone personnel could be concerned that in-service PTSD counselling or a PTSD diagnosis would jeopardise their careers (increased at-work monitoring, stalled promotion or temporary disqualification). There is also a 'strong cultural and community stigma' towards mental health diagnoses in military institutions (Chappelle, McDonald and Salinas 2011, 5). Individuals are likely to downplay PTSD symptoms to avoid career-damaging effects and possible social stigma arising from a serious mental health diagnosis. Due to the secretive nature of their missions, drone personnel are additionally limited in who they can approach for psychological support both within and outside the military (Linebaugh 2012).

Not only are PTSD prevalence rates too contentious to invest heavily in, but there is also a much broader range of emotional and psychological harm that ought to be as significant when considering drone personnel's emotional and psychological responses to mediated killing. Twenty percent of drone personnel reported suffering 'high emotional distress', defined as 'anxiety, depression, emotional adjustment difficulties', severe enough to indicate the 'need for mental health care' (Chappelle and McDonald 2012, 6). Ouma, Chappelle and Salinas's study found that 'approximately one out of every five active duty operators were twice as likely to report high levels of high emotional exhaustion when compared with National Guard/Reserve operators' (2011, 12). A different study, on the necessary psychological attributes for drone personnel, states that the work 'can be very taxing and stressful', so it is important for recruits to possess 'the ability to compartmentalise the emotional rigours of one's job' (Chappelle, McDonald and King 2010, 19; 20). Compartmentalisation, the study finds, 'is an important trait for long term stability' (Chappelle, McDonald and King 2010, 20). All of these studies state that long hours, shift work and shift changes contribute to high emotional distress, but it is important to also consider emotional and psychological stressors that active-duty personnel would feel less comfortable reporting in studies led by military psychologists – stressors that are far more likely to require 'compartmentalisation' than shift work fatigue.

This article will proceed in an interdisciplinary manner, drawing upon work within media, screen and cultural studies – including media theory, science and technology

studies (STS) and phenomenology – to offer theoretical tools for understanding drone warfare's mediating effects. It will argue that drone personnel's psychological illnesses and emotional testimonies problematise common assumptions about mediated, high-technology war. Two hypotheses will be provided for why drone personnel experience unexpectedly high rates of emotional distress, anxiety, depression and PTSD, both of which challenge the idea that technology inherently causes psychological distancing. It is my intention that this paper is speculative in the best sense of the term; that the hypotheses I suggest will prompt further empirical research into drone personnel. My first hypothesis engages with media theory to consider how empathy can develop through surveillance technologies, thereby humanising the supposedly de-humanised victims of drone attacks. The second hypothesis draws on STS and phenomenology to suggest a 'boundary' collapse between drone personnel's bodies and their equipment. I argue that this 'boundary' collapse, or 'leakiness', could cause psychological distress when it comes to technologies of killing. These hypotheses do not attempt to offer a complete explanation for how and why drone personnel experience mental illness, nor are they mutually exclusive. They do, however, seek to offer possible answers for phenomena evidenced in former drone personnel's personal testimonies and those hinted at, but likely under-reported, in psychological studies of active-duty personnel.

Perhaps most importantly, this paper aims to encourage discursive acknowledgement and investigation of drone personnel's mental illnesses. The psychological health of drone personnel has become a site of conflict for academic, NGO and activist critiques of drone warfare. Any academic research on violent perpetrators raises ethical concerns. Feminist Standpoint theory has demonstrated the social and political importance of situated knowledge, and the discursive power that comes with focusing on the lives of marginalised peoples and giving voice to the voiceless in academic research (Collins 1990; Smith 1990). To give voice to the perpetrator of violence (particularly state-sanctioned violence) can re-inforce their power in knowledge production, and can offer legitimacy to their actions. It can also draw attention away from the victims of violence and their pain and suffering. A recent review of *Good Kill* (a film about a US Air Force drone pilot) seems motivated by this concern, with its provocative title: 'Drone Operators Get PTSD,

Civilians Die Nameless' (Gharib 2015). In the case of drone warfare, the mostly Muslim victims of drone strikes are already largely invisible in Western public discourses, where the deaths of white, non-Muslim Westerners are far more likely to be grieved (Butler 2003, 27). There is the risk, then, of playing into colonial ideologies whereby war is only worth protesting once harm to Western (mostly white and non-Muslim) lives is evidenced (Gregory 2015, 207).

The controversy surrounding the study of drone personnel is partly motivated by the same concerns as Feminist Standpoint theory, but is more pronounced for reasons unique to drone warfare. The 'radical asymmetry' of drone warfare has become the linchpin of drone warfare criticism, and it is this objection that resonates with the public (Enemark 2014, 367). Regardless of one's knowledge of drone warfare, it is easy to identify the moral problem with US coalition soldiers being geographically removed from the battlespace and safe from physical and psychological harm, while people in targeted countries are vulnerable to both. Academic or journalistic work that takes interest in drone personnel's psychological health is seen to complicate this neat asymmetry argument, broadening current understandings of risk and harm to include psychological harm and its physiological manifestations. In *Drone Theory* – to-date the most popular theoretical book on drone warfare – author Grégoire Chamayou expresses his scepticism towards counter-representations of drone personnel, in particular what he calls the 'media picture of empathetic drone operators suffering psychic trauma' (Chamayou 2015, 109). He writes that 'whereas the attention drawn to soldiers' psychic wounds was in the past aimed at contesting their conscription by state violence, nowadays it serves to bestow upon this unilateral form of violence an ethico-heroic aura that could otherwise not be procured' (Chamayou 2015, 109). A joint report by numerous NGOs released in October 2016 echoes Chamayou, stating that it is 'drone *advocates*' (emphasis added) who challenge the 'Playstation Mentality' thesis (Drone Campaign Network 2016, 14). Highlighting drone personnel's suffering thus becomes a pro-military move, as it undermines one of the most communicable and resonant ethical objections to drone warfare: its radical asymmetry.

It is important, however, that academics who find the US coalition's use of drones

objectionable draw on all available resources to mount their critique. This includes taking seriously psychological harm to drone personnel. Pentagon spokespeople and military academics argue that governments have a duty of care to protect their soldiers from unnecessary risk of harm (Strawser 2010; Weiner and Sherman 2014; Plaw 2012). Drone technology's alleged ability to protect soldiers from harm is evoked to justify their use. A key weakness of these arguments is that their conceptions of harm do not account for psychological harm (anti-social behaviours, anxiety, depression and PTSD). As Alison Williams (2011, 387) argues, these commentators 'mistakenly assume that it is only the physical body that can be damaged by warfare'. Furthermore, they advance a mind/body dualism that ignores the physiological effects of these psychological illnesses (including muscle tension, rapid heartbeat, breathlessness, increased blood pressure, gastrointestinal problems, nausea and body shaking) (McFarlane et al. 1994; Stahl 2002; Aldao et al. 2010; Craske 2012). Contrary to Chamayou's argument in *Drone Theory*, there is often no difference in intention between those who illustrate soldiers' psychological wounds today and those who did in past wars. The purpose is still to contest state violence: the (false) promises made to recruits to attract them into the drone program, the psychological illnesses they suffer as a result of their work, and the ways they are (mis)treated by the institution if or when they become psychologically unwell. Rather than comply with a false dichotomy of care – for either military personnel *or* civilians – or engage in debate about who suffers *more*, this article gives discursive attention to drone personnel out of concern for all human suffering in war. This shares commonality with a growing body of scholars such as Alison Williams, Caroline Holmqvist, Lauren Wilcox, Ian Shaw and Majed Akhter who highlight the importance of thinking about humans on both sides of drone technology. Holmqvist (2013, 536; 541) writes of the 'need to centre *human experience* to the study of [...] war'. She states that 'drone warfare is "real" also for those staring at a screen and, as such, the reference to videogames is often simplistic' (2013, 536; 541). Shaw and Akhter (2012, 1501) argue that academics must 'intervene to dismantle the production and maintenance of the drone fetish [...] to reinsert a disavowed corporeality' into drone warfare discourse. It is crucial that academics increase the visibility of the bodies maimed, killed and psychologically tormented by drone attacks and surveillance. Discourse on the psychological and physiological effects of drone warfare on military personnel,

however, does not inhibit this work. Instead, it plays another important role in de-fetishing the drone and reinserting corporeality into drone-warfare discourse.

### **The Need for an Interdisciplinary Approach**

Most research on drone warfare has come from the field of International Relations (IR) (with critical geography a close second). Critical research on drone warfare would be significantly enriched through an interdisciplinary engagement with Media, Screen and Cultural Studies. IR scholars have not been completely blind to media, screen and cultural studies. Since the First Gulf War, IR has taken an interest in the application of media theory to the study of mediated, high-technology war. This application, however, remains pre-occupied with Information Age debates characteristic of the 1990s when many scholars thought that information technology led to a 'loss of social bonds' and 'the demise of the proximate human being' (Virilio 1999, 86). With this outdated view of media technologies still influential and often evoked in IR, drone technology is commonly described as an instrument of US coalition hegemony that can *only* de-humanise victims and turn users into unfeeling hyper-militarised warriors. The degree to which a victim is proximate and embodied is assumed to have a causal relation to drone personnel's psychological and physiological responses to killing. Mediation is considered a barrier to affect, emotions, psychological reactions and physiological sensations. This neglects a plethora of earlier media, screen and cultural-studies theory and more recent 'pervasive media' theory that argues the opposite. Media, screen and cultural studies has a decades-long engagement with mediation, human-technology interaction, embodiment, phenomenology and affect. This work offers useful theoretical frameworks for making sense of mediated, high-technology war.

In developing its two hypotheses, this article engages with the above-mentioned range of media, screen and cultural theory to consider why drone personnel experience high emotional distress and other psychological illnesses. This interdisciplinary contribution is timely as critical and feminist international relations scholars lead an 'affective turn' within the IR discipline. The discipline's Realist tradition of privileging the nation-state as the most appropriate unit of

analysis is coming under close scrutiny. Many feminist and critical IR scholars argue that Realism has always been a limited approach to understanding the complexity of world politics and security, but is even more limited today when globally-networked technologies and de-territorialised political problems stretch the boundaries of nation-states. Diana Coole and Samantha Frost (2010, 5), in demonstrating the necessity of their 'New Materialisms' approach to studies of international political economy, write that traditional theoretical models fail to consider the 'significance of complex issues such as climate change or global capital and population flows [...] or the saturation of our intimate and physical lives by digital, wireless and networked technologies'. Coole and Frost draw attention to the interrelatedness of things (subjects and objects), emphasising the instability of categories assumed in Realism to be fixed: 'the relationships of humans to the world, the very definition of the human to the nonhuman and the way shifting definitions of nature and life affect subjective experiences of selfhood or the forms and domains of politico-juridical regulation' (2010, 21). In these critical/feminist IR frameworks, emotions, affect and the relationality of subjects and objects are recognised as having a significant bearing over political agency, mobilisation and violence. As Linda Ahall and Thomas Gregory (2016, 2) argue, 'rationalist prejudices have traditionally dominated the discipline of IR' to the point where 'the role of emotions in global politics has been downplayed, ignored or denigrated'. Only recently have IR scholars increasingly 'sought to re-centre emotions in our study of international politics' (Ahall and Gregory 2016, 2). In the digital age, world politics, conflicts and security are deeply enmeshed with media technologies, making media, screen and cultural studies a necessary inter-disciplinary engagement – particularly for academics interested in discovering the political implications of emotions, embodiment and affect.

### **Hypothesis 1: In the digital age, mediation and disembodiment do not inhibit recognition and empathy**

In the words, tone and body language of former drone personnel, it is often difficult to identify the digital age Adolf Eichmanns or videogame players evoked by many academics, journalists, NGOs and politicians. Derek Gregory (2011, 200), Caroline

Holmqvist (2013, 542) and Lauren Wilcox (2016, 12) have written on drone personnel's 'identification of and [...] *with*' the ground troops they are supporting: how they are 'emotionally and affectively connected' to colleagues on-the-ground despite the technological mediation at play. It is clear from personnel testimonies that drone personnel can also recognise and empathise with their so-called 'enemies' *as humans*, and that this is profoundly affecting, too. These testimonies come from a small group of former drone personnel, but offer rich empirical information that may be generalisable to a wider group of active-duty and retired personnel (who, for above-mentioned reasons, either cannot or do not want to speak publicly about how drone warfare has psychologically affected them). In her *The Guardian* (2013) opinion editorial, former sensor operator Heather Linebaugh opens by asking: 'How many women and children have you seen incinerated by a Hellfire missile? [...] How many men have you seen crawl across a field trying to make it to the nearest compound while bleeding out from severed legs?' She goes onto say:

'I watched dozens of military-aged males die in Afghanistan, in empty fields, along riversides, and some outside the compound where their family was waiting for them to return home from the mosque.' (*The Guardian* Dec 29 2013)

Former drone pilot Brandon Bryant, a PTSD-suffering former drone pilot, recounts one of his traumatic experiences of killing:

'The smoke clears [...] and there's this guy over here, and he's missing his right leg above his knee. He's holding it, and he's rolling around, and the blood is squirting out of his leg, and it's hitting the ground, and it's hot. His blood is hot. But when it hits the ground, it starts to cool off; the pool cools fast. It took him a long time to die. I just watched him. I watched him become the same colour as the ground he was lying on.' (quoted in Power 2013)

In another description of the same experience, Bryant mentions that he 'imagined his [victim's] last moments' as he watched him dying (*Democracy Now!* 2015). Former drone pilot Matt Martin describes an experience of similar emotional and psychological magnitude in his book *Predator*: his realisation that two young boys

were in the firing line of a missile he had already deployed. The older boy was riding his bike while the younger boy sat on the handle bars. When the missile struck metres away from the boys, killing them, Martin vividly remembered riding his sister around on the handlebars of his bike as a child. He recalls 'smelling her hair' and 'hearing her laughter' (Martin 2010, 211). This flashback to childhood suggests Martin had the empathetic realisation that *in another reality that could be me*.

