

CHARLES UNIVERSITY
FACULTY OF SOCIAL SCIENCES
Institute of Political Studies
Department of Security Studies

Master's Thesis

2020

Tomáš Veselý

CHARLES UNIVERSITY
FACULTY OF SOCIAL SCIENCES
Institute of Political Studies
Department of Security Studies

**Living in the Droneworld: A Re-Assessment of Realist
Conception of Sovereignty**

Master's thesis

Author: Tomáš Veselý

Study programme: Security Studies

Supervisor: Filip Vostal, Ph.D.

Year of the defence: 2020

Declaration

1. I hereby declare that I have compiled this thesis using the listed literature and resources only.
2. I hereby declare that my thesis has not been used to gain any other academic title.
3. I fully agree to my work being used for study and scientific purposes.

In Prague on 31.7. 2020

Tomáš Veselý

References

VESELÝ, Tomáš. *Living in the Droneworld: A Re-Assessment of Realist Conception of Sovereignty*. Praha, 2020. 40 pages. Master's thesis (Mgr.). Charles University, Faculty of Social Sciences, Institute of Political Studies. Department of Security Studies. Supervisor Filip Vostal, Ph.D.

Length of the thesis: 102,785 characters (spaces included)

Abstract

This work assesses the evolving link between drone warfare and the concept of state sovereignty. In doing so, the paper critiques the existing realist and neo-realist discourses that maintain anthropocentric and state-centric assumptions in the analysis of not only the field of Security Studies, but International Relations as a whole. The phenomenon of drone warfare proves the opposite of such assumptions. The role of the state, and indeed the human, is continually decreasing with the involvement of hybrid actors. The drone is the embodiment of complex hybridity combining human and non-human actors alike. To better understand the contemporary execution of sovereignty, particularly in its role of maintaining the monopoly on violence, this paper will explore the premises of post-human perspectives in International Relations. In particular, this paper is inspired by the insights of Actor-Network Theory (ANT), which emphasises equal analysis of human and non-human actors. Sovereignty remains a relevant topic, but through the involvement of hybrid actors, it is devolving into a seemingly arbitrary distribution of violence. The role of human actors in drone warfare is decreasing with the technological improvement of military drones and the military demand for increased drone autonomy. As a result, sovereignty, as far as the monopoly on violence is concerned, is de-humanised and no longer follows the realist and neo-realist presumptions.

Abstrakt

Tato magisterská práce se zabývá vyvíjejícím se spojením mezi válkou vedenou dronem a konceptem státní suverenity. Ve svém průběhu tak tato práce obsáhne kritiku stávajících realistických a neorealistických diskurzů, jež podpírají antropocentrické a státo-centrické pojetí analýzy nejen v oblasti bezpečnostních studií, ale i širšího pole mezinárodních vztahů. Dron samotný je poté ztělesněním komplexní hybridity, která v sobě kombinuje jak lidské, tak i nelidské aktéry. Ve snaze lépe porozumět současnému výkonu suverenity, zvláště pak její roli v udržování monopolu na násilí, prozkoumá tato práce premisy post-humanistických perspektiv v mezinárodních vztazích. Tato studie je pak inspirována především poznatky Teorie sítí aktérů (Actor-Network Theory – ANT), která zdůrazňuje rovnocenné postavení lidských i nelidských aktérů. Suverenita je nadále relevantním tématem, ale kvůli vlivu hybridních aktérů se zjevně přetváří v čím dál tím více arbitrární formu šíření násilí. Role lidských aktérů ve válce vedené dronem se zmenšuje spolu s technologickým pokrokem ve

vývoji válečných dronů a se stupňující se armádní poptávkou po zvyšování autonomie dronů. Ve svém výsledku je suverenita, alespoň co se týče monopolu na násilí, dehumanizována a neřídí se tak dle teoretických tezí realistů a neo-realistů.

Keywords

drone, sovereignty, geopolitics, realism, ANT

Klíčová slova

dron, suverenita, geopolitka, realismus, ANT

Název práce

Ve světě dronů: Přehodnocení realistického pojetí suverenity

Acknowledgement

I would like to express my deepest gratitude to my supervisor Filip Vostal without whose patient support this work would not have been possible. If there is any quality to be found in this thesis, it had been achieved only with the help of my supervisor. In addition, I would like to thank the academic staff of Charles University for inspiring and nurturing my research. Last but not least, I would also like to extend my gratitude to my family, friends and my girlfriend Jessica for bearing the brunt of the stress this work at times induced in me. This work is dedicated to the memory of Josef Veselý who watched over me better than any drone ever will.

Table of Contents

Obsah

Table of Contents.....	8
Introduction	9
Methodology and Research Questions.....	13
Chapter one: Drones in the regime of post-sovereignty.....	14
<i>Towards hybrid realism</i>	16
<i>Post-humanist sensibilities in security discourse</i>	20
<i>Beyond the Old Dualism(s)</i>	22
Chapter two: Socio-Technological Implications of Hybrid Drone Warfare.....	25
<i>The Necropolitical Drone</i>	26
<i>(Non-) Humans at War</i>	30
<i>Dronification of the Commons</i>	33
Chapter three: Decentring Human Agency.....	37
<i>The Resurgence of Dingpolitik</i>	38
<i>Drone Agency</i>	40
<i>Killing Matter</i>	42
Conclusion	45
Summary	47
Bibliography.....	48

“A screaming comes across the sky. It has happened before, but there is nothing to compare it to now.”

- Thomas Pynchon, *Gravity's Rainbow*

Introduction

John Brennan, the now former director of CIA, stated in 2011 that drones are capable of inflicting zero civilian losses while simultaneously preserving the lives of American soldiers (Shane, 2011). According to such rhetoric, the military drone is a modern-day miracle machine, a *wunderwaffe*, which delivers the best of both worlds. The reality, however, proves different. Indeed, the reason behind such unprecedented efficiency of military drones may be the rather simplistic method of data collection concerning the casualties; all corpses that result from drone strikes are a priori considered to belong to terrorists, at least until proven (post-humously) innocent (Chamayou, 2015, p. 146). Snippets of information such as this provoked me to address drone warfare in the first place; what specifically picked my interest is the way how state sovereignty, a concept that is taken for granted in the field of Security Studies, is executed in such a cynical and arguably xenophobic manner that one has to wonder, if we current theoretical framework is still suitable to address the emergent challenges of drone warfare without simplifying the phenomenon. I arrived at the conclusion that the contemporary formulation of state sovereignty, which is largely constructed via realist and neo-realist frameworks, does no longer hold today for a thorough analysis of drone warfare. Instead, new approaches should be more readily adopted for the scope of analysis, especially those that are loosely associated with the post-human school of thought. Of these, those that integrate Actor-Network Theory proved especially useful in my research of drone warfare and its relation to state sovereignty.

What is so wrong with the conventional understanding of state sovereignty then? First of all, the very definition of sovereignty is subject to question. Indeed, ‘sovereignty’ is an ambiguous term, with no single empirically reliable definition. Rather, its usage evolved with historical practice. Despite a lack of a clear-cut definition, however, states assert sovereignty as an organizing principle. As Bartelson (1995, p. 16) observed: “we have in

recent years witnessed an increasing emphasis on [sovereignty's] constitutive role in modern political reality as well as our understanding of it." Instead of attempting to establish a 'fit-all' definition of sovereignty, this paper will investigate specifically the realist, and by association the neo-realist, stance towards sovereignty and the validity of this stance when confronted with the hybridity of the modern military drone warfare. The reason why the realist conception of sovereignty in particular will be subjected to critique is that the realist positions of anthropocentrism and state-centrism continue to dominate the field of International Relations (and Security Studies by association), to the detriment of other emerging perspectives, as Schandorf and Karatzogianni (2018) pointed out. Genealogically speaking, the origins of the realist concept of sovereignty can be traced to the work of Thomas Hobbes (Havercroft, 2012), specifically his political treatise *Leviathan* (1651). Especially Hobbes' understanding of 'anarchy' has been hugely influential and continues to inform the (neo-) realist perspectives. White (2019) arrived at the conclusion that the intellectual history of sovereignty is responsible for the creation and maintenance of an ethnocentric normative hierarchy in the field of International Relations, which in turns propels the entrenched West-oriented notions of statehood itself. Any society that lies beyond the reach of the 'civilized' West is imperfect, flawed and fundamentally 'other'. This is where drone warfare enters our analysis of sovereignty.

