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Formål

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Tidsskriftet Politik er en videreførelse af Politologiske Studier.

TEMA
DRONER OG KRIG

Introduction: Debating Drones: Politics, Media, and Aesthetics

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On November 18, 2015, former President Barack Obama received an open letter from four US air force whistleblowers. With backgrounds as drone operators, the four authors all succumbed to Post Traumatic Stress Disorder (PTSD) due to their role in facilitating what they called a "systematic loss of innocent life" (Bryant et al. 2015). One of the more unsettling sentences in the letter was the following: "This administration and its predecessors have built a drone program that is one of the most devastating driving forces for terrorism and destabilization around the world" (Bryant et al. 2015). While the drone operators' critique was not exactly breaking news in 2015, it nevertheless exemplified an increasing unease and skepticism about the use of drones in 'targeted killing,' a skepticism that challenged the Obama Administration's steadfast assurances that drone strikes are just as legal as they are ethical and wise (Kaag and Kreps 2014, 1).

The global media have played an essential part in documenting the facts about drone operation in the warzones of Afghanistan, Pakistan, Yemen, and Somalia, and investigative journalists have ensured access to data, thereby countering the secrecy surrounding US drone strikes. For instance, the interactive website 'Out of Sight, Out of Mind' provides a visual map of US drone strikes, including the number of victims (both official and unofficial) from 2004 to the present. The map is updated by the Bureau of Investigative Journalism, an important and reliable player in the critical examination of drone operations. Although the legal and political framework surrounding the US drone campaign has remained rather obscure (it was never legalized by any act of Congress, nor has it ever been adjudicated by any federal court), data from inside the Administration have recently been revealed, leaked, and declassified. In October 2015, the online magazine *The Intercept* released a cache of leaked documents ('The Drone Papers'), which provided a glimpse into the bureaucratic processes supporting the US drone wars. These papers proved that assassination by military drones is a central tool in the US counterterrorism policy (Scahill 2015; 2016). And in November 2016, the investigative journalist and attorney Jameel Jaffer published 'The Drone Memos' providing the first fact-based insights about the legal and policy documents underlying

US drone operations (2016). In other words, the critical media have become a central instrument in shedding light on the previous obscurity of US drone strikes. Skepticism about drones, voiced in the public debate, also reverberates in the field of popular culture. In blockbuster polit-thrillers and war films, drones are all over the place and often portrayed in rather critical light, for example in popular TV-series (e.g. *Homeland* and *24*) as well as in high-profile Hollywood-productions like *Eye in the Sky* and *Good Kill*. And then there is of course the *South Park* episode on drones, where Cartman, Kenny, and Butters spy on the whole town.

The controversy about the vicissitudes of military drones carried out in public media as well as in popular culture has also swept into the academy. As *the* state of art in military technology, drone warfare (as well as the related systems of surveillance and the collection of big data) has sparked intense debates in political science (international relations, security studies), moral philosophy, international law, human geography, cultural studies, and media studies. Although each of these fields takes its own distinct approach towards drone warfare some conceptual concerns are shared, and are discussed across all disciplines. This special issue section of *Politik* aims to bring together in one volume investigations of key issues from diverging scholarly perspectives. In debating drones within the social sciences and the humanities, what are the main themes? In the respective disciplines, what arguments are used in critiques of drone warfare? Are there overlapping controversies and concerns? To find some answers to these questions, the following articles focus on an array of topics, such as the definition of warfare, asymmetrical warfare, human interaction with technology, visual architecture of the drone, as well as the representation of perpetrators and victims in aesthetic discourses. It is the goal of this issue to promote a critical consciousness about drone operations and to shape an understanding that drone warfare cannot be analyzed and explained in a mono-disciplinary fashion, but rather that its complexity demands expertise from a wide arrange of scholars.

One of our common questions is whether drone strikes can even be called wars to begin with. In his recent book, *A Theory of the Drone* (2015), political philosopher and anthropologist Grégoire Chamayou develops a philosophy that connects the execution of violence of the drone with practices of manhunting (Chamayou 2015). Manhunting no longer incorporates the features of the classic Clausewitzean duel; a mutual combat, a war situation, in which two opposing sides fight with each other in a declared war. Rather, a manhunt is defined by a strong hunter who advances, and a prey that hides and flees. In other words, drone operations are about targeted killings, assassinations, and the risk-free elimination of a non-declared enemy. In that sense, one can argue that drone operations are not wars.

In this context, 'asymmetrical warfare' is another key notion. In political, legal, and ethical studies, for example, the term remains crucial. The asymmetry inherent in the so-called 'riskless war' – in which drones enable the aggressor to project power without vulnerability – raises the question of whether drones are, in fact, ethical (due to their precision, and their reduction of casualties on the aggressor's side) or quite the

contrary; that they should, again, not even be categorized within the juridical and political framework of war. This specific debate about the asymmetrical aspects of drones as constituting 'just' or 'unjust war' connects to a larger discussion about the *novelty* of drones as a technology of war. Thus, it is frequently debated whether drones reflect a *rupture* or a *continuation* in the political and technology history of warfare. Within international law studies, drone warfare can be seen as a new type of war that not only undermines international law but also require new forms of legislation (Kahn 2013; Moyn 2013).

Anders Henriksen and **Jens Ringsmose**, in their article 'The Moral of the Battlefield and the Risk-Free War with Drones,' address precisely this intersection between security studies, moral philosophy (ethics), and law. Essentially, risk-free drone operations embody a form of asymmetrical warfare that represents what Michael Walzer (2000) classifies as a form of unjust war. Henriksen and Ringsmose show that the widespread skepticism of drone warfare is due to the fact that war is still conceived as a moral and political endeavor, as Carl von Clausewitz's proposed in his treatise *On War* published in 1832. Their argument is that many people – consciously or unconsciously – feel that war ought to be a reciprocal affair (involving danger and risk on both sides). Yet, drone warfare, the authors propose, eliminate this balance since the lack of reciprocity constitutes an inherent paradox: On the one hand, casualties should be minimized, but, on the other hand, the targeted reduction of casualties (or: assassinations) is precisely what many people find as morally problematic.

The debate about drone warfare and ethics reflects a wide spectrum of diverse opinions and views. While some scholars consider the absence of morality in drone operations to disqualify these from even being regarded as a form of warfare (Chamayou 2015; Maurer 2016), some military ethicists argue that drone warfare is (and even must be) a moral affair. Bradley Jay Strawser, for example, claims that, because drones do save lives of the just, they are not only ethical in themselves but, in fact, they impose on political decision makers a moral duty to use them: "I contend that in certain contexts UAV (unmanned aerial vehicle) employment is not only ethically permissible, but is, in fact, ethically obligatory" (Strawser 2010, 344). Because drone operators fight just wars, according to Strawser's logic, their means of fighting in these wars are also just, and therefore the *jus in bello* law and the *jus ad bellum* law are not impeded. If one is fighting a just war, it is only good that the means are asymmetrical, and that the just warrior is better protected than the unjust one. The public version of this argument is illustrated in a US Air Force commercial image appearing in the magazine *Popular Science* (Sweetmann 1997, 95-101). The photo shows a gleaming remote controlled combat plane against a brisk blue sky with the heading 'Nobody dies but the enemy' conveying the idea of a clean, sanitized and just war.

The argument for minimizing the killing of civilians is powerful indeed, and, when faced with a plethora of normative moral claims that serve utilitarian ends, it can be difficult for scholars and critics to maintain a focus on laying bare the assumptions that underlie such claims. **Ezio Di Nucci**'s article, 'Drones and the Threshold for

Waging War,' engages with ethical claims about drone warfare by discussing the works of military ethicists, such as Zack Beauchamp, Julian Savulescu, and Strawser. Whereas Chamayou has termed their ethics as an ideology of 'killing well,' a so-called 'necro-ethics' (Chamayou, 2015), and thus denies even their status as ethicists, Di Nucci analyzes their argumentative logic and their analytical methods. In doing so, Di Nucci essentially follows the dictum of Beauchamp and Savulescu that drones can reduce casualties and can thus dangerously lower the threshold for waging conventional forms of war. He challenges them, however, by his claim that the fact that drones make the waging of wars easier is not a bad thing, because lowering the threshold to war could entail some positive consequences such as improving the 'just' practices of humanitarian intervention.

This type of analytical and pragmatic reasoning about drone warfare is not only contested by other scholars of philosophy (Chamayou 2015, Gros 2010), but also by a field of scholarship that has become more and more visible with respect to remote control warfare during the last decades: the human geographers. Peter Adey, Iain Shaw and Derek Gregory have published extensively on the geopolitical, topological, and emotional contexts of drone wars, the latter through his highly informative and widely cited blog 'Geographical Imaginations' (Adey 2010; Adey et al. 2013; Shaw 2016; Gregory 2004, 2011, 2014). Gregory analyzes the ways that experiences of time and space have fundamentally changed with the rise of military drones, a change that he described with the term 'imaginative geographies.' Gregory analyzes, for example, the wide-area surveillance technology with the telling name of Gorgon Stare, which is able to capture motion imagery of a whole city (Gregory 2011). Gorgon Stare incorporates a spherical array of nine cameras attached to an aerial drone armed with Hell Fire Missiles. Together with Gorgon's brother, the surveillance technology Argus-IS (again a pun on mythology), containing hundreds of cell phone-like high-resolution cameras, can quilt together a mega-stream of images into a large-scale mosaic and feed them into the data networks of stations on the ground.

Gorgon and Argus certainly transform the human experience of space and time; as a drone pilot notes: "Sometimes I felt like a God hurling thunderbolts from afar" (Gregory 2011, 192). Given these Olympian powers, drawing a parallel to Jeremy Bentham's panopticon seems imperative. Like that of the panopticon, the perspective afforded by such wide-area technologies suggests a totalized and synoptic view of the surveyed object. The philosopher Zygmunt Bauman, however, has pointed out that the visual field of surveillance of the drone is in fact far more powerful than that of the panopticon, since it requires neither spatial partitions nor fixed architectural demarcations. The effects of this multi-scopic gaze become quite clear when one looks at the spherical distribution of cameras like Gorgon Stare and Argus-IS that are no longer organized via a centralized verticality (i.e. the watch tower of the panopticon), but rather along a multi-faceted gaze whose constellations can constantly change. Drones embody what Bauman calls a 'liquid technology' – one that is no longer perpendicularly ordered, but is decentralized, flexible, and fluid (2013, 67).

It is striking that military drones do not only invert spatial and temporal forms of experience, but also have a decisive impact on the emotional experience of the individual soldier (or drone operator). Drones create geographical and temporal distance, but at the same time they bring the battlefield intimately close by live-feed video signals. This closeness affects the individual perception of drone operators, who often watch their targets for weeks or months before eventually eliminating them. Remember the public letter to the president, signed by four drone pilots. The motivation behind the letter was indeed a growing unease and guilt triggered by posttraumatic stress, which is shared by many other drone operators.

Whereas human geographers document the sensor operator's psychological reactions to this new kind of 'voyeuristic intimacy' in remote warfare (Gregory 2014), cultural studies and media studies frequently focus on the technologies with which these emotions are entwined. How do humans interact with these new technologies of seeing? What does a drone operator see (versus what is seen by his or her optical sensor machine)? What is the relationship between these new modes of physical and technological perception? Are they interlinked? Who or what is in charge when executing these missions? To approach these questions, the theoretical distinction between vision and visuality is helpful. Vision refers to the physical condition of seeing, the human eye, and visuality describes seeing as a social construction and its technologies (Foster 1998). According to Hal Foster, these terms become deeply intertwined within the course of modern scientific rationalization. In the case of late-modern drone warfare, the boundaries between vision and visuality become completely blurred. **Nina Franz** and **Rebekka Ladewig**'s article, 'Synthetic Reality and Blind Flight: The Operationalization of Perception,' investigates the conditions of drone vision and visuality from a media historical, media theoretical, and political perspective. A key term is 'situational awareness', which expresses a condition in which technology and the human senses are merged, and in which images gain a form of operative power. Situational awareness is a crucial aspect of decision making within military operations and foreign policy, which is, according to the authors, deeply problematic. According to them, situational awareness is based on the logic of simulation of a post-democratic form of government as suggested in Jacques Rancière's work *Disagreement: Politics and Philosophy* (1999).

The construction and impact of 'operative images' in drone warfare are also vital to **Moritz Queisner**'s media theoretical analysis in this themed section of *Politik*. Queisner's article, 'Looking Through a Soda Straw: Mediated Vision in Remote Warfare', investigates the effects of the remote gaze of drone operators on their decision-making processes. He argues that the visual architecture of drones – or their scopic regimes (Gregory 2014; Maurer 2016) – redefines the relationship between human actors and machines. Neither the human subject nor the machine is completely in control of the decision-making processes during drone operations. Rather, as Queisner proposes, the scopic regime of the military drone suggests an in-between space with which the human is entangled in a socio-technological assemblage. Within

this constellation, humans and technology merge; a union that, in the context of drone attacks, can be critical when it comes to life and death decisions.

Discussing drones in an interdisciplinary fashion must also reach beyond questions of political, strategic, ethical, technological, and medial frames. To understand drone warfare and its ramifications for the individual (in particular, for the sensor operators and the victims) it is imperative to investigate its representation in the aesthetic realm (photography, film, literature, art). Aesthetics and its non-instrumental potential represent a discourse that is well suited to voice a critical perspective. As noted above, there is a current boom in films about drone operations. But it is not only Hollywood that has discovered the drone. Works by independent visual artists, such as Omer Fast's film *5000 Feet is the Best* (2011), also shed light on the impact of drone warfare on the human individual. Photographers, musicians, and literary writers have likewise dealt with the drone as an aesthetic object. In fact, considering the amount of drone-related art, and the increasing aesthetic interest in this technology, one could declare the existence of an aesthetic 'drone imaginary'. A central part of this aesthetic drone imaginary is the concern with the secrecy and invisibility of drone operations – which could be why drones are, as essayist Adam Rothstein writes, "shrouded in fantasy" (Rothstein 2015, ix).

Andreas Immanuel Graae investigates a specific aesthetic drone imaginary, namely the one represented in the television series *Homeland*, in which the bipolar CIA agent Carrie Mathison conducts several drone strikes. Graae's article in this volume, 'The Drone Queen: Voyeurism, Intimacy, and Paranoia in the TV-Series *Homeland*', explores the voyeuristic intimacy that comes with the scopic regime of the drone. Graae points to the split experience undergone by drone operators as they conduct attacks, during which they are simultaneously emotionally present and geographically removed. This split, or shattered experience, is embodied in Carrie Mathison's paranoia, bipolarity and simultaneous ability to manically decode messages in mosaic-like big data flows. Graae's article suggests that, in the aesthetic representation of drone warfare, such as in *Homeland,* this split experience can be affectively communicated to the viewer and, furthermore, can also mark a paranoid connection between drone warfare and the war against terror in general.

With these diverse contributions, this theme issue hopes to show that there are nevertheless common threads between the individual disciplines in the drone debate. Notions of asymmetrical warfare, risk-free attacks, visibility and invisibility, as well as an interest in the emotions surrounding drone technology are (to different degrees, of course) pertinent to all articles. It is important for us to convey that drone operations are not an affair about which only policy makers, military experts, and technologists have a say. Drone warfare represents a societal phenomenon whose complexity can only be grasped by a multi-disciplinary view, involving scholars from the social sciences as well as the humanities.

The timeliness and relevance of this issue are sinisterly acute. A new era of American foreign policy has just been inaugurated with a President Trump who declares an intensified war on terror with the smallest possible cost to America. On national television, Trump has openly vowed to 'take out' the civilian families of Islamic State fighters as part of his anti-terror strategy. Despite their use by Trump's predecessor, this posture could most certainly imply an unprecedented intensification of the use of drones for targeted killings. During the last part of his presidency Obama did, in fact, create a policy under which drone strikes should only be undertaken against a terrorist target outside a war zone if there was a 'near certainty' that no civilian would be harmed. But since Trump will wage a less 'politically correct' war, as he says, Obama's drone policy could be instantly superseded. According to Stephen Vladeck, a national security expert at the University of Texas School of Law, the consequences would be hard to detect from the outside, since the strikes in question are classified: "If more civilians were killed in covert CIA drone strikes, the US would likely not acknowledge that, and journalists may or may not even learn about it. But such increased aggression would mean much more conflict with our foreign partners" (Dilanian 2016). The new president's relation to the truth does certainly not make the picture any brighter. In fact, Trump could reshape the US drone policy with an even higher degree of secrecy and falsehood. In presenting this issue, we urgently hope to counter this secrecy and instead foster a discursive climate in which the views of scholars across all disciplines are taken more widely into account as serious contributions to a discussion in which human lives are daily and increasingly at stake.

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Slagmarkens moral og risikofri krig med droner[1]

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"No bastard ever won a war by dying for his country. He won it by making the other poor dumb bastard die for his country."

- George S. Patton

"Danger is the raison d'être of war, opposition its indispensable prerequisite; conversely, unopposed killing does not count as fighting but as murder or, in case it takes place under legal auspices, as execution."

- Martin van Creveld

Det er ikke vanskeligt at forstå, at en lang række stater i disse år enten udvikler eller køber bevæbnede droner. I modsætning til bemandede kampfly, så styres droner af en pilot på jorden, og det betyder i praksis, at det ubemandede fartøj kan anvendes til usikre områder uden den vanlige risiko for, at pilotens helbred lider overlast. Det er da også først og fremmest udsigten til at kunne anvende væbnet magt mod fjenden og dennes kombattanter uden risiko for tab på egen side, der gør, at dronerne er blevet så attraktive og efterspurgte. Det gælder ikke mindst i Vesten, hvor krigene i Afghanistan og Irak har ført til en udbredt 'interventionstræthed'. Det er dog ikke kun vestlige stater, der har fået øjnene op for de bevæbnede droners fordele – det samme har lande som eksempelvis Kina, Iran, Rusland og Nigeria, der alle er i færd med at erhverve sig de nye fjernstyrede våbensystemer (Kaag & Kreps 2014, kap. 2).

Det amerikanske droneprogram i lande som Pakistan, Yemen, Somalia og senest Libyen illustrerer imidlertid også med al mulig tydelighed, at dronekrig er alt andet end ukontroversiel. En lang række kommentatorer og institutioner – herunder FN's 'special rapporteurs' – har kritiseret amerikanerne for deres udstrakte brug af bevæbnede droner i 'krigen mod terror' (se fx Emmerson 2014). Mens nogle har rettet deres kritik mod Washingtons til tider tvivlsomme juridiske begrundelser for dronekrigen, der ikke er

[1] Forfatterne takker for den anonyme reviewers grundige og meget konstruktive kommentarer.

begrænset til 'slagmarken' i traditionel forstand, har andre påpeget den negative strategiske slagside, der kan være forbundet med at gennemføre droneangreb, som tilsyneladende koster et stort antal civile livet. Denne juridisk og strategisk funderede kritik af dronerne er i praksis rettet mod den måde, hvorpå dronerne anvendes.

Det interessante er imidlertid, at den udbredte kritik af – og modstand mod – dronekrig tilsyneladende ikke kun synes at kunne reduceres til et spørgsmål om, hvor og mod hvem de bevæbnede droner anvendes, og hvor megen utilsigtet skade droneangreb forårsager. Og det er her, at nærværende essay tager sit afsæt. Vi søger nemlig at forstå det mere grundlæggende ubehag, der omgærder den form for krigsførelse, som de bevæbnede droner repræsenterer (se fx Strawser 2013a).

Det er vores påstand, at den sidstnævnte form for kritik af dronekrig først og fremmest udspringer af et sjældent artikuleret – og måske endog ubevidst – moralpsykologisk ubehag ved det, der betegnes som 'risikofri krig'. Vores ærinde er at pege på det paradoksale forhold, at det er de samme ting, som gør dronerne attraktive for både civile og militære beslutningstagere – muligheden for at kunne anvende væbnet magt mod fjenden uden risiko for tab på egen side – der samtidig ligger til grund for en del af den uvilje, der omgærder dronerne.

De bevæbnede droner er efter vores opfattelse i høj grad blevet et symbol på en moderne form for krigsførelse, hvor den ene part i konflikten (som regel Vesten) er så militært overlegen, at den er i stand til at eliminere fjendens styrker uden at risikere egne soldaters liv og lemmer. Og det er netop denne form for krigsførelse, der af mange opleves som moralsk problematisk. Anvendelsen af de ubemandede, bevæbnede fartøjer strider nemlig mod en udbredt antagelse om, at krig ikke bør være en fuldstændig ensidig affære, hvor det kun er den ene side, der slår ihjel, og den anden side, der dør. Den moralsk-funderede antagelse synes med andre ord at være, at der bør være en form for gensidighed i de stridende parters magtanvendelse, og at begge parter skal være eksponeret for slagmarkens farer. Der eksisterer således en oplevet grænse for, hvor asymmetrisk krigen må være. Og de bevæbnede droner krydser i kritikkernes øjne denne grænse.

Det primære formål med essayet er altså at beskrive, hvordan i hvert fald dele af den udbredte kritik af dronekrig er forbundet med et mere grundlæggende moralpsykologisk ubehag, der er knyttet til forestillingen om risikofri krig. Vi forholder os hverken til de politiske, strategiske eller juridiske argumenter for eller imod brugen af bevæbnede droner, og vi afstår også fra at fælde moralsk dom over dronerne. Vores sigte er mere begrænset: Vi søger at blotlægge og forstå en moralsk-funderet modvilje mod den form for risikofri krig, som vi mener, at dronerne er udtryk for.

Essayet rummer to hovedafsnit: Vi lægger ud med at spore den moralsk funderede modvilje mod bevæbnede droner til en forestilling om, at krig er mere end blot en strategisk og juridisk aktivitet. Med afsæt i Martin van Crevelds (1991) fortolkning af krigens væsen gør vi gældende, at krig i høj grad også skal betragtes og forstås som en moralsk praksis, der er styret af ikke-formaliserede normer og værdier. Med henblik på at spore de i denne sammenhæng væsentligste moralske forestillinger om den 'rigtige'

krig introducerer vi i artiklens anden del Paul W. Kahns (2002) tanker om den moralske betydning af krigens gensidighed. Vi søger dermed at identificere nogle af de basale moralske forestillinger, som anvendelsen af bevæbnede droner kolliderer med. Vores argument er alt i alt ret simpelt: Vores holdning til krig styres ikke kun af strategiske og juridiske overvejelser, men i høj grad også af moralpsykologiske dispositioner forankret i ikke-formaliserede normer. Forestillingen om at krig bør være præget af en form for 'risiko-gensidighed', er en væsentlig norm i denne sammenhæng. Det ubehag, som mange føler ved brugen af de bevæbnede droner, udspringer med andre ord af forestillingen om den risikofrie krig.

Krigens moralske dimension

For at forstå den mere eller mindre artikulerede aversion mod brugen af bevæbnede droner, som mange forskere, beslutningstagere og helt almindelige mennesker nærer, er det nødvendigt at anskue krig og krigsførelse som mere end instrumentelle aktiviteter, der ene og alene er underlagt et juridisk normsystem. Væbnet konflikt handler om meget mere end strategiske overvejelser og overholdelse af internationale konventioner og sædvaner for lovlig krigsførelse. Det er ganske vist korrekt, at flere har udtrykt kritik af anvendelsen af bevæbnede droner, fordi de mener, at dronerne er kontraproduktive i en strategisk/instrumentel forstand (se fx Kaag & Kreps 2014, kap. 3; Kilcullen & Exum 2009) og/eller fordi den konkrete anvendelse af dronerne efter kritikernes opfattelse strider mod folkeretten. Men den form for ubehag, der omgærder dronerne, udspringer af en grundantagelse om, at selv krige, der giver strategisk mening, og som holder sig inden for de retlige normer, skal være moralsk forsvarlige.