These testimonies undermine constructions of drone personnel as people who do not recognise or empathise with their victims, whereby technological mediation and disembodiment turn victims into 'ones and zeros' (Pugliese 2011, 64). To make better sense of technological mediation, recognition and empathy in drone warfare, it is important to consider the media technology environment of the twenty-first century. High-technology, mediated interaction is part of the fabric of everyday life in today's digital age. This is the environment within which drone personnel live, work and play. It is therefore crucial for IR (and critical geography) academics interested in the lived experiences of drone warfare to engage with media, screen and cultural studies. Media scholar William Merrin argues (2009, 17; 22) that we live in a 'post-broadcast era', where 'bottom-up, many-to-many, horizontal, peer-to-peer communication' is commonplace due to the proliferation of networked media technologies. He writes that, where broadcast media were concerned with 'informing and uniting "the social"', networked media technologies allow people to 'make their social' in 'media worlds [...] of interaction, communication, mediation, experience and information' (Merrin 2009, 24-25). Mark Deuze (2011, 137) uses the term 'media life' rather than 'media worlds', but similarly writes that media technologies are so pervasive in the twenty-first century that it makes better sense to think of our lives 'lived *in* rather than *with* media'. Media technologies are imbricated so deeply in our lives – professional, social and intimate – that 'they are becoming invisible': 'people in general do not even register their presence' (Deuze 2011, 143). This means an 'increasing immateriality of one's experience of reality' whereby the mediated and the unmediated, the 'virtual' and the 'real', inform one another so closely that it is difficult to tell where one ends and the other begins. In the 1990s, when 'Information Age' debates were rife, the internet was known as 'cyberspace': a 'coherent place that you could immersively inhabit' that was distinct

from ‘reality’ (McCullough 2004, 9). Now, the ubiquity of networked media technologies undermines our ability to clearly distinguish between un-mediated, non-networked spaces and ‘cyberspace’. It is this pervasive media environment, wherein disembodied interaction is frequent even with the most intimate of contacts, that we must keep in mind as we attempt to understand drone personnel’s lived experiences of their work.

Understanding the effects of pervasive networked media technologies on surveillance practices, in particular, can help make better sense of drone personnel’s emotional and psychological experiences. The pervasiveness of networked media technologies has led to ‘always-on, ubiquitous, opportunistic ever-expanding forms of data capture’ (Andrejevic and Burdon 2015, 19). Where it previously made sense to think of an ‘unblinking, totalitarian Big Brother’ (the government) conducting surveillance, today there are ‘more like ten thousand little brothers’ (McCullough 2004, 15). Mark Deuze argues that surveillance has moved away from the centralised control of the state ‘to the much more widespread and distributed gaze of the many’ (2012, 126). Contacts made in the digital age, ranging from the professional to the intimate, are often initiated, maintained and *monitored* with and through media technologies. Social media platforms allow (even *encourage*) close monitoring of friends’ movements, dating apps inform users of the geographical proximity of their matches, key-stroke monitoring software alerts employers to employees’ procrastination and GPS tracking apps (such as ‘Find My Friends’ and ‘Couple Tracker’) provide the real-time GPS location of partners, children and friends. Message-read receipts, social media geolocation tags and ‘last active’ information are further evidence of the normalisation of surveillance in the era of pervasive media, as the distinction between our public and private lives is increasingly blurred. It is likely that drone personnel use one or more of these media technologies in their domestic lives, and these experiences could have significant impact on how drone personnel encounter their work. The US-led drone program is, of course, a vertical (or ‘top down’) form of surveillance: drones collect vast amounts of Intelligence, Surveillance and Reconnaissance (ISR) on people across the Middle East, North Africa and South Asia without their permission; secretive National Security Agency programs enable this and other coalition governments contribute through information-sharing and intelligence-

processing support. It is important, however, to consider how peer-to-peer, horizontal surveillance practices might interact with this hegemonic, top-down form of surveillance in ways that could allow (even encourage) drone personnel to recognise or empathise with their victims *as humans*.

Mark Andrejevic (2006, 2010, 2015) has written extensively on how generalised suspicion and widespread data collection post-9/11 has intensified and normalised ‘mutual monitoring’ practices. He writes that the culture of suspicion has been transposed ‘from the realm of post-9/11 policing to that of personal relations’ (2006, 400). Andrejevic provides a useful framework for thinking about the militarisation of everyday life: how post-9/11 military and policing practices have permeated into our private, domestic lives. In the case of drone personnel, however, it is useful to think about how this permeation might occur in the other direction: how they might find it difficult to disentangle surveillance practices in their domestic spheres from their work surveilling the so-called ‘enemy’. Drone personnel are sometimes tasked with surveilling a potential target ‘for more than eight hours a day’ (Asaro 2013, 205). From their surveillance, they can ‘see and recognise the personal details and daily activities’ of the people they are ordered to kill (Asaro 2013, 205). One former pilot writes that ‘you start to understand people in other countries based on their day-to-day patterns of life. A person wakes up, they do this, they greet their friends this way, etc.’ (quoted in Bergen and Rothenberg 2014, 115). Brandon Bryant admits to having watched ‘targets drink tea with friends, play with their children, have sex with their wives on rooftops, writhing under blankets’ (Power 2013). Depending on the altitude of the drone and the feed that is watched (surveillance footage, thermal imaging, etc.), drone personnel see their victims from a bird’s eye view as tiny dots, pixelated blobs or heat signatures. It is clear from their testimonies that this does not prevent them from recognising, and in some cases empathising with, their victims *as humans* engaging in human activities. Imagination is crucial in this regard, but we also need to consider the possibility that humanisation occurs because similar visualities are at work in drone surveillance as in horizontal, peer-to-peer surveillance practices. The aerial viewpoint and use of digital signifiers to denote a human’s presence is a common visuality in myriad peer-to-peer monitoring interfaces, such as Foursquare, Swarm, Uber, UberEats, Find My Friends, Couple Tracker,



MapMyFitness and Facebook's 'nearby friends' feature. These peer-to-peer surveillance interfaces (where humans who are already, or are about to be, known to the user in an embodied sense are represented as disembodied digital signifiers) may be difficult for drone personnel to differentiate from the visuality of the drone. It is therefore important to consider how drone personnel's experiences with media technologies outside their work could inform their experiences at work. Drone personnel's emotional and psychological reactions to surveillance and killing could be informed by peer-to-peer, domestic surveillance practices in the digital age.

In addition to considering surveillance cultures in today's media technology landscape, it is also useful to think about how mediated imagery is understood and experienced by viewers. The work of media, screen and cultural studies can offer useful insight into how drone personnel might experience the mediated imagery of drone surveillance, in ways that increases their likelihood of suffering psychological illness. Derek Gregory (2011, 190) and Kyle Grayson (2012, 123) both refer to the 'scopic regime' of drone surveillance: a modernist visual regime that empowers viewers, giving the impression of 'hypervisibility' and 'epistemological and aesthetic realism' (Gregory 2011, 193; Grayson 2012, 123). Grayson (2012, 123) takes this further, arguing that drone surveillance's scopic regime 'produces a form of pleasure that can be addictive for the one with the privilege of viewing'. Scopic regime was a term first coined by film scholar Christian Metz in 1982 to explain how the cinematic apparatus encourages particular viewing behaviours (identification and voyeurism) (Metz 1982, 61). It was later applied to technological apparatuses beyond the cinema by scholars such as Allen Feldman (1997, 30), who used the term to refer to any 'ensemble of practices and discourses that establish truth claims [...] of visual acts and objects and correct modes of seeing'. Metz (1999 [orig. 1974], 79) also wrote, however, that the visual elements of the moving image 'are indefinite in number and undefined in nature': 'one can decompose a shot, but one cannot reduce it'. Johanna Drucker (2011, 6) similarly argues that 'graphical features organise a field of visual information, but the activity of reading follows other tendencies', according to the viewer's 'embodied and situated knowledge, cultural conditions and training [and] the whole gamut of individually inflected and socially conditioned skills and attitudes'. A scopic regime may *direct* certain viewing behaviours, but it cannot *dictate* them: there is a whole gamut of factors,

indefinite in number and undefined in nature, that can provoke alternative modes of viewing. This is what cultural theorists Stuart Hall's (1980 [orig. 1973], 136-138) and bell hooks's (1992, 117) theories of 'negotiated' and 'oppositional' reading refer to: possibilities (outside the hegemonic or dominant reading) for unintended, subversive or counter-hegemonic readings of mediated content. The scopic regime of drone surveillance may *direct* drone personnel to feel omniscient and powerful and to experience pleasure, but this is by no means the only available reading. Thinking about alternative readings of mediated texts can help make better sense of why former drone personnel suffer from psychological illnesses, despite being directed (by the scopic regime's dominant/hegemonic reading and military culture) to feel emboldened by their work. Drone personnel suffering with psychological illness have likely engaged in alternative readings of drone surveillance's scopic regime – readings that encouraged recognition and empathy of their victims, or otherwise sowed the seeds of doubt regarding the (im)morality of their work. Ruptures in the scopic regime would encourage these alternative readings: moments where the so-called omniscience of the drone apparatus comes into question. Alison Williams (2011, 386) and Lauren Wilcox (2016, 9) question the 'imperfect' or 'god-like' vision of drone surveillance, arguing that the operator's or analyst's eye 'cannot remain unblinking in its gaze, nor can the drone assemblage provide peripheral vision'. Furthermore, Wilcox writes, 'the visual imagery in drone warfare is often not as clear as purported' (Wilcox 2016, 11). These ruptures – increasing the likelihood for alternative or counter-hegemonic readings – are evident in Heather Linebaugh's personal testimony, where she recounts feeling far from omniscient:

"The feed is so pixelated, what if it's a shovel, and not a weapon?". I felt this confusion constantly, as did my fellow UAV analysts. We always wondered if we killed the right people, if we endangered the wrong people, if we destroyed an innocent civilian's life all because of a bad image or angle. (Linebaugh 2013)

In addition to these ruptures, there are also the 'individually inflected and socially conditioned skills and attitudes' that drone personnel bring to their viewing of drone surveillance imagery (Drucker 2011, 6). The modernist assumption that the documentary image provides 'epistemological and aesthetic realism' is increasingly

uncommon in the digital age (Grayson 2012, 123). Digital media technologies allow users to ‘read, edit and write their codes, programs, protocols and texts’ (Deuze 2011, 137). ‘Reality’ is revealed to be ‘malleable’ by digital media technologies: it can be ‘manipulated, fast-forwarded, panned, scanned and zoomed in on’ (Deuze 2011, 137). It is this postmodern understanding of the malleability of reality – an awareness of the ‘constructed-ness’ of mediated images – that drone personnel might bring to their reading of drone surveillance’s scopic regime.

### **Hypothesis 2: Drone personnel experience a boundary collapse or ‘leakage’ with drone equipment**

Possible causes of drone personnel’s psychological illnesses could also be identified by examining their relationship with their technological equipment. A cyborgian ‘leakage’ between human and technology could be particularly affecting when it comes to technologies of killing. Such a leakage would encourage drone personnel to transcend the self/other ‘boundary’, recognising and empathising with their victims. I draw on Donna Haraway’s work to elucidate this hypothesis. There is also the possibility that experiences of proximity with and through drone equipment are felt *in relation to* experiences of distance, and vice versa. Transitions between states of proximity and distance would increase the likelihood of recognition and empathy, and would provoke drone personnel to confront the violent reality of their actions. I use Martin Heidegger’s and Vivian Sobchack’s phenomenological work to develop this idea.

Posthumanist and cyborg theory scholars argue that instrumentalist accounts of technology fail to understand the porousness of the human/technology ‘boundary’. Learning from these scholars, it would be mistaken to try to make sense of drone personnel’s relationship with drone technology through an instrumentalist framework. Instrumentalist accounts of the human-technology relationship establish a false binary between bodies and technology. Marshall McLuhan (2013 [orig. 1964], 64-70) wrote in *Understanding Media* that technology can be thought of as an ‘extension’, an ‘amplification’ and an ‘amputation’ of the human body: a multitude of porous formations united only in their imbrication of humans and

technology. Rather than discrete entities, humans and technology are enmeshed with one another in myriad ways and often lack clear definition. In ‘A Cyborg Manifesto’ (1991 [orig. 1985]), Donna Haraway offers the provocation that ‘we are cyborgs’: ‘theorised and fabricated hybrids’ of ‘human and animal’ and ‘machine and organism’ (150). Haraway invites the reader to think of distinctions between humans and machines, humans and animals, and the physical and non-physical, as ‘leaky’ (Haraway 1991, 152). Haraway’s cyborg is *not* a literal figure, contained within a clearly defined human-technology assemblage, although often misinterpreted as such (Phan 2015, 5). Haraway’s cyborg is *political*, referring to human-technology ‘leakages’ that facilitate feminist boundary-crossings between militaristic, patriarchal and colonialist dualisms: ‘self/other, mind/body, culture/nature male/female, civilised/primitive, reality/appearance...’ (Haraway 1991, 177). To approach humans and technology as discrete entities, as the instrumentalist logic does, is to ignore this cyborgian leakiness between humans and technology. Military equipment is often spoken about as discrete tools, contained within non-leaky formations. Academics will name different types of technologies used by soldiers, without further argument, as if their presence is evidence enough that de-humanising processes are at work. Going to war in the twenty-first century involves sitting ‘behind computer screens’, ‘pushing a button’ and ‘dragging a mouse’ to kill people who appear as ‘infrared heat-sensored images and laser-guided targets’ (Royakkers and Van Est 2010; Singer 2009; Masters 2005). An instrumentalist approach is not useful for understanding why drone personnel suffer with psychological illness, as it assumes an inherent link between high-technology work, de-humanisation and psychological distantiation. While controversial, it is useful to consider the feminist boundary-crossing leaks Haraway describes occurring within the (otherwise highly militaristic and patriarchal) human-technology assemblage of the drone apparatus. Drone personnel may be experiencing cyborgian leaks with the drone apparatus whereby the militaristic and colonialist dualisms of self/other and civilised/primitive are transgressed. This seems to be the case for an anonymous active-duty drone pilot, who writes: ‘you feel like you are a part of what they’re doing every single day’ (quoted in Bergen and Rothenberg, 115).