Drones radically affect our understanding of sovereignty, not only within the discipline of International Relations, but also in ethical terms. We are all subjects of the droneworld. To the drone, we are nothing but a speck on the ground. It is no overstatement to claim that the future of warfare lies in drones. Globally, the military drone market was pegged at \$9.9 billion USD in 2017 and is projected to grow to \$15.2 billion by 2027 for a cumulative value of \$113 billion (GlobalData, 2019). Appropriately enough, the academic interest in drones is steadily rising (see for example Fowler, 2014 or Franke, 2018). By now, drones are by no means uncharted territory when it comes to research; among other great works on the subjects, one can read Singer's influential *Wired for War* (2009) or Chamayou's more recent *Drone Theory* (2013). Yet, there are still notable gaps in contemporary research that need to be addressed, if only to prove that certain forms of academic discourse are no longer viable to engage in contemporary discussions. Notably, we are witnessing the growing divide between the concept of human-centred sovereignty and the proliferation of non-human actors in politics and warfare. While most of the debate about drones concerned the ethics of drones in warfare

(Keene, 2015, Fatic, 2017, Archambault, 2019), the implications for International Relations (IR), specifically from the scholarly perspective of Security Studies, have come into tentative consideration only in recent years.

The paper will focus on sovereignty as a discursive concept, rather than as a legal term. The discussion surrounding the possible breach of international law by the intervention of drone strikes will be analysed only briefly in order to indicate the multidisciplinary scale the debate has assumed. Moreover, I will also explore the changing position of the human subject in drone warfare, using the discourses of post-humanism and more specifically Actor-Network Theory, or 'ANT' for short. ANT emphasises that society ought not to be represented according to the traditional scientific dualism of human actors and social structures, but that society is instead composed of human and non-human actors connected with each other through networks (Michael, 2016, p. 12). The theory does not neatly fit into conventional sociological discourse as it is not primarily concerned with social networks, but with expanded concepts of actors and networks. Bruno Latour, one of the chief theoreticians behind ANT, emphasised the distinction (1996, p. 369): [ANT] does not wish to add social networks to social theory, but to rebuild social theory out of networks." For the purpose of the focus of this research, ANT proved to be an incredibly useful approach to deal with the complex realities of drone warfare. Instead of segregating actors because of their qualitative differences, ANT only takes into account the quantitative differences between the lengths of associations among actors (Michael, p. 12). As a theory, ANT does not prioritise the agency of human actors over non-humans and in turn makes the conceptualisation of drone warfare more comprehensible and consistent. Because of its incredulity towards anthropocentrism, ANT falls under the rubric of post-human approaches, whose assumptions, particularly when it comes to material agency, differ radically from realism.

With the evolution and proliferation of drones, we can see that *unmanned* warfare is just that; an asymmetric form of combat, where one side relies much less on the human element (if at all, as I will explore in this paper) than the other. If sovereignty has traditionally been interpreted as a concept that pertains exclusively to humans, and to the control of humans over others, then how can we reconcile such a notion with a development, where human agency is being increasingly diluted by non-human actors?

In order to address the question of sovereignty this paper will first explore the unique properties of drones and the associated trends that drones bring with them. After all, one might ask why exactly is drone warfare so different from previous conventional forms of fighting. The answer may be in the much-commented potential for surveillance that drones possess, which in fact is so widespread at this point that a new phenomenon has emerged: ‘dronification’. By the term ‘dronification’ we follow here the influential text by Shaw and Akhter (2014) who described such a process as a practice of data-gathering and intervention, which reproduces a certain conduct of bureaucratised automated and targeted killing (ibid. 213-214). As this paper will examine, drones are not simply merely non-human actors; they combine both human and non-human properties at once, thus establishing themselves in a complex network of agendas. As the term ‘dronification’ suggests, the *drone*, or in other words, the hybrid, forms the central actant¹ and facilitator of such a development, or rather, it is the sole idea of the drone itself that propels dronification forward. Shaw and Akhter’s text (2013) further gave rise to new insights within the emerging niche of ‘drone theory’. For example, Kaplan (2019) approached the drone as a technology of ‘atmospheric policing’, which converges with other assemblages of atmospheric violence to recreate neo-colonial hegemony.

The practice and theory of the concept of state sovereignty are increasingly drifting apart. The Hobbesian monopoly on violence, traditionally believed to be concentrated in states formed by solely human actors, is eroding. This is so because the increasing autonomy of drones consistently blurs the distinction between human and machine, thus hijacking the anthropocentric discourses that still largely dominate social science research (Cudworth, 2013). After all, drone warfare is heavily indebted to the recent developments of war technologies, particularly the implementation of algorithms, that betray their racist ‘necropolitical’ agenda in targeting certain kinds of people, a reality that may have been responsible for the loss of hundreds, if not thousands of lives in the so called ‘collateral damage’. The concept of ‘necropolitics’ as developed by Achille Mbembe (2003) refers here to a specific form of biopower by which populations are exposed to death by powerful actors.

¹ ‘Actant’ here refers to a specific term related to the Actor Network Theory (ANT). The term actant is used within ANT somewhat interchangeably with the term ‘actor’, as the name of the theory suggests. An actant is a source of action, regardless of if the actant is human or non-human. Latour (1996: 373) summed up the definition of an actant thusly: “An “actor” in ANT is a semiotic definition – an actant –, that is something that acts or to which activity is granted by others.”

In the wider scope of things, drone warfare is yet another brutal chapter in the ongoing War on Terror. As such, drone warfare presents us with the continuation of certain trends that the War on Terror firmly established as part and parcel of its conduct; namely, the dehumanisation of humans, who are routinely described as ‘ants’ by the drone operators (Pilkington, 2015) due to their dot-like appearance on monitor screens, has reached a new height in the times of drones. Moreover, such dehumanisation corresponds with the breakdown of some paradigms that certain discourses in IR, namely realism and neo-realism, held sacred. Specifically, anthropocentrism and state-centrism are on the losing side when it comes to the kind of warfare that drones in part constructed and highlighted. It is for this reason that this paper will also take on the duty of criticism the discourse of (neo-)realism that continues to largely dominate the discipline of IR in one form or another, to the detriment of other schools of thinking, such as the still largely incipient post-humanism that seems to be better suited to explain and assess the current conjunction. Yet, such a critique will be targeted towards greater understanding of the dronification of warfare, which forms the central focus of this thesis.

Methodology and Research Questions

The methodology of this paper follows that of a theoretical text. Because of the difficulty associated with obtaining primary data regarding drone warfare, I depend on secondary data. Statistics of drone strikes tend to be compiled by investigative journalists and much of the information regarding the actual conduct of military drones is classified. As such, my research engages the body of literature dedicated to the analysis of concepts that are relevant to the synthesis of the emerging understanding of sovereignty and drone warfare. In the particular case of my research, I deemed the theoretical approach to the analysis of drone warfare more suitable than an empirical approach as I am in large part exploring the issues of hybridity, which cannot be easily quantified. In fact, the desire to quantify is subject to my critique of the process of dronification. The limitation of my research is that I only researched drone warfare from the 9/11 attacks onwards without delving deeper into the development and use of military drones in the 20th century. The historical development of military drones, albeit a fascinating topic on its own, is beyond the scope of this paper. Because of the theoretical focus of my study, I did not carry out methods that would produce primary data. This paper also touches on the experience of drone

pilots who find themselves in peculiar hybrid assemblages. In the course of this paper, I will address the following questions:

- 1) What constitutes the hybridity of military drones?
- 2) How do post-humanist discourses perceive drone hybridity and how do these emergent findings compare with the established realist theory?
- 3) What is the relationship between military drones and humans, as observed through the enforcement of US sovereignty?