Der findes en omfattende litteratur om krigens moralske og etiske fundament, men et af de primære værker, der bidrager til vores undersøgelse af de uformelle normer, og som har indflydelse på vores opfattelser af og holdninger til risikofri krig, er Martin van Crevelds banebrydende bog fra 1991, *The Transformation of War*. Crevelds primære ærinde er netop at udfordre den konventionelle forståelse af krig som en instrumentel aktivitet, der udøves for at nå et politisk mål. Crevelds ambition er med andre ord at supplere Carl von Clausewitz' klassiske beskrivelse af krig som den rationelle forfølgelse af politiske mål med væbnede midler (Clausewitz 1976). I modsætning til Clausewitz tager Creveld udgangspunkt i krigen, som den tager sig ud og opleves ude på slagmarken. Og her opleves krigen ikke først og fremmest som de politiske beslutningstageres rationelle instrument, der skal forfølge et givent politisk mål, men i stedet som en social aktivitet, der er styret af grupper og individers normer, værdier og basale menneskelige behov. Hos Creveld ser vi med andre ord ikke krigen som et resultat af modsatrettede politiske interesser, men derimod med afsæt i de individer, der udkæmper den.

Det er ifølge Creveld i virkeligheden ret simpelt: Grunden til at mænd går i krig er, at de stræber efter at blive krigere. Årsagen er er kun undtagelsesvist, at de er villige

til at kæmpe for politiske mål eller for statens interesser. Soldaten er i stort omfang drevet af et ønske om at være kriger og om at besidde de dyder, der karakteriserer den 'gode kriger' – først og fremmest mod, ridderlighed, ære, loyalitet og mandighed. Eller som Creveld selv formulerer det: "Probably in most wars ever waged the vast majority of combatants were not even aware of the exact nature of the political considerations for which they were supposed to be fighting" (Creveld 1991, 187). Vi mener, at Crevelds klare fokus på krigen som en meningsskabende og normbaseret aktivitet snarere end et rationelt politisk instrument skaber et godt udgangspunkt for at forstå en normbaseret modvilje mod dronekrig. Mens det således er Clausewitz' ambition at bidrage til en forståelse af krigen som et politisk instrument, der kan og bør anvendes strategisk, så er Creveld optaget af alle de ikke-rationelle forhold, som informerer og sætter rammer for krigen.

En af de mest grundlæggende – men sjældent udtrykte – etiske principper for hvordan krig bør føres, er ideen om gensidighed ('reciprocitet'). Princippet fordrer, at det i høj grad er den gensidige fare og risiko forbundet med deltagelse i krigen, der gør drab og lemlæstelse på slagmarken moralsk forsvarlig (Creveld 1991, kap. 6; se også Kaag & Kreps 2014, kap. 5; Sparrow 2013). Hvis fjenden er helt og aldeles forsvarsløs, er det ganske enkelt moralsk forkasteligt at slå ham ihjel. Som Michael Walzer formulerer det: "You can't kill unless you are prepared to die" (2004, 101). Set i det lys er krigsførelsen altid baseret på en etisk præmis om, at "opponents should be of broadly comparable nature" (Creveld 1991, 173). Eller:

> "The other point where conventional strategic thought goes astray concerns the premise that war consists of members of one group killing those of another. In fact, war does not begin when some people start killing others; instead, it starts at the point where they themselves risk being killed in return. Those, and there are always some, who engage in the former but not in the latter are not called warriors but butchers, murderers, assassins, or any number of even less complimentary epithets… killing people who do not or cannot resist does not count as war. Nor are those responsible for such killing likely to earn the respect deserved for warriors." (Creveld 1991, 159)

Princippet om gensidighed er baseret på en antagelse om, at overdreven 'risiko-asymmetri' gør krigen til en moralsk uforsvarlig aktivitet. Eller omvendt: Moralsk forsvarlig krig er i hvert fald karakteriseret ved et minimum af gensidighed.

Vestens (succesfulde) bestræbelser på at gøre det militære instrument så effektivt og dødbringende som muligt udfordrer gensidighedsprincippet og herved også de væbnede styrker og de politiske beslutningstagere. I overensstemmelse med Clausewitz' tanker og det, som Max Weber benævnte 'Zweckrationalismus,' har Vesten nemlig tilstræbt at instrumentalisere krigen og opnå den størst mulige risiko-asymmetri til egne styrkers fordel. I en vestlig optik har krig i en vis forstand altid handlet om at gøre krigen så farlig som mulig for fjenden – 'the other poor dumb bastard' – og så sikker som mulig for egne soldater. Moderne krig er derfor blevet en meget ulig affære, som i

stadig ringere omfang lever op til princippet om gensidighed. Derfor bliver vi i stigende omfang mindet om, at krig handler om meget mere end blot instrumentelle hensyn og rationalitet. Jo tættere vi kommer på at kunne elimere risikoen ved krig, jo større bliver vores moralpsykologiske ubehag.

Den tiltagende brug af bevæbnede droner illustrerer efter vores opfattelse, at der er en grænse for, hvor langt vi kan gå i bestræbelserne på at kunne anvende væbnet magt mod fjenden uden risiko for egne tab uden at komme i konflikt med en 'logic of appropriateness' og en etisk baseret antagelse om, at krig (hvis den skal være moralsk forsvarlig) bør være en gensidig aktivitet. I et weberiansk perspektiv er det, vi har været vidner til i de seneste par århundreder, 'krigens af-fortryllelse'. Og det er begyndt at gøre os ubehageligt til mode. Pointen er, at det ubehag, vi føler, viser, at moralske normer og etisk betingede forestillinger om et særligt 'krigeretos' stadig præger vores forståelse af krig, og den måde krigen bør føres på. Trods årelange bestræbelser på at instrumentalisere, rationalisere og disciplinere krigsførelsen, har vi endnu ikke været i stand til at give slip på dens moralske dimension.

Den risikofri krigs paradoks

Paul W. Kahn fra Yale University gør i en ofte citeret artikel fra 2002 gældende, at der er et paradoks forbundet med risikofri krig (Kahn 2002). Kahn anerkender til fulde, at politiske og militære beslutningstagere er underlagt en etisk forpligtelse om at søge at minimere risikoen for tab blandt egne soldater. Ifølge Paul W. Kahn er det ikke desto mindre et paradoks, at stater til stadighed gør deres yderste for at beskytte deres egne soldater mod risiko i krig, men at det efter hans opfattelse netop er den gensidige accept af fysisk risiko, som udgør det moralske fundament for voldsanvendelsen soldaterne imellem. Som Kahn udtrykker det: "The paradox of riskless warfare arises when the pursuit of asymmetry undermines reciprocity. Without reciprocal imposition of risk, what is the moral basis for injuring the morally innocent?" (Kahn 2002, 2).

Når vi accepterer, at soldater slår hinanden ihjel, skyldes det ifølge Kahn hverken, at vi mener, at soldater gør noget moralsk forkert, når de begiver sig ud på slagmarken, eller at den politiske sag, som soldaterne er sat til at kæmpe for, nødvendigvis er mere eller mindre amoralsk end andre politiske sager. Soldater anses derimod traditionelt for at være moralsk ligeværdige individer, der ikke har gjort sig skyldige i nogen 'forkert' adfærd, så længe de overholder krigens regler. Når vi accepterer, at soldater slår hinanden ihjel, er det ifølge Kahn, fordi soldaterne har ret til at bruge dødelig magt mod hinanden, og at det derfor i praksis for den enkelte soldat handler om at slå ihjel eller at blive slået ihjel. Slagmarkens moralske fundament er herved nært beslægtet med det moralske grundlag, der understøtter individuelt selvforsvar (Kahn 2002, 3). På samme måde som et individ er berettiget til at forsvare sig selv mod en aggressor, er en soldat berettiget til at slå den fjende ihjel, der prøver at dræbe ham.

Kahns analyse indikerer, at den totale asymmetri og fraværet af gensidig risiko skaber problemer for såvel den stærke såvel som den svage part i den risikofrie krig. For mens den stærke part, der ikke løber nogen risiko, er ude af stand til at retfærdiggøre sin magtanvendelse ved at henvise til nødvendigheden af at forsvare soldaterne mod en overhængende risiko – der er jo ingen – så er den svage part i praksis ude af stand til at forsvare sig mod den stærke parts brug af væbnet magt. I det omfang, at det er nødvendigheden af selvforsvar, som udgør det moralske fundament for brug af dødelig magt i krig, så gør den totale asymmetri det i praksis umuligt for parterne at kæmpe på en moralsk forsvarlig måde. Kahns argument er indlysende relevant i forhold til fremkomsten af bevæbnede droner. For hvis det etiske grundlag for at dræbe fjendens kombattanter er knyttet til eksistensen af gensidig risiko, så rejser den risikofrie dronekrigsførelse oplagte etiske spørgsmål. Som Kahn selv bemærker:

> "A regime capable of targeting and destroying others with the push of a button, with no human intervention but only the operation of the ultimate high tech weapon, propels us well beyond the ethics of warfare. Such a deployment of force might be morally justified — it might be used to promote morally appropriate ends — but we cannot appeal to the morality of warfare to justify this mode of combat." (2002, 3)

Ifølge Kahn betyder fraværet af gensidig risiko, at det, der foregår, slet ikke kan betegnes som krigsførelse, men derimod må anskues som en form for 'politivirksomhed'. Og skiftet fra krigsførelse til politivirksomhed er vigtigt, fordi politivirksomhed er baseret på et andet moralsk grundlag end krigsførelse. I modsætning til krigsførelse, så er politivirksomhed nemlig baseret på en grundantagelse om, at det kun er de personer, der har foretaget sig noget moralsk forkasteligt – the 'morally guilty' – der må finde sig i, at de risikerer at lide overlast. Politivirksomhed er med andre ord kendetegnet ved, at individer gøres til genstand for magtanvendelse på grund af det, de har gjort, og ikke hvem de er (Kahn 2002, 4).

For Kahn består det problematiske ikke i overgangen fra krig til politivirksomhed, og Kahn påstår ikke, at staterne bør tilstræbe en 'fair fight', hvor det accepteres, at også ens egne soldater skal løbe en risiko for at blive slået ihjel. Kahn anerkender som nævnt eksistensen af en moralsk forpligtelse til at søge at minimere den risiko, som egne styrker udsættes for. Det problematiske opstår derimod ifølge Kahn, hvis det ændrede moralske grundlag for voldsudøvelsen ikke kommer til udtryk i den faktiske anvendelse af magt. Problemet er med andre ord sammenblandingen af "the traditional morality of the battlefield with the appropriate morality for contemporary, international policing." Pointen er altså, at hvis det, dronerne foretager sig, er politivirksomhed og ikke krigsførelse, så bør det retlige normsystem, der regulerer anvendelsen af droner, gentænkes (Kahn 2002, 4). I praksis vil det bl.a. betyde, at magtanvendelsen kun rettes mod de personer, som har begået en moralsk forkastelig handling (Kahn 2002, 7). Sat på spidsen vil det endvidere også betyde, at der introduceres en egentlig procedure med

egnede retssikkerhedsgarantier, når det vurderes, hvem magtanvendelsen må rettes imod. Den blotte konstatering af, at en person bærer fjendens uniform, er utilstrækkelig til at gøre denne til genstand for dødeligt magt.

Afrunding

Ærindet med dette essay har først og fremmest været at bidrage til forståelsen af det ubehag, som mange nærer, når det gælder anvendelsen af bevæbnede droner. Med afsæt i blandt andre Paul W. Kahn og Martin van Crevelds forskning har vi sporet den moralpsykologiske modvilje imod dronerne til i stort omfang at hænge sammen med den 'risikofrihed', som dronerne repræsenterer. Når reciprociteten forsvinder, og krigen bliver en ensidig affære, hvor den ene part anvender væbnet magt, og den anden part dør, så opstår der tvivl om, hvorvidt krigsførelsen er legitim.

Det hører med til historien, at de bevæbnede droner ikke er det eneste risikofrie våbensystem, som især vestlige stater råder over. Der er således heller ikke megen personlig risiko forbundet ved at affyre krydsermissiler fra ubåde eller ved at gennemføre luftbombardementer fra stor højde i stater uden fungerende luftforsvarssystemer. Der var eksempelvis ikke meget symmetri i den militære luftkampagne mod Serbien og Beograd i 1999 og for den sags skyld i luftoperationerne i Libyen i foråret 2011 eller i de igangværende operationer mod Islamisk Stat i Irak og Syrien. Kahns kritik af den påståede sammenblanding mellem slagmarkens moral og nutidig international politivirksomhed kan derfor heller ikke kun anses som en eventuel kritik af anvendelsen af bevæbnede droner som et våbensystem, men derimod af ekstremt asymmetrisk krig – og dermed af en stor del af Vestens krige – som sådan.

Når vi tilsyneladende ikke føler den samme grad af ubehag ved risikofri krig, når den udfolder sig som en luftoperation eller gennem anvendelsen af krydsermissiler, skyldes det i vores optik, at de satellit-styrede droner transcenderer stort set alle geografiske begrænsninger. I modsætning til kampfly og – i mindre udstrækning – krydsermissiler, så er der reelt ingen geografisk forbindelse mellem operatøren af våbnet og slagmarken. Dronepiloten kan sidde varmt, tørt og sikkert på den anden side af kloden, mens jagerpiloten og operatøren af krydsermissilet trods alt må opholde sig i nærheden af slagmarken. De ubemandede systemer repræsenterer med andre ord den totale adskillelse af slagmarken og det rum, som 'krigeren' (i dette tilfælde droneoperatøren) opererer i. I den forstand fremstår de bevæbnede droner som radikalt anderledes.

Til sidst er det på sin plads med et kig ud i fremtiden. Det er nemlig efter vores opfattelse ret oplagt, at den hastige udbredelse af ubemandede våbensystemer vil gøre netop moralpsykologiske dispositioner vis-i-vis risikofri krig til et væsentligt emne for fremtidig forskning. Det amerikanske forsvar har for nylig annonceret, at man i de kommende år vil satse massivt på ny teknologi, og intet tyder på, at den dagsorden ikke også kommer til at ramme USA's allierede (Mujamdar 2016). Dronerne kommer i stort

tal, men hvordan vil det påvirke vores oplevelse af væbnet konflikt? Hvordan udvikler ubehaget sig, når ubemandede systemer til lands, vand og i luften bliver langt mere udbredte? Og kommer ubehaget til at betyde mere regulering af dronekrig? Udviklingen kan basalt set gå i to retninger: Vi kan udvikle samme lede ved dronerne, som tidligere generationer har udviklet imod brugen af eksempelvis giftgas, biologiske våben og personelminer; men vores kollektive moralpsykologiske oplevelse af de ubemandede systemer kan også ændre sig, som det var tilfældet med eksempelvis armbrøsten, ubåden og kampflyene. Fra indledningsvist udbredt ubehag til total accept af det nye. Vores forsigtige gæt er, at udviklingen vil komme til at minde mest om sidstnævnte scenarie.

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Drones and the Threshold for Waging War

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The case of military drones[1] can serve as an example of the failure of philosophy to live up to the intricacies of the real world. In the dreams of some philosophers, drones are the perfect weapons. According to their advocates, they are meant to be precise in ways previously unimaginable and characterized by increased effectiveness and drastic reductions in collateral damage (Strawser 2013; Beauchamp & Savulescu 2013). Yet, even if drones make it easier to wage war, the reason why they do so may not be the one commonly assumed within the philosophical debate among (military) ethicists – namely, the promised reduction in casualties on either side. Rather, one could question whether drones, after all, lead to the prospects of reducing casualties – or if they, in fact, ultimately increase them. This paper will scrutinize the reasoning behind the arguments supporting the deployment of drones to search for alternative claims embedded in the political intricacies of international relations and domestic politics.

Not only can the military case for using drones appear to be rock solid, the ethical case for the deployment of drones seems to be, in principle, just as strong. From an ethical point of view, drones are supposed to be win-win. Those that deploy drones profit because of increased precision, effectiveness, speed and, crucially, the fact that drones are unmanned. Those features, in turn, increase operational possibilities and reduce risk – a strategist's dream. But also for the people living under them, drones can have significant advantages, in particular with respect to the promised reduction in collateral damage. In fact, there is evidence from both Pakistan and Libya about drones being welcomed by those attacked as well as by those attacking (see for example Beauchamp & Savulescu 2013; Franke 2014).[2] Even former President Obama has made the point that using drones in Pakistan is much more acceptable – to the Pakistanis themselves – than using ground troops or traditional aircraft.

Obama could consistently present himself as a pacificator (and win the Nobel Peace Prize) because his government conducted an increasing number of military

[1] A quick note about my terminology: I am using 'drones' just because it is the most common word for 'unmanned aerial vehicles' (UAV's), but my discussion is not restricted to aerial vehicles exclusively.

[2] The situations and the different interests on the ground both in Libya and Pakistan are so complicated that it is very difficult to use this as solid evidence. Libyans and Pakistanis who welcomed the deployment of drones are not the same ones who are being targeted by drones.

operations from within the wire of a US base. Thus, forget about boots on the ground, the drone pilots may just as well wear flip-flops. To be clear, this is a view that Obama has himself publicly expressed, for example in his 'Remarks by the President at the National Defense University' on May 23, 2013 (Franke 2014, 130). In that speech, Obama warned about the risk that manned operations would "lead [the US] to be viewed as occupying armies, unleash a torrent of unintended consequences," and "may trigger a major international crisis." As Franke (2014) plausibly points out, it is not hard to read Obama's words as a suggestion that drones are less controversial and therefore easier to use than traditional military forces. Thus, following that logic, everyone should be supportive of drone strikes: Not just perpetrators, but targets too; real people just as much as moral philosophers.

However, when calculating combat strategy, it is important not to forget about the actual political situation. Reality creeps in and spoils the philosopher's carefully constructed vision. In less than a decade, unmanned military drones have revolutionized the politics of war. In a way that is quite independent of their specific technical development, drones have become a symbol and placeholder for the technologization of war (and peace). Increasing automation, robotics, and artificial intelligence both within the military and civilian life are an extremely significant development, comparable to the possibilities facilitated by the Internet and digital revolution (Floridi 2014). Think about the actual data on collateral damage in Pakistan[3] or the increasing asymmetry between the few countries that can afford the deployment of military drones. Without even having to add further examples, we obtain the following, simple dialectics: Starting from similar premises and aspirations – less war, less killing, less suffering – ethical and political considerations seem to point in different, indeed opposite, directions.

The ethics of drones appears to suggest that we should welcome their deployment and wish for more drone operations and fewer old-fashioned, dirtier operations. However, the politics of drone deployment points to the idea that using drones will make it easier to wage wars and justify killing, which is also, ultimately, the case from a legal point of view (nowhere else other than in Plato's *Republic* do the moral philosophers, after all, make the laws). The aim of this paper is not, however, to replicate either the extensive ethical or the political debates on these subjects.[4] Rather I would like to push this debate forward by looking at how we ought to compare and evaluate the different kinds of considerations within these debates. In doing so, the hope is to enter a dialogue in which we academics stop talking past each other and make our scholarly debates more visible for policy makers. I will pursue this effort by looking at

[3] For some updated statistics, please see this recent article in *Foreign Policy*: http://foreignpolicy.com/2016/04/25/drones-kill-more-civilians-than-pilots-do/

[4] The academic debate is extensive. See, for example: Singer 2009, Paust 2010, Strawser 2010, Brunstetter & Braun 2011, Enemark 2011, Gregory 2011, Wall & Monahan 2011, Byman 2013, Coeckelbergh 2013, Cronin 2013, Enemark 2013, Strawser 2013, Williams 2013, and Franke 2014. Also see Di Nucci 2014a, Di Nucci & Santoni de Sio 2014, Santoni de Sio & Di Nucci 2016, Di Nucci & Santoni de Sio 2016 and Di Nucci forthcoming.

one particular argument: That is the idea that drones make it easier to wage war – or, differently put, the thesis that drones lower the threshold for going to war.

Humanitarian Interventions and the Threshold for Waging War

We should not assume, however, that this consideration is necessarily used to argue against the development or deployment of drones. There is serious dispute in the literature about the idea that making wars easier to wage is essentially a bad thing. Zack Beauchamp and Julian Savulescu, for example, have used the idea that drones lower the threshold for waging war to argue that drones make humanitarian interventions both more likely and more effective. They suggest that "[…] lowering the threshold is not, as commonly assumed, necessarily a bad thing. In at least one case, the bug is in fact a feature: drones have the potential to significantly improve the practice of humanitarian intervention" (Beauchamp & Savulescu 2013, 106).

Beauchamp and Savulescu make an interesting and well-documented case for how aversion to causalities among one's own soldiers can negatively influence the decision to intervene (they refer to the Clinton Administration's decision to stay out of Rwanda) as well as the effectiveness of those humanitarian interventions that do take place (in this case they refer to Kosovo). In the latter case, it is both in terms of the intervener's capability to prevent atrocities, but also in terms of collateral damages caused by the intervener (here Bosnia, which the authors do not discuss, may provide an even better example than Kosovo).

The point is supposed to be a simple one: With drones reducing or even eliminating one's own casualties we can expect more (and more effective) humanitarian interventions; thus, if we follow Beauchamp and Savulescu's argument, lowering the threshold for going to war is not necessarily a bad thing, it can actually have some significant positive consequences. There are four different elements to this argument:

a) The claim that drones reduce one's own casualties;
b) The claim that drones make war more likely;
c) The claim that (b) is true because of (a). Beauchamp and Savulescu refer to this as "the assumption that drones make war more likely by lowering the risk of casualties to the side employing them" (2013, 2).
d) The claim that (c) is not necessarily bad because humanitarian interventions are wars too.

Concerning (a) ("drones reduce one's own casualties") and (b) ("drones make war more likely"), I do not suggest that there is an equivalence between them. This is both because the latter would constitute, at best, a consequence of the former, but also because there may be other intervening factors. As it is evident in (c) ("drones make war more likely by lowering the risk of casualties"), Beauchamp and Savulescu do not

keep these arguments apart. For my purpose, it is not particularly important to keep the two apart, which is why I have followed their formulation of 'making war more likely'. In my opinion, the interesting point in this argumentation is, however, not the one Beauchamp and Savulescu argue against – namely, that lowering the threshold for waging war is always or necessarily bad – but rather the question of whether lowering the threshold for going to war is, overall, something that we should welcome. Even once we have accepted that humanitarian interventions can be seen as wars and have also agreed that drones will bring about more (and more effective) humanitarian interventions, the question remains as to whether this positive development will compensate other possible negative consequences of a general lowering of the threshold. Namely, all the other wars which might otherwise not have been fought had drones not lowered the threshold.

In this context, the term 'wars' may, however, be misleading. The development that drones are speeding up military interventions precisely challenges the very concept of war. Due to the increased violence that drones allow for – i.e. targeted killings – drone operations do not count as war in the traditional sense. One cannot deliver a reliable result by just comparing the number of just and unjust wars that would not otherwise have been fought had it not been for drones. That is, the unjust violence (that would not have been committed had it not been for drones) might not count as war, while the just violence – say humanitarian interventions – might still resemble traditional warfare. This is not the place to develop this point to any satisfactory extent, but it is worth remembering how drones may be changing our concepts related to what counts as war. I will, however, not press this point and move on to the other elements of the argument.