Joseph Pugliese has already initiated the application of posthumanism and cyborg

theory to the study of drone technology, drawing on Donna Haraway's work. In *State Violence and the Execution of the Law*, Pugliese argues that drone personnel develop a 'prosthetic' relationship with their equipment (2013, 203). Prosthesis is the process by which drone personnel's bodies are extended through the technology in use: the joystick and controls are experienced, through sustained interaction, as extensions of their arms and hands. Thus the alleged 'boundary' separating drone personnel from drone technology is revealed as myth. Pugliese acknowledges Haraway's utopian reading of human-technology assemblages, wherein the cyborg's boundary-crossing nature offers opportunities to transgress militaristic, patriarchal and colonialist dualisms. However, he aims to 'recode' the cyborg descriptor to 'evidence its violent assimilation and co-option by the very [...] militaristic and instrumentalist authorities it was designed to contest' (2013, 204). He argues that human-technology leakiness, rather than opening up opportunities to challenge the dualisms at work in the 'war on terror' (self/other, civilised/primitive, male/female, and so on) simply 'instrumentalises' drone personnel's bodies into 'lethal machines' (205). Pugliese (2013, 204) is still convinced by an instrumentalist logic, whereby drone personnel are turned into hyper-militaristic robot warriors who are emotionally 'disassociated' and ethically 'disjoined'. The relationship between human and machine is posited as unidirectional, with drone technology permanently 'injecting' personnel with colonialist militarism. This constructs drone technology as all-powerful – a fetishising discourse – and misrepresents Haraway's cyborg (which sees humans *and* technology as porous and non-discrete).

Martin Heidegger's phenomenological work offers a different interpretation of the human-technology relationship, but also considers it porous. Heidegger could provide another useful theoretical framework for understanding why drone personnel suffer psychological illness. Heidegger (1978, 97) argues that 'there "is" no such thing as *an* equipment' because any 'piece' of equipment belongs to a 'totality of equipment'. Assertions that drone personnel are merely 'fighting from behind a computer' neglect this (Royakkers and van Est 2010, 292), opting instead to describe equipment in isolated terms. Heidegger contends that the totality of equipment works together '*in order to*' carry out a function (1978, 97). Drone personnel work *with* their computers, joysticks, keyboards, chairs and headsets, which all refer to each other, in addition to referring to the room, the building,

the military, the US government, its counterterrorism discourses, and myriad other physical and non-physical influences. Any supposed 'boundary' separating drone personnel's bodies and the technology in use is surpassed: the body is extended through the totality of equipment in order to carry out the surveillance or killing of a person or people. Drone personnel's concern is therefore not with a single piece of equipment (the mouse, the joystick, the computer screen, etc.), but subordinates itself to the *in-order-to* – regardless of physical distance from the person surveilled or killed. Likewise, when we Skype loved ones overseas, they feel – in every relevant sense – more proximate than the cup of tea or coffee merely an arm's reach away. Our concern subordinates itself to the *in-order-to* – communication with our family member, partner or friend – and we become immersed in that activity. This subordination to the *in-order-to* seems evident in former drone personnel's surprisingly detailed descriptions of the people they observed. An active-duty drone pilot, referred to simply as 'Mike', talks about watching 'an old man startled by a barking dog' (quoted in Hurwitz 2013). Brandon Bryant describes watching a group of three men through the drone's thermal-imaging camera. 'The two individuals in the front were having a heated discussion', he says, and 'the guy at the back was kind of watching the sky' (*Democracy Now!* 2013). The detailed descriptions of these moments – the old man's 'startled' reaction, or the man 'looking at the sky' while his friends had a heated argument – suggests drone personnel are immersed within the lifeworlds of the people they surveil. Instrumentalist logics fail to explain these immersive experiences.

In addition to examining how immersion might increase drone personnel's likelihood of psychological illness, it is also useful to consider how moving between experiences of proximity and distance could be particularly traumatic when it comes to technologies of killing. Heidegger further develops his concept of the '*in-order-to*' with the terms 'ready-to-hand' and 'present-at-hand' (1978, 97). Drone equipment is 'ready-to-hand' when it is all referring to each other harmoniously *in order to* surveil and kill (1978, 103). If there is a breakage or disruption, the ready-to-hand equipment withdraws and 'reveals itself' as obtrusive, becoming 'present-at-hand' (1978, 103). Human and technology thus undergo temporary distanciation. For example, a pen 'reveals itself' when it runs out of ink; a pair of reading glasses when they fog up. As Mark Weiser (1994, 7) once put it, 'a good

tool is an invisible tool [...] it does not intrude on your consciousness'. Moments of breakage could thus be highly anxiety-inducing when it comes to technologies of killing, as drone personnel are provoked to confront the violent reality of their action (the 'in-order-to') and question the extent of their culpability within that action. Studies have found that a significant source of stress for drone pilots stems from 'human-machine interface difficulties', particularly the 'ergonomic design of equipment and Ground Control System' (Ouma, Chappelle and Salinas 2011, 11). These moments of digital friction are likely to be highly stressful for drone personnel because they are required to move from experiencing their equipment as ready-to-hand to confronting it as present-at-hand. Drone personnel are therefore repeatedly encouraged to reflect upon their body's imbrication with technologies of killing. Heidegger's phenomenology allows us to think about how moments of separation from drone technology are likely felt *in relation to* moments of proximity. The constant transitioning between proximity and separation is likely to be a highly emotional experience for drone personnel, as they struggle to situate the 'boundaries' of their bodies in relation to, and culpability within, a technological apparatus of killing.

Media, screen and cultural studies theorist Vivian Sobchack's (2004) work on the phenomenology of inter-objectivity, and the theory of empathy she derives from this, is also useful for thinking about how experiences of proximity and distance might interact to psychologically affect drone personnel. Sobchack argues that empathy results from a person's recognition that they are both an 'objective subject' and a 'subjective object' (Sobchack 2004, 288). That is, we are most capable of empathy when we see ourselves as subjects but also acknowledge the capacity for other things (animate or inanimate) to treat us as objects. We experience objectification when we are 'acted on and affected by *external* agents and forces, usually adversely' (Sobchack 2004, 287). An earthquake that destroys one's house, for example, is an external force, putting the homeowner into a situation whereby their objectivity becomes apparent. A thief who steals one's car is an external agent who spares no thought for one's need to get to an important meeting. Sobchack suggests that our 'reversibility as subjects and objects' is what allows us to empathise with others (human or otherwise) external to ourselves, as we know what it is like to lose our subjecthood at times of objectification (Sobchack 2004,

287). It is possible, then, that empathy is provoked rather than undermined when drone personnel experience moments of distance between themselves and their victims. Drone personnel are aware, from moments of proximity, that their targets are humans (*subjects*). Moments of distanciation could therefore render objectifying processes unavoidably obvious for drone personnel, highlighting their role as an external agent. Sobchack's theory radically changes the way empathy and distance is thought about. Sobchack develops a clear link between our capacity for empathy and our recognition of objectifying processes. It will be fruitful for future research on drone personnel to consider how transitions between cyborgian immersion (as *subjectifying*) and distanciation (as *objectifying*) could encourage drone personnel to empathise with their victims.

## Conclusion

This article has suggested two hypotheses for why drone personnel suffer psychological illness; first, that technological mediation and disembodiment does not inhibit recognition and empathy – particularly in our digital age – and, second, that drone personnel may experience a 'boundary' collapse or 'leakiness' between their bodies and their equipment. This leakiness could encourage drone personnel to recognise and empathise with their victims, and provoke them to confront the violent reality of their actions. This article has advocated further empirical research on people who work(ed) in the drone program, despite their psychological health becoming a site of conflict for ethical discussions about military drones. Drone personnel require discursive attention, as they are also victims of drone warfare (albeit in a *different* way to the people surveilled, maimed and killed by drones across the Middle East, North Africa and South Asia). It is pertinent to acknowledge that drone personnel face psychological harm, and that this harm is also manifested physiologically, particularly when the responsibility to protect soldiers from harm is evoked by the Pentagon and its military academics to convince the public of drone warfare's virtues.

Continued journalistic and academic investigation into drone personnel will also help to uncover alternative (possibly subversive and counter-hegemonic) readings

of the drone apparatus. People can interact with articulations of hegemonic power in ways that expose 'their porousness and malleability, their incompleteness and their transformability', and this is no different for drone personnel (Butler 2006, 533). As Judith Butler argues, there is always the possibility for 'radical rearticulations' of power through counter-normative relations (1990, 16). It already seems clear, from the handful of testimonies cited in this article, that many drone personnel are far less convinced by the mythology of the drone – as an ethical and omniscient technological apparatus – than the public. It is therefore important their experiences are discovered and communicated. Counter-hegemonic potential can be found within drone personnel's testimonies, but that potential is foreclosed when academic and journalistic discourses construct the drone apparatus as invulnerable. Opening up this potential aligns with Caroline Holmqvist's (2013, 542) project to consider how drone personnel's experiences can 'seep out in a wider social corpus', and with Ian Shaw and Majed Akhter's (2012, 1502) directive to 'dismantle the production and maintenance of the drone fetish'. Lauren Wilcox (2015, 11) similarly compels us to think about how 'bodies are both constraining (insofar as they are imposed upon by relations of power) and enabling (as they possess creative or generative capacities to affect the political field)'. Drone personnel's embodied experiences possess generative capacities to affect the political field, but they first have to be taken seriously by journalists, academics, NGOs and anti-drone politicians before that affective potential can be realised.

This article has also argued for the usefulness of an interdisciplinary approach to studying mediated, high-technology warfare. Media, screen and cultural studies has a decades-long engagement with mediation, human-technology interaction, embodiment, phenomenology and affect. Media, screen and cultural studies offer many useful theoretical tools which international relations scholars can use to make better sense of mediated, high-technology war. Moreover, the introduction of *recent* media theory – particularly work on pervasive media in the digital age – into a discussion currently dominated by Information Age debates is necessary. It is not that international relations theory has completely ignored media, screen and cultural studies, but that it continues to draw upon 1990s literature focusing on high-speed, high-technology's role in enacting biopolitical control. To a large extent, this remains relevant; indeed, nation-states and corporations have *increased*

their reliance on big data mechanisms to measure, map and control citizen-consumers. The relentlessly instrumentalist logic of such work, however, neglects the leakiness of human-technology interaction, including the possibility for counter-hegemonic resistance within hegemonic technological apparatuses. Lastly, this article's posthumanist and phenomenological approaches represent an important contribution to the affective turn led by feminist and critical theorists within IR theory. Embodiment, emotions and affect are burgeoning areas of inquiry in international relations, complicating age-old realist and instrumentalist understandings of agency, mobilisation and power. A unified approach between feminist/critical international relations and media, screen and cultural studies would be most effective in uncovering human experiences of high-technology, mediated war.

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## Biography

### Alex Edney-Browne

Alex Edney-Browne is a PhD researcher in International Relations at the University of Melbourne. She graduated with a BA Hons (First Class) in Media, Film and Television and Politics and International Relations from the University of Auckland in 2015. Her thesis investigates people's lived experiences of drone warfare: the emotional, psychological and physiological affects of military drones on people living in targeted areas and US Air Force drone personnel. It posits the drone as an 'affective interface', which facilitates human-technology interaction and cross-cultural human-to-human interaction – sometimes in unexpected and subversive ways. Alex's research is interdisciplinary, engaging with critical international relations, science and technology studies and media, screen and cultural studies.

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***Those Who Feel the Fire Burning:***  
**Drone Perception and the Aesthetico-Political Image**  
Halbe Kuipers

On Pontecorvo's holocaust film *Kapo*, Jacques Rivette once said that the least one can say is that it's difficult, when one takes on a film on such a subject, not to ask oneself certain preliminary questions. Not doing so, he notes, can only be indicative of negligence, of some sort of ignorance (Rivette). What is at stake, and which Rivette reproves Pontecorvo for, is the approach to the subject matter, that is, an ethics that spans the subject filming, to the subject filmed, to the subject spectator – and, Serge Daney adds, involving a certain distance therein (Daney 2004). Pontecorvo's tracking shot imbues the image with a certain realism, and in that realism the abject choice is made, Rivette claims:

Look however in *Kapo*, the shot where Riva commits suicide by throwing herself on electric barbwire: the man who decides at this moment to make a forward tracking shot to reframe the dead body – carefully positioning the raised hand in the corner of the final framing – this man is worthy of the most profound contempt.

Rivette condemns Pontecorvo for attempting to make of something so horrendous something beautiful, to let the tracking shot actually show that which cannot be

shown with a certain grace. The negligence, in Rivette's view, lies in not just the final shot, but in the tracking towards it, framing a movement that results in a spectacularized image. This is an abject thing to do according to Rivette. He thus emphasizes the importance of how to approach such, or any, subject matter. There must be a certain responsibility from the subject filming, to the subject filmed, to the subject spectator – in short, in the constellation of the image. In other words, Rivette emphasizes the importance of a responsibility before the image.

The approach of *Those Who Feel the Fire Burning* (2014; hereafter *Those Who*), young director Morgan Knibbe's new film, is thus considered remarkable to say the least, perhaps even questionable. This film shows the lives of a family of refugees making a dangerous passage to some other place – presumably Europe, given the current influx of refugees, although the film never makes this explicit. We do not know where the family came from, we do not know where their journey is going, nor do we know where they reside as the film subsequently follows their daily lives after the journey. More poignant than this refusal of localization, however, is precisely how the film approaches its subjects. *Those Who* is for the most part shot with a drone camera, in itself an already remarkable choice given that the drone is a known surveillance tool and in some cases even a weapon. The choice of a drone makes the film strikingly impersonal from the outset, and this impersonality is only further emphasized by the drone's specific movement: its swerves and the subsequent erratic line of perception created in its flight, lead to a rather unusual and perhaps inappropriate way of filming the refugees. There is very little direct attention and thus little space for the refugees as subjects; the drone, and with that the camera, more often than not turns away from the refugees at the most unexpected moments. The refugees thus become but parts of an environment that the camera registers in flight and so the line of perception makes for a certain distanced approach. One can question whether this is, ethically speaking, proper considering the situation of these people. Ought there not to be given more space to the subjects themselves, their stories, their experiences? Is the turning away from the refugees, albeit due to the drone, not irresponsible to the subjects filmed, and thus irresponsible towards the image in the way Rivette meant?