Chapter one: Drones in the regime of post-sovereignty

If we accept the notion that drone technology is currently following the general trend of increasing technological autonomy from human command (Dyndal, Berntsen and Johansen, 2017), then does that make the autonomous drone a moral agent? If a drone kills a civilian, does it bear the blame? If not, then who does? The manufacturer? The programmer of the drone's algorithm? Is a drone a sovereign? These questions only gesture towards the problematics of drone warfare. For example, drones are currently being tested for use by police forces (Fleming, 2019). It would also seem that the debate surrounding the extent of drone autonomy lags behind the current practise. Military drones already come equipped with Automated Target Recognition (ATR) systems, which facilitate their function of distinction. It is then the drone that quite literally defines the objects of the battlespace and without acknowledging this factor, commentators may fall into the trap of not necessarily underestimating the autonomy of the drone, but overestimating the role of the drone operator – the system of distinction already hybridizes the mechanical and organic (Allinson, 2015, p. 10). A hybridity emerges, not in any abstract or virtual sense, but in a very concrete manifestation that underpins contemporary networks of digital information. Poster (2004) was early in his identification of 'humachines' which constitute for him the aspects of 'new globalism' that followed the 9/11 attacks. Although Poster's arguments rest largely on the literature of Hardt and Negri and their hugely influential *Empire* (2000), his definition of 'humachines' resembles rather the language of scholars dealing with ANT (T.W. Luke, 1997; Brooks and Atkinson, 2004). Critically then, for Poster a humachine does not designate merely a prothesis or an extension, but, in his own words: "an intimate mixing

of human and machine that constitutes an interface outside the subject/object binary.” Is a drone then not precisely such a ‘humachine’, operating within the realm of new globalism that no longer rests on territorial divisions that were so critical to the nation state?

The post-humanist turn does come with a set of factors that affect our perception of the human element. One such factor is the progressing ‘anthropophobia’, the fear or perhaps rather disdain for humans. While inventors and engineers first saw drones as ‘beasts of burden’ which had to be restrained and ‘domesticated’ by human control (Mindell, 1996, p. 206 in Packer and Reeves, 2013), such an anthropocentric view is currently receding. Humans are by their very default prone to a plethora of factors that might negatively affect their performance. They may be subject to fear, stress, irrationality and a great number of psychological and ideological influences that might also lead to critical failure. The common phrase ‘To err is human’ has acquired a whole new disturbing character. The drone, however, does not suffer of any of psychological factors that humans do. Increasingly, the military staff is recognising that mission failures during drone strikes are caused by human involvement rather than machine malfunctions (Packer and Reeves, 2013). In the age of drone warfare, human qua human combat is becoming an obsolete technology of war (ibid. p. 327-328) mainly because of the persistent human unreliability. The introduction of the drone, however, ‘solves’ the human inefficiency. The current trend seems to indicate that the autonomy of drones will steadily increase due to the incessant ‘latency’ of response between the drone and the drone operator (ibid.). Already, it would seem, the US military regards increasing autonomy of the drone as granted. This may be because of the special status drones have come to occupy in the American military; the drone is an object of fetish (Shaw and Akhter, 2012, p. 1492). In many ways it constitutes the ideal soldier, devoid of any human deficiencies that might impede the success of its mission.²

While the military ‘superiority’ remains a rather ulterior motive for the expansion and proliferation of drone technologies, the public usually receives a different justification. The former CIA director John Brennan addressed the reliance on drones by appealing to the ethical dimension of drone strikes, claiming that because of their increased precision

² For a more general analysis of the effects of 21st century capitalism on the breakdown of the human condition see Jonathan Crary’s *24/7: Late Capitalism and the Ends of Sleep* (2013).

(superiority to human agents) drones can target terrorists on the ground way more accurately than manned aircrafts without inflicting collateral damage (Chesney, 2012). A line is thus drawn between drone ethics and drone precision, both of which supposedly make combat practically surgical in scope. Espinoza (2018, p. 379) noted that the ‘drone discourse’ is continuing in the colonial tradition, borrowing much of its rhetoric from past civilizational ‘missions’ for the subjugation of the Other. A difference emerges between the ‘civilized’ American forces with their advanced drone technologies, and the ‘barbaric’ terrorists, still clinging to antiquated forms of combat. From this perspective, it would almost seem that the high-tech military drone is the ‘reply’ to the challenge of terrorism, among other problems of national and indeed global security. As Singer (2009, p. 63) remarked, the drone becomes “our answer to the suicide bomber”. The emphasis here is this; only a machine incapable of fear is able to fully counter someone who is not (at least apparently) afraid of his or her own death. Within such a discourse, oriental fanaticism meets Western rationality, or perhaps irrationality.

Towards hybrid realism

In my analysis of drone warfare, examination of sovereignty plays a crucial role. The concept of sovereignty itself has undergone a thorough inspection, especially by scholars associated with the realist and neo-realist schools of thought (Boucher, 1998; Osiander, 2001; Havercroft, 2012). Currently, sovereignty is being re-assessed yet again due to evolving understanding of networks between human and non-human agents. Kindervater (2016, p. 209) stated that the American use of drone strikes, particularly under the Obama Administration, established a new kind of sovereignty, which radically differs from the classical understanding of the term within IR. This drone-powered sovereignty is “mobile and ephemeral,” ultimately replacing the conventions of state sovereignty that refers to a fixed and static demarcations of territory (ibid.). In practical terms, the use of drones by the US military has been often cited as a violation of sovereignty of other nations, especially when it comes to the drone strikes in Pakistan’s region of the Federally Administered Tribal Areas (FATA, merged with the administrative province of Khyber Pakhtunkhwa as of 2018). Some supporters of drone strikes in FATA argue that the killing is justified insofar as the targeted people in a given territory are not under “effective control” of neither the host state nor the targeting state, meaning that international law does not apply (Paust, 2013). Paust also confirms in his advocacy for

drone strikes the aforementioned morbidity of necropolitics: “those who are being targeted, for example, by a high flying drone in a foreign country *will not be protected under the general human right to life*, because they are not within the actual power or effective control of the targeting state” [emphasis added]. In effect, of course, the killing that results from drone strikes is strictly extra-judicial, prompting a fierce discussion of the legality of drone-administered executions. Although this paper will not specifically focus on the legal aspects of drone strikes, the factor of legality is still worth bringing up as it contributes to our assessment of sovereignty.³ By deploying drones to the remote areas of Pakistan, the US military is at once acting as both the prosecutor and the executioner in places where rule of law is suspended. Yousaf (2014) speculated that the US is exploiting the institutional and political weakness of Pakistan to impose its will in the country. However, Pakistan is only one case study among many, and its inclusion in this brief analysis aims to highlight some of the impacts that drone warfare brings with it in practice.

The extra-judicial aspect of drones is disturbing enough to provide enough material for a wholly separate thesis and admittedly, this paper only refers to the (non-) legality of drone strikes to better illustrate the way in which concepts such as sovereignty are warped during the ‘drone age’. Yet, these illustrative examples are necessary in order to showcase the twisted effects drones have on sovereignty, where theory does not entirely correspond to practice. This paper is not trying to argue that sovereignty becomes irrelevant in the case of drone warfare; on the contrary: we can observe a trend, where sovereignty is effectively reversing sovereignty to a more brutal and basic form. The targets of drone have no chance of surrender, most of the time, their identity is unknown and drone strikes completely ignore any semblance of the presumption of innocence (Calhoun, 2018). In other words, drones deliver practically despotic, arbitrary “justice”, which is not restrained by any institutional framework; procedures and methods of drone targeting and profiling are kept secret from the public by the US military (ibid. p. 359). Drone warfare does not take into account any semblance of *habeas corpus* (ibid. p. 369), there is no recognition of the sanctity of human lives, and political dissent is re-interpreted as terrorism; only in Yemen between 1,020 and 1,389 people have died due to drone strikes since 2001, of which between 174 and 225 were civilians, including between 44 and 50

³ For a studies dealing with the legality of drone strikes, see for example Brooks (2013) or Rae (2014)

children (Serle, 2016). Effectively then, the incarcerations of terrorist suspects during the G.W. Bush presidency turned into outright killing during the Obama era. Under the guise of the ‘War on Terror’, individuals are, in strict sense of the word, murdered without any right of appeal. Without much exaggeration, this regression returns state sovereignty to a primordial, essentially medieval stage of development.

The current scholarship in IR and Security Studies dealing with sovereignty draws heavily from the approach of the realists and their respective successors, hence the underlying dependence on state-centrism and anthropocentrism. Sovereignty is formulated through these specific approaches that historically emerged from Hobbesian thought and the Westphalian settlement at the end of the Thirty Years War. Malette and Stoett (2018, p. 113) linked the development of state sovereignty with the concept of free will, which played a key role in nation-building as well as the inception of modernity. In the West, this frequently meant promotion of arguments for self-determination, cultural homogenization and monopolization of violence just to name a few, coupled with continual institutionalization of centralized political power (ibid.). In practice, state sovereignty was frequently utilised as tool for uninterrupted extermination of the Other, be it along ethnic, religious, cultural or nationalistic lines defined by the majority.