Drones and the Reduction of Casualties

I argue that (a) "drones reduce one's own casualties" is a plausible empirical claim, with the caveat that removing soldiers from the battle-space does not necessarily reduce one's own casualties since it can cause more civilian casualties back home through acts of terrorism. This is, again, a pretty simple point: Aversion to one's own casualties should not be seen as a point specific to military casualties, but just as one aspect in a much wider concern for one's own citizens. And if drones reduce operational casualties among military personnel and, in doing so, increase civilian casualties back home, then it would no longer be clear that (a) would still be true. Indeed, the truth of (a) would be very hard to establish, because it would depend on a comparative principle between the lives of one's own non-combatants and the lives of one's own combatants, not to speak of the difficulty of even defining these groups (see Fabre 2009).

The question of whether drones may increase one's own civilian casualties is, again, to a great extent an empirical one. Thus, I will not pursue it here in any great detail, but only state following more general observation: The decreasing availability of

combatants (as targets) in the battle-space coincides with a significant and well-documented increase of civilians in battle-space from NGOs and all sorts of private contractors to modern private military companies who should probably count as combatants (Liu 2015).[5]

The question of whether or not increased deployment of drones and other unmanned technologies may also increase civilian casualties among those countries that are deploying drones is not simply settled by looking at acts of terrorism. It also requires attention to what happens to the non-combatants of the deploying country (and maybe even its allies) in the battle-space. Certainly, it is not just a question of whether terrorism or acts of violence against non-combatants are increasing, but whether they are increasing because of the decreasing availability of combatants (as targets) in the battle-space, which drones and other technological developments are accelerating.

This issue is very interesting also from a normative point of view. One question is whether drones are increasing violence against the non-combatants of the deploying countries; an altogether different question is whether the decreasing availability of combatants (as targets) in the battle-space makes a difference to the normativity of violence against the non-combatants of the deploying country. It could be argued that because what used to be legitimate targets are being increasingly geographically removed from the battle-space, then targets that used to be illegitimate can increasingly become less so. One could object, however, that the geographical location of the enemy ought to make no difference to the legitimacy of attacking civilians or non-combatants. Drones do not change anything because non-combatants remain illegitimate targets while combatants under certain conditions (such as immediate threats) remain legitimate targets. So, the idea is that there is no normative difference – in terms of non-combatants' liability to be attacked – resulting from the development or deployment of drones.

This point is not quite obvious. As emphasized earlier, the increasing deployment of drones means fewer military personnel in the battle-space, but at the same time an increasing presence of civilians in the battle-space. But there is also another element, which is more specific to drones. Drone operators are now able to increasingly conduct a life that is much more similar to civilian life than to traditional military deployment, and they can do so while they still constitute an immediate threat for the enemy. This is because drone operators are able to live at home with their families and simultaneously fly deadly missions during working hours (Di Nucci & Santoni de Sio 2016; Kirkpatrick 2016). It is an interesting question whether the fact that drone operators are now in war and yet able to mingle with non-combatants make those non-combatants liable to attack; for instance, in the form of collateral damage as a strike on a drone operator on her way to work.[6] Of course, one could insist that drone operators are

[5] A further complication is that military personnel are increasingly being given peacekeeping and training tasks.

[6] On the ethics of collateral damages and double effect, see also *Ethics Without Intention* (Di Nucci 2014b).

mostly liable to be attacked when they are active in service – and, as long as we hold on to this principle,[7] there is no novelty and no normative difference. That would then mean, interestingly, that through technological development a country is not just materially increasing the safety of its combatants but also normatively diminishing their liability.[8]

Why Do We (not) Go to War?

The plausibility of (b) and (c) is worth considering in some detail. It may be that it is both true that 'drones reduce one's own casualties' and that 'drones make war more likely', but it may not be true that 'drones make war more likely because they reduce one's own casualties'. In other words, both (a) and (b) may be true while (c) could still be false if (b) is true independently of (a). In this context, Obama's speech serves as an example once more. Obama defends drone operations in Pakistan not by referring to their benefits in terms of risks to US troops, but rather by arguing that unmanned operations are more acceptable both for the country where (or against which) they are conducted and for the international community. Assuming that Obama is right about this, it could only be the case, if the reason why drone operations would be more acceptable is the fact of casualty reduction. But it is unlikely that this is what Obama was actually referring to, given his remark that traditional operations would "lead [the US] to be viewed as occupying armies." It is therefore much more likely that Obama was referring to drone operations being more acceptable over and above the reduction of casualties among own ranks.[9] Interestingly, there is (as mentioned) some evidence from both Pakistan and Libya reporting it to be easier for local authorities to accept drone operations rather than other kinds of operations, which is supposedly what Obama may have been referring to. Additionally, drone operations are much more difficult for the media to report on, which again may at least in part explain why drones are taken to be easier to be accepted by the international community. Finally, since they are unmanned, drone operations are not subject to the same procedures and laws as other traditional operations.

[7] This principle may indeed be challenged. For example, there seems to be a broad acceptance of 'targeted killings' of enemies that are either of unclear combatant status or not actively involved in attacks (e.g. high profile leaders of terrorist networks). One may therefore raise questions about the 'moral equality of quasi-combatants.' But I do not have the space to address this here. Thanks to an anonymous referee for suggesting this.

[8] An example of this could be the following: While traditional soldiers may have been liable to attack while resting in their base and not actively in service, drone operators are not liable to attack while resting if they do so at home.

[9] Referring to what Obama may have meant rather than to what is true or right is, in this case, legitimate because Obama is the decision-maker. And the issue under discussion is the empirical one of whether or not drones will make wars more likely and why (rather than some related normative issue). So, given the issue, what decision-makers think is not just pertinent, but also decisive (with the caveat, obviously, that what Obama says in public may not necessarily reflect his (Administration's) views or reasons).

These different elements share several important features: They may constitute reasons why drones make waging war easier and therefore lower the threshold for waging war (or 'state-sponsored violence') while also making no reference to reducing casualties in one's own ranks. These ideas may explain the (supposed) views of the Obama Administration. But it is different from that put forward by Beauchamp and Savulescu as it even allows for the following possibility: Namely, that drones do make waging war easier by lowering the threshold while at the same time *increasing* casualties in one's own ranks (say by causing more acts of terrorism against one's own non-combatants). Even though I have offered no evidence for this conclusion, the arguments that I have analyzed are not able to rule it out either. And this is significant since the scenario in which drones make wars easier to wage is, in a way, the worst possible outcome. In this scenario, both those who deploy drones and those against whom drones are deployed are losing. One reason to consider this a plausible outcome could be that civilian casualties due to terrorism would in a certain sense be better 'accepted' by the public than combatant casualties (and thus easier to 'sell') because it is simply less obvious that the former is a result of the government's military policies and strategies than the latter.[10]

To sum up: We started from the idea that drones may be a win-win situation by promising advantages to both sides, but ended up not even being able to rule out the possibility that drones are, actually a lose-lose. Moreover, the philosophical assumption that drones will make wars more likely by reducing one's own casualties is not, it turns out, doomsday pessimism. It may actually be overly optimistic by misreading the politics of choosing drone operations over more traditional operations. This is, to be clear, not incompatible with Beauchamp and Savulescu's argument as they do not argue for the idea that drones make wars more likely by reducing one's own casualties, but rather assume this point to offer an evaluation of (some) of its consequences. Still, my argument questions not only their assumption but their general claim, which is prominent in the debate on drones: This is not simply the coarse claim that 'drones make war more likely,' but also the more fine-grained version of it according to which 'drones make war more likely by reducing one's own casualties.' Thus, Beauchamp and Savulescu may be right, and indeed I have no objections to the content of their argument. Symptomatically, though, they may have made their argument irrelevant (or anyway less interesting) by misreading political realities on the ground, in particular in respect to how important casualty reduction actually is for decisions on war and peace.[11]

[10] Thanks to an anonymous referee for this suggestion.

[11] In future research, it will also be worth thinking about the relative importance of various kinds of casualties, such as enemy combatants, friendly combatants, enemy civilians, friendly civilians, agents of contested status etc. (see Fabre 2009). This can and probably should be done, as this article suggests, not only in terms of military ethics and just war theory, but also in terms of the effect that these differences can have in perceived acceptability and political decision-making. Again, thanks to a referee for this suggestion.

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Synthetic Reality and Blind Flight: The Operationalization of Perception

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Remote-controlled or (partially) automated contemporary weapons systems by their very principle increase the distance between human actors and their targets in military engagements. Thereby they reduce the risk of harm on the side of the technologically superior party and increase their access to geographically remote regions. At the same time, the growing distance of human operators from the 'theater of war' and the complex command structures in network-centric warfare pose new problems for decision-making and control. By creating new demands on human perception, they are presented largely as problems of 'situational awareness', a concept developed within the engineering discipline of human factors studies that has recently found its way into a media theoretical discourse (Suchman 2015). Even though these issues concern a wider variety of current technological applications that rely on screen-based procedures, they are particularly acute in a military context, where the perceptual basis for command and control is instrumental for the constitutive power of the state over life and death.

In today's remote warfare, 'situational awareness' is the domain of a new work force of visual data analysts on the one hand and of new technologies of visualization that are programmed to make data visible to the operators on the other. Central to these visualization technologies are 'Synthetic Vision Systems' (SVS), claiming to be on the forefront of a revolution in 'situational awareness' (General Atomics 2016). We argue that this relates directly to questions of in/visibility that are most pertinently expressed in the political philosophy of Jacques Rancière. In *Disagreement,* Rancière delineates a 'logic of simulation', in which the appearance of "objects whose mode of presentation is not homogeneous with the ordinary mode of existence" is made impossible and eventually amounts to "a real indissociable from its image" (Rancière 1999, 104).

This contribution focuses on a specific aspect within the history of aviation up to present debates around Unmanned Aircraft: That is the central issue of human

perception, and more specifically, the term 'situational awareness'. In the US-American context, this term is influential both in the field of engineering and in shaping military policy. In the following, we will trace the emergence of human perception as an actual object of design and engineering in the early history of aviation through the post-war rise of human factors studies.

The key issue when debating so-called autonomous systems and their possible implications in legal, ethical, and political terms is trying to locate the exact point at which a decision is made, or at which it is actually prefigured by software, pre-programmed algorithms or interface design. Determining what this can teach us about the policies and political mind-sets built into today's machinic assemblages is not a simple task. Yet, a closer look at how these systems are designed, what assumptions inform that design and what kind of conceptual frames and epistemological claims are at stake, may contribute to a better understanding of the parameters of decision making.

Rancière and the Regime of the All-Visible

In *Disagreement*, Jacques Rancière describes post-democracy as a form of government that, "in the name of democracy, emphasizes the consensual practice of effacing the forms of democratic action" (Rancière 1999, 101 f.). This effacement occurs within a structure of the visible, "where everything is on show," and where "there is thus no longer any place for appearance" (Rancière 1999, 103). In this world of total visibility, a 'real' and harmonized 'image of the whole' establishes itself, in which any appearance of politics is compelled to disappearance by the "media proliferation of whatever is visible" (Rancière 1999, 104). Rancière thereby brings the technologies of visualization – as the media of visual simulation – explicitly within the context of the police "order of the visible and sayable" (Rancière 1999, 29), whose description constitutes the core of his political philosophy. In doing so, he locates the relevance of the post-democratic 'regime of the all-visible' in a logic of simulation that is opposed not so much to the 'real and realist faith, but to appearance and its powers'[1]. Visibility here emerges as categorical blindness, namely, as intrinsic opposition to all that no longer corresponds to reality in terms of the order of the 'image of the whole'. In what follows, we would like to suggest that Rancière's reflections can be related to the procedures of 'blind flight'[2] in a more than metaphorical sense. Furthermore, we propose that the technologies of simulation that are in many respects paradigmatic for the proliferation of images can be

[1] It is at this point, according to Rancière, that the simulation theories of the 1990s (the ones of Jean Baudrillard and Gianni Vattimo in particular) go amiss, by either submitting to or celebrating a "loss of the real," as an "identification of the real with its reproduction and simulation, that amounts to a 'dismissal of the case' for the heterogeneity of appearance" (Rancière 1999, 104).

[2] The term blind flight is used here to describe the pilot's total reliance on instruments, rather than his own direct sensory perception referred to as visual flight. The corresponding German terms are 'Blindflug' and 'Sichtflug,' respectively.

examined within the context of applied psychology and with the techniques of control over the perception of pilots.

In his essay on the 'Work of Art in the Age of Mechanical Reproduction', Walter Benjamin positions the cinematic apparatus[3] and its effects on the human sensory experience in the context of aptitude tests developed within the new military science of applied psychology ('Psychotechnik').[4] He thereby exposes the superiority of the technological recording process over human capabilities of observation, and discusses its role as a training device for the "new tasks of apperception" (Benjamin 1991, 505; Benjamin 2003, 276).[5] In our view, the early tests in applied psychology and their historical continuation after WWII through the emergent discipline of human factors studies in the United States serve as the historical background for an on-going operationalization of human perception that was and continues to be most clearly pursued within the field of military research in general, and military aviation in particular. From the outset, optimizing the interaction between humans and machines was one of the central preoccupations of aviation. To this day, both in manned and unmanned flight, this is the chief domain for the development and application of techniques geared towards human perception – most notably, the field of vision – and, accordingly, for image-guided procedures that determine exactly what can be seen, and how. In the present analysis of these procedures, we aim to expose the function of technical images within them as surfaces for action that implement control. We will start with an investigation of 'psycho-technological' experimental designs in the aftermath of WWI, as setting the historical precedent for a more extensive operationalization of perception that is highlighted now by contemporary applications of sophisticated image-guided technologies in remote-controlled aircraft. We argue that a recent discourse, which has evolved from the intersection of experimental psychology and engineering sciences during the 20th century, approximates the political theory advanced by Rancière.

Learning to Fly: Attention and Applied Psychology

"Problems of sensation and perception… how a man sees and how he hears" (Chapanis et al. 1949, 12) were the major concerns of American human factors studies during the formation of the field in the late 1940s. They had already been the major preoccupation

[3] Benjamin uses the German terms 'Apparat'/'Apparatur' to refer to "the various technical artifacts that contribute to the organization of the field in which sensory experience takes place" (Somaini 2016, 7), and of which cinema is but one.

[4] The term 'Psychotechnik,' used synonymous with 'applied psychology,' was first introduced by William Stern in 1903 and more widely circulated by Hugo Münsterberg in 1912. Because of its ready instrumentalisation and institutionalization under National Socialism, the term was abandoned after 1945 (See Badke-Schaub et al., 11-12).

[5] Benjamin discusses the aptitude tests in a slightly different way in the second version of the essay (Benjamin 2008, 30-31).

of the experimentally oriented applied psychology in Germany since the late 1910s.[6] Especially in areas where the customary patterns of perceptual activity had been disrupted through the introduction of new technologies, it was understood that they presented new challenges to experimental psychologists working closely with engineers. Aviation began its military history shortly before WWI,[7] and proved that human perception was especially susceptible to error under changed environmental conditions (Asendorf 1997, 158ff). The rapid development of military aviation in the course of WWI also provided a testing ground for experiments with the media of photography and film that later inspired Benjamin's prescient theoretical remarks. It was in this tradition that Paul Virilio could describe aviation as a 'logistics of perception', which by 1914 was "becoming one way, or perhaps even the ultimate way, of seeing" (Virilio 1989, 17). Aviation thus played a pivotal role in turning the battlefield into a 'field of perception', in which the war machine came to be seen by "the military commander as an instrument of representation" (Virilio 1989, 20, see also Siegert 1992). The decisive role of aerial photography for operational reconnaissance during the wars of the 20th century is transferred today to remote-controlled or partially autonomous technological devices. This has increasingly automated the airplane as a medium of seeing, at the same time as it has established 'blind flight' as a paradigm for human perception within these systems.

The act of seeing, which Virilio ascribed entirely to the media of photography and film, was indeed one of the most important objects of investigation for the procedures used both to test the aptitude of prospective pilots and to conduct their training in the early days of aviation. One of the first examples of this was an aptitude test conducted in 1918 by the psychologist Wilhelm Benary at the Hamburg school of aviation that sought to determine attentional performance during simultaneous observation of earth and sky (Benary 1919a; 1919b). To experimentally reproduce these conditions, a strip of terrain with two distinct, intersecting lines, as well as the crisscrossing paths traversed by three arrows in apparently arbitrary sequence, was installed on the laboratory floor. The test subject sat at a table and was given the task of following the path of one arrow in this graphic representation of terrain and then drawing the route it had taken onto another strip (see figure 1).

Hanging above the participant's head was an additional screen upon which various geometric figures flashed in constantly changing sequences that the participant was instructed to remember and indicate by means of keystrokes. This created two visual fields analogous to the observation of earth and sky, which the participant had to observe over a period of an hour and fifteen minutes. The experiment was thus designed to test the individual's ability to survey the spatial relations of terrain, recognize and memorize routes and shapes within it, and then find and draw them in on a map, all

[6] For more on the cooperation that arose between the military and psychology during WWI see: Moede (1919), as well as Gundlach (1996: 131-143).
[7] Motorized airplanes were first employed during the Italo-Turkish War in Libya (van Creveld 2011: 17-23).

while simultaneously having to respond to external (acoustic) stimuli. This is not merely an example for the visual presentation of terrain in which the contours of its operational application already begin to surface, but it also reveals an operative understanding of the faculty of attention, which, as we will show, has more recently gained new prominence through the concept of 'situational awareness'.[8]

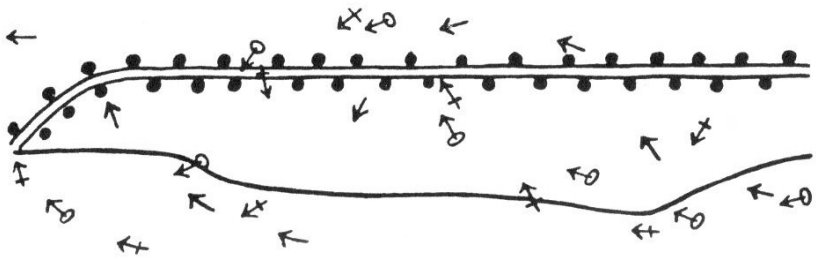

Fig. 1. Arrow path Recognition. Attention and Orientation Test, Wilhelm Benary, 1918.

One year after the implementation of Benary's orientation test, in response to significant deviations between the test results of the laboratory scenario and actual flight situations, a call was made to redesign the testing procedures in a more methodologically suitable manner involving 'realistic simulation'. This demand was clearly reflected in the experimental design drafted by the psychologist Arthur Kronfeld, who put an emphasis on heightened proximity to 'life' and 'reality' (Kronfeld 1919, 39). It was no coincidence that this was also the context for the emergence of aerial images able to survey terrain and its topographical features with a level of precision and detail in comparison to which human sight was found lacking. Kronfeld's experimental design included such an aerial image mounted upon a kymograph that unrolled itself in front of the test subject to display the panorama of a landscape seen from a height of 2000 meters. The participant sat in a dimly lit room and watched (with both eyes through a sighting tube to which his head was loosely fastened) as the panorama unwound itself in an endless loop before his eyes. This panorama conveyed the impression of being "self-contained, so that it constantly, unnoticeably repeats itself. Each individual revolution lasts around two minutes and displays thirty stimuli to the spectator during this time" (Kronfeld 1919, 43, see also: Baumgarten 1928, 347 et seq).

[8] The experimental scenario thus also reflects the meaning that the observation of terrain, i.e., aerial reconnaissance, came to hold during WWI. The privileged position that air reconnaissance held during the era of visual flight (Sichtflug) was also methodologically fundamental for the procedures designed by Benary to test 'observational endowment,' that is memorizing routes, recognizing patterns, or distinguishing similar features and figures (Benary 1919, 343 et seq).

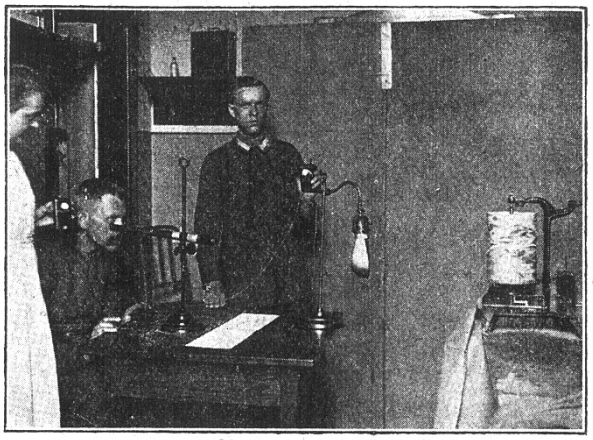

Fig. 2

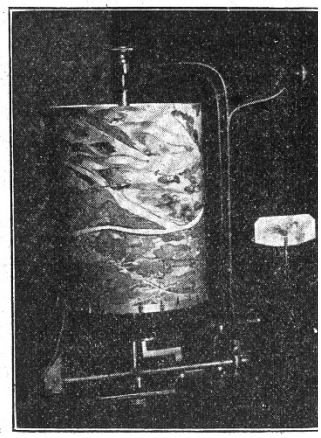

Fig. 3

Fig. 2 and 3. Experimental set up for Arthur Kronfeld's awareness test, 1919.
Detail: Panorama kymograph: Bird's eye view of a landscape.

In contrast to the design of Benary's experiment, the terrain is no longer represented graphically, but rather as a moving landscape in the form of a rotating photographic panorama that the viewer fixes his gaze upon through a sighting device. The task of the participant was to react to an optical stimulus with a keystroke, which corresponded to a marked point in the landscape passing by. At the same time, small, coloured lights flickered (20-24 per minute) outside the central field of vision to test peripheral vision. Here too, the participant's task was to respond with a keystroke, in order to initiate 'evasive manoeuvres'.

Situational Awareness: Attention in Synthetic Reality

What had begun in Germany during the Great War with professional aptitude tests for pilots, was carried on in the US-American context during WWII, first as 'applied experimental psychology', then, beginning at the end of the 1940s, under the name of 'human factors studies'.[9] Through the development of technological devices intended both to optimize the use of human capabilities and to minimize the susceptibility of technical systems to disruption by the 'human factor', the human sensory apparatus itself became the actual object of design, while the creation of service devices and display systems to enable effective control by humans – as the primary task of design – actually shifted more and more toward effectually moulding human perception to perform as an efficient element within technological systems. As a result, the

[9] W.S. Hunter characterizes military psychology as an 'American product.' The US Army first introduced aptitude tests for pilots in 1917. At first the new discipline was concerned "almost exclusively with tests of intelligence and occupational fitness" (Hunter 1946, 479). In 1942, the National Research Council established a 'Committee on Service-Personnel Selection and Training' and psychologists concurrently began research into "the human factor in the design and operation of equipment" (Hunter 1946, 480).

aforementioned "problems of sensation and perception" became crucial for engineers of interfaces to determine "input to the human operator"[10] and vision became their primary concern. To the authors of the handbook for *Applied Experimental Psychology* (1946) the eye functions as "the primary means of knowing things" and "if a man gets himself involved as a functional part of a man-machine system, his effectiveness is very often determined entirely by the acuity and efficiency with which he can use his eyes" (Chapanis et al. 1949, 67). They cite radar and instrument flight as examples for the critical role of equipment design:

> "We are told that radar is the eyes of the fleet. But radar never sees. It is man who sees. If his eyes fail at a critical time, because they either are inherently poor or are placed at an undue disadvantage by poorly designed equipment, then radar fails, the ship fails, the mission fails. And, again, think of the demands imposed on the eyes of the pilot who is flying blind. In spite of its name, this job is primarily a visual one." (Chapanis et al. 1949, 67)

In the early 1990s, at a time when automation and computation presented new challenges to the design of airplane cockpits, the term situational awareness[11] was introduced into the human factors discourse, and the systematic revision of the interface between human perception and technological system took a new turn. For Mica Endsley, a human factors scientist who began her career at the arms manufacturer Northrop Aircraft and later became the chief scientist of the US Air Force, it was already clear in 1987 that human perception would rely heavily on automatized data visualization in the computerized cockpit:

> "Expert systems can be used to further augment the pilot by providing new capabilities never possessed before. Not only may he be better prepared to deal with simultaneous and high workload demands on his attention, expert systems may also be used to provide the pilot with 'look ahead' simulation capabilities or the truly pertinent data from among the multitudes of data available from internetted sources." (Endsley 1987, 1389)

In contrast to the experimental configurations of early aviation, where attention appeared as a motor sensory attribute and was tested and trained by means of stimuli-reaction schematics, it has now become a technological element susceptible to

[10] According to Chapanis, "input to the operator" is concerned with "how a man sees and hears; how to arrange dials, and how to design communications equipment"; the "output of a man," defined as his "motor behavior" effecting the "design of the equipment he manipulates and uses," occupies a significantly smaller portion of the first handbook for *Applied Experimental Psychology* of 1946 (see Chapanis et al. 1949, 12).