Director Knibbe insists that he did not want to make a political statement of any sort. What the film ought to be, he stresses, is an experience, no more, no less (Knibbe 2014). Such an experience, one could assert, would have to be autonomous. French philosophers Gilles Deleuze and Félix Guattari call such an autonomous experience as such a sensation; a sensation would be, they argue, self-positing, an expression of pure immanence (1994: 172). A sensation of this kind is free from the restraints of communication, free of any sorts of universalization – it emerges within the constellation of the image, between the three subject positions, being determined by it, but not determinative of it. That is to say, following the reasoning of Deleuze and Guattari, an image as sensation does not depend and fall back on one or the other, it is not a product of either. Rather the image in itself is a production in itself, a creation, and implores to be taken as such.<sup>1</sup> The responsibility before the image that Rivette uncovered can, in this line of thinking, be seen as a commitment to immanence, a commitment which takes responsibility for what an image is in its creation.<sup>2</sup>

To create such an image does not mean it ought to be an abstraction that is free of any form or subjectivity; on the contrary, as it finds its emergence “in-between” it might avoid the image in any way becoming *determinate* of the forms or subjects, but it is not undetermined by any either. Communication, Deleuze and Guattari tell us, will always tend towards a universalization (1994: 9). Such universalization could, for instance, turn into a political statement and be determined or appropriated by specific ideological means. It could also lead to a subjective account, relegated to the realm of mere fiction. Any sort of universalization through communication would draw the image towards one side of the constellation, consequently ending up denying any of the other side its prevalence. An image as sensation creates, in every instance, a new reality. Thus it is surely determined by its conditions, but it does not in turn determine them.

In what follows the improbable conjunction of the impersonal perception of drones with the precarious subjects that are shown in *Those Who* is further explored. Through the philosophy of Deleuze and Guattari the notion of the image as self-positing will be analyzed in how it works. This will be done in terms of a line that is construed in *Those Who*. This line is one of perception in that it is in a near-

constant flight, giving almost no space to thought as the movement keeps going. The line is marked by a specificity, namely what comes forth from the drone’s motility in combination with the attunement to it by the subject filming, amounting to certain swerves. Thus what is at stake here, and what can be considered a distinction to the many already existing analyses of drone perception, is the specificity of the movement that can occur with drone filming and what potential this movement holds. What will then be put forward is the contention that by making operative that which is specific in the objective movement of the drone, these swerves suspend the subject-object relation. In so doing, the film excavates that which is at once determined by the constellation, while at the same time being undetermined as it forms a self-positing image. Finally, the political of such an image will be considered.

### **A flight between fiction and reality**

To start with a fictional scene might be the only way to show what would otherwise be nearly impossible, or unethical, to show. In *Those Who* the opening scene – wherein we find a family trying to cross an unspecified ocean – is one that attempts it nonetheless. It attempts to make us witness to the perilous journey that is undertaken.<sup>3</sup> But it is dark during the crossing, so there is little that one can actually see. The water can be heard crashing onto the boat, and only by some light coming from a flashlight can the shapes of the different family members be seen. As the waves become too strong disaster befalls the family, and the grandfather, through whose point of view we have witnessed the event, gets thrown overboard and is taken by the water. Slowly submerging, the little visibility that there was gets drawn into the complete and utter darkness of the depths.

It is from this darkness that a line of perception emerges. Having drowned, the spirit of the grandfather takes flight, leaves the water and begins to dwell the family’s place of refuge. The flight, still from a point-of-view shot, constitutes a line no longer bound by earthly restrictions, and becomes a line of perception in continuous flight, never allowing any grounding. The scene itself, with its near impossibility of actually seeing what happens, gives but an impression of events,

emphasizing the impossibility of going any further in such a depiction. The event is necessarily fictionalized, for besides any ethical concerns it is impossible to actually film something like this. But it is this fiction that imbues the image with the possibility of giving an impression. That is to say, it is via this fiction that the film finds a possibility to give an impression of such an event, and the impression is affirmed in the fullest when the line takes flight, embracing its fictional nature. All the while it remains but an impression it does not go further in representing the event as perception cannot get a hold of it in the dark. It never pretends to more than an impression. The line of perception is where the fictional and the flight of the drone come together.

After it has taken flight, the line of perception does something other than remain in the fictional, for it tends towards those who have survived the crossing, towards the living, and there it occasionally grounds itself again. Their situations are observed as the spirit keeps dwelling, as it keeps moving from one survivor to the other. Ultimately, it finds each of the remaining family members – or so it insinuates – in their daily lives after the crossing, as the line of perception glides from one to the other. Here the fictional and actual meet as the fragments impose a certain realism on the image again and ground it. The line of perception then moves *in between* the unreal and the actual, or, literally, between the spiritual and the material (Bergson, 2004: 1).

What makes the line of perception actually go in between the unreal and the real is not the mere move from the real (the boat scene) to the unreal (the taking flight of the spirit) to the real again (the scenes of the daily lives of the survivors). Solely this kind of movement would maintain a certain gap between the different states, making the image that fills the gap therefore remain dependent on the different states. Deleuze in his cinema books calls this gap the interval, or that which maintains a difference between perception and action. If the interval remains intact, Deleuze argues, the in-between remains a difference between two things instead of a for-itself. Any image produced would be a correlate of either thing. Likewise, any thought that is produced by the line, in being dependent on perception, would do nothing but trace it, that is, in a docile manner thought would always be subjugated to the line. Or worse, thought risks falling back, completely severing

the line, resulting in simply nothing. What is to keep thought from doing either? Elsewhere, Deleuze and Guattari refer to this interval as that which separates being and thinking – a separation that makes us ‘the slow beings that we are’ (Deleuze and Guattari, 1994: 36). What is at stake here is thought itself, always lagging behind being, that is, behind action. The interval however, Deleuze and Guattari contend, can be traversed, if, and only if, thought and being fall together. Falling together would compose a movement that is both *impersonal* (for being can no longer be its ground) and *singular* (for thought becomes per se different): the self-positing force of pure immanence (Deleuze, 2001: 28). The impersonal singular, if composed in *Those Who*, would be the emergence of an image that is self-positing, of one that avoids the universalization of communication. It would hold a responsibility before the image insofar as it maintains sufficient distance within the constellation of the image. The question is then, how does this occur if simply shifting between real and unreal does not suffice? Or phrased differently, how is the interval traversed?

### **Assemblage**

To understand how the interval is traversed means understanding how the interval is constituted in the film in the first place. This, initially, means dealing with the problem of representation. What Deleuze makes explicitly clear on that account is that cinema is not naturally bound to a logic of representation: ‘cinema does not give us an image to which movement is added, it immediately gives us a movement-image’ (Deleuze, 2005a: 29). It is not an image of movement that cinema produces, it is movement itself. What keeps cinema within the logic of representation then lies within the conditions of thought rather than in the cinematographic apparatus itself, meaning that an image is not per definition tied to such conditions, it becomes so by the way it is given form within the constellation of the image (thus the subject filming is here considered imperative, i.e. in its mannerism.)

Deleuze argues that filming goes by way of what he calls an assemblage, or a ‘distributed system comprising sentience, memory, and communication’ that ‘begins to act as an extension of the self’ (Shinkle, 2015: 4). There exists something

of a camera consciousness, a certain feeling with the camera, Deleuze says. 'We are no longer faced with subjective or objective images; we are caught between a correlation between a perception-image and a camera consciousness which transforms it' (Deleuze, 2005a: 74). Perception is extended from the subject filming to the camera, from subject to object – the subject filming and camera inform an assemblage, where through-perception is extended. Perception with the camera is then not 'defined by the movements it is able to follow or make, but by the mental connections it is able to enter into' (Deleuze, 2005b: 23). Thus perception can be ungrounded from its conventions or its conditions by entering into new connections. Moving between the human and its technical counterpart, it can find new ways of seeing and concomitantly new ways of thinking. The new perceptions that find their genesis in specific movements are then precisely the impersonal singulars.

### Specificity

*Those Who's* specific movement likewise relies on the assemblage that is informed by the technique of filming as operationalized. The flight of perception that emerges is one that comes from a camera mounted onto a drone, allowing for enormous degrees of freedom, for the gliding and its accompanying swerves and ultimately for a certain consistency between them. As McCosker notes on drone movement, '[t]he drone's *motility* is "autonomous" and has "self- sustaining vertical and lateral movement"' (McCosker, 2015: 3). As the drone is controlled from a distance, its image is thus immediate yet disembodied – disembodied in that the movements it creates are strongly mechanical. There is an assemblage informed by the relation of the subjective and objective, and even though disembodied, the subject is extended in this manner. Drone perception's specificity is then precisely a disembodied extension.

The movement that is produced through this disembodied extension of drone perception in *Those Who* is in the first place marked by its swerves. That is, what makes the movement specific is precisely the swerve in combination with the continuous self-sustaining vertical and lateral, stabilizing movement. Whence

minimal divergences are determined within its continuous stabilizing, being intrinsic to the drone perception.

In one particular scene in *Those Who* this specificity is foregrounded in a poignant manner. As the camera is hovering, trying to maintain a focus on two of the refugees sitting at a table playing a game of cards while remaining silent, the alteration of movement occurs at the exact moment one of the two begins to speak. As if the minor vibrations of the voice unsettle the balance and stasis of the drone, an abrupt swerve occurs and the drone reorients: in a swift movement, to the back upper corner, making a near complete turn on its axis while simultaneously bobbing upwards and accelerating towards that exact corner, the drone finds its stasis and focus again. It then perceives the relief of the white ceiling and a cockroach slowly making its way across it. Marking this scene is the unexpectedness of the swerve, which, however minor the divergence may be, determines the perception of the camera. Thus instead of focusing on the two men at the table, especially when they finally begin to talk, the camera shows completely other things.

It is through these minimal divergences, or swerves, that a wave-like movement with a full three-dimensional possible distribution is composed. In a sense the movement might take a completely different direction at any given moment. And the attempt to keep the drone flying ends up emphasizing this exact alteration of direction. In this way *the technique of flying with a drone is marked by the attunement to its movements*. In other words, what in part determines the drone perception is not so much what the subject filming wants to see, but rather that it can see at all by keeping it in stasis. And in line with the assemblage, this process of attunement takes place before any conscious reaction; it is the continuous reevaluation of the relation between the subject filming and the camera, thus the maintaining of the disembodied extension.

The swerves that occur due to this attunement are, according to Deleuze, exactly what he calls minimal indeterminacies (Deleuze, 2004: 306). That is, '[t]his minimum expresses the smallest possible term during which an atom moves in a given direction, before being able to take another direction as the result of a

collision with another atom.’ (ibid.) It is neither the weight of the atom nor the void they are in that is responsible for their direction and velocity, it is the swerve itself as ‘a synthesis which would give the movement of the atom its initial direction’ (ibid.). Taking the notion of the swerve from Lucretius, one of the ancient Epicurean philosophers, Deleuze argues that the swerve, similar to how it occurs in *Those Who* by virtue of the attunement, is itself the reason for a singular alteration in movement. It makes the movement of the drone perception neither dependent on its subject filming nor on its objective camera, but places it in-between.

In this capacity, in attuning to and thereby emphasizing the swerve, the flight is erratic: it takes on new directions abruptly to follow these through, until at indeterminate moments yet another direction is taken. The movement hence constitutes a line insofar as there is a persistence to this erratic flight.

### Interstice

In its persistence the line of perception continuously makes new relations to the whole, that is, the film. The swerves and their minimal indeterminacies play a crucial part in shaping the narrative and more. When the camera by virtue of the swerve unexpectedly starts tracing the cockroach on the ceiling instead of the refugees at the table, this shapes the narrative. As a matter of fact, these minimal indeterminacies turn out to play a rather determining role in regards to the whole, as indeed the expected movement of filming the refugees becomes interrupted frequently enough. More often than not, the camera will show the surroundings, focusing in on seemingly unimportant details. Ultimately, the entire line drawn is then the narrative of *Those Who Feel the Fire Burning*. Interestingly, thought or that which takes shape, are then dependent to a large extent on precisely these movements. In effect, that what Deleuze called the interval, the relation of thought and being, is here pushed to a limit.

To understand this relation in depth it helps to lay two similar movements in terms of motility, and above all of in terms of a line of perception, alongside that of *Those*

*Who*. The first being Wim Wender’s *Der Himmel Über Berlin* (1987), and the second Gaspar Noé’s *Enter the Void* (2009). Both films also construe a line of perception by virtue of a flight, so in each we can equally speak of thought trailing behind perception. However, both films also posit a different relationship to the whole.

In *Der Himmel*, and in particular its opening scene, there is a motility that glides from the highest building downwards along the walls of apartment buildings, into windows and rooms, and back out onto the street. This movement has, in contrast to that of *Those Who*, a less erratic line, smooth even, as it gently glides downward observing all that it passes. The descent marks the desire of the angel protagonist to become an earthly dweller, thus going from the highest point atop a skyscraper all the way to the streets. Thought is here positioned between two points, from the heights and angelic world to the down-to-earth street and human world, and thus it is framed between these two points. In other words, it is subjugated to the given points, and determined by them. Thus the smooth glide downwards allows a continuous correlation between perception and thought, maintaining the interval as thought is subjugated to the movement.

The difference here between the line of perception that is construed in *Der Himmel* and *Those Who* lies not in the starting point, for they share that in a way, though in inverse (for in the former it is a descending one, and in the latter it is an ascending one). Rather, the difference lies in the line’s enclosure. In *Der Himmel* the descent ultimately results in a grounding of the line, where it loses its motility and thus gets framed. Moreover, this framing is already given from the start, as it marks the angel’s desire. In *Those Who* such framing never occurs, as the line keeps tending towards the middle of the real and the spiritual. What marks the line of the ghost here is not a unidirectionality, but rather a double as the movement keeps ascending but at the same tries to ground itself in the daily lives of the survivors.