Realism tends to simplify sovereignty to a neat model that is entirely fuelled by the human and the state when in fact sovereignty works in far more complex ways. This can be seen in how Waltz (1979, p. 96) explains sovereignty: “To say that a state is sovereign means that it decides for itself how it will cope with its internal and external problems [...]” Does this elegant, yet rather simple definition still apply in today’s world of algorithmic warfare? Understandably for its own time, Waltzian neorealism takes the human as the measure of all things. Neorealism understands war as a struggle strictly between humans and waged by humans. This paradigm, however, is breaking down. Peter Singer (2009, p. 510-511) expressed the sentiment perfectly in his seminal work *Wired for War*:

“History may look back at this period as notable for the simultaneous loss of the state’s roughly 400-year-long monopoly over which groups could go to war and humanity’s loss of its roughly 5,000-year-old monopoly over who could fight in these wars.”

This paper does not argue that sovereignty as a concept has lost relevance. Yet, the forms of hybridity we are witnessing in IR warrant a re-assessment of the conventional conception of sovereignty. Nowhere is this clearer than in the problematic of drones. Reports suggest that the US military frequently resorts to contracting out drone operations to private companies (Hennigan, 2015; Trevithick, 2018). Non-state actors are then increasingly proliferating the military sector, which in turn leads to unprecedented changes in warfare itself. As Maryann K. Cusimano Love (2019, p. 296-297) observed: “Drones democratize war, allowing a wider number of actors to project violence across borders, without armies, navies, and air forces, and in ways that may evade detections and identification.” While the term ‘democratisation of war’ may sound like an oxymoron, this is precisely the reality we find ourselves in. Drones decentralise and quite literally deterritorialise warfare. Wars today and in the foreseeable future will be fought by and through military hybrids, which inevitably require complex actor-networks.

Despite the objections of the realists, sovereignty has undergone a marked change and the theoretical frameworks that once may have defined and formulated the concept sufficiently now apply only in part. Love (2019, p. 417) asked the pertinent question: “How many planks must be pulled for us to recognise sovereignty today as something different than sovereignty in the past?” At the same time, we also have to take into account the other side of the argument, which would state that realism has been vindicated by drone warfare. Indeed, the recklessness with which particularly the US anti-terrorist policy has been pursued would be in favour of some form of vindication of the realist argument that states seek to maximise their power. However, it seems that the reference object of the ‘state’, which realism sees as anthropocentric, is no longer the same in the ‘drone age’. Notably, many of the realist assumptions concerning anarchy, such as we can see in Kenneth Waltz’s neorealist *Man, State and War* (1959) depend on anthropocentrism, be it because of the explanations based on human nature or on man-made institutions and ultimately structures. Perhaps a new window of academic research is opening, one that would try to theorise some form of ‘hybrid realism’, but at the moment, realist literature is lagging behind in this aspect.

The reality, which the realists claim to represent, seems increasingly distant from the theoretical construction. Indeed, the human decision-making already seems ill-suited to the current combat environment (Tucker, 2016), which is perhaps nowhere clearer than in

drone warfare. This is largely the result of the interconnectedness between globalization and what we perceive as state sovereignty, the two factors that are often poised against each other in the media. John Agnew (2009, p. ix) indicated a more accurate way of assessing sovereignty:

“Effective sovereignty is always and everywhere exercised in relation to a variety of actors – state-based, corporate, societal, and so on – who can be enrolled in its exercise even as they share in its effects at home and spread its impacts far and wide beyond the bounds of any state’s territory *sensu stricto*.”

Although Agnew is referring here to the disappearing line between globalization and state sovereignty (which perhaps may have been imaginary this whole time), his statement applies with eerie relevance to drone warfare as well. Specifically, what we are faced with is the rising dependence on non-human actors and their corresponding levels of intervention in matters of human life and death. Life, however, does not seem to possess an absolute value within the hybrid apparatus of drone warfare. In particular, ‘Oriental’ lives of the nameless and faceless targets on the ground are situated at the very opposite end of susceptibility to death than the untouchable drone operators. In the following section, I will investigate the difference between the ‘civilised West’ and the ‘uncivilised Other’ while paying special attention to the sociological dimension of drone warfare.

Post-humanist sensibilities in security discourse

In the simplest of terms, post-humanism seeks to go in its analysis beyond the limitations imposed by the human-centred approaches. By its reliance on concepts such as hybridity, heterogeneity and cyborgs, post-humanism attempts to offer new perspectives on the human subject, and indeed social world as a whole. At its core then, post-humanism investigates the various relationships between humans and other ‘things’ in the era of the so called- Anthropocene; the era in which human influence has come to dominate the world. How such an era defines our relationship with non-human and even non-living ‘agents’ is a question that post-human scholars continue to grapple with. Admittedly then, post-humanism is not a unitary academic perspective but rather a set of at times conflicting views. Yet, it seems appropriate that we can utilize the umbrella term of ‘post-human’ to refer to the scholarly opposition in the social sciences to anthropocentric

perspectives that neglect to analyse more complex focus on the networks between humans and non-humans.

As the argument of this thesis goes, what sets military drones apart from other conventional weapons is their ever-increasing hybridity, which constitutes a typical point of interest for post-humanists. We can then begin this analytical and discursive section by placing drones within the context of International Relations, which form the wider discipline for the field of Security Studies. The post-humanist perspective in International Relations (IR) came to rely heavily on the ‘New Materialist Turn’ (Lundborg and Williams, 2014), which emphasizes the increasingly techno-social dimension of the field while at the same time addressing the human limitation. In analysing the complex adaptive systems that are at play in IR, posthumanism has the potential to provide a more comprehensive analysis than constructivism, while avoiding the determinism that characterizes (neo)-realism. We do not have to go far then to find sources critical of the prevailing hegemony of current anthropocentric and realist paradigms in academic literature. Schandorf and Karatzogianni, for example, expressed their view that the traditional IR theories “[reduce] complexity to an idealistic simplicity in an unrealistic realism” (2018, p. 91). Instead of merely accepting the gross simplification of the state entity, the post-humanist perspectives ask the questions of how borders are drawn in the first place and how are actors and agents defined (ibid.).

The ironic ‘unrealism of realism’ is thus a trend that deserves a fair critique; Oren (2009) for example indicated that realism’s epistemological limitations lie in its naturalistic and positivist strains and proposed instead Weberian ideal-typical methodology that could provide a better foundation for research. Nonetheless, while realism has been undergoing its own re-assessment for some time now (Gellman, 1988), one of its chief aims continues to be the opposition to political idealism, at least in regard to the tradition laid out by Hans Morgenthau in his *Politics Among Nations* (1948). For the purpose of this work, such a framework of discussion is unsatisfactory for this thesis seeks to understand and critique the inherent and indeed troublesome hybridity of drone warfare, which arguably presents to us an unprecedented phenomenon of the use of power that eludes the traditional and conventional approaches to security.

The claim that the realist discourse is not suitable for this work, or indeed for any comprehensive study of hybridity and actor-networks, is not mentioned here arbitrarily. The problem of not only security studies and international relations but political science as a whole seems to be the ‘matter-of-factness’ of the realist theorems that pervade the field. Despite the emergence various schools and approaches to IR, the debates within the discipline have been dominated by the ‘foundational myth’ (Cudworth and Hobden, 2012, p. 39). This ‘myth’ concerns the illusion that the naive idealism of the interwar years was replaced by concrete realism of the post-war era, while in reality, there is scant evidence that the interwar discourse had anything to do with perceived the idealism (Schmidt, 1998, p. 229-230). As a result, realism found its validation after World War II, when the straw man of idealism was dismissed as a debunked error of judgement. As a result of the pervasive influence of realism, whose dogmas exist even outside of its own school of thought, Smith (2000, p. 379) wrote that the discipline of international relations is pervaded also by state-centrism and positivism. Within our area of interest, post-human discourses then strive for non-anthropocentric approaches to security by stressing what Schwartz (2015) termed “the cornucopia of non-human and technological entities that shape our political ecology, and, in turn, condition our notions of security and ethics.”