[11] The concept was first formulated by Mica Endsley in 1993, defining situational awareness as "the perception of the elements in the environment within a volume of time and space, the comprehension of their meaning and the projection of their status in the near future" (Endsley 1993, 157). For a contemporary theoretical analysis of the concept and some of its political implications see: Suchman (2015).

manipulation and an object for ‘new capabilities’ of a pilot who is himself augmented and improved by highly sophisticated technological equipment. Such technologically generated ‘situational awareness’ plays a decisive role in today’s remotely piloted devices such as military drones. Since controlling drones by means of camera images transferred in real time is susceptible to disturbances and, despite the mobility of the camera lens, the field of vision is restricted, a second, synthetic, computer-generated type of image supplements the most recent generation of guidance systems. These images simulate the view from the cockpit of the remotely guided aircraft as if the pilot were on board. This is accomplished by bringing together previously collected spatial data from software-based systems stored in various databases, which is then supplemented, as needed, with further information from communications networks. This data is then translated and converted into a simulated image that is superimposed upon the video image so that it appears as a second visual level on the pilot’s screen.

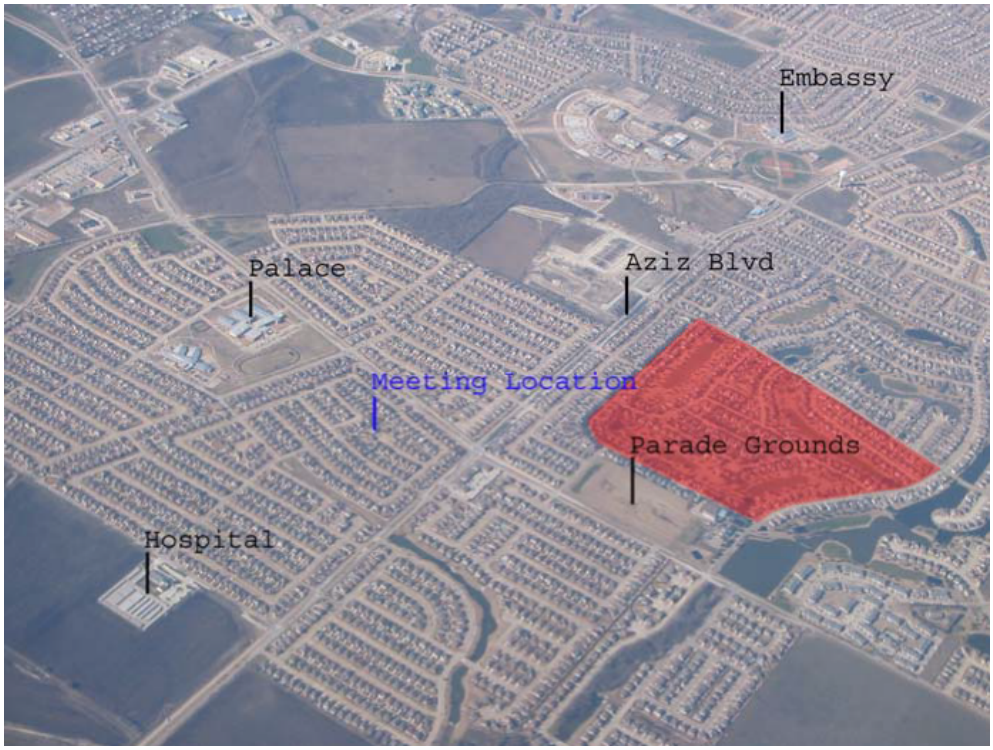

Fig. 4. “Synthetic vision symbology for improving situational awareness in cluttered urban environments” (Calhoun & Draper 2010, Figure 5).

On this level of symbolic imagery, unlike in the scenarios of early aviation, it is not about achieving a realistic representation of the visual field for the sake of proximity to life or reality. On the contrary, this imagery is about creating an abstraction from reality conducive to operational needs: The primary function of the new synthetic processes of visualization is to make video images that are correctly generated in real time, so that they are interpretable to the extent required for the mission at hand. They also make it

possible to navigate without recourse to the underlying level of real-time video footage, thus enabling the aircraft to be controlled without any form of visual reference to reality on the ground. If the discourse of human factors nevertheless makes a distinction between 'real world' and 'synthetic world' (Calhoun & Draper 2010, 236), then this refers particularly to the very contrast between real-time video footage and computer simulations. Given that the veracity of the content of an image (whether 'real' or 'synthetic') must always be viewed with a critical eye, for us the actual significance of this distinction lies in the control function of the augmented and simulated moving images that direct the pilot's efficient selection of visual information. In this respect, the synthetic images serve, on the one hand, to highlight relevant information already available in the image (such as danger zones, potential take-off and landing points, and 'areas of interest') (Fig. 6). On the other hand, it augments the image by inscribing new information into it – thereby making data accessible that would otherwise not be contained in the image perceptible to the operator (Calhoun & Draper 2010).

This process makes the images operational in a double sense: Firstly, by turning them into an interface for "input to the human operator" (Chapanis et al. 1949, 12), and secondly, by using algorithmic processes of selection and visualization in a refined way to transform information that had previously been deemed relevant into the totality of what can be seen at all. The decision about, and the interpretation of what is and is not relevant is made elsewhere, and remains, in principle, inaccessible to the pilot in the cockpit. Instead, it manifests itself in technical applications of engineering, and in extension, as the implementation of decisions made by military and political leaders.

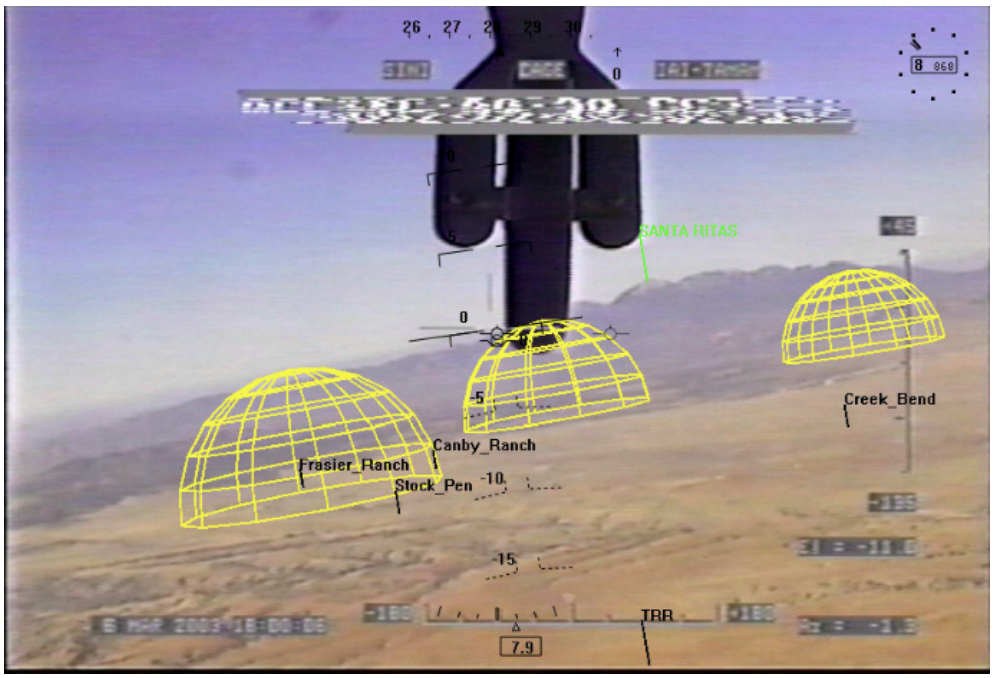

Fig. 5. SmartCam3D (SCS) display illustrating spatially referenced computer-generated overlay symbology onto real-time video imagery (Calhoun & Draper 2010, Figure 6).

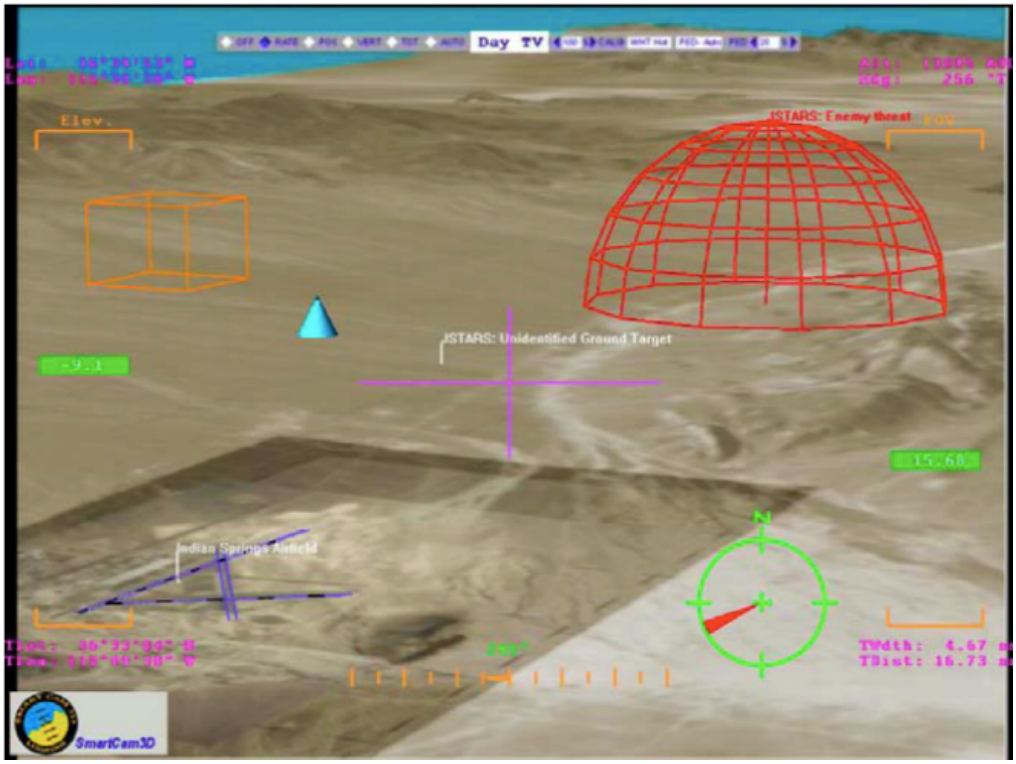

Fig. 6. Synthetic vision symbology added to simulated UAV gimbal video imagery (symbology marking threat, landmarks, areas of interest, and runway) (Calhoun & Draper 2010, Figure 3).

The Advanced Cockpit GCS just developed by the American manufacturer General Atomics is set to become the navigational system for the most frequently deployed armed drone systems (Predator and Reaper*)*. Advertised by General Atomics as "leading the situational awareness revolution" (General Atomics 2016), it brings the applications of synthetic vision technologies clearly into view. It is equipped with a tableau of six high-definition screens, on which the view from the non-existent cockpit window of the drone is simulated in three dimensional renderings that run in real-time synchrony with the navigation of the unmanned aircraft (Franz 2015, 27). The spatial position of the aircraft is integrated in the simulated landscape and data – pictograms and symbols as well as text – can be superimposed on the renderings ("Improved synthetic video with 3D graphics and moving maps" [General Atomics 2016]), thereby allowing the pilot to grasp the operationally relevant information at a single glance ("Fused, multi-source data into a Common Operational Picture (COP) on a single display" [General Atomics 2016]). There are only certain situations when the pilot navigates 'hands-on', either with a joystick or by means of the handheld console ("easy to switch between automated point and click' or manual 'hands on' flight operations" [General Atomics 2016]). In systems such as these, complicated flight operations, as well as routine manoeuvres such as take-off and landing, mostly occur automatically in

order to improve the pilot's perception of the situation by freeing him/her from attention-demanding involvement in the navigation and allowing him/her to focus on the essential procedures during difficult manoeuvres (Cosenzo & Barnes 2012). The control station is set up so that the actual camera-image plays only a subordinate, supplementary role: it can be switched on when necessary, but is otherwise hidden beneath the layers of visualization.

Controlling Controls

In the Advanced Cockpit GCS, the synthetic landscape simulates a segment of terrain unencumbered by conditions of poor visibility (due to weather, dust, poor data connection etc.) by drawing on a diverse array of data that is processed into visual symbology comprehensible to the eye of the operator.[12] It is precisely here that we can see the difference from the photographic or filmic images that Benjamin saw as media of "expansion of the field of the testable" (Benjamin 2003, 276). Synthetic vision images are not merely digital or simulated, they are first and foremost processed images, and, as Timothy Lenoir emphasized in his preface to Mark Hansen's *New Philosophy for New Media*, their very essence is 'processual' (Lenoir 2006, xxi). Their operational proficiency is rooted in their 'highly dynamic' nature: in their ability to be "modified at any moment" (Lenoir 2006, xxi), that is, to be updated so as to conform to the goal of the operation. Borrowing a term from Lev Manovich, they can be described as "image-instruments" (Manovich 2001, 167f.), i.e. as interfaces that not only depict reality, but also control it by functioning as a visually definitive navigational command to the pilot. Functionally as well as in terms of its operational character, synthetic vision technology is closely related to the instruments of early aviation history, whose functionality was already critically discussed and polemically debated in terms of their alleged 'display programming' ['Anzeigeprogrammiertheit'].[13]

The debate at the time was a technical one that took place in the context of the transition from visual to 'blind', or instrumental, flight. When it became clear that the 'human factor' was, in fact, the most unreliable and disruptive element in the functioning technological systems, the idea of instrument flight became increasingly important (Münnich 1937, 141f). Perception and control, however, are now as then tightly correlated, and perception, whose optimization and augmentation was and continues to be crucial in a military context, is, of course, always trained according to the dictates of a specified 'target'. Augmented and synthetic vision, like the technological modes of visualization used to test the capabilities of pilots by their

[12] Hal Foster's definition of 'vision' as "sight as a physical operation" und 'visuality' as "sight as a social fact" seems to pose a helpful distinction in this context (Foster 1988, ix).

[13] The German term 'Anzeigeprogrammiertheit' roughly translated to 'display programming' here, was used in this early phase of aviation to denote the state in which a pilot 'follows the dictate of the instruments,' when the human sensory apparatus is perceived to be replaced by an artificial (technological) control apparatus (See Eschenbach 1941, 24–28; Kracheel 1993, 32; Nanz 2003, 36).

forerunners in early aviation, are thus not simply aides to sharpening the (human) perceptual apparatus that has always appeared unreliable and deficient in light of technological enhancements. They are also, with respect to psycho-technological 'display programming', to be understood as mechanisms of control that direct human action in a certain situation by setting specific parameters for 'situational awareness'. They are operational in precisely this sense.

If the power over life and death, and over the command to kill, can be said to be the most fundamental control mechanism of state power, a shift occurs here that allows us to grasp the imaging technologies of simulation in their political dimension: Namely, in Rancière's formulation, as a "world of total visibility" that constructs a reality "where appearance has no place to occur" (Rancière 1999, 104). In doing so, these imaging technologies describe a condition of post-democracy, in which a consensual 'image of the whole' eliminates anything that contradicts the self-referentiality of this image. Henceforth, human perception and the visual means of controlling it are functional elements of the "structure of the visible" (Rancière 1999, 103) that determines what is presented as 'real', 'augmented' or 'synthetic' and, as such, a product of processes of selection and interpretation that adhere to predefined parameters and inhibit the possibility of the 'appearance' of anything not already contained within its logic.

The determination and application of these parameters is, as we would like to stress with respect to the examples presented in this contribution, not a matter of autonomous technologies that, under the condition of ever-advancing automation and algorithmization, have removed themselves entirely from human capacities of decision making. Rather, it is the object of an avowedly 'interest-lead' science[14] that is peculiarly positioned at the intersection between state and military interests on the one hand, and private sector and arms industries, on the other. If we direct our gaze back to the technologies for the military 'operationalization of perception' that were already investigated at the beginning of the 20th century, it becomes clear that the 'fields of the testable' have turned into the actual geographies of war.

[14] David Meister describes Human Factors Studies as an "interest-lead intervention (intervention at the behest of interest)." and the HFE professional as "an activist who has been trained to intervene in the human-technology relationship by measuring performance, creating a stimulus, and observing its effect." See David Meister: *The History of Human Factors and Ergonomics*, Mahwa 1999, 15.

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'Looking Through a Soda Straw': Mediated Vision in Remote Warfare

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Remote Vision

Warfare has always been shaped by the attempt to overcome space through technology (Warf 2008; Virilio 1986). By extending the radius of military action with wide-range weapons (such as the crossbow or the laser-guided missile) or by replacing the human sensory apparatus with sensors that gather military intelligence on a far-off location (such as satellite cameras), technology defines the capability of intervention. As a way of operating from a distance, technical devices mediate both action and perception. Unmanned aerial vehicles, such as drones, have once again transformed the concept of remoteness in warfare. Their human-machine configuration has established a type of intervention that has not only relativized bodily presence but also allowed the gathering of intelligence during combat in real-time without the need for additional personnel on site. When direct eye contact with a remote location is limited or should be avoided, access to the operating field has to be carried out by crafting a view of the remote location using the drone's sensor system. Relying on real-time visualization of sensor data corresponds to a visual regime, in which visualization becomes as a precondition for military action.

The primacy of computer-generated visualization is often seen as characteristic for the visual architecture of drone warfare. Nevertheless, military operations that significantly rely on real-time visualization frequently address human vision and technical visualization as being arbitrarily interchangeable. Particularly in the context of remotely controlled aircrafts it is often stated that crews possess a pervasive, omnipresent technological 'eye' to kill with surgical precision from thousands of kilometers away.[1] On the contrary, crews themselves compare visual access to the

[1] See, for instance, statements by the Obama administration. White House counterterrorism adviser John Brennan: "It's this surgical precision, the ability, with laser-like focus, to eliminate the cancerous tumor

battlefield to the experience of "looking through a soda straw" (Cullen 2011, 122). Policymakers and journalists in particular, but also military personnel often oversee this disparity between a human or subject-centered perspective and a machine or computer-generated visualization. Military training units frequently rely on an idea of vision, in which observation and representation, human vision and technical visualization are merged. As part of their training program, operators learn to strategically eliminate the separation of humans and machines in order to adequately navigate an aircraft as well as to control a sensor system. This symbiosis of operators and technology requires a practice of remote vision, in which seeing is detached from the human sensorium. This entanglement has, as I will argue in this article, a significant impact on the way military drone operations are conducted. The merging between humans and machines requires a specific applied knowledge of remote action and perception, in which the body becomes part of an increasingly complex socio-technological assemblage. Further, the blurring between human and technology raises the issue of how and to what extent vision is bound to the human factor in warfare.

Dissociation of Vision and Visualization

While imaging techniques produce visibility beyond the physiological and anthropological boundaries of vision, the ability of seeing has historically been linked to the presence of a human eye. The Civitates Orbis Terrarum engravings, a collection of early modern cityscapes first published in 1572, represent an extraordinary example of early urban cartography and, more importantly, a beginning split between vision and visualization. Most of the engravings were made by Franz Hogenberg (1535-1590). They were produced and annotated in collaboration with the theologian Georg Braun (1541-1622). Most color plates in the collection depict a city and a surrounding landscape from above. Notably, many plates feature human figures at the bottom of the picture whose gaze turns away from the scenery towards the eye of the beholder. It appears as if these figures are standing on a plateau; one can see a path leading from the city up to the mountaintop. The image below shows the flat terrain surrounding a Roman fortress that is today the city of Utrecht. The landscape is presented from a bird's eye perspective while the figures at the bottom side are depicted in a horizontal view. Thus, their position drifts apart from the depiction of the city and the surrounding environment.

called an Al-Qaeda terrorist while limiting damage to the tissue around it, that makes this counterterrorism tool so essential" (Brennan 2012). See also Friedersdorf 2012.

Fig. 1: Trajectum (Utrecht). Georg Braun, Franz Hogenberg, 1593, Civitates Orbis Terrarvm, Köln, table 19.

Why did Hogenberg decide to maintain the presence of those human observers whose perspective contradicts with the flat topography? It seems as if Hogenberg tried to legitimize the tilt towards a cartographic depiction of the cityscape with the presence of the observers within the picture that remain a legitimate part of the picture while sharing their vantage point with the beholder. This divergence of perspectives features many of Hogenberg's plates in Civitates Orbis Terrarum. It suggests that Hogenberg considered vision as condition for visualization: The image seems to be only legitimized through the presence of a human eye – the bird's eye view apparently needs to correspond to the view someone has taken from somewhere. The 'unnatural' perspective needs to be based on an embodied vision, in this case exemplified by two observers in the foreground of the plate. This optical set-up suggests that body and image are still conceived as an indistinguishable unit. Nevertheless, the instability of spatial relations in Hogenberg's work confronts the viewer with a split between vision and visualization. Though the image attempts to base its perspective on the unity of body and image, the diverging perspectives foreshadows the rift between the image and the point of view. This rift becomes increasingly controversial with the rise of visual media, such as photography, film or video. These imaging techniques do not only produce visibility beyond the ability and scale of human vision but they also do no longer depend on the presence of a human observer. Think, for instance, of situations in which bodily presence is impossible, such as NASA's Mars exploration or of situations in which the possibilities of operation are spatially restricted such as in computer assisted surgery.

These imaging technologies have challenged the claim of a subject-centered aesthetics in the aftermath of Sigmund Freud's and Marshall McLuhan's prosthetics and extension theory that were famously called into question by Friedrich Kittler who argued that humans are not the subjects of media (Kittler 2002). Kittler's concept of technological mediation follows yet another notion of vision, in which a technological 'eye' continues to see beyond the anthropological limitation of the human eye. To show how imaging technology transforms the role of the observer in remotely controlled weapon systems, I propose to conceptualize the relation between body and image neither as a subject-centered nor as a technology-centered view but as an entanglement of human vision and technological visualization. To demonstrate this form of entanglement, I will examine how image production in remotely controlled aircrafts prompt a drastic change in military intervention. In doing so, I wish to challenge the belief that images produced by remote sensing platforms yield a transparent battle space, in which the human is in total control.