*Enter the Void* construes a similar line of perception and a subsequent relation to the whole, yet under completely different conditions. Here the line of perception is intermittently interrupted by its moving into different strata of time. As the

flight traces the afterlife of its recently deceased protagonist, an occasional flash of memory is triggered by whatever the line of perception encounters. Though the line of perception is certainly erratic, as it seemingly moves around undetermined, the small interruptions of memory stop the incessant movement and allow thought to find its ground again. Every interruption that invokes a flashback halts the erratic line and contextualizes it in terms of narrative. In other words, the line loses its autonomy and becomes once again grounded in the other spaces that are the memories. Though certainly the erratic line of perception expands the interval due to its temporary insistence and erratic nature, at each interval it becomes subject to that which is given by the memory-flashes - in other words, it gets grounded again.

Any such form of actual grounding never occurs in *Those Who*. Instead the line perpetuates a certain violence upon itself in its insistence to keep going. Even though there will be cuts – as the film is certainly not one long line of flight by the drone – these cuts become subjugated to the line because it keeps on extending. In drawing its erratic line, gliding from one survivor to the other, there is a sheer persistence that marks this line of perception, one that is indifferent to its surrounding and turns into pure endurance. In enduring, the line of perception omits or dissolves any intention or objective, and its movement becomes its own constituent of direction and speed.

That line drawn in *Those Who* ungrounds thought as it falls behind trying to follow the erratic dispersions of movement. It ungrounds any points or states wherein thought could possibly find its shelter, its needed stasis or state. In that manner thought, that has need for such points of extrapolation or states of recognition, falls behind to such an extent that it opens up to what Deleuze calls an interstice: the interstice is not one or the other, it *is* the “between” (Deleuze, 2005: 174).

### **Consistency**

What endures becomes that which persists within the interval. Within the interval, the question becomes how do things stay together, how do they refrain from falling

into pure chaos?<sup>4</sup> How does thought refrain from falling into pure chaos, to withdraw from the line and reinstate the same?

Here the swerves gain function. It is through the swerves, through the minimal divergences they introduce, that thought does not fall back into the void, but gets folded out onto the line of perception. In other words, at each occurrence of a swerve thought does not have time to catch up, as it were in *Enter the Void*, but rather it is shocked and whipped up to unfold onto the line of perception. Thus each of the swerves does not introduce an insurmountable distance wherein perception dissipates; rather, it is forced to make a new connection as it is folded inward onto perception itself. What would not belong to the whole becomes part of it by virtue of the divergence that the swerve introduces: the cockroach on the ceiling becomes of equal importance as the two men sitting at the table playing a game of cards; the cars on the street that are followed when the camera makes a sudden jolt outside become of equal importance as the men inside the apartment.

The unfolding is the precise process of mutual inclusion, or “the simultaneous adoption of and distance from”, as philosopher Brian Massumi calls it (Massumi, 2014: 46). So instead of falling back into chaos or adapting to a distance that introduces a break or cut, the swerves introduce a consistency to the line whereupon the interval is traversed. Within mutual inclusion there is no longer any determining factor that is outside of the constellation. The mutual inclusion marks the swerve as being by no means a contingency, rather it is how “there is a unity of causes *among themselves*”, among the parts that make up the assemblage (Deleuze, 2004: 307). There is then no longer something else determining what the movement produces, but rather it becomes self-positing, a consistency in and for itself. When and if such consistency is attained – for it needs to be stressed that this all but a certainty, since it can happen anywhere in the line (Deleuze, 1998b: 158) – the line of perception becomes a line of flight, “a path of mutation precipitated through the actualisation of connections among bodies [or assemblages] that were previously only implicit (or ‘virtual’) that releases new powers in the capacities of those bodies [or assemblages] to act and respond” (Lorraine, 2010: 147). It is a line of flight for it produces something that is singular because it is undetermined, yet is determined by all of the parts.<sup>5</sup>

## Desubjectification

By virtue of the line of flight that *Those Who* invokes, space becomes homogeneous taken from the point where movement passes through, or heterogeneous taken through the duration of the movement where space is continuously informed by it. There is no privileged space, no particular focus attached to something that can turn into a linear line, like a story or an even less structured form: the space is an any-space-whatever (Deleuze, 1995b: 44). Subjects are decentered, as they are in this space but epiphenomena; they are continuously informed by the movement of the line. As with the above described scene: a man alongside a cockroach, alongside a busy street and a blinding streetlight, alongside a shimmer of the moon in a reflection. Or when the line of perception takes us into a mosque, which some of the refugees attend to: the people on the floor praying alongside the decorated walls, alongside the large chandeliers, alongside the mosque's pillars. The subject or subjects are but part of the whole at best. More often than not, one cannot even speak of a subject but merely of a body, as the subject does not have any space for existence. There is no privileged room for being a subject here.

Desubjectification is not a kind of salvation; on the contrary, it is the pain of not being a subject; or at times even the pain of having to become a subject every day. Nor is the middle a place of careless joy; on the contrary, it is where subjects are near to death, where subjects are marked by lines their bodies can barely sustain. The people as sovereign subjects are missing in the at-once terrifying and consuming darkness of the middle. And people actually go missing in that darkness, as did the grandfather of the family in the starting scene whence the line emerged. It is the painful realization of the middle. It is the painful realization of people living in between life and death, desubjectivized in being subjected to the situation. It is also the realization of the impression that was given in the opening scene, where what was impossible could only be approached. The real and the unreal come together in the line of flight, in the double movement wherein thought and being fall into infinity. None is dependent on the other; they are absolute and real. And in this real, the people are missing: they are no longer in their countries, instead residing in these in-between spaces – the most poignant example of life in between. This is the thwarted logic of the current geopolitical

state of things. But this “acknowledgement of a people who are missing is not a renunciation of political cinema,” Deleuze writes, “but on the contrary the new basis on which it is founded” (2005b: 217). There is necessity for political art precisely because the people are missing.

What can emerge from this darkness – and this is the responsibility to the image in a manner of Spinozean ethics, such as Deleuze and Guattari maintain – is the possibility for an image to be self-positing, to be immanent to itself. What emerges from the dark in *Those Who* is a line that, albeit marked and often terrifying, might find an opening within *the conditions of perception*. To be able to alter the conditions of perception, allowing a place for thought that is not given but existent only in terms of its own grounding. What Deleuze here sees as the locus of modern political cinema is the need to circumvent identity politics, making it at once both possible and impossible, and to create space for a new people.<sup>6</sup> That is a politics that precedes being (Deleuze and Guattari 1980: 203). But it is not politics that ignores or negates the subject.

## Politics of the image

What precedes being is how the image is created in *Those Who*; how it is a sensation in and of itself. It is such in excavating the impersonal that lies within the constellation. In a sense, the drone still marks death, as it does in terms of being a weapon or a spying tool, but here it marks it not in the capacity of so being, but in its relation – both with the subject filming, where the impersonal is constituted by the attunement to the swerve, and with the subjects filmed, where the impersonal is constituted by its turning away. In this double movement, which therein maintains a consistency, the perception is turned onto itself, exposing precisely the impersonal relation in itself, as a sensation.

The specific movement is tainted by darkness. Being a subject herein becomes impossible. Yet in the same movement, or rather in the persisting of that movement, the line also draws a line of flight. This, the line of flight, is exactly the sensation in itself, as it uncovers what is impossible and draws it into the real.

It adds something to perception, to thought, and that is the space it can give for the subjects filmed. Not as subjective space, but as a possible space wherein they might become subjects.

Rivette called the specific movement in *Pontecorvo* abject because what it did was frame its subject, to subject it to a certain emotion, whilst being something that can never do justice to the subject it is supposed to represent. This problem is undercut in *Those Who*. The tracking does not stop, it persists and goes in-between where it excavates the pains of desubjectivation while rendering it real in affective terms.

This is not to say that this approach is how it must be done. On the contrary, the approach and the image are specific to the constellation wherein it emerges. That means it is both subjective (as in taking into account the subject filming and the subjects filmed) as well as objective (as in taking into account the technological apparatus.) It is just that at these specific moments of the swerve, which introduce minimal indeterminacies, the determinative of either subject or object are temporarily suspended. It is then that an impersonal singular can emerge within the constellation of the image, being determined by it and thus retaining a sense of particularity. But in being singular, in the new relation it engenders, it does not become determinative of the constellation, that is, it in no way falls back onto its constellation; rather in the suspension it leaps forward, grasping that which marks the relation, engendering possible new thought. That is a responsibility before the image.

A politics of the image thus considered lies then in a commitment to immanence, wherein one searches, (much like Morgan Knibbe does), for ways not just to stay true to oneself, the subjects one is filming, or the subject viewers, but rather to the image and its creation of a reality. This is where the responsibility of the act of filming lies, which falls together with the possibility of creating space via that means. In so doing, the politics of the image precedes being, can take responsibility for being.

## Notes

1] A recent case in the Dutch media perfectly exemplifies how such responsibility is of great importance. On August 16<sup>th</sup> the newspaper *The Volkskrant* printed an article with the headline “Is Schiphol safe?” featuring a photo of road control by the army wherein an Islamic man is questioned (*Volkskrant*, 2016). A lot of commotion followed this publication as it was a clear example of framing, where the safety of the airport is directly linked to terrorism and to this ‘random’ Islamic man. Consequently, the main editor of the paper defended the picture saying it was nothing but a completely random photo and that if they chose to not use this they would fail to be objective. This example shows the irresponsibility which surfaces when not considering the propensity of the production-in-itself of an image to hide behind a preordained reality principle.

2] It is not surprising then that in the preface to the article of Serge Daney there is a commentary that Deleuze’s cinema books are in line with Jacques Rivette’s idea as developed in the seminal essay “On Abjection” (Daney 2004). Although the notion ‘image’ is not used, this is in fact what is discussed.

3] Though a comparison would be reductive to both situations, one finds the impossibility of showing directly tied to films regarding the holocaust. An often repeated claim here is that any film that attempts to depict the happenings of this situation, as for instance *Schindler’s List* (1993), are but degenerative towards the actual occurrence, and thus ways other than showing must be elicited to approach the matter. One could think of the more poetic approach in *Nuit et Brouillard* (1955), the indirect approach in *Shoah* (1985), or more recently the persistent yet evasive approach in *Son of Saul* (2015).

4] In *A Thousand Plateaus* Deleuze and Guattari already talk of this question, which is presumably the consequence of their own emphasis on the body-without-organs in *Anti-Oedipus*. This marks a shift to a problem internal to becoming, or rather, of the dangers of becoming, something most relevant today as *Those Who* shows us.

5] As Michael Hardt writes: “In one sense, Deleuze’s being must be “determinate” in that being is necessary, qualified, singular, and actual. In the other sense, however, Deleuze’s being must be “indeterminate” in that being is contingent and creative” (Hardt, 2002: 127).

6] Jasbir K. Puar says of affective politics that it “makes identity politics both possible and yet impossible” (Puar, 2009: 168).

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## Biography

### Halbe Kuipers

Halbe Kuipers is a doctorate candidate at the Amsterdam School for Cultural Analysis. His project concerns a contemporary state of exhaustion as engendered by mediated environments and what subjectivities it produces. Currently he is a visiting researcher at the Montréal based SenseLab, where is working on a project called *care for the event* considering care from an event-based perspective.

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**Dronedeutung: een tafelgesprek op festival Drift**

Willem Schinkel, Rogier van Reekum en Eva Sancho Rodriguez

Naar aanleiding van het komende Dronedeutung-nummer verzorgde *Krisis* in 2015 tijdens Drift een tafelgesprek: *De chaos tegemoet*. Drift is een wijsgerig festival dat jaarlijks georganiseerd wordt door filosofiestudenten in Amsterdam. Onder leiding van redactielid Eva Sancho Rodriguez duiden Willem Schinkel en Rogier van Reekum het fenomeen *drone*.

Willem Schinkel: Mijn interesse in drones heeft te maken met surveillance en de gevolgen van drones voor wat oorlog is. Ik heb het eigenlijk alleen maar over vliegende drones en meestal ook over bewapende drones. Specifiek ben ik geïnteresseerd in de manier waarop drones bijdragen aan de verandering in een mens *zien*. De fantasie om op afstand bommen te gooien is niet een heel recente. In de Eerste Wereldoorlog heeft men daar al mee geëxperimenteerd, maar die pogingen zijn allemaal gecrasht. Tegenwoordig zijn dergelijke fantasieën professioneler, en zijn het eigenlijk geen fantasieën meer. Bij General Atomics kan je een Reaper-drone kopen voor ongeveer 40 miljoen dollar, meen ik. Nederland heeft er net vier van aangeschaft. Die zijn vooralsnog onbewapend, maar daar gaan zonder problemen zogenaamde Hellfire-missiles op. Deze drones storten trouwens vaak neer; één op de drie schijnt nog steeds uit zichzelf neer te storten. Voor Nederland belooft dat heel wat ... vliegen vooral in de buurt van Amsterdam

[*gelach*]. Het punt is natuurlijk dat ze alleen elders op de wereld vliegen. Daar ga ik het over hebben.

Om nu te begrijpen wat er gebeurt als we de wereld observeren met onbemande vliegtuigen, is het aardig om de geschiedenis van de mechanisering van het *zien* te begrijpen. Deze geschiedenis begint eeuwen terug, maar specifiek met betrekking tot robots vind ik het volgende interessant. De eerste robot komt uit een Weens toneelstuk uit 1920 van de gebroeders Čapek, dat *Rossums Universal-Robots* heet, afgeleid van het Tsjechische *robota* dat slaaf betekent. Dit toneelstuk speelt eigenlijk met de omkering daarvan. De robots worden in eerste instantie door de industrie ingezet, vervolgens krijgen zij bewustzijn en daarna domineren zij de mens. Dat is een thema dat nog steeds bestaat. Het idee dat alles wat bewustzijn krijgt, meteen wil domineren en overheersen, is op zich vreemd. Het thema komt bijvoorbeeld ook sterk naar voren in de context van het Bauhaus. De Bauhausexperimenten hadden betrekking op de vermenging van kunst, technologie en leven. Daar was het idee dat het zien algoritmisch uitdrukbaar is in de vorm van logische patronen die door mens-machinekoppelingen in de ruimte tot stand komen.