Beyond the Old Dualism(s)

Let me turn more towards the technological questions concerning drone warfare. Conventionally, technology is only approached via its instrumentality. The drone, according to such a view, merely exists as a non-human means to a human end. However, such a simplification masks the far more complex phenomena of intentional forces of assemblage mobilizing motivated agents (Cudworth, 2011, p. 96). Human beings as such are then to be considered the ultimate conscious and motivated agents and yet, so many structural factors that affect human behaviour such as ideology prove that at times, humans too ‘revert’ to a state of intentionality rather than motivation. The inner contradictions contained within the assumption of binary agency-less machines and agency-possessing humans starts to breakdown once we consider the modern status of sovereignty. This is so because the very notion of ‘sovereignty’ which pervades the disciplines of social sciences is fundamentally based on Western epistemic authority (White, 2019). Sovereignty thus continues to be understood in Hobbesian fashion; that which does not correspond to the Eurocentric ontological positions of sovereignty is

classed as ‘the Other’ and is appropriately dismissed as inferior in terms of normative hierarchy. As we shall see in this chapter, drones are able to ‘dronify’ the capacity of the outwardly anthropocentric state and in doing so, they either underpin or undermine the validity and indeed the legitimacy of the established concept of sovereignty.

The emerging dependence on the drone perhaps marks the end of late Anthropocene. Much like Bentham’s oft quoted Panopticon, the Drone has become a metaphor; the Drone has become an ideal proxy (Armand, 2018, p. 2). Late Anthropocene is accompanied by increasing caution for humanism, which is in its very foundation based on the distinction between science and metaphysics, technological progress and ideology (ibid.). The convergence coincides with the gradual breakdown of the constructed concept of modernity that underpins the current academic discipline of IR; the Cartesian separations of mind and body, war and peace, originating from the dualism of René Descartes and the political order of the Westphalian peace respectively (both of which are the products of the 17th century) are progressively dissolving (Davies, 2018, p. 10). Indeed, the current mainstream understanding of International Relations and by association Security Studies still relies on anthropocentric and Eurocentric modes of thought (Vasilaki, 2012). This mismatch between theory and practice, however, becomes all the clearer once we consider Bruno Latour’s argument (1993) that we have never been modern. While we will come back to Latour’s work in the later sections of this paper, for now we can address his hypothesis that the division between ‘culture’ and ‘nature’ is an artificial one. To surpass this dualistic worldview, we need to attune our study with what Latour called the ‘process of translation’ (ibid. p. 10-11), which actively creates mixtures between various ontologies regardless of whether they belong to the realm culture or nature. In contrast to the ‘process of purification’ (ibid.), which seeks the very opposite, that is the separation of beings and creation of distinct ontological zones, translation is then a process of hybridization. Latour’s argument goes that we are only truly ‘modern’ once we consider these two processes separately, which in turns enables the smooth proliferation of hybrids.

At first sight, the use of drones seems like nothing new. At its most elementary level, the drone continues in the evolution of war technologies which aim to increase the physical and in fact emotional distance between the combatants (Greenwald, 2012). This evolution of warfare dates back to the invention of bow and arrow, if not the first makeshift

weapons, which mediated physical contact between two combatants. A well-known portrayal of this development is to be seen in the first scene of Stanley Kubrick's *2001: A Space Odyssey*, where a group of apes figures out with the seeming help of an alien monolith that animal bones could be used as clubs. However, the arrival of the Drone indicates a break in the evolution of weaponry and killing. In his *Terror from the Air* (2009), Peter Sloterdijk expounded the thesis, that the 20th century well and truly began only in 1915 with the introduction of war gas by the German military, which meant a shift in warfare from targeting the body to targeting the enemy's environment (ibid. p. 14). While Sloterdijk talks specifically about the use of gas in warfare, the introduction of drones is very much similar; like war gas, drones seize the 'enemy's' environment, perhaps even more thoroughly than gas, which at the end of the day, is vulnerable to wind conditions way more than any modern model of a military drones.⁴ What is more, thanks to the proliferation of drones in warfare, war itself is no longer contained within a given territorially delineated space; war has become globalised in the strictest sense of the word. Furthermore, the War on Terror, started by the US president G. W. Bush in 2001, does not seem to have an end in sight. Drones, being increasingly essential in the conduct of the conflict, further perpetuate it, in part because of the obscuring of the ethical barrier of sacrificing lives of US soldiers. Kenneth Waltz (1979, p. 102) could still write decades ago:

“Among states, the state of nature is the state of war. This is meant not in the sense that war constantly occurs but in the sense that, with each state deciding for itself whether or not to use force, war may at any time break out.”

In the Waltzian understanding of war, there is a clear dichotomy between war and peace, with war being a clearly delineated period with given territorial space. In the era of dronified conflict, this no longer holds correct. As David Gregory argued (2014, p. 7), in drone warfare we are encountering a war that establishes a new dimension of spatiality that further combines with the perpetual temporality of the War on Terror. War waged through and by drones is no longer only a 'forever war', it is also an 'everywhere war'.

⁴ For a more in-depth study of the effects of wind conditions on drones, see Wang et. al. (2019)

Chapter two: Socio-Technological Implications of Hybrid Drone Warfare

As I indicated in the previous chapter, the conception of sovereignty as well as of the field of security broadly conceived is still held back primarily by anthropocentric prejudices. With the study of drones, however, there is little option to retreat into old paradigms. The drone's ability to project itself into established discourses, to make us rethink the very fundamentals of warfare as combat of humans versus humans, is a testament to its material agency. For now, let me consider some of the features of drone warfare.

We tend to conceive of drones only as their physical manifestations in the skies. In fact, drone warfare and drones themselves imply a vast network of infrastructure, particularly in terms of bureaucracy whose introduction arguably normalised the practice of targeted killing (Jaffer, 2010, p. 10). Such a normalization, however, is not limited only to warfare, but extends also into civilian life. This is the process of 'dronification'. It is a process that reduces human beings into data, or worse, into dehumanised objects, literal 'ants' on the monitor of the drone operator. For Shaw and Akhter (2014, p. 214), dronification signifies not only the rapid bureaucratisation of state violence, but also the evaporation of sovereign power from uniformed military to the hands of the CIA and special forces, the technopolitical transformations enabled by the Predator drone and last but not least the individualisation of targets, who could be killed without further approval.

Drones, being hybrid actors themselves, provide us with a distinct vision of the reality around them. This is the 'drone gaze', which in effect creates zones of exception where even extra-judicial killings administered by drones themselves are *de facto* permitted. The alleged precision of drones begins to fall apart once we assess the necropolitical logic of drones. The term 'necropolitics' politics that decides who gets to live and who has to die for the preservation of those deemed worthy to live. Suffice to say that necropolitics, albeit being a rather new area of study, has already shed much some light onto our understanding of drone killings. Furthering the scope of Foucauldian thought, necropolitics reverses the focus of the original concept of biopolitics; instead of life, the primary focus is now death. Drone warfare has the strange effect of alienating human beings, and especially the drone pilots themselves, from the theatres of war, thus desensitising them to the at times indiscriminate killings.

The Necropolitical Drone

The field of study examining necropolitics emerges largely from Achille Mbembe's seminal work on the topic (2011), building on the Foucauldian notion of biopower that continues to be frequently utilised in the contemporary studies of counterinsurgency. While at the moment, necropolitics as a concept is relatively unknown among the academic and lay communities, it will doubtlessly rise with prominence in the near future together with the escalating production of military drones. After all, the potential of drones for military use is a source of great inspiration for armies around the world. In the coming decade, an estimated \$98 billion is expected to be spent globally in the military drone market with the US leading the group in terms of investment (Harper, 2020). It is perhaps worth noting that the military drone market is dominated by four companies, these being General Atomics, Northrop Grumman, Textron and Boeing (Peck, 2016). Drones, as indicated above, present a brand-new way of warfare, practically outsourcing the act of killing to a machine. Herein lies the troubling reality of drone warfare; who ultimately decides who dies and who lives? The popular discourse often tends to ironically humanise drones, appealing to their lack of emotions, which therefore minimises the danger of inflicting civilian casualties and unnecessary suffering. The drone is supposed to be the ultimate rational actor, devoid of human prejudices and deficiencies.