The Weaponized Eye

The fusion of body and image breaks with the modern mobilization of image production, processing, and transmission. The presence of a human eye is no longer crucial to the practice of visualization. In Ridley Scott's *Body of Lies* (2008), Leonardo Di Caprio plays CIA agent Roger Ferris who must stop a terrorist group from operating in Jordan and Iraq. When Ferris offers himself to the terrorists, the apparent superiority of high-tech observation breaks down, although Jordan's barren desert landscape seems absolutely exposed to aerial surveillance. Surprisingly, Ferris is loaded onto a vehicle beyond the sensor's visual capability, namely a drone transmitting real-time visualizations to the CIA situation room; the vehicles start circling around Ferris, and thus they unsettle a dust cloud that blocks all view. As they break off in different directions, the drone can only follow one of the transport units.

Fig. 2. Film still, *The Body of Lies*. Ridley Scott, USA 2008.

As in Hogenberg's cityscapes, this film scene also suggests that our perception is mediated through images, the observer and the perceptual space drift apart. The downwards gazing observers in the cityscapes negate their pictorial arrangement in a paradox way. Ferris and the terrorists in *Body of Lies* raise their eyes to the sky. In doing so, they mark out a perceptual space that looms from above. While the cityscape makes the situation apparent, the video image offers no trace of the observer. The visual architecture of remote warfare in *Body of Lies* detaches from the operator's perspective. This contradicts the traditional paradigm of the observer as a subject of representation and the image as the object of perception that has been the starting point for many theories of technical imaging, such as Descartes (1637) and Kepler (1611).

New imaging techniques give rise to new mediums and practices of visualization. They seek to reach further beyond the un-seeable. As such, they represent forms of visual experience that can no longer be scaled by the senses alone. Various parameters of imaging – motion, radiation, and magnification – had been the subjects of artistic and scientific experimentation whereas Soviet filmmaker Dziga Vertov envisioned already in the 1920s a new bond between observer and imaging devices. In his 1923 manifesto *Kinoglaz* (that translates into 'cinematic eye'), Vertov spoke of his intention to initiate a cinematic perception of the world. For Vertov, who was fascinated by Futurism's engagement with technology, film was the medium to free the people from the imperfections of human vision. Vertov noted in his diary (1923):

> "*Kinoglaz* lives and moves in space and time, takes impressions and fixes them quite differently than the human eye. The condition of our body during observation and the number of moments how we perceive this or that phenomenon are in no ways compulsory for the camera" (Vertov 1923/1973, 15).[2]

In his diary, Vertov repeatedly switches into a machine perspective:

> "I am *Kinoglaz*. I am a mechanical eye. I, the machine, show you the world as only I can see it. Now and forever, I free myself from human immobility. I am in constant motion, I draw near objects and then back away, I crawl under them, I climb onto them, I move along with the muzzle of a galloping horse, I plunge full speed into the crowd, I outstrip running soldiers, I take off with planes, I soar and plunge together with plunging and soaring bodies." (Vertov 1923/1973, 15)

While Brown and Hogenberg's cityscapes comply with a visual architecture that centers on the observer, Vertov's camera detaches from the body. In doing so, Vertov eliminates the linear relationship between vision and point of view. The human eye is intentionally replaced by a camera that moves around in an unconstrained fashion. This technological disposition marks the beginning of a media history, in which the camera

[2] Vertov's quotes have been translated from German by the author.

serves as a technical eye (often known as the metaphor of the weaponized eye). This concept of the artificial eye has ever since been applied to merge the fields of vision and visualization. Cyborg vision and 'seeing' cameras permeate contemporary discourse in the field of cultural and media studies, often presupposing either a transition or a rupture from sense-based to technical forms of seeing (Dorrian & Pousin 2013, Vertesi 2015, Trogemann 2014, Geimer 2010, Verbeek 2007, Harris 2006).

In *Bilder aus Versehen* (*Unintentional Images*), Geimer studies what he terms the 'optical unconsciousness' of early photography. Taking Julius Neubronner's aerial photographs as an example, Geimer argues that traditionally technical media have been measured by the senses (2010, 319-331). Neubronner patented pigeon photography in 1908, a technique that captures aerial photographs from a bird's-eye view by fitting a camera onto a pigeon.

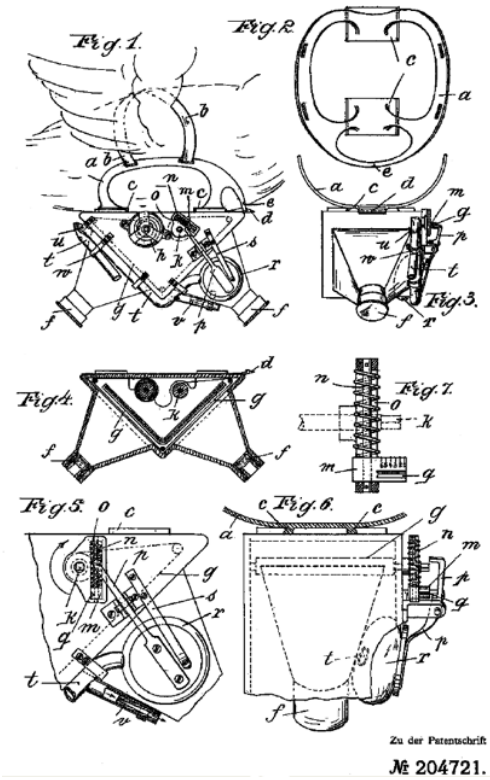

Fig. 3. Patent drawings of Neubronner's pigeon camera with two lenses. Julius Neubronner, 1907, Patent GB190813128 (A) 'Method of and Means for Taking Photographs of Landscapes from Above', European Patent Office.

Geimer states that Neubronner's photographs are "not based on a gaze that someone or something in 1908 had directed into the depth of the landscape" (2010, 328). He concludes that the camera cannot possess a subjective view or gaze since the author of the photograph is not the one executing it. For this reason, image authorship is inconclusive: It cannot be traced back to a specific observer (2010, 327). Geimer's

reasoning applies equally to Vertov's filming technique, which still kept image production and image reception separate from each other in regard to time and space – the recording of the film, developing and projection were seen as separate work steps.

Accordingly, Vertov's concept of cinematic perception does not constitute a disruption of vision since it points to the moment of capturing an image rather than to the relation of image and spectator in the cinema. Although Vertov's cinematic eye manifesto fundamentally challenges the relation between seeing and recording, it is by far more of a novel way to show than a novel way to see. The same applies to military surveillance with its new forms of visualization, which was established by techniques of aerial photography dating as far back as World War I. They can hardly be described as 'machines of vision', as Christoph Asendorf had proposed (2006, 31). The combination of camera technology and vertical perspective in aircraft reconnaissance certainly allowed for new perspectives, but it relied on the subsequent development and interpretation of images (Andreas 2015).

Situational Awareness

Imaging in film and photography generally required tools and techniques that inhibit the simultaneous production and presentation of images. This separation has been suspended by contemporary transmission, sensor, and display technologies. With these technologies image production, processing, and transmission are possible in real-time and thus images are increasingly integrated into visual practice. This type of real-time image processing and transmission has blurred the distinction between vision and visualization as well as between observation and representation. It has set the scene for a synchronization of seeing and acting, in which humans and machines can remotely interact with one another. Real-time visualization has become the standard for a variety of image-guided practices in remote warfare (in particular in unmanned aerial systems).[3]

Figure 4 presents an illustration featured in the manual of a training program for remotely piloted aircrafts conducted at Creech Air Force Base, Nevada (the United States Air Force flies most of its drone missions from Creech). The illustration depicts the Command and Control links for Unmanned Aerial Systems (UAS).

[3] Derek Gregory distinguishes the different terms used when referring to drones: "A 'drone' is the popular term for the aircraft [...], but the United States Air Force prefers Remotely Piloted Aircraft (RPA) or Unmanned Aerial Vehicle (UAV); when these aircrafts are part of an integrated network [...] this is referred to as an Unmanned Aerial System (UAS). To describe them as 'unmanned' is misleading, however, because while a UAV does not carry a pilot, the system is operated and supported by several hundred personnel." (Gregory 2011, 207)

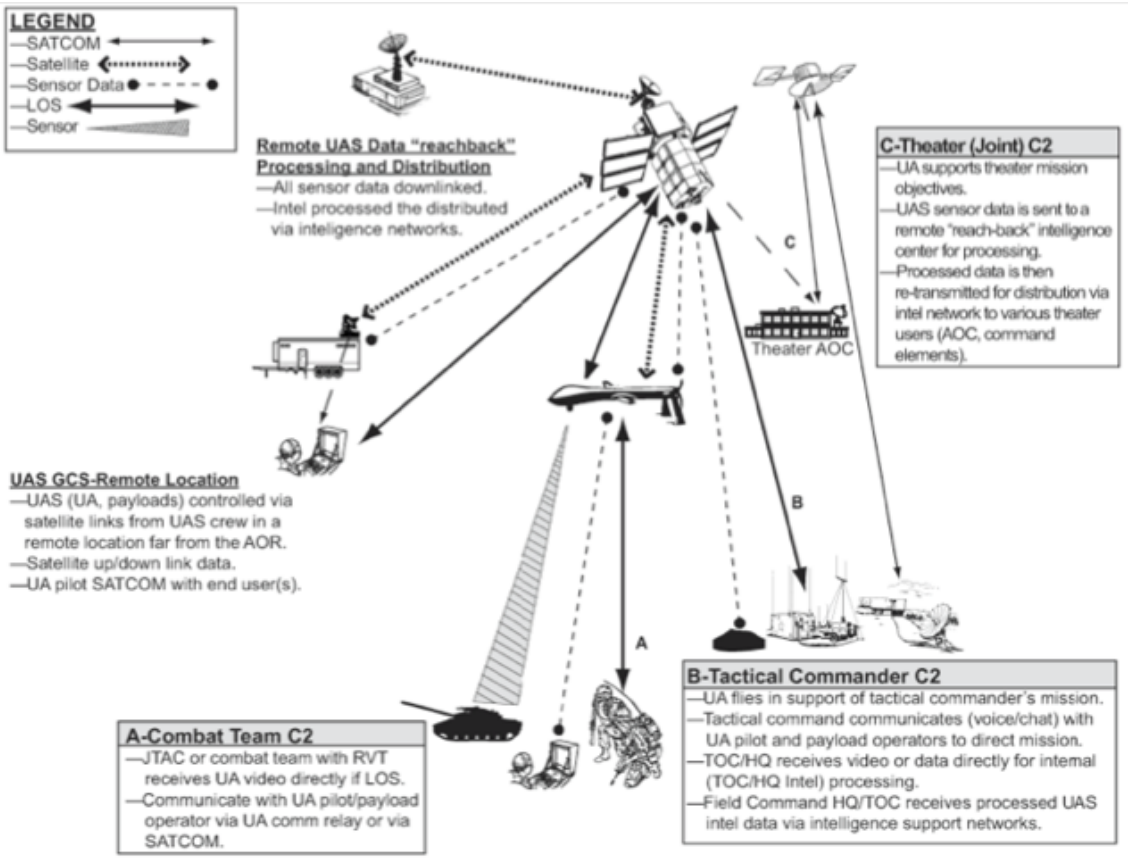

Fig. 4. Command and Control Options of Theater Unmanned Aerial Systems. Creech Air Force Base Army Tactical Pocket Guide for Organic/Non Organic Group 3/4/5 UAS, 2010, 52.

Whereas traditional aviation requires pilots to act independently, the UAS comprise a complex network of human actors and technical sensors. It relies on the orchestration of relay stations, operators, ground troops, intelligence analysts, military lawyers, and imaging specialists (Gregory 2011, 195). One of its key features is the spatial divide between actors, both human and technical. It creates a disembodied space of operation, in which the reception and the transmission of digital data determines the interaction between multiple actors (Franz 2016). While information exchange between actors depends on communication with chat clients and radio transmission, the knowledge of elements in the environment – the so-called 'situational awareness' – relies almost exclusively on the visualization of sensor data. What might sound trivial is essential for understanding the nature of remotely operated aircrafts and their visual regimes: Images are no longer imprints of what *is*; they become a precondition for action. This implies a structurally different visual practice then the established methods for planning and surveillance. Note for instance Colin Powell's presentation of aerial footage as 'evidence' of Iraqi weapons of mass destruction that was used as a proof that called for intervention (Powell 2003). While image analysis has been crucial to reconnaissance, remote imaging and sensor mobility have ushered a new type of intervention, namely

one in which operation is guided or misguided by what images show or critically fail to show. Coupling operation to images is thus not merely a question of what visual surveillance can reveal. What is at stake is rather that interaction with visual sensor networks structures action and perception. This calls for a closer examination of the human-machine interface that makes remotely controlled military technologies possible.

Screen Operations

Fig 5. Advanced Cockpit Ground Control Station. General Atomics Aeronautical Systems, Inc. 2015.

The ground control station, shown in Figure 5, is the visual and operative interface between human actors and technical sensors in drone operations. It facilitates remote forms of access into the operating field. The photo shows the MQ-1 Predator and MQ-9 Reaper advanced cockpit ground control station. Though it has not been deployed in combat yet, the cockpit is designed to provide crews with a more immersive visual combat experience. According to its developers, the system was designed to integrate human operators, aiming for 'enhanced situational awareness' through 'human-centered display technology' (*General Atomics*, 2016). The pilot and the so-called 'sensor operator' sit in front of a panel of six 24-inch touch-sensitive monitors that are arranged in two rows. The top row monitors provide a wide-angled view of the operating field using a combination of live video footage, virtual terrain images, and air traffic data. A small video frame incorporated into the top middle monitor displays the live feed; it provides a rather restricted field of view. The top monitor ensemble displays a 3D topographical model in a 120-degree view as if the crew members were sitting in an actual cockpit. The bottom middle monitor allows top view access to the battlefield and

offers a variety of visualization options (e.g. mission planning, map overlays). The left and right bottom monitors contain mission data, command and control options, aircraft data, as well as chat and email client interface.

In order to adequately operate the aircraft from afar, crewmembers must integrate a complex system of visual information and sensor technology into their workflow. They must "visually discriminate and synthesize various images and complex data on several electronic screens while maintaining heightened vigilance to numerous sources of visual and auditory information necessary for sustaining situational and spatial awareness" (Chappelle, McDonald, McMillan 2011, 5). Visualization of the operating field combines virtual geo-data together with real-time sensor data provided by the Multi-Spectral Targeting System (MTS). This system is called the 'sensor ball', which is mounted onto the hull of the MQ-9 Reaper (manufactured by Raytheon). The MTS is controlled by the sensor operator. It comprises an infrared sensor, a light amplifier, a daylight camera, a laser designator, and a laser illuminator.

Fig. 6. Multi-spectral Targeting System on a Reaper MQ-9 at Creech Air Force Base. Bryan William Jones (Creative Commons BY-NC 3.0).

Understanding the different modalities of visualization and observation is crucial for navigating the aircraft, and even more for combat decision-making. The ground control station represents a human-machine configuration, in which images do not only enhance military operation, but also prompt the crew to carry out actions in a specific way. From riflescopes to jet fighter helmets, this type of image-guided configuration is utilized in a variety of military applications. It challenges the relationship between eye and instrument as well as between organism and mechanism focusing on the situation

instead of the result of image production. It shifts the attention from iconicity and visibility towards the interaction with imaging technology.

Image and media theory has finally turned its attention to the connection between image and operation, in particular when it relates to operative images and operative iconicity (Farocki 2004; Hinterwaldner 2013; Hoel & Lindseth 2014; Krämer 2009). Conceptualizing images in the context of operation, Aud Sissel Hoel and Frank Lindseth highlight three reasons why 'operational approaches' provide possibilities for rethinking images:

> "First, they offer dynamic approaches that analyze phenomena into doings and happenings rather than into things and static entities; second, they offer relational approaches that conceive identity in terms of open-ended processes of becoming; and third, by so doing, they allow us to ascribe agency to images, and crucially, to conceive agency as distributed across interconnected assemblages of people, practices, and mediating artifacts." (Hoel & Lindseth 2014, 2)

Conceptualizing images in the context of operation hinges less on representation, manifestation, and aesthetics but rather emphasizes the practices through which images become media of control and instruction.

In a military context, the linking of image and operation does not only require crews to correctly analyze images. It is neither enough to be able to distinguish a suspect from a civilian nor to identify a weapon based on color differences of thermographic visualization. Wherever images negotiate between soldiers and the battlefield, the interplay of structures and processes, behind and in front of the screen, are crucial in order to understand how operators act through imaging technologies and how images enable or disable action and perception. However, despite increasing interest in drone operations (due also to the rising number of civilian casualties), this aspect of image operation is still largely overlooked. Image analysis and interpretation is rarely contextualized in relation to the question how imaging technology mediates the operator's views, as Gerrit Walczak argues in his study of the so-called 'collateral murder' video published by WikiLeaks in 2010 (Walczak 2012). The video captured the killing of Iraqi civilians by a US Air Force combat helicopter in Baghdad on July 12 2007. It reveals some aspects of what the helicopter crew saw, and it displays the communication via radio. However, the video does not offer enough information to understand the crew's decision-making process. Walczak shows that it is the technical character of visualization, such as the display architecture, the resolution, the scope, or the light exposure that had a significant impact on the crew's action (Walczak 2012, 12). The video itself does not communicate this information, and accordingly it does not allow for a comprehensive understanding of the crew's action and perception. Confronted with a variety of imaging techniques and modalities of visualization, the crew became embedded in a complex network of technological data that intervened in their workflow. As Walczak notes:

> "What a camera captures from above and who views its recording, when and in what way, is dependent on the peculiarity of the apparatus and its interaction with the aircraft and its crew, ever since Nadar took the first [aerial] photographs from a hot air balloon in 1858." (Walczak 2012, 10)

Conducting operations through imaging technology does not only require an applied visual knowledge but brings up the question to what degree authorship, presence, or autonomy can be ascribed to this type of imaging technology.

Bio-convergence

In his PhD thesis "The MQ-9 Reaper Remotely Piloted Aircraft: Humans and Machines in Action" Timothy Cullen, a former US Air Force pilot, investigates how remotely piloted aircraft crews interact with imaging technology. In order to understand how the crew produces visibility with and through the sensor system Cullen particularly analyzed the training program of MQ-9 Reaper sensor operators (Cullen 2011, 117–201). Sensor operators act as intermediaries between sensors and visualizations. For instance, in selecting image modalities, sections, or magnification, they define the modes of seeing. In order to provide a stable visual field, operators in charge of the sensor ball maneuver its sensors carefully and irrespective of the aircraft position. This requires a constant synchronization of the sensors with the visual field. As Cullen's study demonstrates, this is achieved by strategically eliminating the gap between human vision and the sensor system. According to Cullen, instructors tell trainees to "become the camera" (2011, 166). This idea of human-sensor fusion is repeated in the language both instructors and trainees employ: "Instructor sensor operators taught their students to visualize themselves being on the Reaper aircraft, floating above the ground and looking down at their quarry from the belly of the aircraft" (Cullen 2011, 166).

The ways how "experienced sensor operators interacted with the HUD [Heads Up Display]" led Cullen to identify what he terms a "feeling of remote presence" (Cullen 2011, 166 & 17). As he puts it:

> "After a couple hundred hours of flight experience and a sense of comfort with the modes, interfaces, and capabilities of the sensor ball, sensor operators began to feel like they were a part of the machine. With proficiency as a 'sensor', sensor operators found themselves shifting and straining their bodies in front of the HUD to look around an object. As pilots flew closer to a target, the transported operators tilted their heads in anticipation of the camera's movement" (Cullen 2011, 167).

Interaction with images and control panels not only establishes a cognitive relation between vision and visualization but also develops a physical relation deeply intertwined with the function of the aircraft:

> "Feelings of remote presence helped sensor operators move their bodies, and instructors believed that operators who felt as if they were 'flying the sensor' could hold their attention longer on a scene, were more curious of what they saw, could sense change and movement easier. A sensor operator's close relationship with the sensor ball helped them to do their jobs well. Experienced sensor operators who 'flew' the sensor ball from an 18-inch monitor became the machine. They became the eye in the sky." (Cullen 2011, 166)

With regard to Cullen's study, a media-deterministic reading that solely assigns agency to technology does not serve as an explanation for the entanglement between the operator and the sensor system. The gap between observer and camera, which also characterized Vertov's texts, fundamentally questions the relation between the eye and the image. It proposes a notion of vision that surrenders the physical eye in favor of the technological eye. Nevertheless, a sheer media-deterministic approach would misleadingly imply that one has to negotiate the problem of perception beyond human vision by detaching it from the body. As Cullen argues, this does not seem to be the case with remotely controlled aircrafts. On the contrary, while Vertov celebrates the mobility of the camera as an emancipation of human vision, Cullen ties the Reaper sensor system back to physical experience. As mentioned above, the synchronization of the body and the sensor system is crucial to the production of visualization. However, also an exclusive anthropocentric approach that regards the apparatus as an extension of the human eye does not help to sufficiently grasp the essence of this kind of human-machine nexus. As drone operators relinquish their subject-centric viewpoint, no trace of a central human presence is preserved. The visual architecture of ground control stations has established a context for action, in which the apparatus can hardly be described as an extension of the eye. The subject-centered representational space of classical aesthetics is abandoned in favor of a device-centric perspective.

Thus, real-time image-guided interventions in warfare suggest a new type of human-machine entanglement that goes beyond simplified subject-object relations. They embed soldiers into a complex system of image production, transmission and perception that separate their bodies from the battlefield and at the same time mediates between them.[4] This mediation significantly relies on the synchronization of human vision and technological visualization: The sensor balls cannot see, but operators claim

[4] Frédéric Merget has pointed to the deconstruction of the concept of the battlefield in the context of remote warfare: "The emergence of technologies of targeted killings, including the use of unmanned drones, has had the effect of potentially bringing the battlefield to any location in the world in novel and radical ways that defy the traditional idea of the battlefield. Most targets of drone attacks will never know that they were targets and will be hit in a variety of locations (roads, homes, offices), which bear little relation to a battlefield, if only because there is less a battle than an instant flash annihilating the enemy, leaving no chance of flight or surrender." (Merget 2012, 17)

to see through them transcending the anthropological bounds of visual experience. However, this effect only seems to take hold in cooperation with the machine. Phrases such as 'eye in the sky' or 'becoming the machine' suggest a seemingly continuous transition between vision and visualization as well as between technical and anthropological ways of 'seeing'. Lucy Suchman describes this synthesis as a "deadly bio-convergence at the boundaries of humans and machines" in which action and decision are embedded in assemblages of increasingly complex "sociotechnical mediation" (2015, 19). In the context of military interventions, Suchman and Jutta Weber propose to rethink "conceptions of agency and autonomy, from attributes inherent in entities, to effects of discourses and material practices that variously conjoin and/or delineate differences between humans and machines" (Suchman & Weber 2014, 2).

The notion of remote vision can, then, be understood as a conjoining human machine configuration. UAS operators have to make decisions, often with deadly consequences, that are based on their ability to produce visibility dependent on the constrained views provided by the sensor system. As images deliver exclusive visual access to the battlefield, they become a precondition for action. They do not only show, but also prompt operators to see and carry out an action. Although the visual-motor coordination that is necessary to synchronize head and camera alignment requires, to some extent, a mitigation of human machine separation, it is imperative for UAS operators to understand and train how images become agents in an increasingly complex socio-technological assemblage. In this respect, it seems highly controversial that military training recommends to exercise the dissolving of the separation between sense and sensor since mediated vision in remote warfare constitutes nothing less than a fundamental intervention in the operator's workflow, their individual autonomy, and their decision-making processes. Accordingly, a critique of remotely piloted aircraft operations does not only need to document their devastating consequences. It must also investigate the fusion of body and apparatus to reveal the implications of technological innovation in warfare.