Deze twintigste-eeuwse culturele achtergronden gaan vooraf aan de manier waarop wij tegenwoordig via drones de wereld observeren. Een decor van Xanti Schawinsky op het Black Mountain College in de Verenigde Staten, waar velen van het Bauhaus heengegaan zijn nadat de nazi's aan de macht kwamen, toont het rationele calculeerbare oog in de lucht, volledig losgemaakt van een lichaam. Dit oog bestrijkt alle domeinen van het leven. Dat is denk ik een adequate omschrijving van de toestand waarin we ons tegenwoordig bevinden. Het zien van drones is zeer vernetwerkt en gedistribueerd. Allerlei verschillende locaties (in de VS, Europa, het Midden-Oosten en Zuid-Korea) en de verbindingen daartussen zijn nodig om überhaupt de wereld waar te nemen vanuit een drone. Dus het is eigenlijk verkeerd om te zeggen dat een drone de wereld waarneemt. Daar is een compleet netwerk van actoren, van verschillende plaatsen voor nodig, en dáár vindt dat zicht plaats. Dat zicht komt tot stand door een heel netwerk van selectie, interpretatie, overleg en is dus niet een soort objectief oog in de lucht, maar een systeem of netwerk dat

tot objectiviteit besluit. Heel specifiek gaat het tegenwoordig in de Verenigde Staten, het land met de meest geavanceerde systemen hiervoor, om programma's met namen als Gorgon Stare of Argus; allemaal verschrikkelijke namen, wat op zich ook veelzeggend is natuurlijk.

Het model van monitoring passen we steeds vaker op onszelf toe. We hebben nauwe feedbackkoppelingen met het monitoren van ons eigen leven. Een recent voorbeeld is een vader wiens achtjarige dochter alleen naar school wilde lopen. Dat is in de Verenigde Staten überhaupt al een heel ding, maar deze vader besloot haar te volgen met een drone. Interessant daarin is dat op het moment dat haar iets overkomt, de vader helemaal niets kan doen. Hij kan alleen zien dat ze meegenomen wordt, of dat ze aangereden wordt. Daar ging het hem om, want hij zegt letterlijk: 'it was kind of a thing just to keep an eye, just to make sure she was looking both ways, let her know that daddy is always watching'. Dat laatste is misschien wel het allerergste. Een soort god-complex, maar dat is iets wat we tegenwoordig allemaal in zekere mate hebben. Interessant is dat er een soort training van het zien van de dochter plaatsvindt. De vader wil via zijn gedistribueerde oog kijken of zij wel alle kanten opkijkt. De manier waarop hij er altijd voor zijn dochter is, is door altijd in afwezigheid mee te kijken. Drones dragen op deze manier bij aan een andere vormgeving van onze meest primaire relaties.

Maar hoe zien we de ander hiermee? De badge die drone-operators in de Verenigde Staten die met de Reaper-drone werken op hun kleren dragen, spreekt niet direct de wens uit de ander als mens te zien die iets van ons vraagt; het zijn niet echt levinasianen. Dat spreekt ook uit de taal: Reaper, dat komt van Grim Reaper, Predator, Gorgon Stare, Hellfire missiles, Global Hawk. Die taal moet iets duidelijk maken. Maar veel politieker wordt het als je naar de badge kijkt van de afdeling bij het Amerikaanse leger die uit sensor-operators bestaat. Daarop staat 'no country too sovereign', wat wijst op een heel sterk geopolitiek effect van drones. Drones hebben geen respect voor grenzen. Ze zijn typisch voor een vorm van hedendaags imperialisme, dat zij mede mogelijk maken. 'No country too sovereign' is een imperialistische uitspraak, een praktische waarheid, omdat drones relatief gemakkelijk opereren onder de soevereiniteit van andere staten, maar vooral omdat die staten zwakker zijn dan de Verenigde Staten. Vorig jaar nog zei Joseph Votel,

hoofd Joint Special Operations Command in de Verenigde Staten: 'we want to be everywhere, know everything and we want to predict what happens next'. Dat is gewoon imperialisme.

Wat we niet moeten doen bij het denken over dit soort dingen is de drones naturaliseren door ze te begrijpen als een volgende stap in de technologie, zoals pijl- en boogschieten ook al betekent dat je op afstand te werk gaat, en dat dat is hoe technologie werkt. We moeten ook niet technodeterministisch denken; drones zijn onnauwkeurig, ondanks alle precisieretoriek die het leger naar voren brengt. Als je de transcripten leest van drone-operators die gruwelijke fouten maken, dan zeggen zij bij het zien van kinderen dat zij oud genoeg zijn om een *rifle* te dragen. Tegelijkertijd, als blijkt dat ze driejarige kinderen vermoord hebben, zeggen zij dat zij dat niet konden zien op de korrelige beelden. We moeten dus absoluut niet technodeterministisch denken, noch techno-optimistisch, noch pessimistisch: we moeten drones politiseren. We moeten in eerste instantie de vraag stellen: hoe wordt een mens überhaupt zichtbaar? Als dit de manier is waarop we naar mensen kijken en op basis waarvan we besluiten wie we aanvallen, wat betekent dat dan voor hoe we mensen eigenlijk zien? We moeten ook vragen naar de locus van beslissingen. Vroeger was er sprake van een heldere *chain of command*. Nu is het zo dat de nerds die bepaalde algoritmes maken de drones medebesturen. Algoritmes nemen heel belangrijke beslissingen, terwijl dat volledig uit het publieke oog verdwenen is; we hebben daar geen politiek zicht op. Ook moeten we het hebben over de imperialistische houding, over de asymmetrie in de wereld en over het feit dat dat op een dag naar ons terugkomt. Er zijn al pogingen van terroristen geweest om met drones aanvallen in het westen te plegen en mijn gok is dat dat binnen tien jaar ook absoluut gebeurt, en dat dat soort aanvallen heel lastig aan te pakken zijn.

In Afghanistan leven dorpingen onder een constant regime van angst voor drones. Toen een Reaper-drone was neergestort, zoals deze dus nogal eens doen, besloten zij de drone te stenigen. Bij het zien van de video-opnamen daarvan kreeg ik een beetje medelijden met de drone; de gebeurtenis speelt enorm sterk in op de mens-machinerelatie. De drone ligt daar blind en hulpeloos voor die mensen en wordt gestenigd. Dat is een hele rare emotie, waarvan ik nog niet helemaal zeker weet wat

ik ermee moet. Maar ik denk dat op het moment dat we compassie met de drone kunnen krijgen, we ook misschien ergens zijn. Dat gevoel moeten we filosofisch duiden.

Rogier van Reekum: Ik ben redactielid van *Krisis* en één van de mensen die heeft nagedacht over wat we als tijdschrift willen met het thema van drones. Een van de redenen waarom de redactie dacht dat drones tot de verbeelding spreken, is omdat ze een belofte van de moderniteit lijken in te willigen. De moderniteit heeft veel verschillende betekenissen, maar één daarvan is de fantasie van een voortdurende verdere verfijning van de controle over de omgeving via technische middelen. Drones lijken daar een volgende stap in te beloven.

Lange tijd was het luchtruim onbenaderbaar, we hadden alleen piloten – een hele selecte groep mensen, durfballen, bijzondere mensen, specialistisch getraind – die het luchtruim konden penetreren. Drones lijken democratisering te beloven: een democratische toegang via technische middelen tot het luchtruim. Drones openen het luchtruim ook voor dagelijks gebruik, zoals de snelwegen voor het gebruik van de auto het land open hebben gebroken. Drones lijken net zo'n soort fantasie van de toekomst of belofte van de moderniteit in te willigen. Dat resonanceert met wat Willem Schinkel net heeft gezegd: hebben we het alleen over een inwilliging van de belofte van het penetreren van het luchtruim, of ook over een kolonisering van dat luchtruim? Dat wil zeggen, gaat het veroveren van het luchtruim gepaard met asymmetrie, met imperialisme, met allerlei consequenties, met partijen die daar verder in zijn en partijen die daar de consequenties van merken.

Mijn eigen onderzoek richt zich op de visualisering van migratie. Nu is het zo dat een partij zoals Frontex, de Europese grensbewakingsorganisatie, tests doet en zo nu en dan dronetechnologie gebruikt, onder andere in Griekenland. Specifieker vindt dat niet *in* Griekenland, maar boven Griekenland plaats. Eén van de interessante dingen die je daar ziet, is dat de kolonisering van het luchtruim plotseling heel erg veel te maken krijgt met het domineren van het aardoppervlak. Daarmee wordt iets opnieuw belangrijk, dat lange tijd minder belangrijk was: de categorie van *terrein*. Lang was ruimte als *territorium* erg belangrijk, zoals je die bijvoorbeeld op een kaart ziet. Dronetechnologie maakt ruimte in termen van

terrein weer veel belangrijker, omdat vanuit het zicht van een drone belangrijker is waar je je in termen van terrein bevindt en in hoeverre vervolgens geïntervenieerd kan worden aan de hand van ofwel wat een drone kan doen ofwel de hoeveelheid *intelligence* die via drones vergaard wordt. Dat wordt bijvoorbeeld duidelijk uit het gebruik van drones in de grenscontrole of in de *collateral damage* van 'aanslagen' die gepleegd worden door de Amerikaanse oorlogsmachine. Als je je dicht bij iemand bevindt die geselecteerd is om omgelegd te worden, dan word je daarmee niet vanwege een bepaalde status, maar simpelweg omdat je je in termen van terrein dicht bij iemand bevindt, plotseling gekwalificeerd als *collateral damage*. Daarmee worden andere eigenschappen dan nationaliteit belangrijk, in dit geval terrein. Dat is iets dat interessant is aan wat drones doen.

Eva Sancho Rodriguez: Voordat we aan het tafelgesprek beginnen, laten we een kort fragment zien van de documentaire *Unseen War*. James Bridle, een kunstenaar-activist, en Noortje Marres, filosoof en mediawetenschapper bij Goldsmith's, praten hier over het meest gevonden dronebeeld via Google Images, een beeld dat we waarschijnlijk allemaal voor ons zien wanneer we aan drones denken. Maar juist dit beeld is gemaakt door een hobbyist in een 3D-modelleringsprogramma waar hij wat bergen achter heeft gefotoshopt. James Bridle vertelt dat dus zelfs het 'zichtbare' van de drones een illusie is. Maar volgens Noortje Marres weten we dondersgoed wat drones zijn. Er zijn ontzettend veel initiatieven, platforms, organisaties en informatie over drones, wat ze doen, wat hun impact is en wat de consequenties zijn. We hebben heel veel informatie, maar we denken dat deze niets zichtbaar maakt omdat ze niet effectief lijkt te zijn. Marres suggereert dat zichtbaarheid en onverschilligheid met elkaar verward worden.

Een eerste vraag aan jullie is naar aanleiding van de opmerking dat we heel veel informatie over drones hebben en er allerlei vormen van activisme zijn om die informatie zichtbaar te maken. Tegelijkertijd is het zo dat surveillancetechnologie er altijd in één keer is. Denken jullie dat wat er nu rondom drones gebeurt in het zichtbaar maken ervan anders zal zijn qua het wel of niet delibereren over wat voor surveillancetechnologie we hebben?

Rogier van Reekum: Ik heb het gevoel dat drones een hoog magnetrongehalte

hebben. Wat ik daarmee bedoel is het inwilligen van de belofte van de moderniteit. Eind jaren tachtig heerste zo'n gevoel rondom de magnetron. Dat zou een fantastisch nieuw keukenapparaat zijn, maar bleek een stom ding waarmee je af en toe iets opwarmt. Ook rondom de drone hangt aan de ene kant de suggestie van een enorme technologische revolutie, maar tegelijkertijd kan het in datzelfde narratief van moderne vooruitgang van de technologie gepresenteerd worden. Dan is het gewoon de volgende logische stap, eigenlijk niets nieuws, maar slechts een middel om mensen in de gaten te kunnen houden. Dat we mensen in de gaten willen houden, is eigenlijk een heel aparte blik op technologie. Aan de ene kant willigt het allerlei fantastische verlangens in en tegelijkertijd is het een volgende logische stap van een proces dat al loopt. Dat maakt het politiseren ervan moeilijk.

Willem Schinkel: Wat het politiseren van drones vooral moeilijk maakt is dat drones een ultieme vorm van asymmetrische oorlogsvoering vertegenwoordigen in de zin dat je eigen soldaten geen risico lopen. Waar Amerika sinds Vietnam enorme problemen mee gehad heeft, zijn de zogenaamde *body bags* die naar huis komen. Op het moment dat je een wapen hebt waarbij dat risico niet bestaat, loop je heel dat secundaire risicomanagement uit de weg. Tegelijkertijd is er geen enkele democratische noodzaak om te controleren wat een overheid doet met zijn wapens, omdat je nooit ziet wie een been verloren heeft en er nooit iemand is die niet meer terugkomt, want je medesoldaten zitten naast je in de woestijn in Nevada andere mensen te vermoorden. Op dat moment verlies je eigenlijk alle interesse; oorlogsvoeren wordt iets dat we kunnen tolereren omdat we nooit te maken hebben met bekenden die ineens dood zijn.

Eva Sancho Rodriguez: Tegelijkertijd is het zo dat we nieuwsberichten op Nu.nl kunnen lezen over drones. Wat mij oprecht verbaast, is dat er bijvoorbeeld weerstand geweest is tegen de introductie van Google Glass. Dat werden al snel *glassholes* genoemd. Die magnetrontechnologie is mislukt en de ontwikkeling daarvan is stopgezet. We weten wellicht ergens in ons achterhoofd wat drones betekenen, ondanks het euforische aspect ervan. Wat maakt nu dat de ene technologie stukloopt en de andere omarmd wordt?