However, as we will see, much of this depends on the way of how the drone sees reality, on the 'drone gaze,' which Wall and Monahan (2011, p. 246) called perhaps more appropriately the 'drone stare'. Somewhat tellingly, the new the drone video system used by the US Air Force is called 'Gorgon Stare' (Johnson and Wald, 2017). Human beings subjected to such a stare are immediately dehumanised, becoming nothing but targets. It would thus appear that the drone's algorithms, supposedly precise targeting technologies, continue to be dictated by very much human-made orientalist discourses. The drone's gaze in this sense becomes necropolitical, as it "renders the entire military-aged male population a threat worthy of being put to death" (Espinoza, 2018, p. 388-389). Necropolitics then defines the very logic of the drone, they form the algorithm of the drone. Being necropolitical, this algorithm is however a priori discriminatory in its agenda, which in turn makes it a suitable technology of war administration. Foucault

(2003, p. 256) himself stated: “Once the State functions in the biopower mode, racism alone can justify the murderous function of the State”.

The algorithmic culture that is found within military drones is a further element to the already hazy picture of the drone hybrid. The drone itself assumes a form of a literal actor-network, constituting an intersection of various human and non-human agencies. With the constant appeal to security, the only result that military drones achieve through their enforcement of US ethereal sovereignty is the death of more and more people every year. Even with the war on terror on mind, it would seem that instead of the bleeding edge praises drone acquire thanks to their coordinated performance (as opposed to their actual human operators) the one adjective that seems to sum up military drone is ‘inhuman’. Drones, despite being non-human actants, constantly display severe levels of what we could call by analogy “techno-misanthropy”. The drone is in constant conflict with the human, who is progressively becoming an obstacle to the increasing drone autonomy. The algorithmic logic of drones is far from objective, instead it demonstrates constant gendered and racial biases that ultimately result in the ever-increasing body counts of the collateral victims of the War on Terror. However, one cannot help but to think that instead of the War on Terror, we have entered a new phase; that of the War on the Human.

Necropolitics establishes the distinction between those who are worthy of life and those who will be subjected to death. Dronification in this sense is the crucial element of such a distinction; the drone surveys and audits not only individuals, but whole communities and populations. Dillon and Reid (2009) came to the conclusion that the War on Terror constitutes a “liberal way of war”, where war is waged on the ‘human’ in order to protect and preserve the ‘biohuman’. The War on Terror thus changes the very subject of war itself and together with it the concept of state sovereignty is inevitably amended. Although the current practice of drone war-making is heavily informed by the liberal defence of the biohuman subject, this does not validate or vindicate the realist mode of war, where war is justified waged in the name of state sovereignty. As Dillon and Reid (ibid. p. 36) stressed: “To indict the liberal way of war for its contribution to the predicament of the very subject –biohumanity – in whose name it wages war is not to overlook the horror for which states, among other actors, have regularly been responsible.” This remark just goes to say that a critique of the liberal globalization of

warfare though the use of drone technology does not necessarily mean that one is promoting the (neo-)realist standpoint.

Hence, the link between sovereignty and the use of military drones brings with it some troubling trends. Indeed, Allinson (2015, p. 9) commented that it could be possibly assumed that drones merely mark the international turn of the passage of sovereign power to disciplinary power, which marks the emergence of biopolitics. Yet, it is precisely here where we find one of the unique properties of drones. Allinson (ibid. p. 10) states that necropolitics provide us with the crucial bind between the two concepts of sovereignty and biopolitics, because the necropolitical critique identifies racism not only as an abstraction, but as a technology of power that “unites the exercise of sovereign power with technologies of the surveillance, auditing and management of populations” (ibid.). The drone’s gaze is biopolitical, but its function extends into necropolitics; the war drone does not save lives, it kills in such a way that is only possible thanks to recent technological advancements. Although the technology of the drone was available in rather experimental uses for much of the 20th century, the development of the ‘killing drone’ dates back to the 2001, which arguably marked the beginning of a paradigm shift in the conduct of warfare (Williams, 2013, p. 24). This was the year when the US military managed to fit a Hellfire missile onto the RQ-1 Predator drone, which then successfully fired the missile at a target on the ground without damaging itself in the process. The writer Brian Gysin Williams noted just what this innovation in warfare meant: “It was a revolutionary moment in the history of aerial warfare. The unmanned reconnaissance drone had become a killer.” (ibid.).

In this sense, state sovereignty assumes a particularly grim necropolitical character. The drone becomes a tool for swift and effective execution of biopower. Drone warfare brings into spotlight perhaps the greatest failure of contemporary humanism. With surprising ease, human beings may cease to be *seen* as lives that are worth respect and preservation and become threats that are disposable at will. Judith Butler stated this perhaps the best in her *Frames of War*:

“Those we kill are not quite human, and not quite alive, which means that we do not feel the same horror and outrage over the loss of their lives as we do over the loss of those lives that bear national or religious similarity to our own.” (2009, p. 42)

What is at stake here is the responsibility of state sovereignty for deliberate and at times wanton killing. Foucault (2003) noted, sovereign biopower is only legitimate as long as it preserves life and as long as it manages to present itself as being necessary to successful reproduction of life. This legitimacy is consequently derived from the orientalist-mandated racism (Espinoza, 2018, p. 383) which determines who can live and who has to die. Such a necropolitical logic follows closely the principles of the Powell Doctrine, which advocated for the nearly oxymoronic war without casualties (by this of course the doctrine meant American casualties). While the capability of conducting warfare with minimal own casualties is one of the strongest arguments of pro-drone advocates, such an innovation of remote-controlled killing also carries with it deeply disturbing ideological considerations. Žižek remarked that our era of late capitalism is still typified by the ‘passion for the Real’, an ontological legacy of the 20th century. As Žižek commented on such a condition:

„If, then, the passion for the Real ends up in the pure semblance of the spectacular effect of the Real, then, in an exact inversion, the ‘postmodern’ passion for the semblance ends up in a violent return to the passion for the Real.“ (2002, p. 23)

By the ‘return of the Real’, Žižek had in mind the 9/11 attacks, which marked a certain end of the End of History in American political and intellectual perception of itself. In regard to drone warfare, what we are ultimately faced with is precisely the sublimation of the passion for the “spectacular effect of the Real”, the product (US intervention in the Middle East) deprived of its substance (loss of the lives of American soldiers). Moreover, the lack of the risk of losing lives also removes a certain factor of deterrence, a natural human repulsion towards violence and gore, which normally poses as a considerable barrier towards starting wars (Sharkey, 2010, p. 371). If we follow the Žižekian line of thinking, which on its own is informed by Jean Baudrillard, then our understanding of the relationship between war and drones begins to resemble that of between art and kitsch. Just like kitsch aims at simulating the effect of art, just so then do drones simulate the effect of war. Indeed, the crossover with the field of aesthetics is certainly not of secondary or circumstantial importance but plays another key role in the split between the subject and object that underpins discriminatory killing of human targets by drones. Donna Haraway (1988, p. 581) described what she called the ‘god-trick’ of visual

perception, meaning the ability of “seeing everything from nowhere.” The deadly drone strikes are motivated by a visual logic that marks the terrorist object, which is defined the algorithm in place defines as any male of adult age. As Haraway (ibid. p. 586) somewhat prophetically wrote: “The Western eye has fundamentally been a wandering eye, a traveling lens.” In the following chapter, we will investigate how proliferation of non-human ‘wandering eyes’ affects the field of warfare itself.

(Non-) Humans at War

Effectively, the realist schools of thought conceived of war as an undifferentiated phenomenon, one that is self-explanatory in character. Realism focused on the reasons for war, on the explanation of the behaviour of states and their reasoning for engaging in conflicts. To give only a short account of some of the studies in this vein we can mention Waltz (1979) with his innovation in neo-realism, James (1995) who linked rational-choice theories to system structures or Mearsheimer (2001) with his oft-criticised concept of offensive realism. What these approaches have in common, however, is their reliance on the human rational actor. As I indicated in the examination of post-humanism, the discipline still takes the human to be the measure of all things. Yet, the network of agencies in drone warfare indicates a much more violent hybridity in place.