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Drone-dronningen: Voyeurisme, intimitet og paranoia i tv-serien *Homeland*

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Kamikazepiloten: *Min krop er et våben.* Dronen: *Mit våben har ingen krop.*"
- Chamayou 2015, 84

I hovedværket *A Theory of the Drone* (2015) trækker den franske filosof Grégoire Chamayou linjerne hårdt op mellem to typer krigere: Selvmordsbomberen og dronepiloten. Hvor selvmordsbomberen, herunder kamikazepiloten, med sin handling foretager den ultimative ofring af egen krop, markerer dronepiloten omvendt et totalt fravær af krop i kampzonen; de repræsenterer to politiske og affektive logikker, der ofte modstilles i den akademiske dronedebat såvel som i populærkulturelle repræsentationer af dronekrig.[1]

Opfattelsen af dronekrig som en grundlæggende kropsløs og virtuel affære understøttes af udbredte forestillinger og fordomme om droneoperationer som ren simulation eller ligefrem et computerspil, der producerer en 'PlayStation-mentalitet' blandt piloterne (Chamayou 2015, 107; Gregory 2014, 9). Der skal ikke herske tvivl om, at de senere årtiers teknologiske fremskridt har øget militærindustriens interesse for simulationer, computergenerede modeller, netværk og algoritmer (Derian 2009). Men selvom skærmkrigerens manglende kropslige involvering i begivenhederne på slagmarken kan stilles op over for selvmordsbomberens ultimative kropslige offer, betyder det ikke nødvendigvis, at følelsesmæssig indlevelse og erfaring er totalt fraværende i dronekrig. Tværtimod tyder talrige rapporter om psykiske nedbrud og PTSD-diagnoser blandt dronepiloterne på væsentlig mental fordybelse og emotionel indlevelsesevne (Chamayou 2015, 106).

[1] For eksempel tegner poprock-gruppen Muse i albummet *Drones* (2015) et dehumaniseret billede af dronekrig, hvor der er "no recourse, and there is no one behind the wheel," som det hedder på tracket 'Reapers.'

Adskillige nyere film og tv-serier adresserer denne problematik i deres repræsentationer af dronekrig. Eksempelvis dyrker film som *Drones* (2013), *Goodkill* (2014), *Full Contact* (2015) og *National Bird* (2016) den martrede dronepilot som en antihelt, traumatiseret af rutinedrab på civile fra flere tusind kiloters sikker afstand. Som vinduer til specifikke erfaringsmodi har sådanne populærkulturelle repræsentationer en væsentlig indflydelse på, hvad man kunne kalde 'dronens imaginære'; det vil sige de billeder, forestillinger og følelser, der knytter sig til dronekrig i den brede offentlighed. Der er imidlertid dvælet overraskende lidt ved karakteren af de følelser, som disse imaginationer tegner af det nye, ambivalente nærvær, herunder hvilke kropslige erfaringer og følelser, der knytter sig til dronens kobling af det på én gang distancerede og nærværende blik på slagmarken. Disse sammensatte følelser og erfaringer kan et kulturanalytisk blik på populærkulturens bidrage til at kortlægge og diagnosticere.

Med geografen og droneteoretikeren Derek Gregorys ord kan denne nye kobling af nærvær og distance i erfaringen af dronekrig beskrives som en art 'voyeuristisk intimitet' (Gregory 2014, 8), der invaderer og infiltrerer de ellers så 'usårlige'[2] dronepiloters kroppe. For mig at se er idéen om voyeuristisk intimitet uden tvivl rammende til at beskrive dronepiloternes ambivalente visuelle erfaring – en erfaring, Gregory også har beskrevet som "remote split operations" (Gregory 2014, 8), det vil sige en slags 'spaltet' oplevelse af at være både her og der, på samme tid fjern og nær. Ifølge Gregory tager det typisk piloterne 6-12 måneder at tilpasse sig denne spaltede erfaring, som starter med en følelse af 'spøgelsesagtig' uvirkelighed (Gregory 2014, 10). En beskrivelse, der stemmer godt overens med forestillingen om følelsesmæssigt afkoblede PlayStation-krigere. Efter absorptionsperioden udvikler oplevelsen sig dog tilsyneladende i en alvorligere retning og bliver mere personlig og nærværende, men ikke desto mindre også mere rutinepræget: "You become emotionally distant," som en dronepilot fortæller Omer Fast i filmen *5.000 Feet is the Best* (2013) og bekræfter dermed det komplicerede forhold mellem følelsesmæssig nærhed og distance i nutidens dronekrige.

Gregory henter sit begreb om 'voyeuristisk intimitet' fra journalisten Matthew Power. I et interview med den (formentlig mest citerede) traumatiserede dronepilot, Brandon Bryant,[3] parafraserer han Bryants voyeuristiske oplevelse af at observere sine mål "[…] drikke te med venner, lege med deres børn, have sex med deres koner på hustage, krympe sig under tæpper, […] og [gå til] fodboldkampe og bryllupper" (Power 2013). Med andre ord en praksis, hvor selv den mest intime detalje i fjendens privatsfære overvåges af dronevoyeuren. Det intensive fokus på intim luftovervågning har Gregory også introduceret andetsteds som en 'kulturel vending' i senmoderne krig; en vending hvor et "rush to the intimate" i tiltagende grad er blevet centralt i militære

[2] Forestillingen om den usårlige dronekriger kommer for eksempel til udtryk i et citat fra en Air Force officer, David Deptula, der beskriver, hvordan dronekrig "[…] allow you to project power without projecting vulnerabilities." (Chamayou 2009, 12).

[3] Bryants vidnesbyrd om en dronepilots psykologiske erfaring hører til sjældenhederne, hvilket formentlig også er derfor han som kilde er uhyre citeret i såvel droneforskningen som populærkulturen, eftersom flere film om dronekrig bygger på hans forklaringer (Chamayou 2015, 121ff).

operationer (Gregory 2008; 2014, 9). Den kulturelle vending handler kort sagt om at 'kende sin fjende', som Sun Tzu oprindeligt advokerede for,[4] men det er et intimt bekendtskab bogstavelig talt taget til helt nye højder.

I det følgende vil jeg dykke dybere ned i denne voyeuristiske intimitet og – fra et kulturanalytisk perspektiv – udforske, hvordan den som affekt spiller sammen med andre følelser og erfaringer af at føre krig fra skærmen fjernt fra slagmarken. Den grundlæggende tese er, at dronekrigen implicerer en 'spaltet' såvel som 'splintret' erfaring af, hvad man traditionelt har forbundet med at føre krig: I fjernkrigens tidsalder er skærmkrigeren ikke længere konfronteret med sin fjende 'ansigt til ansigt,'[5] men indtager, som nævnt, i højere grad voyeurens rolle – en slags 'peeping tom' bevæbnet med missiler, hvis privilegium det er at kunne iagttage uden selv at blive iagttaget, dræbe uden selv at være i skudlinjen. Det afgørende nye ved dronen er imidlertid ikke kun selve distancen (her har eksempelvis krydsermissiler og langtrækkende, interkontinentale raketter en meget længere historie), men også kvaliteten og detaljegraden i billederne. Modsat tidligere tiders luftovervågning med for eksempel lænkeballoner, spionfly og satellitter er dronen udstyret med så avancerede og højteknologiske optiske linser, at den formår at bringe en helt ny grad af intimitet i spil i krigen mod terror; men samtidig en intimitet der, som vi skal se, er særdeles ambivalent i sin natur.

Resten af artiklen falder i tre dele: I første del vil jeg demonstrere, hvordan voyeuristisk intimitet knytter sig til dronens blik i en af de nok mest udbredte populærkulturelle repræsentationer af dronekrig,[6] nemlig Showtimes tv-serie *Homeland* (2011-). Når valget falder på lige netop denne tv-serie som kulturelt analyseobjekt, er det (udover seriens brede popularitet), fordi den i særlig høj grad tematiserer overvågningens relation til den følelsesmæssige erfaring af voyeurisme, mani, paranoia og ikke mindst intimitet. På baggrund af disse analyser vil jeg, for det andet, adressere den voyeuristiske intimitet som en spaltet erfaring, eller hvad jeg også kalder en 'bipolar konfiguration'. Og for det tredje vil jeg nuancere denne bipolaritet ved at foreslå, hvordan dronen også skaber en splintret erfaring som i sin fragmentariske og paranoide logik og struktur kan minde om mosaikkens. Artiklens overordnede argument er, at alle tre trin peger på en basal splittelse eller ligefrem opløsning af måden, vi forstår krig på; en splittelse, der i *Homeland* kommer til udtryk i to blikke: det voyeuristiske og det intime blik.

[4] Fra Sun Tzus *Art of War*: "If you know the enemy and know yourself, you need not fear the result of a hundred battles." Citeret fra Gregory (2008).
[5] Denne forestillingen om krig som en duel, hvor to ligeværdige parter mødes ansigt til ansigt, som i en duel, bygger på Carl von Clausewitzs klassiske definition fra *Vom Kriege* (1832), (Chamayou 2015, 33).
[6] *Homeland* har ifølge Showtime ligget og svinget mellem en til to millioner seere per sæson i gennemsnit.

Krig, krop og kage

I fjerde sæson af *Homeland* leder vores hovedperson, den maniodepressive CIA-agent Carrie Mathison (Claire Danes) en amerikansk dronebase i Afghanistan. Sæsonens første episode, der kendetegnende bærer titlen 'The Drone Queen', åbner med Carries godkendelse af et luftangreb på en bygning, hvor en eftersøgt terrorist formodes at opholde sig. Efter at have overværet de lydløse billeder af bygningen, der går op i røg, præsenterer hendes stab hende for en fødselsdagskage med inskriptionen 'The Drone Queen'. En bizar scene, der antyder, hvor rutinepræget den hverdagslige praksis med fjernstyrede bomber er blevet. Ikke mindst da det viser sig, at den eftersøgte terrorist slet ikke var i bygningen, som til gengæld husede et afghansk bryllup. Den skarpe kontrast mellem bombningen af 40 civile bryllupsgæster og den kollegiale jovialitet i kontrolrummet bliver ikke mindre af, at personalet derpå synger 'She's a jolly good fellow', efterfulgt af Carrie, der puster lysene ud, næsten som havde vi været til børnefødselsdag. Associationerne til familiær nærhed og hverdagsliv forstærkes yderligere af krydsklipningen til næste scene, hvor Carrie fra sit hotelværelse ringer til sin etårige datter, som hun har overladt til sin søster i Amerika.

Fig. 1. Homeland, Sæson 4, Episode 1, 'The Drone Queen' (5. oktober 2014), 05:56

I begge scener er intimiteten naturligvis langt fra den, Bryant beskriver i interviewet ovenfor som en langvarig, voyeuristisk overvågning af personers privatliv. Snarere er scenen et eksempel på den hverdagsintimitet, der opstår i mødet mellem militær og civil orden. En intimitet, som i høj grad kendetegner dronepiloternes virkelighed, da de konstant skal tilpasse sig skiftene fra 12 timers fjernkrig til de næste 12 timers familieliv.[7] Ikke desto mindre antyder 'krig-og-kage'-scenen mere end blot kollegial hygge. Den indvarsler ét af de absolut vigtigste temaer i *Homeland*, nemlig den ambivalente intimitet, der kendetegner droneovervågning i fjernkrigens tidsalder. Dronekrigerens krop er således langt fra totalt udvisket, som Chamayou antyder i det indledende citat, men snarere geografisk forskudt og følelsesmæssigt forvrænget.

En anden vigtig scene fra samme episode er med til at illustrere denne ambivalente intimitet, der kendetegner dronevoyeurens blik: Dagen efter krig-og-kage-scenen inspicerer Carrie de tragiske konsekvenser af angrebet ved hjælp af videosignalet fra en Reaper-drone. Udtrykket i Carries ansigtsudtryk viser tydeligt, at hun er følelsesmæssigt berørt over de mange civile dræbte efter hendes fejlagtige angreb. Men iblandet smerten og selvbebrejdelsen fornemmes også tydeligt en nysgerrighed rettet mod de sårede og deres pårørende, der møjsommeligt arrangerer de døde i lige rækker. Hun er i sandhed en voyeur, der lever sig fuldt og helt ind i de menneskers liv, som hun netop har forvandlet radikalt. Det er en voyeurisme, der bevæger sig på kanten af *skopofili*, det vil sige den 'schaulust', som Freud anså som et basalt instinkt i barndommen og forbandt med nydelsen ved at se den Anden (Jay 1993, 332) – men en nydelse, som samtidig er forbundet med vold og overmagt.

Blandt rækkerne af døde kroppe spotter hun en dreng, der knæler ved siden af sin døde søster. Og hvad mere er, drengen spotter også hende. Med blikket rettet stift opad mod dronen fanger han Carries blik i en blanding af sorg, afsky og bebrejdelse. En illusion af egentlig øjenkontakt etableres således gennem krydsklipningen fra drengens til Carries stærkt følelsesladede blik. Og selvom denne illusion selvfølgelig er langt fra en ægte, gensidig øjenkontakt, iscenesætter den et egentligt 'modblik' til dronen. En iscenesættelse, der giver drengen 'the right to look', som billedteoretikeren Nicholas Mirzoeff kalder den autonomi og gensidighed, der er helt nødvendig for at kunne anerkende og i det hele taget 'se' den Anden (Mirzoeff 2011).

[7] Selv for klassiske soldater er overgangen fra krig til fred en notorisk vanskelig fase, hvor omstillingen fra én moralsk verden til en anden og reintegrationen i det civile liv kræver perioder med dekompression. For dronepiloter, der 'pendler til krigszonen' er denne omstillingsfase langt mere intens, idet de to gange om dagen skal omstille sig stort set uden nogen overgang (Chamayou 2015, 119). Af samme grund er dronepiloterne, ifølge Gregory (2014), provokerende blevet kaldt 'prøverumskrigere' ('cubicle warriors').

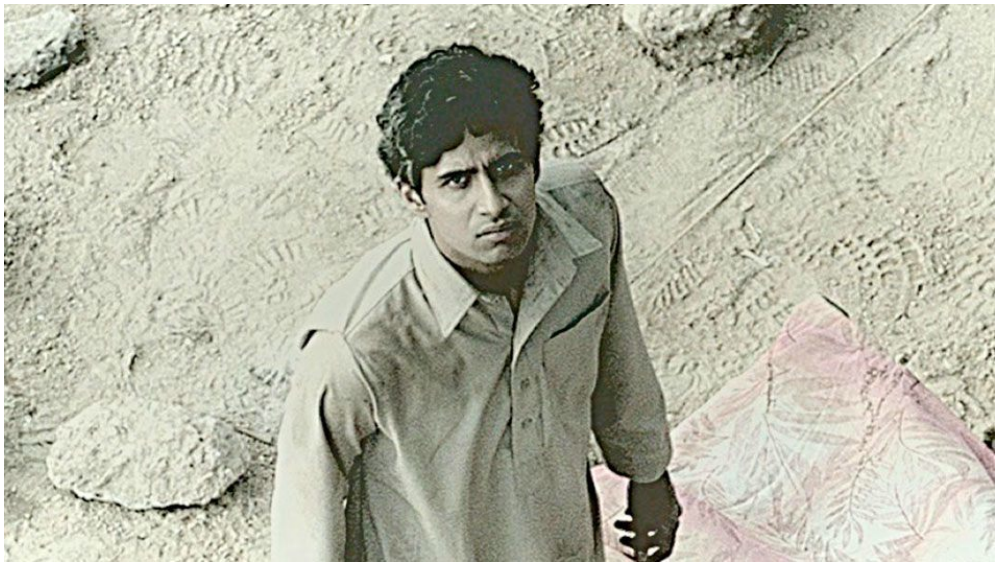

Fig. 2. Homeland, Sæson 4, Episode 1, 'The Drone Queen' (5. oktober 2014), 20:21

Denne iscenesættelse af modblikket er – udover den åbenlyse visuelle kontakt mellem de to sæt blikke – konstrueret af flere forskellige delelementer, herunder lydsporet, hvor en elegisk baggrundsmusik knytter billederne af drengen på jorden til billederne af Carrie bag skærmen. Den lydlige affinitet bliver yderligere forstærket gennem sammensmeltningen af cikadernes summen på landjorden og computerskærmenes summen i kontrolrummet. En lydlig fusion af insekt og maskine, der metonymisk peger på dronen som medium, da det engelske ord 'drone' som bekendt refererer til dels insektet bien,[8] og dels en monoton, maskinel summelyd. Man kunne udlægge scenens billeder og lyd som en ildevarslende summen fra dronedronningen, Carrie, og hendes intensivering af droneovervågningen i resten af sæsonen.[9]

Modblikket, som scenen konstruerer, bryder altså med dronens ensidige og voyeuristiske blik og erstatter det for et øjeblik af noget andet; noget der næsten kunne minde om ægte nærvær i kraft af den intensitet, der udspiller sig mellem Carrie og drengen. Men også kun næsten. For drengen ser naturligvis intet andet en den svage silhuet af dronen som en mikroskopisk prik på himlen. Uanset hvor intenst sådanne modblik kan ramme dronevoyeuren, vil dronens omnipotente militante overvågning altid være overlegen. Intimiteten er, med andre ord, meget langt fra den intensitet, respekt og omsorg, der ifølge Mirzoeff rummes i en gensidig øjenkontakt (Mirzoeff 2011, 1), men er snarere en 'falsk intimitet', som Gregory kalder det (Gregory 2014, 9). Ikke desto mindre er det intime en central del af Carries karakter. Netop i kraft af sin

[8] Dronebien er den brodløse han-bi, hvis eneste funktion er at parre sig med dronningebien for derefter at lægge sig til at dø. Den dødelige symbolik i Carries øgenavn 'The Drone Queen' bliver således endnu mere signifikant.

[9] Ifølge kunstneren og aktivisten Susan Schuppli er det lydlige aspekt af dronekrig en mindst lige så væsentlig faktor som det visuelle, eftersom civile, der lever under dronerne, bliver dagligt terroriseret af den konstante summende lyd fra de flyvende krigsmaskiner uden at vide, hvornår eller hvor deres missiler slår ned (Schuppli 2014).

bipolare lidelse rummer hun både det kølige overblik og et brændende begær efter den intime detalje. Hendes paranoia og maniske jagt på terrorister gør hende bogstaveligt talt besat af sit job. Hun er med andre ord konstant splittet mellem to poler: På den ene side et køligt blik for de større sammenhænge og på den anden side et lidenskabeligt behov for menneskelig kontakt og nærhed. Hun er kort sagt et levende eksempel på den spaltede erfaring, Gregory taler om som 'remote split operations'; en spaltning mellem det geografisk fjerne og det følelsesmæssigt nære.

Carries trang til nærvær finder konkret udtryk i kompromisløse og ofte promiskuøse metoder til at skaffe sig informationer. Eksempelvis planlægger hun – efter at have fundet ud af, at drengen på skærmen i scenen ovenfor er nevø til den eftersøgte terrorist, hun jagter – at forføre ham og dernæst bruge den vundne tillid til at føre ham til terrorist-onklen. Nøjagtig ligesom hun i seriens første sæson bruger sig selv og sin krop til at forføre den hjemvendte krigshelt, Sergent Nick Brody, for på den måde at afsløre ham som konverteret terrorist.[10] I begge tilfælde lykkes hun med sin plan, og den intime omgang med kilderne leder hende på rette spor. Igen taler vi selvfølgelig ikke om en 'ægte' intimitet, men om nøje planlagt og snedigt udført overvågningsmagt, der camouflerer sig som en art 'falsk' eller voyeuristisk intimitet. Det er da også værd at bemærke, at serien i høj grad spiller på dette ambivalente nærvær, eftersom det ofte er uklart, hvornår Carrie 'faker' sine følelser, og hvornår hun er oprigtigt følelsesmæssigt berørt. Denne ubestemmelighed driver således ikke blot Carries karakter, men er samtidig en central narrativ motor i *Homeland*.

Bipolar konfiguration

Ubestemmeligheden i den flimrende dialektik mellem på den ene side voyeuristisk distance og på den anden side nærvær og intimitet er afgørende for, hvad jeg vil kalde en 'bipolar konfiguration af dronens imaginære'. Denne bipolaritet kan som nævnt ses i forlængelse af Gregorys idé om dronepilotens spaltede erfaring. Men til forskel fra Gregorys 'remote split operations' er det en bipolaritet, der ikke alene dominerer den individuelle erfaring af dronekrig, men også den bredere kulturelle og politiske forestillingsevne – hvad jeg har beskrevet som 'dronens imaginære'. Den imaginære bipolare konfiguration træder særligt tydeligt frem i *Homeland* gennem Carries figur: Carrie er bipolar, men hendes maniske faser og hendes evne til både at se de brede linjer og opfange de væsentlige detaljer er netop, hvad der gør hende til en fremragende spion. Man kunne hævde, at Carries bipolare personlighed spejler det paranoide politiske regime, hun arbejder for: En overvågningskultur med voyeurisme og intimitet som dominerende poler i en manisk jagt på stadigt flere og mere følsomme informationer.

[10] For nærmere diskussion af spørgsmålet om Carries køn, krop og seksualitet i *Homeland,* se (Steenberg 2015; Bradshaw 2013; Negra 2015)

Med denne argumentation følger jeg billedteoretikeren W. T. J. Mitchells diagnose af krigen mod terror som en "galskab, der er blevet operationaliseret" (Mitchell 2015, 178). I sin seneste bog *Image Science* (2015) skelner han mellem 'terror' og 'terrorisme' som en grundforskel mellem følelse og taktik. Mens den tekniske betydning af ordet 'terror' betegner en ekstrem frygt, panisk angst og paranoia, er 'terrorisme' omvendt det, der igangsætter disse følelser. Krigen mod terror er derfor, ifølge Mitchell, den rene 'galskab', netop fordi den i udgangspunktet retter sig mod følelser frem for fornuft; mod symptomer frem for årsager. Krigen mod terror, herunder droneoperationer, er kort sagt en følelsesladet krig mod følelser; en tautologi og dermed en krig som i sagens natur er umulig at vinde, da den skizofrent pendulerer mellem det rationelle og det emotionelle (Mitchell 2015, 179).

Både i *Image Science* og i forelæsningen 'Madness and Montage'[11] adresserer Mitchell denne 'paranoide skizofreni' direkte i *Homeland*. Her overfører han Carries personlige sindslidelse på en mere generel og nutidig optagethed af big data eller det, han kalder 'iconomania' (Mitchell 2014): En billedmani, der finder udtryk i begæret efter den totale overvågning (tæt beslægtet med voyeurisme og skopofili), visualiseret som et gigantisk panorama med svimlende mængder visuelle informationer. Denne billedmani minder om den, der præger nutidens dronekrig og dominerer dronens på én gang panoptiske og intime blik: En overvågningsmani der er helt central i *Homeland* – lige fra seriens første sæson, hvor Carrie i al hemmelighed får installeret kameraer i Brody-familiens hus og fra sin egen dagligstue overvåger dem døgnet rundt, og til fjerde sæson, hvor hun i sin egenskab af 'dronedronning' overvåger alt fra terrorister til uskyldige civile ved hjælp af dronernes konstante videosignaler.