Willem Schinkel: Het is heel belangrijk dat we het hebben over 'Dronedeutung',

maar we hebben het niet altijd over hetzelfde fenomeen. Waar ik het met name over heb, zijn *weaponized* drones die in de oorlogsvoering gebruikt worden. Dat is iets heel anders dan de drones die je op Bol.com voor 150 euro kunt kopen. Die vind ik ook wel leuk; ik ben nerd genoeg om die drones grappig te vinden. Waarom drones in de Verenigde Staten, en niet alleen daar (Israël is de grootste exporteur van gewapende drones in de wereld) zo populair zijn, is omdat er voor miljoenen bij het Amerikaanse Congres gelobbyd is door heel machtige bedrijven. Op dit moment trainen alle afdelingen van het Amerikaanse leger gezamenlijk meer drone- dan gewone piloten. Het Amerikaanse leger is zich dus volledig anders in gaan stellen. Recent stond er een bijdrage in NRC Handelsblad van een zeer schimmige club; lui die vinden dat we meer in defensie moeten investeren in Nederland. Die club bestaat uit ex-VVD'ers, CDA'ers en ex-PvdA'ers, en zij noemden ook heel subtiel 'onbemande systemen' waar we in moeten investeren. Daar schuilt een enorme macht en een enorm economisch belang achter, dat iets heel anders is dan die kleine drones die we gewoon 'voor de leuk' hebben. Overigens zijn Google en Facebook bezig met drones die internet vanuit de ruimte kunnen verspreiden. Amazon wil drones om pakjes te bezorgen. Er is dus een heel palet aan opties, waarbij je iedere keer specifiek moet kijken wat aantrekkelijk is voor wie.

Eva Sancho Rodriguez: Tijd voor vragen of opmerkingen uit de zaal. [*Vraag vanuit het publiek*] De vraag gaat over de manier waarop bestuurders van militaire drones enerzijds ruimtelijk ver weg van hun slachtoffers zitten, maar anderzijds heel dichtbij zijn. Zij kunnen alles van het dagelijks leven van hun slachtoffers zien door middel van camera's, maar zijn tegelijkertijd heel ver weg.

Willem Schinkel: Dat is iets wat vaak gezegd wordt en ik denk dat het ten dele waar is, maar ook ten dele onwaar. Voor zover het waar is, moeten we daar heel erg mee oppassen. Dronepiloten zijn heel dicht bij hun slachtoffers omdat zij inderdaad uren achtereen dezelfde personen bekijken, maar zijn ook ver weg, omdat ze die personen helemaal niet goed kunnen zien. Ze kunnen bijvoorbeeld geen gezichten onderscheiden. Wanneer zie je een mens? Heb je daarvoor een gezicht nodig of niet? Ik noemde Levinas net grappend, maar het is de vraag wat je precies ziet als je zo'n korrelig beeld hebt - want die beelden zijn korrelig. Dat dronepiloten alles heel scherp zien, is een illusie. Anderzijds zien ze bijvoorbeeld mensen bidden, en

denken dan terroristen te zien, want terroristen zouden bidden voordat zij iets doen. Dat is een letterlijk voorbeeld van een paar jaar terug, waarbij meer dan twintig mensen opgeblazen werden omdat ze gingen bidden. Recent is ook naar voren gekomen dat drone-operators meer last hebben van post-traumatische stress disorders dan reguliere piloten en zelfs soldaten in het veld. Daar moeten we heel erg mee oppassen. Misschien is het waar, maar anderzijds is het ook een manier om drone-operators tot soldaat te maken. Dat zegt ook Grégoire Chamayou in zijn recente boek. Om het beroep eervol te maken, lopen dronepiloten ook in een uniform, hebben zij een badge, en doen zij allemaal alsof ze soldaatje zijn, maar dat is ook een manier om hen te normaliseren.

Rogier van Reekum: Het is ook belangrijk je te realiseren dat veel van de drones die bijvoorbeeld in Pakistan, Jemen of dat soort plekken opereren, vliegen vanaf vliegvelden in Saudi-Arabië. Vanuit Nevada is er een infrastructuur nodig om dit soort dingen te kunnen doen. Dat veronderstelt een Amerikaans imperium, een overleg tussen Saudi-Arabië en de Verenigde Staten, allemaal zaken om die nabijheid en afstandelijkheid te organiseren. Die infrastructuur moet je ook meenemen in de bepaling wat veraf is, en wat dichtbij.

Willem Schinkel: Om bijvoorbeeld een Reaper-drone te vliegen en daarmee te surveilleren, heb je mensen nodig die in Nevada drone-operator zijn. Daar zitten sensor operators bij, meerdere mensen die meekijken. In Florida zitten mensen die alle data heel specifiek analyseren op *intelligence*. Vervolgens hebben ze teams in bijvoorbeeld Afghanistan. De vraag is: wie ziet? Als je communicatietranscripten terugleest, blijkt dat het zien zich vormt in overleg, en dat er besluiten genomen worden die uiteindelijk leiden tot aanslagen. Stel dat Rogier van Reekum doelwit is van een drone-attack. Als ik bij hem in de buurt sta, ben ik niet *collateral damage*. Ik ben een *military aged male* die direct betrokken is omdat ik in zijn buurt ben. Dat is per implicatie de manier waarop ik gezien word. De vraag daarbij blijft steeds wat zien eigenlijk is. Daarbij moeten we niet te snel denken aan het binoculaire proces waar we zelf dagelijks mee bezig zijn.

[Vraag uit publiek, onverstaanbaar]

Willem Schinkel: Er wordt gewerkt aan systemen die niet meer hoeven te landen en voortdurend bijgevuld kunnen worden. Soms hebben drones ook een eigen wil. Een aantal jaren terug opereerde Ierland op een vredesmissie ergens in Afrika een drone waarmee zij het contact kwijtraakten. Die drone dacht toen op eigen houtje naar Ierland terug te keren, maar had daar helemaal niet genoeg brandstof voor, dus is hij ergens halverwege neergestort. Dat komt wel in de buurt van wat je zegt. De vraag is of drones zo complex kunnen worden dat zij zelfbewustzijn krijgen, dat zij zelf besluiten kunnen nemen. Dan zou je kunnen hopen dat de drones besluiten iets beters te doen dan mensen afknallen, en besluiten andere drones af te gaan knallen. [*gelach*]

Opmerking uit publiek: Ik zag een filmpje van een Pakistaans meisje van een jaar of zes, dat het had over de heldere hemel. Als er geen bewolking is, dan zouden er geen drones komen en hoefde zij niet bang te zijn vanuit de lucht neergeschoten te worden. Het andere element van zien en gezien worden, is dat de houding van mensen in relatie tot de lucht boven hun hoofd verandert.

Willem Schinkel: Dat klopt. Mensen passen zich aan aan de kennis geobserveerd te worden. Dat problematiseert de aanname dat je door boven mensen te vliegen kan zien wat ze doen, want zij passen zich aan. In Afghanistan hielden stamhoofden vroeger, tot een paar jaar terug, buiten overleg. Dat doen ze niet meer, omdat ze weten dat aan de andere kant van de wereld mensen zouden kunnen denken, dat ze een terroristische aanslag beramen. Zij passen zich aan en gaan vaker naar binnen. Daaruit concluderen de Amerikanen dat ze *secretive* bezig zijn, want ze zijn de hele tijd binnen. Dus willen de Amerikanen *microvehicles*, drones die eruitzien als vogeltjes of als insecten. Die kunnen door een raam naar binnen, vliegen voor je hoofd en schieten je dwars door je hoofd heen. Er vindt een permanent spel van actie en reactie ten opzichte van *surveillance* plaats, terwijl de surveillance aangepast wordt aan de werkelijkheid die het zelf veranderd heeft. Dat laat zien dat de werkelijkheid niet door de surveillance gerepresenteerd wordt.

Eva Sancho Rodriguez: Dank jullie wel voor jullie aandacht en vragen, dank aan onze twee sprekers en aan de organisatie van Drift voor de uitnodiging.

## Referenties

Tijdens het tafelgesprek werd een fragment getoond uit de film *Unseen War* (2013), bereikbaar via: <https://exposingtheinvisible.org/films/unseen-war/>

Festival Drift is een filosofiefestival dat jaarlijks plaatsvindt in Amsterdam en georganiseerd wordt door een collectief van filosofiestudenten van de Universiteit van Amsterdam. De editie van 2015 had als thema: *De chaos tegemoet*. Dit tafelgesprek verscheen eerder in andere vorm in de publicatie van Drift 2015 dat is via hun website digital beschikbaar gesteld. In 2017 vindt Festival Drift plaats op 13 mei 2017. Voor meer informatie: [www.festivaldrift.nl](http://www.festivaldrift.nl)

## Biographieën

### Willem Schinkel

Willem Schinkel is Professor sociale theorie aan de Erasmus Universiteit Rotterdam en vicevoorzitter van De Jonge Academie van de Koninklijke Nederlandse Academie voor de Wetenschappen.

### Rogier van Reekum

Rogier van Reekum is postdoctoraal onderzoeker aan het departement voor sociologie van de Erasmus Universiteit Rotterdam. Hij maakt deel uit van het Monitoring Modernity project (ERC starting grant) geleid door Prof. dr. Willem Schinkel (zie: [www.monitoringmodernity.eu](http://www.monitoringmodernity.eu)). Binnen het project voert hij onderzoek uit naar de visualisatie van irreguliere migratie door heel Europe. Rogier schreef zijn dissertatie aan het AISSR (UvA) over het publieke en politieke debat over Nederlandsheid (1972-2008) en publiceerde over nationalisme, burgerschap, politiek, immigratie, beleid en onderwijs. Hij is redacteur bij *Sociologie* en *Krisis*.

### Eva Sancho Rodriguez

Eva Sancho Rodriguez is verbonden aan de capaciteitsgroep Media en Cultuur van de Universiteit van Amsterdam en is redactielid van *Krisis*.

Het tafelgesprek werd getranscribeerd en geredigeerd door Tivadar Vervoort, redactiesecretaris van *Krisis* en collectiefid van Wijsgerig Festival Drift 2015.

## A Predatory Empire of Surveillance and Control

Tobias Burgers

**Review of: Ian G. R. Shaw (2016) *Predator Empire: Drone Warfare and Full Spectrum Dominance*. Minneapolis: University of Minnesota Press, 327 pp.**

The Predator UAV (unmanned aerial vehicle), or as it is more popularly known, the Predator drone, has become something of an iconic image in the recent decade. It has become the manifestation of the new way of warfare, which started in full with the Global War on Terror (GWOT). Now a decade-and-a-half later the Predator is still flying, the GWOT has changed in nothing but name, and the practice of targeted killing – something with which the Predator is most closely associated with – has become an accepted norm in the field of international security relations. It comes therefore as no surprise that in the recent years a number of books on drone warfare have been published. Among others, books such as P.W. Singer's *Wired for War* (2009), William Arkin's *Unmanned: Drones, Data, and the Illusion of Perfect Warfare* (2015), *Drone Warfare* by John Kaag and Sarah Kreps (2014), and Medaa Benjamin's *Drone Warfare: Killing by Remote Control* (2013), have in great detail discussed, explained, and elaborated upon the rise of the drones, the notion of “clean” warfare and how the future of conflict could become even more unmanned and robotic. Worthy and needed as these books are, they focus,

however, primarily on the military application of drones. In this regard, Ian Shaw's *Predator Empire: Drone Warfare and Full Spectrum Dominance*, offers a refreshing and much needed alternative point of view on the world of the Predators, and other unmanned systems. Rather than viewing his research from a singular, military angle, Shaw, a social geographer currently at the University of Glasgow, takes the Predator as an example of a larger issue – one that is fueled by, and is a constituent of, the rise of robotics. In his book, Shaw seeks to answer the question of what it does mean to live on a planet that is enclosing its populations inside controlled, artificial, and dronified environments (Shaw 3). In this, Shaw illustrates how the rise of the drones is further contributing to the ever-increasing state of surveillance, of over-watch of our societies and a world of dronified state violence. A system of full spectrum dominance – once more Shaw borrows from the military realm here, where the concept of full spectrum dominance has been long established – enables the control of every physical (land, sea, air and space) and non-physical (e.g. cyber) space. Shaw argues that this will lead to the development of a world that is increasingly, digitally and physically, enclosed. A world of a “single immunity configuration”, one that is controlled by new technologies, enabling a pacification of societies, and to quell unrest, resistance, and objection before it becomes apparent (Shaw 256-257). Of particular importance, and worthwhile reading, is his description of how over the years humans have reacted, and to some extent even adapted to, this ever-increasing securitization of public space. In this, he offers a much-needed critique of how, in the last decades, the notion of what consists of public space has radically changed, arguing that contemporary public spaces have morphed into spaces of oversight, surveillance, and control that have become the norm.

Shaw illustrates that this development has not been novel and recent. He goes as far back as a few centuries, arguing that this desire for surveillance, policing and control is nothing new under the sun: he traces the roots of this current drone empire back to the societal developments in England during the Industrial Revolution, where the first precedents for building the security state were established. The analogy and reference to this period is a highly interesting one. It allows Shaw to illustrate how the foundations for this Predator Empire have been



long in the making, eventually materializing more comprehensively with the start of the Vietnam War. From this era on, Shaw describes how a state of affairs gradually emerged in which the full-spectrum-dominance concept allowed the US to militarize much of the world, and to bring it under a state of surveillance enabled by technology. In this, Shaw illustrates how this mechanization of society, with an increasing presence of machines and a growing reliance on them, has changed not only the physical spaces but likewise political spaces too. In particular, the limited need for boots on the ground – the result of the increasing presence of Predator machines – has changed the political discourse, enabling what Shaw describes as global surveillance operation. This too has morphed, in the words of Shaw, into a state of extreme dominance by the US national security apparatus, fuelled by the unprecedentedly new levels of surveillance technology, enabling a formation of spaces in which every person is continuously watched over by machines of non-loving grace. With his work Shaw makes a clear rebuttal of the optimism found among the 1960 and 1970 cyberneticists, who believed technology would enable a better world in which we are all watched over by machines of loving grace, to reference Richard Bautigon's poem.

Primarily, what makes this book worthwhile reading is that it allows the reader not only to connect the era of drone warfare to war and conflict, but also creates a greater understanding of how this affects societies at large. He tracks the history of drone warfare, and the extent to which the rise of these machines has been a logical development from within societies, connecting the military realm with political, social, ethical and moral ones. Thereby it becomes clear how the emergence of drones is a logical extension of the ever-increasing growth of the national security establishment – foremost in the post 9/11 world. In this, he offers a much needed critique of, in the author's opinion, the growing militarization and securitization in the United States, which in the light of the recent election victory of Donald Trump, and his strong focus on security and anti-terrorism, seems even more likely.