The logistical apparatus behind the drone itself allows for a potential omnipresence thanks to the dronified surveillance network. Relatively recently, we could have observed the ‘humanising sentiment’ towards military drones during the incident over the Strait of Hormuz when a US drone got shot down by Iranian forces (Berlinger, Tawfeeq, Starr et al., 2019). At least on the rhetorical level, the US threatened war with Iran due to its intervention; suddenly, it would seem that the destruction of a non-human agent has the potential to spark a major conflict. The drone serves as a tool, if not an outright agent, of the globalization of warfare. Gusterson (2016, p. 119) noted this disturbing aspect with an eerie logic:

“If the battlefield exists wherever combatants are located, even if they are remote combatants, then drone operators have not entirely removed themselves from the battlefield but instead have globalized the battlefield, bringing experiential and

organizational fragments of the battlefield inside the national boundaries of the homeland.”

To be clear, this paper is not attempting to deny agency of human actants in hybrid assemblages. After all, there is still a ‘human’ even in the most radical ‘post-humanism’ as Daniel Chernilo (2016) pointed out. As we are on the topic of the globalising hybrid proliferation, we may also consider the human aspect of drone hybridity, namely, the aspect of the work of the drone operators themselves. While currently the pilots of manned aircrafts outnumber their colleagues operating drones, the ratio might soon change. It is estimated that by the year 2022 some 85% of all US Air Force pilots will be flying drones (Bowman, 2012). The future of military aerospace then seems to be dronified, its anthropocentrism receding due to a variety of factors that affect the US military’s perception of drones as a dream come true, as we shall see further.

Let me consider some of the actual effects of drone operation upon the human subject and indeed upon the very act of killing. The use of drones results in what Sharkey called ‘moral disengagement’ (2010, p. 371). Such a disengagement is characterised by the removal (or at least minimisation) of two fundamental obstacles to killing, one being the factor of fear, which practically disappears on the drone operators’ side, and the other being the natural human resistance to killing (ibid.). Likewise, two trends can be observed here to explain such deconstruction of killing. As a result, the ‘bureaucratisation’ of warfare is rapidly accelerating. The routine of a drone operator does not differ much from that of an average white-collar worker; warfighting is reduced to office work so emblematic of late capitalism (Richardson, 2018, p. 90). It is true that soldiers in this line of duty do experience unique stressors (ibid.) that require them to administer killing, but at the same time, their day-to-day work experience does not differ much from that of any office worker.

Perhaps the most peculiar element of such ‘managerialised’ conduct of warfare is the commuting to which the drone operators are subjected to. Drone operators have to (tele)commute from their home to a warzone and then back within the same day. Such a radical switch without a transition phase eventually produces within soldiers a duality within a father ego and a war ego as a coping mechanism for the sheer absurdity of their average work day, whereby a soldier may be responsible for killing people thousands of

miles away and later attending his son's soccer practice (Chamayou, 2013, p.119-120). The other trend then defines the conduct of drone warfare is that of an increasing abstraction, not only of the experience of combat, but also of targeted human beings themselves. The act of warfare itself become analogous to the experience of playing a videogame. Singer (2009, p. 308-309) cited a drone pilot describing the experience fighting thusly: "It's like a video game. It can get a little bloodthirsty. But it's fucking cool." Williams (2013) then warned that the sheer distance between the drone operator and the target results in the risk of developing a 'Playstation mentality' to killing. Although Williams approached this problem from the point of geography, we might also note that the distance between the operator and the target exists on many more levels that just in terms of physical distance. As a result, war is reduced to a literal spectacle for one side of the conflict. There is no existential threat for the side advantaged by the use of remotely controlled drones; instead, war becomes virtual (Holmqvist, 2013, p. 541). Suffice to say, this sense of virtuality is only one sided and wholly different for the other side of the conflict as well as for the innocent victims who end up listed as collateral damage.

Ultimately, the experience of drone warfare produces a disconnect from the actual killing for the operators, which may be a result of the very setting of drone warfare on the 'home front'. Royakkers and van Est (2010) went as far as to label drone operators "cubicle warriors", stating that they are systematically conditioned to view the enemy as a subhuman or non-human in order to ease the cognitive dissonance of killing. As indicated above, drone operators are aided in this sense by the visual output on their monitors. Some compared their targets on the screen to "ants" (Pilkington, 2015). Ultimately though, drone operators are not capable of determining the identity of everyone they see from the drone's camera, which is a fact that may account for the disturbing statistic of civilian casualty rate caused by drone strikes, which was estimated to be 32% between 2004 and 2010 (Bergen and Tiedemann, 2010).

As a caveat to the discussion, it may also be noted that the medium of videogames also started to explore the phenomenon of the human proclivity to kill and the when faced with suitable abstraction and lack of information. In the videogame *Spec Ops: The Line* (2012) the player assumes control of a weapon capable of firing rockets filled with phosphorus on targets seen through camera vision similar to that of a drone. After the

killing is finished, the player walks through the carnage of burned soldiers until they arrive at a piece of scorched earth with a concentration of burned civilian bodies. The civilians on the monitor, which appear as white moving figures against grey background are virtually indistinguishable from the armed soldiers the player is conditioned by the videogame to kill. Hence, dronification of warfare is accompanied by a gamification killing.

However, it would be rather simplistic to put the experience of operating a drone on the same level as playing a commercial videogame. In reference to the uncanny similarity between drone warfare and videogames we should instead stress the ‘immersion’ that videogames are capable of, which in turn produces a similar ‘reality-effect’ as operating a UAV (Holmqvist, 2013, p. 542). Moreover, the aspect of vision is certainly not negligible; drones are instrumental in the formation of contemporary imagery of warfare (Jumbert and Sandvik, 2018, p. 29). It could also be argued that drone operators *see* more violence and killing, often in high resolution, than any soldier in the field (Shaw and Akhter, 2012, p. 1493). Being integral to the evolving securitization of everyday life, drones legitimise their extra-judicial targeted killings by the very vision they offer us, as we will discuss in more detail later. The very eye of the drone, the camera that records footage of death (much of it being readily available on the internet) dehumanises its objects of interest into mere pixels, approachable and comprehensible only by way of dismissive analogy.

Dronification of the Commons

If we are now indeed witnessing the trend of ever-increasing dependency on drones, be it in the military or in civilian life, we need to ask ourselves what is it that makes drones so special, the feature, which makes drone hybridity such a fascinating, if disturbing field of study. Drones are in many ways symptomatic of the current era of digitalisation and general mass-data dependency. It is fitting then, that drones excel in their capacity of data collection. Orend (2013, p. 135-136) cited their use of espionage data together with satellite and GPS technology as the main factors that make drones the “smartest”, most precise targeting systems yet invented.” Mark Poster (2004) argued that we are currently living in an ‘Information Empire’, which no longer takes the nation state as its point of reference but operates on the level of planetary politics. Within drone warfare, spatiality

and temporality occur in strange dimensions. The drone enables its operator to survey land that is thousands of kilometres away. Simultaneously, this information is conveyed with only a slight delay in time, which is a deficiency that is continually being improved not necessarily to remedy the malfunction of the drone, but the insufficiency of the *human* reflex. The human factor in drone hybridity is thus seen as an obstacle that needs to be at the very least minimised to improve the efficiency of drone strikes.

The ability of the military drone to survey territories at extensive distances and at the same time to be able to carry out strikes via remote command is a feature that should not be mentioned only in passing. It is this feature that allows drones to create the ideal containment in the full scale of the term. For Richardson (2018, p. 82), this containment signifies a further stage in the “enclosure of the commons”. Such an enclosure is characterised by a set of appropriations, confinements and segregations, going much farther than simply the fencing off of physical space (Shaw, 2016, p. 6). This line of reasoning thus situates the drone on the trajectory of the socio-economic encroachment on public space (and property) which Marxists interpret as a key factor in the development of feudalism, following the classic account of the enclosure of formerly common agricultural land in Great Britain. According to Andrew Murphie (2017, p. 29), what we are currently witnessing is the “third enclosure”, by which he means “everything that has not already been enclosed” (ibid.). This development follows the first enclosure of public land that Marx (1867) identified as a mark of transformation from feudalism to capitalism, and the second enclosure of intellectual property through the media revolution (Murphie, 2017, p. 29). The third enclosure is then characterised by a movement towards algorithmic cultures and increasing dependence on artificial intelligence that in turn plays its role in ever more present the surveillance and monitoring. Such a dronified third enclosure is no longer bound to land or for that matter the very ground, but is ethereal, existing more in air and cyberspace down below. Algorithm here does not connote only the mathematical process but relates to the more general definition of the term, which could be understood as “a procedure, a method, or a list of instructions for solving a problem” (Simonson, 2011, p. 93). This only goes to show, that by stating that drones operate under the guidance of their built-in algorithm, we do not mean that this classifies drones as some sort of perfectly rational agents, whose conduct is determined by some sort of ‘objective’ mathematical formulas. On the contrary, by the very definition of the algorithm, drones are discriminatory in practice, which is a reality we shall explore further in this paper.