Med begrebet 'ikonomani' og forestillingen om den totale overvågning i form af et panoptisk panorama[12] bygger Mitchell på kunsthistorikeren Aby M. Warburgs 'Billedatlas' eller 'Mnemosyne', der direkte oversat betyder 'erindring'. Billedatlasset (1924-1929) var Warburgs utopiske forsøg på at kortlægge antikkens efterliv igennem et overvældende billedmateriale. Ved at samle billeder af særlig stor symbolsk og følelsesmæssig kraft skabte han en montage, hvor den kulturhistoriske erindring på én gang kunne overskues i sin helhed og samtidig fornemmes gennem de enkelte, gådefulde detaljer og 'polariteter'. For Mitchell er Warburgs billedatlas et 'vanvittigt' værk, forstået på den måde, at det udtrykker den gales evne til at se klart. Og hvad har så det at gøre med Carries overvågningspraksis i *Homeland*?

Ligesom Warburg ironisk nok selv led af skizofreni, indtager Carrie rollen som den gale, der kan se noget, ingen andre kan se. Hun er, ifølge Mitchell, en Cassandra-figur,[13] hvis paranoia og mani tillader hende at se trusler, som er usynlige for alle andre.

[11] Forelæsningen "Madness and Montage": The Picture Atlas as Symptom and Therapy from Aby Warburg to *A Beautiful Mind*" at *Image Operations*, ICI Berlin, April 2014.
[12] Den panoptiske dimension i droneovervågningen (som den udfoldes af både Jeremy Bentham og Michel Foucault) er en diskussion for sig, men er af pladshensyn udeladt her.
[13] Ifølge græsk mytologi var Cassandra en trojansk prinsesse, hvis skønhed fik Apollon til at give hende profetens gave – men da hun afviste ham, nedkaldte han en forbandelse over hende, så ingen nogensinde

Carries forbandelse er – på linje med den mytologiske Cassandra-figur – at ingen tror hende til trods for, at hun oftest viser sig at have ret i sine intuitive fornemmelser. Mitchell hæfter sig særligt ved en scene fra seriens første sæson, hvori Carrie, i én sine maniske faser kommer på sporet af et stort anlagt terrorkomplot udtænkt og orkestrereret af terroristen Abu Nazir. Carries rolle minder her om den klassiske detektivs, idet hun indsamler spor og informationer, som hun organiserer visuelt på sin billedvæg (den obligatoriske opslagstavle i enhver detektivhistorie) fyldt med fotografier af mistænkte, ledetråde, genstande, avisudklip, etc. Kort sagt et Billedatlas, der minder om Warburgs Mnemosyne. Men billedatlasset udtrykker samtidig en dobbelthed, påpeger Mitchell: På den ene side er det et "diagnostisk instrument […] et atlas, som kan udstille og fortolke symptomer," mens det på den anden side bliver "et symptom i sig selv, et clou om detektivens egen patologi" (Mitchell 2014). Carries billedvæg rummer netop denne dobbelthed, idet den i løbet af serien – og i takt med hendes eskalerende mani – vokser sig gradvist større og mere kaotisk for i slutningen af sæsonen at ende i ét stort rod af udklip og løse billedfragmenter. Et rod, der afspejler hendes tiltagende psykotiske tilstand, men som hendes chef, Saul Berenson, hjælper hende med at restrukturere til en meningsfuld sammenhæng.

Det særlige ved Carries billedvæg er, at den følger et avanceret system af farvekoder, hvor hver farve symboliserer et bestemt mønster i terroristen Abu Nazirs aktiviteter. Men montagen afslører samtidig et kritisk tomrum i kronologien markeret med farven gul: 'The fallow yellow,' som Carrie forklarer Saul, inden hun indser, at fraværet af gule aktiviteter må betyde et tab eller en tragedie; at Nazir sørgede i den gule fase. Og ganske rigtigt viser det sig, at terroristen mistede sin søn i netop denne periode som følge af et amerikansk droneangreb. Allerede fra første sæson af *Homeland* er dronens imaginære således i spil som en bipolar konfiguration, der mudrer grænserne for, hvad der traditionelt er blevet opfattet som nært og fjernt, intimt og distanceret i krigszoner. Det er fortvivlelsen og hævnen over dronedrabet på sønnen, der er katalysatoren i Nazirs terror; en følelse forud for en taktik. Det er altså den intime detalje i Nazirs privatliv, der for alvor leder Carrie på rette spor, så hun i sidste ende får afværget den lurende terrortrussel.

Jeg har indtil nu argumenteret for, hvordan dronens imaginære kan betragtes som en bipolar konfiguration; som en spaltet erfaring af på én gang at være langt fra og helt tæt på. Visuelt kommer denne spaltede erfaring til udtryk som en splittelse mellem to oppositionelle optikker: På den ene side en stræben efter det totale panoptiske overblik og på den anden side et dyk ned i de enkelte dele af billedet, de intime og personlige detaljer kendetegnet ved affektive tilstande og individuelle følelser. Hvad der dog også gerne skulle være blevet klart er, at denne bipolaritet ikke skal forstås som en simpel modsætning mellem to uafhængige principper. Det nære og det fjerne, voyeurismen og intimiteten, er i den grad vævet ind i hinanden – som vi har set symboliseret i Carries

ville tro hendes altid sande forudsigelser. På samme måde lider Carrie, ifølge Mitchell, under Cassandra-komplekset (Mitchell 2014).

bipolare karakter. Der er således snarere tale om en ustabil tilstand, end om et klart oppositionspar. "Not a 'split', but a *shattered* personality." som Mitchell udtrykker det om skizofrenien i den amerikansk ledede krig mod terror (Mitchell 2015, 178). Denne splintrede erfaring af dronekrig vil jeg afslutningsvis forsøge at forstå ved hjælp af mosaikken som metafor.

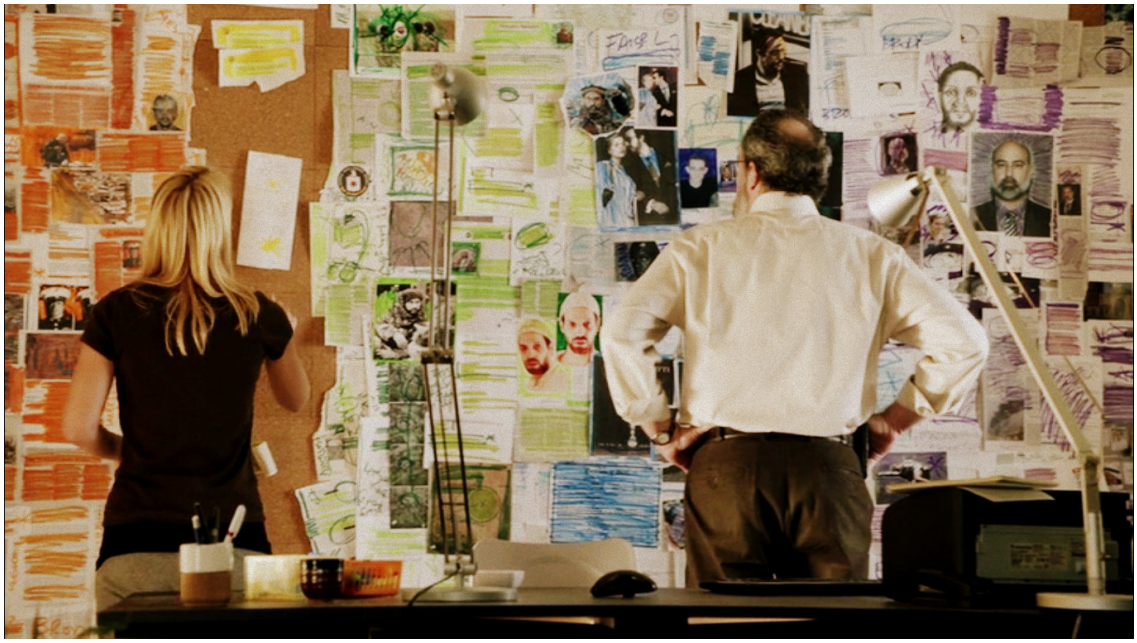

Fig. 3. Homeland Sæson 1, Episode 11 'The Vest' (11. december 2011), 41:54

Mosaikmetoden: Dronedronningens paranoia

På samme måde som mosaikken er sammensat af en assemblage af bittesmå stykker farvet glas eller sten, ligeså er dronens bipolare konfiguration sammensat af detaljerede enkeltdele, der tilsammen skaber et større billede, en mosaik, som kan overskues i sin panoramiske helhed af dronevoyeuren. Med andre ord en 'splintret' erfaring af en mængde delelementer, som må genorganiseres til et meningsfuldt hele. Men også i mere teknisk forstand virker dronen som en mosaik. Den optiske teknologi installeret i de amerikanske Predator og Reaper-droner anvender højresolutions-kameraer, der lige præcis opererer efter mosaikkens logik. Navnene på disse kamerateknologier, 'The Gorgon Stare' og 'Argus-IS'-systemet, afslører inspirationen fra den græske mytologi: Mens gorgonernes blik kunne forvandle folk til sten (med Medusa som det mest berømte eksempel), var Argus til gengæld det 'altseende' monster med hundredvis af øjne, også kaldet Pantopes.[14] På samme måde benytter Argus-systemet hundredvis af små digitale kameraer, der tilsammen danner en mosaik af højtopløselige billeder og

[14] Heraf navnet for Benthams berømte Panoptikon.

dækker et område på op til 90 kvadratkilometer ned til mindste detalje (Gayle 2013). Dronens blik er således en mosaik i sin mest bogstavelige tekniske betydning.

Men også andre aspekter af dronekrig følger mosaikkens struktur. En væsentlig del af dronernes opgaver går som bekendt ud på at indhente informationer og efterretninger ved hjælp af luftovervågning, såkaldt 'Imagery Intelligence' (IMINT),[15] som siden bliver brugt til at udvælge militære mål. For amerikanske efterretningsanalytikere er en udbredt metode i denne overvågningspraksis blevet kaldt 'the Mosaic Method', hvor hovedprincippet er, at helheden er mere end summen af delene. Mosaikteorien sammenlignes derfor ofte med et puslespil, hvor de enkelte brikker ikke i sig selv udgør en definerbar trussel, men kan afsløre større trusselsscenarier, når de kombineres med andre brikker og informationsstumper (Rolington 2013; Goodwin 2010; Pozen 2005).

I *Homeland* bruger Carrie samme strategi i jagten på terroristen Abu Nazir. Som det er tilfældet med hendes farvekodede billedvæg, minder hendes arbejdsmåde – særligt hendes dobbeltblik for både helheden og detaljen – påfaldende om mosaikmetoden. Det er specielt tydeligt i en scene fra samme episode som billedvæggen ovenfor, hvor hun i en af sine karakteristiske maniske talestrømme argumenterer mod sin chef, Sauls, mere simple teori:

> "Well, its wrong! Or… it's incomplete. […] Walker is not even critical. He's just a part, a piece, a pixel, a pawn. He has no importance. There is a bigger pernicious plot. […] We have to code it, collide it, collapse it, contain it." (Showtime, *Homeland*, 2011, Sæson 1, episode 11)

Her adresserer Carrie i en serie af p-ord selve essensen af mosaikteorien: Ved at omtalte den hovedmistænkte i Sauls teori, Walker, som en biperson – en uvæsentlig brik, "a part, a piece, a pixel, a pawn" – er hendes budskab, at han kun er den lille del af et større 'pernicious plot'. Selv på det sproglige plan former bogstavrimet mellem de mange p-ord et større hele, en mosaik af p-lyde. På samme måde som hendes farvede billedmontage – hvor hver farve ligesom mosaikkens farvede glas udgør en del af mosaikken – samler hun i denne matrix de enkelte dele sammen til et større billede. Et billede der kun giver mening ved at kode, fortolke og sammenholde delene; eller, som hun formulerer det, må man først 'code' og 'collide it' for dernæst at 'collapse' og 'contain it', hvis man vil forhindre et nyt storstilet terrorangreb.

I citatet er det desuden værd at bemærke valget af ordet 'pixel', som åbenlyst refererer til digital billedteori. Digitale billeder er jo sammensat af millioner af pixels, der, igen ligesom mosaikken, ikke har afgørende betydning i sig selv, men som i kraft af hinanden danner et genkendeligt billede på skærmen. Ordet pixel er i virkeligheden en

[15] Ligesom 'Signals Intelligence' (SIGNINT) står denne form for teknisk dataindsamling i modsætning til såkaldt 'Human Intelligence' (HUMINT), der henter sine informationer fra menneskelige kilder såsom spioner, indhentere, diplomater, politikere, embedsmænd, forskere og specialister, lokale og journalister (Rolington 2013, 119).

sammenføjning af ordene 'picture' og 'element' og indikerer således sammensmeltningen af det visuelle og materielle i den mindste enhed på skærmen. Med citatet sætter Carrie kort sagt fingeren på, hvordan dronen både i metaforisk og teknisk forstand samler (i sig selv ubetydelige) fragmenter og brudstykker til en mosaik, der i sidste ende kan åbenbare det helt store masterplot.

Denne strategi kan, ligesom mosaikteorien i øvrigt, kritiseres for at være manisk og paranoid grænsende til det hysteriske i sin bestandige bestræbelse på at finde nye mønstre, nye motiver og nye konspirationer at afsløre (Goodwin 2010; Pozen 2005). Som juristen Joseph Margulies skriver, er mosaikteorien et system, der konstant udvider sig selv ved at generere stadig nye interessepunkter, der åbner for stadig flere forbindelseslinjer og konspiratoriske sammenhænge. Som han skriver, "Only through this painstaking process will a mosaic finally emerge that captures the complete picture of the enemy and its plans, or so the Administration maintains" (Margulies 2006, 21). Mosaikteorien fungerer således mere eller mindre ud fra ikonomaniens præmis ved til stadighed at føje nye billeder, nye trusler og nye navne til den amerikanske regerings berygtede 'kill list' – droneæraens svar på westernfilmens 'Wanted'-plakat.[16] Alt sammen i bestræbelsen på at skabe et stadig mere komplet og på samme tid detaljeret trusselsbillede. Ironisk nok indeholder denne bestræbelse et indbygget paradoks, eftersom den konstante udvidelse af mosaikken uundgåeligt fører til stadig flere potentielle trusler at forholde sig til. Mosaikteorien lider således af, hvad Jacques Derrida beskrev som 'archive fever', det vil sige en endeløs akkumulation af tilføjelser, udvidelser, appendikser, tillæg og noter til, hvad han kaldte for 'anarkivet.'[17] Problemet med anarkivet er, at ophobningen af data i princippet aldrig stopper, og bestræbelsen på at skabe det definitive overblik derfor reelt er håbløs. Tilsvarende er den repetitive føjning af navne til Washingtons 'kill list' og strømmen af droneangreb polemisk beskrevet af Chamayou som en endeløs voldsspiral, hvis eneste mål er at eliminere fremspirende trusler i samme høje tempo, som nye rekrutteres (Chamayou 2015, 71). Denne praksis spejler således også Carries febrilske terroristjagt i *Homeland*, der om noget er drevet af 'arkivfeber'. Derrida beskriver denne febrilske søgen som en 'mal d'archive,' der både dækker over en galskab, men også en passion (Derrida, 91). En passion som driver ikke blot Carrie, men også selve serien, eftersom hun, for at holde serien kørende og producere mere spænding og nye sæsoner, er tvunget af en narrativ nødvendighed til konstant at finde nye brikker, der kan føjes til den paranoide mosaik-struktur.

At mosaikteorien er drevet af en paranoid logik, har også flere jurister påpeget i forbindelse med øget censur af ellers offentligt tilgængelige informationer fra den amerikanske regering (Goodwin 2010; Pozen 2005). Denne kritik går altså på en

[16] I Washington var der under Obama-administrationen en tradition for hver tirsdag (de såkaldte 'Terror Tuesdays') at gennemgå den berygtede 'kill list,' en prioriteret dødsliste med navne på terrorister, før den blev sendt til præsidentens godkendelse (Chamayou 2015, 46).

[17] Derrida formulerer 'anarkivet' som en åbenhed, der "produces more archive, and that is why the archive is never closed. It opens out of the future" (Derrida 1995, 68).

'omvendt' mosaikmetode, det vil sige en paranoid idé om at selv tilsyneladende uskadelig information fra myndighederne kan blive misbrugt af terrorister, hvis det stykkes sammen af en velinformeret observator. Paranoiaen, over for de ydre såvel som de indre linjer, er, som det efterhånden gerne skulle stå klart, en helt central følelse i *Homeland*. Det afsløres allerede i titelsekvensen, som vises i starten af hver episode,[18] hvor vi i en surrealistisk, mareridtsagtig klipning ser en desperat Carrie fare vild i en hæklabyrint (i korte glimt endda med en løvemaske på), mens en voice-over med hendes stemme siger: "Fuck! I missed something once before. I won't… I can't let that happen again." Som karakter er Carrie altså drevet af en besættelse af ikke at overse noget; hun er styret af en slags 'mistankens hermeneutik,' altså idéen om, at der altid gemmer sig en skjult sammenhæng, hemmelig dagsorden eller latent magtstruktur bag ethvert udsagn.[19] I essayet 'Paranoid Reading and Reparative Reading, or, You're so Paranoid, You Probably Think this Essay is about You' problematiserer affektteoretikeren Eve K. Sedgwick denne tradition for at være blevet en automatreaktion i den vestlige, kritiske tradition (Sedgwick 2003). En tradition der ifølge Sedgwick har lagt grundstenen til den paranoide jagt på skjulte betydninger, som dominerer vestlig tankegang – og som altså også finder udtryk i dronekrigens paranoide overvågning repræsenteret i en populær tv-serie som *Homeland*.

Reparation af en splintret erfaring

Modsvaret til den 'paranoide læsning,' Carrie laver af alle de små brudstykker og fragmenter i sin mosaiske billedvæg, er, hvad Sedgwick kalder en 'reparativ læsning'. Det vil sige en læsning, der, frem for at være drevet frem af negative og aggressive følelser såsom frygt og paranoia, fokuserer på positive følelser – som håb, kærlighed og intimitet – og på at genopbygge det ødelagte eller sårede. Måske kan vi ved hjælp af en sådan reparativ læsning af *Homeland* ikke bare forsøge at forstå den paranoia, der driver vestlige regeringer i kampen mod terror, men måske også ligefrem søge efter måder at 'reparere' den splintrede erfaring af dronekrig eller forene de splittede følelser, der knytter sig til dronens bipolare 'remote split operations' og dermed også komme et skridt nærmere en erkendelse af de menneskelige konsekvenser ved dronekrigens tidsalder.

Jeg indledte denne artikel med en polemisk modstilling af kamikazepiloten og dronepiloten som en forceret opfattelse af, hvad senmoderne fjernkrig er, og hvordan den kan, eller ikke kan, erfares kropsligt i dag. Måske denne forestilling i sig selv er en paranoid læsning af dronekrig som en følelseskold, maskinel operation frem for en genuin interesse i forandringen af den affektive tilstand, som erfaringen af dronekrig

[18] Titelsekvensen er et fast tilbagevendende element i hver episode, dog med variationer i de senere sæsoner, hvor eksempelvis en Reaper-drone tilføjes.
[19] Litteraturteoretikeren Paul Ricoeur tilskrev 'Mistankens Hermeneutik' den kritiske tradition fra Marx, Nietzsche, Freud og frem (Ricoeur 1970).

(også) er? For en paranoid læser følger dronekrigen forventelighedens logik. Den intense overvågning, der går forud for dronens angrebsoperationer, har som sit primære formål at samle brikkerne i puslespillet, de splintrede fragmenter i mosaikken. Men denne idé bygger på en forventning om, at mosaikken eller puslespillet rent faktisk eksisterer – eller kan rekonstrueres – i sin helhed. I bestræbelserne på at genopbygge dette 'master-billede,' hvad jeg i artiklen har beskrevet som 'ikonomani,' ligger der altså en forventning om at kunne forudsige det uforudsigelige – hvilket ifølge Sedgwick er paranoiaens logik per se. Men hvor den paranoide læsning har som mål at finde en på forhånd givet mening, er Sedgwicks pointe, at den reparative læser leder efter det uforudsigelige og overraskende (Sedgwick 2003, 146). For en reparativ læser kan det med andre ord være både nødvendigt og befriende at lade sig overraske, også selvom disse overraskelser ikke altid er lige behagelige. Men de kan *også* være opløftende, som de pludselige øjeblikke af nærvær og intimitet, jeg har påpeget i *Homeland*, der bryder med seriens ellers så dominerende voyeuristiske og paranoide positioner. Sådanne øjeblikke af pludseligt og overraskende nærvær er med til at forme den 'splittede' eller 'bipolare' erfaring, som er grundstenen i artiklens analyse af dronens imaginære. En erfaring, der dog er ustabil af natur, og derfor nemt udvikler sig til en 'splintret' erfaring, en opløsning af fragmenterne i kaos og depression. Selv for den paranoide og maniske Carrie, seriens 'drone-dronning', kræver det altså en reparativ læsning – et intimt blik for det overraskende i detaljen og hjælp fra en nær ven – at reetablere den splintrede mosaik og dermed erfare og erkende dronekrigen som den affektive tilstand, der (lidt endnu) er en væsentlig del af droneoperationer.

Figurer

Fig. 1 Still, *Homeland*, sæson 4, episode 1, 'The Drone Queen' (vist første gang på Showtime, 5. oktober 2014), 05:56.

Fig. 2 Still, *Homeland*, sæson 4, episode 1, 'The Drone Queen' (vist første gang på Showtime, 5. oktober 2014), 20:21.

Fig. 3 Still, *Homeland,* sæson 1, episode 11, 'The Vest' (vist første gang på Showtime, 11. december 2011), 41:54.

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BØGER

Samfundets systemer – et paradoksalt multivers

Niklas Luhmann, 2016
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I store dele af verden er Niklas Luhmann fortsat mere berømt for sit sindrige kartotek, 'zettelkasten,' end for sit omfattende bidrag til socialteorien. Ved sociologens død i 1998 talte det massive arkiv mere end 100.000 separate referencer, som alle var sirligt nedskrevet i hånden gennem fyrre års forskningsvirksomhed, på små, efterhånden gulnede kort. Ved brug af den kodificeringsmaskine, der voksede ud af dette arkivs massive kildeomfang, skulle Luhmann gennem sine mange artikler og bøger komme til at udklække helt andre mennesker, organisationer og samfund, end dem vi har lært at kende, både i samfundet og i videnskaberne om det. *Samfundets samfund*, som Luhmann akkurat nåede at færdiggøre før sin død, er i sig selv et slags fortættet, hyperfertilt kartotek, der demonterer en række af samfundsvidenskabens elementære begrebsdannelser og samtidigt tilbyder en radikalt ny udlægning af den samfundsmæssige tilstand, vi som oftest betegner som moderne.

Luhmann har hentet sin indgangsbøn til værket fra én af aksiomerne i Spinozas *Etik*: "Det, der ikke kan begribes ved noget andet, må begribes ved sig selv". Aksiomet peger både mod det begreb om samfundet, der ligger til grund for Luhmanns systemteori, og det sociologiske reservoir af analytiske figurer og begreber, som er indrettet til at forfølge dette samfunds systemudfoldelser, der præsenteres i bogen. Luhmanns hovedværk folder sig således ud langs to akser, dels et evolutionært narrativ om samfundets tiltagende kompleksitet (dels kap. 2, 4 og 5) og dels et iagttagelsesprogram og en diagnose af dette samfund, vel at mærke uden moralske præfikser om det gode og onde (samtlige kapitler). Det evolutionære narrativ, som er baseret på en massiv syntetisering af primærkilder, handler om udviklingen fra det, Luhmann betegner som tidligere samfunds segmentære og stratifikatoriske opbygning til vor tids funktionelt differentierede samfund. Det segmentære samfund, der rækker

tilbage til forhistorisk tid, er organiseret på baggrund af slægtskab og territorie. Det bliver gradvis afløst af en stratifikatorisk differentiering, der i perioden fra middelalderen til den tidlige modernitet kendetegnes af en gennemgribende rangorden. Hierarkiske forskelle opstår som grundlag for den sociale orden, hvor mennesker fødes ind i et strengt anordnet skæbnefællesskab, hvori ens livsforløb forbliver tæt knyttet til det sociale strata, man tildeles, hvad enten man er adelig, bonde eller filosof. Denne rangordning afmattes efterhånden ved fremvæksten af det funktionelt differentierede samfund, hvilket indebærer at lagdelingen forvitrer som overgribende organiseringsprincip, men består til dels som adgangsprivilegerende mekanisme i fordeling af f.eks. rigdom eller 'livskvalitet.'