Despite being an insightful and much needed book, Shaw's focus on the US is a shortcoming however. The Predator has become a new icon, a symbol of the new way of war. A way of war in which an increasing dehumanization is taking place,

in which the battlefield is becoming a remote place, leading to a growing disconnection between the state of conflict and the public's perception of it. However, although indeed this development largely originated in the United States, in recent years the Predator has been getting competition. The Chinese Ch-4 and Ch-5 drones, for example, are now among the world's most exported drones, with nations in the Middle East and Africa eager to obtain them and use them for their own purposes. In this, the realm of the Predator is somewhat declining, slowly but gradually being replaced by a Drone Empire of many nations and of many actors (state and non-state). The full spectrum dominance is now becoming a global full spectrum dominance. This is a topic of increasing importance, and one that should be discussed much further.

The book is a worthwhile read both for readers with an academic background and those with a broader interest in contemporary political, social and ethical affairs. It provides much-needed clarification of the development of Predator drones and other unmanned systems that emerged so rapidly in the last fifteen years. Additionally, the book contributes to a much broader discussion about the future direction of society: which roles machines will play in this, and how will future governments – in particular the US government – use, or not use, machines such as the Predator, and for what political purposes? Anyone interested in questions such as these would be more than advised to read Shaw's book.

## Biography

### Tobias Burgers

Tobias Burgers is currently a Doctoral Candidate at the Otto Suhr Institute, Free University Berlin, from which he holds a diploma in political science. His research interests include the impact of cyber and robotic technology on security dynamics, East-Asian security relations, maritime security and the future of conflict. Email: [burgers@zedat.fu-berlin.de](mailto:burgers@zedat.fu-berlin.de)

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**Death and Sophistry**

Sigmund Bruno Schilpzand

**Review of: Grégoire Chamayou (2015) *A Theory of the Drone*. New York & London: The New Press, 292 pp.**

Imagine dying amidst a torrent of missiles, for no other reason than being in the wrong place, at the wrong time. Imagine, moreover, that “wrong” means that your errands that day caused you to divert from what an American military drone has determined to be a normal spatial pattern. Such is modern warfare. The unmanned vehicles commonly known as drones are the cause of illegal and unnecessary killing and of much legal and ethical sophistry justifying these machines as a humanitarian alternative to warfare qua “boots on the ground”. Grégoire Chamayou’s *A Theory of the Drone* brings us up to date concerning what military drones are all about, and not just on the battlefield.

This, then, is what it means to write a theory of the drone. *Theory* presents Chamayou as an activism-minded critic concerned with the study of contemporary armed conflict. He presents a multi-faceted problematization of the use of drones as weapons of war and tools of surveillance. *Theory* is not just a simple condemnation of a machine that renders its agent invincible, it also especially presents an in-depth study of this piece of weaponry, tracing its social, legal,

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political, moral and martial connections – connections that are skillfully presented as internal to their object: that this emergent technology is at the root of a process of dehumanizing and de-democratizing violence.

If one understands by “theory” an explanation of the coming about of drones, this book comprises more than *mere theory*. Chamayou’s work is all the more theoretical in the sense of postulating links between an emergent technology and events in ethics, politics, war and law, skillfully discerning the role of the drone behind them. Moreover, *Theory* allows for predictions of an historical process, without any signs of technological determinism<sup>1</sup> and with much emphasis on *avoiding* rather than welcoming it. Behind the analysis, there is a call to stop the technological process.

Sounding like the protagonist of a dystopian sci-fi novel, Chamayou writes: ‘the surest way to make the potential crimes of the cyborgs of the future impossible is still to kill them immediately, while they are as yet unhatched and there is still time to do so’ (Chamayou 213). The line between sci-fi and techno-historical speculation might seem thin, but after reading the book, the quote above seems no longer over-the-top. Robotized killings based on quantitative social geography – so called “signature strikes” based on patterns of cell-phone data rather than substantive knowledge of the target – perhaps *do* amount to crime.

If we want to fully understand Chamayou’s analysis of the drone, it is worth noting that the situation he is treating in *Theory* is not entirely new. Chamayou judges the drone to be ‘the weapon of an amnesiac postcolonial violence’ (Chamayou 95), a repetition of older forms of violence. This book follows an earlier interest of the author, thereby completing an historical account of a particular form of violence that, in his earlier book, *Les Chasses à l’Homme* (2010, translated as *Manhunts*), is called “the manhunt”: from capturing slaves in Ancient Greece (in the first chapter, bearing the wonderful title “*The Hunt for Bipedal Cattle*”) to the round-ups involved in deporting illegal immigrants. In *Manhunts* we encounter slaves and immigrants as targets<sup>2</sup>, and in *A Theory of the Drone*, potential terrorists. As a practice, “the manhunt” involves a particular “game”, a marginalized *other*, a target made *legitimate* through legal, rhetorical, ideological and ethical maneuvering.

Manhunts target a particular kind of individual, today these are “terrorists”, or rather “terrorist” *signatures*.

The “signature strike” is the contemporary guise of the manhunt in which the drones partake: targeting individuals ‘whose identity remains unknown but whose behavior suggests (...) membership in a “terrorist organization”’ (Chamayou 47). The very targets of this manhunt are artefacts, mere signatures, and the war waged on the actual people is itself no less ‘ghostly’ (Chamayou 188): a unilateral act of killing makes it impossible for the human targets to utilize their right to kill in self-defense. As contemporary conflicts become those of machines versus mortal combatants, ‘that right no longer has anything but a ghostly existence’ (Chamayou 162). The form of the manhunt as it recurs in *Theory* is a dehumanized manhunt, the hunt for the marginalized other in Afghanistan and Pakistan, characterized as ‘not so much a matter of responding to actual attacks’, but of striking in the midst of communities on the basis of quantitative data, killing innocent civilians. Or as the proponents of drone warfare would have it: of ‘preventing the development of emerging threats by the early elimination of their potential agents’, a task for which ‘hunter-killer drones are the main instruments’ (Chamayou 34).

This killing is sustained by ethico-legalistic sophistry, and on this level Chamayou’s *Theory* reaches its full potential. Deploying resources found in Canguilhem and Weil (who inspire Chamayou’s method), Hobbes, Pufendorf, Kant, Hegel, Marx & Engels, Adorno, Foucault and Arendt (and, in passing, Deleuze), Chamayou analyzes legal doctrine and newspaper articles regarding drones, and questions the principles of contemporary military thought that justify drone warfare. The “necroethics”, embodied by military officers and propounded by the military’s own professional philosophers, extends the ‘right to kill well beyond the classic legal boundaries (...). Necroethics holds forth on the procedures of homicide and turns them into the objects of a complacent moral evaluation’ (Chamayou 145-145). As Chamayou cynically remarks: ‘by naming and theorizing violence, [the military’s philosophers] allow it to be legitimately exercised’. What to do? Chamayou answers: ‘More than ever, philosophy is a battlefield. It is time to enter the fray’ (Chamayou 16).

Entering the fray means undermining the “humanitarian” premises of droning the military. Drones are being hailed as high-efficiency, low-collateral-damage, *humanitarian* weapons because deploying them means no longer having to deploy soldiers, and the “signature strike” is supposed to ensure that only enemy combatants die. As *Theory* makes clear, however, there is a crucial aspect of *supposition* in the process of targeting that renders this problematic. Drones have the capacity to track, monitor and ‘recognize’ the behavioral patterns of the people and communities they surveille. Divergence from the established normal patterns of movement, any irregular event, like a village gathering, is accordingly categorized as dangerous. A telling joke made in the corridors of American power went as follows: “When the CIA sees three guys doing jumping jacks, the agency thinks it’s a terrorist training camp” (Chamayou 49-50). Proponents present drones as suitable for a particular kind of manhunt: hunting terrorists, preventing them from acting. Chamayou’s work has the effect of dispelling this as sophism, ideology and myth.

Moreover, Chamayou points out the dangers of “dronizing” war and surveillance for democracy and society. Chamayou warns against the transformative effect this would have on the broader social context within which drones are deployed. Drones will also effect the societies whose militaries deploy them, for ‘the central question would be (...): To what do they lead (...) in terms of the state’s relation to its own subjects?’ (Chamayou 15) The implications are twofold: Chamayou warns citizens against the use of drones in police and surveillance activity and in a host of short, to-the-point chapters unmasks the manifold rhetorical, legal, ethical and ideological trickeries involved in sustaining US (and Israeli) efforts to dronize the military. Secondly, he reflects upon the possible effects of the development of drones on the democratic decision-making progress regarding war, and especially the potential powerlessness of the victims of such wars.

Following this line, Chamayou ends up painting a grim picture of the rise of what he calls the “drone state” (symbolized by the image of a once-imagined police-robot ‘that pissed tear gas and farted black smoke’ (Chamayou 221)), considering both the scope (technology - state) of his analysis and the effect a mere machine might come to have. The drone endangers the democratic processes behind the

decision to go to war. We are asked to imagine a power no longer having to justify itself to its subjects. In matters of war, Chamayou argues, societies with dronized militaries are approaching this point: since the citizens' lives are no longer at stake in dronized war, they wield no political power over the matter of declaring war. Thus Chamayou concludes that democracy might become 'a political body without human organs, replacing the old regimented bodies of subjects by mechanical instruments that would, if possible, become its sole agents'<sup>3</sup>.

Besides presenting a case against drones, Chamayou invites the reader to become a counter-force against them. His writing largely concerns political topics, which could become a viable subject for antiwar protests - such as the illegitimate targeting of innocent civilians by drones - and therefore we are invited to look up the *International Committee for Robot Arms Control* (Chamayou 272). The way in which Chamayou draws his audience into this fray, by lucidly citing a myriad sources, is commendable and highly engaging. But the weakness of his style is that the argumentative lines I sketched above are often interrupted and sacrificed in favor of a rapid-fire of short chapters, each making a different point. Because of these interruptions his very useful analyses sometimes seem at first less well-argued than they actually turn out to be upon rereading.

One gets a sense that this book is supposed to compel the reader to counter-act dronization. However, when it comes to systematically constructing arguments or analyses to support this move, it would have benefitted from more sustained treatments of certain topics. Instead Chamayou chose to write twenty-three short chapters, which do make for an eminently readable and informative book. However, this makes the complicated conclusions or crucial moments seem more flimsy than necessary. Examples of this are the introduction of the term "necroethics" (Chamayou 134) to pick out a legal/ethical military mentality and the pointing at continuities between dronized warfare and colonial wars. (Chamayou 185) Similarly the argument that the sociological knowledge that steers drones to pick targets is inept and robots will therefore commit war crimes,<sup>4</sup> or the suggestion that the changes in the military that the drone necessitates, contributes to a dismantling of the welfare state (Chamayou 194) and undermines the conditions for democratic government (Chamayou 188). And, finally, the suggestion that dronization could

hence be stopped by a coalition of the 'oppressed segments of society' (Chamayou 227). Because of the barrage of short chapters the reader might not see Chamayou's overarching argument.

These critical remarks notwithstanding, *Theory* has the potential to be an eye-opener in many respects for a general public, to which it offers a very critical introduction to the topic of drones. On the other hand, academic philosophers may wonder whether it was necessary to compare the structure of drone warfare to what Hegel imagined to be the essence of combatants (and to conclude with Adorno: "I have seen the world-spirit," not on horseback, but on wings and without a head, and that refutes, at the same stroke, Hegel's philosophy of history<sup>5</sup>) or to invoke Kant's and Hobbes's contract-theories to condemn this machine. I think that Chamayou unveils a technology-shaped lacuna in the philosophical and political thought regarding war, calling both the untimeliness of thought and the unexamined progress of technology<sup>6</sup> into question.

Describing the drone from canonical philosophical perspectives has the merit of showing how the drone diverges from what we conventionally (and *legally*) hold to be just, even in martial matters. Chamayou's notion of philosophy as a battlefield is quite galvanizing in this regard: if one starts looking for destructive metaphors in philosophy they are overabundant, but never have they felt more justified now 'philosophers working within the confined field of military ethics today (...) declare the drone to be the humanitarian weapon par excellence' (Chamayou 17). The ideological and moral sophisms sustaining the dronization effort, with its consequent deaths of civilians, are possible because the drone issue does engage the moral, legal and philosophical categories with which one would try to understand it in a very peculiar manner. Thus it can make a mockery out of the concept of *humanitarianism* and invoke that word to ideologically glorify ghostly, substanceless assassinations as 'humanitarian warfare'. Not all is just in war, and *A Theory of the Drone* offers the reader excellent reasons - though one might have to reread it once or twice - to consider critically intervening in the automatization of death, and the murderous role of sophistry.

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## Notes

1] “*Technology is not invincible. That is a myth which leads to passivity*”: Chamayou, *A Theory of the Drone*, 227. Chamayou seems to approve of this statement, which he quotes from a 1970s militant antiwar movement.

2] The list in *Manhunts* goes on: Indians, blacks, foreigners, the poor, Jews and... wolf-men!

3] Chamayou 221. This concerns a police-robot fit for the future as imagined in 1924.

4] Chamayou 213. Reasons for which are given on p. 51, concerning the faulty or at least epistemologically very flimsy “profiling method” involved.

5] Adorno, *Minima Moralia*, cited in Chamayou, *A Theory of the Drone*, 205.

6] One should make a case for science and technology scholars here (for example Noortje Marres’s *Material Participation*), whose reflections on technology and perceptions of relations between ‘nonhumans’ and politics are gaining some attention in philosophical circles. Regarding the sphere of labor there are (Marxist) analyses of the role that technology plays in perpetuating inequality (like Leela Fernandes’s *Producing Workers*), but none of this has become *mainstream* political philosophy.

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## Biography

### Sigmund Bruno Schilpzand

Sigmund Bruno Schilpzand (1991) graduated *cum laude* from the Research Master in Philosophy at the University of Amsterdam in 2015. He is currently writing PhD-proposals at the intersection of metaphysics and science and technology studies. He is one organizing members of the *Contemporary Ontology Investigation Network* based in Amsterdam and can be e-mailed at [s.b.schilpzand@gmail.com](mailto:s.b.schilpzand@gmail.com)