Det funktionelt differentierede samfund

Man kan tale om funktionel differentiering, fordi den indre samfundsmæssige systemdifferentiering når ud til og virkeliggøres i så store og forskellige dele af samfundet, bl.a. i massemedier, ret, politik, økonomi, kærlighed, kunst, videnskab og pædagogik.

Ægteskabet intimiseres, barnet pædagogiseres og kunsten begynder at (gen)skabe verden i *sit* billede. Domæner løsrives på tværs af samfundet, og systemer dannes, der nu begynder at reflektere over sig selv på en måde, der også danner selve grundlaget for deres operationer. Det sker igennem en dobbeltspændt bevægelse, der på den ene side lader disse systemer med universelle forventninger til alt, hvad de fæster deres blik på - i det videnskabelige system kan udsagnene i denne anmeldelse iagttages som sande eller falske (er de nu i overensstemmelse med systemteorien?), medens de i kærlighedssystemet kan elskes eller ikke elskes (Luhmann vækker ofte stærke følelser!).

På den anden side forbliver hvert enkelt system kun selektivt påvirket af alle mulige krav og hensyn, der ellers florerer i samfundet, således at systemerne forbliver specificeret i sine iagttagelser af omverden. Retssystemet kan for eksempel hindre et forskningsprojekt i at fortsætte, hvis det bryder med loven, men retten kan ikke tilbagevise forskningsresultater som falske. Videnskaben kan ligeledes ikke producere sandheder for et politisk system på trods af eventuelle politisk motiverede bevillinger til forskningen. I stedet bliver forskningen, i form af rapporter om klimaforandringer eller stigende arbejdsløshed, ofte genstand for politiske kampe mellem opposition og regering. Den samme genstand vil ændre både problemkarakter og aktualitet, afhængigt af hvorfra den iagttages, men den kan ikke selv formulere sit problem. De forurenede verdenshav forbliver tavse.

Netop differentieringen af systemer indebærer, at alt hvad der gøres til genstand for et systems iagttagelser (f.eks. politikkens tematisering af videnskab som grundlag for politiske beslutninger), forbliver bundet til én systemspecifik kode, der ikke kan overtages eller lader sig overføre til andre dele af samfundet. Det hænger også sammen med, at der ikke findes nogen rangorden mellem de forskellige systemer. Det politiske

system har således hverken større eller mindre indflydelse på samfundsudviklingen end kunstsystemet, og det økonomiske system kan ikke sætte betingelser for andre systemers operationer. Der findes dermed heller ingen privilegerede positioner, hvorfra hele samfundet kan organiseres, udvikles eller kontrolleres. Denne udvikling af et funktionelt differentieret samfund, af Luhmann beskrevet som "ekstremt usandsynlig," (s. 565) er ikke frembragt af nogen enkeltstående samfundskraft som f.eks. demokrati eller 'civilisation,' men skrider planløst frem på forskellige tidspunkter og i forskellige dele af Europa.

En yderligere konsekvens af differentieringen er, at hvert enkelt system producerer sin egen interne omverden, hvilket gør det umuligt – også for sociologien – at finde frem til én samlet repræsentation af samfundet. Der findes ikke én enkelt normativ inderside af samfundet som f.eks. kapitalisme, lige så lidt som der kun findes én yderside. Til gengæld er der en stadig 'dirren' mellem forskellige funktionssystemer og deres vekslende omverdensbetingelser, hvori mange af det moderne samfunds problemer iflg. Luhmann udspiller sig. Økologiske trusler kan f.eks. i det politiske system blive omsat til en beslutning om at reducere udslip eller ved at investere i problemløsningsambitioner i videnskaben (som leverandør af stadig nye risikoprospekter eller teknologisk innovation). I det økonomiske system kan de samme økologiske trusler til gengæld iagttages som en udgiftsbyrde, hvorved en politisk beslutning om at øge beskatningen på flytransport fører til, at kabinepersonalet i stedet hyres ind fra et land med lavere løn eller lignende. Alternativt kan truslerne naturligvis også iagttages som en potentiel indtægtskilde gennem tiltagende investeringsparathed i 'grøn omstilling.' Vores samfund er således en genstridig genstand at skulle styre, fordi sådanne problemer (som klimaændringer) ikke kan allokeres til en universel problemløsningskapacitet (som politik ofte tilskrives), men vil optræde forskelligt henover det multivers af logikker, der konstituerer samfundets samfund.

En sociologi på samfundets inderside

Når samfundet og beskrivelsen af det altså ikke kan bestå af andre genstande end dem, der byder sig til i samfundet, betyder det, at sociologen ikke kan stille sig på ydersiden af samfundet og belave sig på kritiske domfældelser af sit genstandsfelt (altså samfundet). I stedet må samfundsvidenskaberne begynde at iagttage sig selv som en del af den genstand, der analyseres – altså som en selvbeskrivelse af samfundet i samfundet. Det er bl.a. med udgangspunkt i denne enkle, men helt afgørende pointe, at Luhmann formulerer sin standhaftige videnskabskritik. For det første er alt for store dele af samfundsvidenskaben fortsat svøbt ind i en "gammeleuropæisk semantik," (s. 708) der rækker tilbage til antikken og som ikke lader sig kalibrere til vor tids samfund. Samfundet, som sociologiens helt elementære genstand, lider under flere fejlslutninger i denne semantiske arv. De groveste misforståelser består ifølge Luhmann i, at samfundet er befolket af mennesker og kan territorialt afgrænses.

For det andet har sociologien haft en skæbnesvanger succes som 'krisevidenskab' (s. 891). Frankfurterskolen er toneangivende for den teoriudvikling, der groft sagt imprægnerer samfundet på en måde, der afstøder empirien mere end den formår at suge den til sig. Det fører blandt andet til, at der gribes efter afvigelser fra idealtilstande (hos f.eks. Jürgen Habermas og Axel Honneth) i stedet for at begribe det samfund, vi reelt er stillet overfor.

Forkærlighed for paradokset

Da Luhmann i begyndelsen af 1960'erne tager fat på opgaven med at formulere en radikalt ny teori om samfundet, sker det uden særlig skelnen til de sociologiske "klassikere" (som Max Weber og Emilie Durkheim) eller med ambitioner om at indtage en position i de stridigheder med positivismestriden som ét omdrejningspunkt hærger sociologien efter Anden Verdenskrig. I stedet er dén teori, han skulle komme til at bruge hele sin karriere på at færdiggøre, og som her endelig foreligger på dansk, inspireret og irriteret af en lang række forskellige discipliner som logik, biologi, semiotik og ikke mindst kybernetik. Med lån fra disse discipliner beskrives samfundets dynamiske virkningsforhold via nøglebegreber som kommunikation, autopoiesis, operativ lukning, selvorganisering, emergens, kontingens, interpenetration og støj. Dermed er Luhmanns begrebsapparat i mindre omfang trimmet af et traditionelt sociologisk sprog, og for læsere, der ikke er bekendte med Luhmanns særegne begrebsbrug og teoretiske forkærlighed for paradokset, kan *Samfundets samfund* i første omgang fortone sig som et abstrakt og utilgængelig værk. Luhmann pålægger i stedet ofte læseren selv arbejdet med at konkretisere de abstraktioner, der tilbydes, og som (evig tålmodig) læser bliver man sat i en tilstand af uro, fordi de analytiske åbninger mod samfundet er så mange og perspektivrige. Luhmann vender bl.a. begreber som risiko, inklusion og økologi på hovedet, men *Samfundets samfund* er ikke en bog i den sociologiske tradition for sådan-hænger-det-egentligt-sammen. Hans fyndige, anti-sværmeriske analyser giver os ingen svar på, hvorfor vi er ulykkelige og i det ubevidste underlagt markedets dominans, eller hvorfor staten producerer mere ulighed, end den formår at udligne. Her er ingen 'instant gratification,' der kan omsættes til elendighedsmassage i offentligheden. Det, Luhmann i stedet tilbyder samfunds-videnskaben, er en mulighed for at kildre og pirke i de følsomheder, samfundet har påført sig selv, men uden at tilbyde nogen smertelindring i form af kritik, håb eller handlingsanvisninger. For de læsere, for hvem Luhmann er et nyt bekendtskab, anbefales det at supplere læsningen med Luhmanns egen *Indføring i systemteorien* (udg. på forlaget Unge Pædagoger).

Samfundets samfund har en spændvidde og et teoretisk ambitionsniveau, der placerer værket blandt de største i samfundsvidenskaben ved siden af bidrag som *Kapitalen* af Karl Marx, *Om den sociale arbejdsdeling* af Emile Durkheim, *The Civilising Process* af Norbert Elias og *Ordene og tingene* af Michel Foucault.

Gorm Harste bidrager med et instruktivt forord til oversættelsen, der er blevet kyndig varetaget af Erik Pedersen.

Politisk forvaltning og politisk forvaltningsforskning

Jørgen Grønnegaard Christensen og Peter Bjerre Mortensen, 2016
I politikkens vold: Offentlige lederes vilkår og muligheder
Jurist- og Økonomforbundets Forlag, København
243 sider, 285 kr.

Anmeldt af Tim Knudsen, professor emeritus ved Institut for Statskundskab, Københavns Universitet

Denne lærebog i forvaltning i et politologisk perspektiv er skrevet med især driftsledere i den offentlige forvaltning som målgruppe. Udgangspunktet er, at offentlige ledere på den ene side opererer i et demokratisk samfund, hvor politikerstyringen sætter rammer for deres virksomhed. På den anden side er denne styring ofte upræcis samt præget af uklare mål og uklare koblinger mellem reformer, ledelse og effektivitet. Bogen opererer med tre effektivitetsbegreber: Omkostningseffektivitet, resultateffektivitet og allokeringseffektivitet. Henvisninger til effektivitet anvendes ofte som argumenter for det ene eller andet, men politik trumfer i praksis ofte effektivitet og især omkostningseffektivitet i det offentlige, siger bogen. Forfatterne understreger, at heller ikke private virksomheder altid lever op til forventningerne om, at de er den offentlige forvaltning indiskutabelt overlegen. Det fastlås, at formodninger om private virksomheders generelle overlegenhed langt fra er underbygget af empirisk forskning.

Den bærende teoretiske opfattelse i bogen er, at individer har begrænset, men tilstræbt rationalitet. Et fortrin ved bogen er, at den gennemgår væsentlige dele af udviklingen i beslutningsteori. Det kunne have været udvidet til en hel bog. Men bogen underspiller, at rationalitet ved offentlige beslutninger ikke kun er et spørgsmål om individer, det er også et spørgsmål om et organiseret samspil mellem flere personer og institutioner. Det samspil kan både præges af ansvarsløshed og forvridende magtforhold, som forstærker risikoen for fejlvurderinger, men det kan jo også dæmpe individuelle idiosynkrasier og blind spots.

Manøvrerum og møgsager

Dele af den nyere forvaltningsforskning ser offentlige organisationsformer mere som et spørgsmål om magt end som udtryk for en samlet systemrationalitet. Den opfattelse er forudsat i bogen. Men det skal vel ikke forhindre, at 'tilstræbt rationelle' offentlige ledere lærer mere organisationsteori, end tilfældet er i denne bog?

Men forfatterne vil helst hurtigt frem til, at den begrænsede rationalitet giver driftslederen i det offentlige manøvremuligheder. At udnytte dem kræver, at lederen forstår at læse den (politiske) virkelighed, hun opererer i. Hensigten med bogen er at træne lederen i at læse politik for at sejle sin organisation/institution sikkert gennem den omskiftelige politiske virkelighed. Måske burde bogen også lægge mere vægt på at træne lederen i under denne sejlads at bruge andres viden og erfaringer.

I det offentlige kan der jo ifølge bogen opstå, hvad bogen kalder møgsager. Det kaldes af andre for skandalesager (potentielle eller evidente). Det er på grund af møgsagerne også et af formålene med bogen at skærpe ledernes blik for det tætte samspil mellem ledelse, forvaltning og politik. Teorien om begrænset rationalitet forklarer, at man i den offentlige forvaltning typisk fokuserer på løsninger, der er gode nok (satisfierende) frem for optimale løsninger. Kimen til en møgsag ligger i, at det ikke er klart nok formuleret oppefra, hvad der er godt nok, ligesom vurderingen af, hvad der er godt nok, kan skifte over tid med tilbagevirkende kraft. Kimen til en møgsag ligger også i den begrænsede rationalitet (det kunne være hos skiftende ledere, der er generalister uden at have specifik faglighed på deres område).

I bogen forsøges disse pointer om møgsager illustreret med cases fra den danske virkelighed. Men her forekommer det mig, at bogen i nogle tilfælde løber ind i, at det kan være svært at dissekere en møgsag. Nogle sager er meget komplekse, og analysen af dem kan være kontroversiel. Bogen forsøger at løse problemet ved at referere til undersøgelseskommissioner, ombudsmanden eller Rigsrevisionen. Disse institutioner repræsenterer selvsagt vigtige kontrolorganer og har muligheder for at komme tæt på møgsager. Men er det altid tæt nok?

Tegn på manglende respekt for eksempelvis ombudsmanden er ikke umulige at opdrive. Politikere som Inger Støjberg og Martin Henriksen er blandt eksemplerne på dette. Er ombudsmandens autoritet vigende med det resultat, at hans undersøgelser i nogle tilfælde ikke når ret dybt? Og i eksempelvis statsløsesagen gengiver bogen uddrag af embedsfolks forklaringer til undersøgelseskommissionen, som var de afhørtes udsagn endelige sandheder. Men det kan jo være, at de afhørte i al fald har været så rationelle, at de først og fremmest havde for øje at undgå at sidde tilbage med aben. Det er heller ikke utænkeligt, at de har forsøgt at undgå at lægge sig ud med deres overordnede. Noget af det vanskelige for såvel undersøgelseskommissioner som den empiriske forvaltningsforskning er at opfange, hvordan de politiske forventninger osmotisk siver ned i forvaltningen. I det hele taget er bogen en illustration af, at skønt den politologiske forvaltningsforskning er nået langt, så er det ofte vanskeligt at konkludere uden betydelig usikkerhed.

Politik, forvaltning og politisk forvaltningsforskning

Bogen kan læses som et mere samlet overblik over seniorforfatteren Jørgen Grønnegård Christensen opfattelser. Grønnegårds nærmest frygtindgydende flid har været med til at give ham en helt dominerende rolle i dansk politologisk forvaltningsforskning og ikke mindst som repræsentant for denne forskning i officielle sammenhænge. De akademiske dyder og laurbær har betydet mindre for ham.

Han har i stedet udtrykt sig i utallige avisartikler, artikler og bøger. Ofte med ingen eller få referencer. Den røde tråd hos Grønnegård har dog været, at det ikke er muligt at adskille politik og forvaltning. Det var Grønnegård ikke den første til at sige. Heller ikke i Danmark, hvor Lennart Lundquist, der var den første politologiske forvaltningsprofessor, på hvad der i dag kaldes Institut for Statskundskab i København, kom før Grønnegård. Men Lundquist valgte ikke som Grønnegård at gå i tæt samspil med forvaltningens topfolk. Blandt andet fordi Lundquist vel ønskede, at forvaltningsforskningen ikke skulle risikere at blive spændt for en snæver politiserende vogn. Grønnegård har derimod medvirket ved talrige betænkninger og har arbejdet for blandt andet ministerierne.

Selv om Grønnegård nok aldrig helt har fremlagt sine forskningsmæssige udgangspunkter systematisk, så har forvaltningens politiske responsivitet vel altid stået i centrum. Det er nok også fair at sige, at det samme har effektivitet i enhver forstand af begrebet. Målgruppen har især været nuværende eller kommende ledere i det offentlige i form af statskundskabsstuderende De retlige, saglige, faglige og etiske grænser for forvaltningen har ikke haft samme bevågenhed som hos Lundquist, som måske af samme grund nok ikke har haft samme indflydelse på embedsfolk som Grønnegård. Budskabet om jura i denne bog er, at den langt fra er entydig. Det er korrekt, men man skal ikke se bort fra, at der dog er tilfælde, hvor gældende lovgivning overtrædes så flagrant, at ingen kan være i tvivl. Bogen nævner selv statsløsesagen som eksempel herpå. Det er heller ikke svært at finde sager, hvor ansvaret tilsyneladende forsvinder i den blå luft. Eller hvor den faglige kvalitet er diskutabel. For øjeblikket ligner skatteskandalerne og hjemsendelserne af somaliske flygtninge eksempler herpå. Se i øvrigt om skandalesager blandt andet i Pernille Boye Koch og Tim Knudsen: *Ansvaret der forsvandt* (udgivet på Samfundslitteratur, 2014) som uden nærmere kritik affejes i bogen som jamren over tidernes fordærv. Argumentation er nu ellers en god akademisk dyd. Heller ikke bogens reformdebat har Grønnegård ofret tid på. Det ville vel heller ikke skade forvaltningspolitologien, hvis den kunne assimilere noget forvaltningsret.

I bogen giver Grønnegård sammen med sin yngre kollega, Peter Bjerre Mortensen, et mere systematisk billede af sin læsning af forvaltningslitteraturen. Men bogen viser også klart, at forvaltningspolitologien ikke giver firkantede opskrifter til en håndbog, der kan vejlede en driftsleder i komplekse situationer. Forklaringen kan blandt andet være, at det er ganske svært at komme til at studere forvaltning empirisk, uden at det bliver mere eller mindre på forvaltningsledelsens betingelser. Dermed er det også mere eller mindre sagt, at bogen kan give anledning til hjernegymnastik og eftertanke,

men at andre discipliner som forvaltningsret, forvaltningshistorie, demokratiteori, organisationsteori og mikroøkonomi ikke er at foragte.

Den nyligt udkomne bog af Peter Loft og Jørgen Rosted om, hvordan departementschefrollen er sprængt af alt for store krav, understreger jo den begrænsede rationalitet, de begrænsede kompetencer og de begrænsede kræfter også hos departementschefer (Loft og Rosted: *Hvem har ansvaret?* udgivet på Gyldendal Public, 2016). Grønnegård kunne dårligt anmelde den med andet end respekt for de to departementschefers praktiske erfaringer. Det er også forståeligt, at han til gengæld fandt de to forfatteres forslag til forbedringer utilstrækkelige. Så dem affejede han (Weekendavisen 02.09.2016). Men Grønnegårds affejning løser ikke problemerne. Hvor ville det være rart, hvis forfatterne selv vovede sig ud i overvejelser om reformer. Uanset hvad der er politisk opportunt. Og med flere hensyn end nærværende bog tager.

ABSTRACTS

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The Moral of the Battlefield and the Risk-Free War with Drones

Anders Henriksen, Associate Professor, International Law, Conflict and Crisis, University of Copenhagen
Jens Ringsmose, Head of Institute for Military Operations, Royal Danish Defense College

The article examines the instinctive uneasiness many feel about the use of armed drones. Why is it, we ask, that so many people – including members of the armed forces – acknowledge that armed drones offer an expedient and legally defensible solution to pressing security challenges and yet feel uncomfortable about them? The main argument of the article is that much of the criticism of drone warfare is associated with an underlying ethically conditioned discomfort with so-called 'riskless warfare.' The very feature that makes drones so attractive to policy-makers and military commanders – their risk free deployment – is, paradoxically, also one of the primary causes why many feel fundamentally uncomfortable with them. To make this argument, we build on the works of Martin van Creveld and Paul W. Kahn.

Drones and the Threshold for Waging War

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If drones make waging war easier, the reason why they do so may not be the one commonly assumed within the philosophical debate – namely, the promised reduction in casualties on either side – but a more complicated one. One that has little to do with the concern for one's own soldiers or, for that matter, the enemy, but rather one that is embedded in the political intricacies of international relations and domestic politics. This article will utilize the example of the Obama Administration's drone policies to illustrate this argument. This analysis is also meant to have a wider methodological significance; that philosophy can make an important contribution in analyzing drone warfare. However, philosophy will not help to simplify realities and provide easy solutions.

Synthetic Reality and Blind Flight: The Operationalization of Perception

Nina Franz, Cultural History and Theory, Humboldt University of Berlin, PhD project funded by the Gerda Henkel Foundation
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In our contribution we trace the emergence of human perception as an actual object of design and engineering in the early history of aviation through the postwar rise of human factors studies, and into military research and its respective industries today. In this survey, (perceptual) engineering and high-technology weapons such as remote-controlled or (partially) automated drones blend into a military policy that distances human operators from the 'theater of war.' As we argue, this new form of warfare with its visual technologies ('Synthetic Vision Systems') and mental ecologies (Situational Awareness) is aligned with a 'logic of simulation,' as discusses by Jacques Rancière in his political theory of in/visibility.

'Looking Through a Soda Straw': Mediated Vision in Remote Warfare

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Image-guided military operations embed soldiers into a complex system of image production, transmission, and perception. These soldiers separate their bodies from the battlefield, but they also mediate between them. In particular, remote controlled operations of so-called unmanned aerial systems (UAS) require the synchronization between human actors and technical sensors in real-time, such as the knowledge of a situation. This situational awareness relies almost exclusively on the visualization of sensory data. This human-machine entanglement corresponds to a new operative modality of images which differs from previous forms of real-time imaging such as live broadcasting, as it is based on a feedback-loop that turns the observer into an actor. Images are not simply analyzed and interpreted but become agents in a socio-technological assemblage. The paper will draw upon this functional shift of images from a medium of visualization towards a medium that guides operative processes. Based on the analysis of vision, architecture, and navigation in remote warfare, it will discuss how real-time video technology and the mobilization of sensor and transmission technology produce a type of intervention, in which action and perception is increasingly organized and determined by machines.

The Drone Queen: Voyeurism, Intimacy and Paranoia in the TV-Series *Homeland*

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In the age of drone warfare, soldiers are no longer confronted with their opponents *face-to-face* on the battlefield. Instead, the practice of killing by remote control have shaped a new kind of war experience: Namely, one in which the drone operators are at the same time far and close, geographical distanced and emotional present; an experience of 'voyeuristic intimacy' as Derek Gregory has pointed out. But, as the paper points out, it is also a 'split experience' producing a kind of bipolarity and manic paranoia. From a cultural perspective, the paper explores how this split, or even 'shattered,' experience is represented in Showtime's television series *Homeland* as a specific 'drone imaginary.' Focusing on especially the fourth season of the series, in which the bipolar CIA agent, Carrie Mathison or 'The Drone Queen,' is in charge of a drone bastion in Afghanistan, the paper suggests seeing The Drone Queen as an embodiment of this experience. In her manic endeavour to see 'the bigger picture,' but without missing any crucial details, she becomes a symptom of a larger political culture after 9/11, a culture marked by paranoia and control, in which drones are at least one of the most significant examples.