Algorithms provide us with complex infrastructures that rely on at times vast quantities of data. As such, algorithms present us with high-tech treatment and processing of data, which in turn grants military drones the status of cutting-edge technologies, combining all the recent innovations of military research. As a result, we encounter yet another technological fetish in the conduct of drone warfare; that towards quantifiability, predictability and reliability. In short, the fetish for the number, which is inevitably linked to the fetish for the machine. Algorithms are supposed to provide us with quantitative, calculated data that, as the incredulity towards qualitative assessments would command, must be right and true. Naturally, such a state of affairs only exists because it presents the public with a convenient, albeit shallow truth. Richardson (2019) summed up the attitude of political elites towards algorithmic warfare succinctly: “[...] algorithms appeal to the state precisely because they enable the deferral of responsibility, the wiping away of risk, the occlusion that comes with computational complexity and technological fetishism.” Without any introspection into the actual practice of drone warfare and the continuing denial of human agency to decide who lives and dies, it is probable that the trend will continue into increasingly inhuman territories of decision-making.

The innovation of drones is responsible for a large set of changes that occur not only in the military sector, but essentially in the entirety of society. Of course, the phenomenon of the proliferation of formerly military technologies in civilian use is nothing new – the internet is one of the most famous examples of such an evolution, together with GPS and other technologies. Genealogically speaking, the drone was initially meant to be used solely for military purposes and it must be stated that the proliferation of military technologies into the civil sector is nothing new, especially if we consider such formerly exclusively military technologies that are nowadays used in everyday day life, such as satellite navigation or the internet.

Yet, it would seem that the changes brought on by dronification are more radical than mere fluctuation of consumerist trends. Richardson (2018, p. 83) insisted that what we are being subjected to nothing short of ‘drone capitalism’, which ensures its precisely by the erection of the third enclosure that enables further growth and infiltration. In Richardson’s own words (ibid.): “Capitalism intensifies the droneworld; the droneworld intensifies capitalism.” As such, the impact of drones corresponds with Nick Srnicek’s

assessment of 'platform capitalism', which is dependent on the information feedback that dronification is so efficient in providing. In Srnicek's view, platform capitalism always seeks its own expansion, it "demands that firms constantly seek out new avenues for profit, new markets, new commodities, and new means of exploitation" (2016, p. 3). Contrary to popular perception that only sees the physical manifestation of the drone in the form of a UAV, the drone hybrid extends into the very function of economy, not as a metaphor, but as a concrete process of data treatment, surveillance and ultimately intervention.

The drone effectively functions as a signifier. Certain scholars understood the wider importance of the abstraction of the drone as an object and commented on the associated properties that make drone what it is. Andrejevic (2016, p. 21), for example, approached the drone from the point of what he called 'drone logic', that he defined as "the deployment of ubiquitous, always on networked sensors for the purposes of automated data collection, processing, and response." Hence, the physical manifestation of the drone as a war machine is only its most apparent form. Nonetheless, it is specifically this form that raises the greatest amount of controversy in the public discourse. As Richardson (2018, p. 89-90) further stressed: "the military drone is perhaps the purest physical manifestation of enclosure to date." The military drone is recognisable not just by its appearance, but also by the distinctive 'buzzing' it produces, which led Hashim and Patte (2012, p. 8) to remark somewhat prosaically: "These days the last sound a terrorist often hears is a distinctive buzz of an armed drone above him before it fires the missile that kills him – and many unfortunate civilians."

The characteristic noise of the drone also adds a further layer to its hybrid identity; reportedly, militants colloquially refer to military drones as *machay*, or "wasps" precisely for their aggressive buzzing before or after they strike (Bergen and Tiedemann, 2011, p. 16). Ironically enough, the drone assumes an insectoid image (the very term 'drone' originates in fact from drone bees which shared similar appearance with the early drone prototypes), much like the targets it perceives through its gaze. The gaze of the drone has such a critical importance because of its capability to radically transform the landscapes it surveys. What manufacturers sell the military is, in a very real sense, the technological power to create specific spatial and temporal zones (Richardson, 2018, p. 90) of incipient violence. In drone warfare, the dynamic differentials of the techno-

affective become techniques of violence on the verge of happening: the complex system of the drone apparatus harnesses human and nonhuman processes of monitoring that are always geared towards the outbreak of violence in one form or another (ibid.). In the next chapter, we will explore the connections between human and non-human actors and their relevance to drone warfare using Actor Network Theory (ANT).

Chapter three: Decentring Human Agency

The purpose of ANT is to inquire how particular elements are brought together into stable assemblages that, in combination, produce specific actions (Bourne, 2012, p. 157). This is especially pertinent when considering the extensive infrastructure and the de-facto relocation of war into office space in the age of drone warfare. To be clear, it is quite a difficult task to exactly demarcate what ANT 'is'; rather, we may engage with the theory and its toolbox through relations the study of relations (Michael, 2016, p. 5). Nonetheless, the foundation of ANT lies in its focus on the non-human in the production of the social (ibid. p. 12) and furthermore, in the assertion that society emerges as a flat network of associations among actants, which are quantitative and not qualitative (ibid. p. 12). Agents, or actants, are the products of networks rather than essentialist givens. Despite its apparent utility in the assessment of the interconnectedness of human and non-human actors, ANT continues to be viewed with varying degrees of suspicion by the academic and scientific community, ranging from subtle jabs at the premise of the theory (Kanger, 2017) to outright dismissal of the ANT's very foundation (Collins and Yearley, 1992). Among the criticisms of ANT, the concern with amorality is persistent due to the assumption that equalising social relations among all actors risks the devaluation of humans (Winner, 1993). Winner even went as far as to claim that social constructivism on the whole is elitist in nature as it favours certain social interests over others (ibid.). On the other side of the spectrum of this 1990's debate were scholars such as Bijker (1993) who claimed that the social constructivist debate does not automatically imply an amoral stance. With the emergence of science studies, Bijker's view seems to be gaining more and more ground in the scholastic circles, as it allows for a much more encompassing view of science one would be tempted to say 'done right'. We may also take into account that the argument for strict moral separation between humans and non-humans and the labelling of any attempt to subvert this dogma as 'amoral' or 'dehumanising' returns us

back to a rather simplistic realism that refuses to engage the questions and challenges of the present day, when the division of the human and non-human is ever more porous.

However, in relation to our study of drone hybridity and its consequences for the human subject in the field of security, perhaps the most relevant contribution to this discussion is that of Susan L. Star (1990). Star explored the issues of heterogeneity and multivocality, going as far as to develop the theory of multiple membership, which stipulates that any actor can be simultaneously present in multiple networks. As a result, a 'high tension zone' emerges, which Star describes as a "zero point between dichotomies" (ibid. p. 47). Is this not the very ambiguity of drone warfare? The military drone is a high-tension zone of not only one, but multiple dichotomies, it is in a very practical sense dismantling the binary divisions of human/machine and peace/war. Star's argument follows that the end product of this multiplicity can be *monstrosity* (ibid. p. 30), due to the multiple personalities that tend to arise from the exposure to violence and torture. In this regard, Star's thesis (albeit perhaps unwittingly) lay the ground for the development of the contemporary thinking about drone warfare. After all, does not the very fact that a drone operator come back to his family after a shift of remote-controlled bombardment attest to the existence of a actor-network that is in its very essence monstrous?

The Resurgence of Dingpolitik

In this analysis of drone warfare, we can employ Latour's (2005, p. 4-7) notion of 'Dingpolitik', which attributes political agency to things (or objects) that were previously thought to be apolitical, or devoid of political agency. Dingpolitik, translatable roughly as 'thing-politics', or even 'politics of things', seeks to arrive at a greater level of understanding of political reality than realism ever could. As Bruno Latour (ibid. p. 14) eloquently put it: "In general, to invoke "realism" when talking about politics is something one should not do without trembling and shaking." Latour then seeks to transform the static matters of fact into matters of dispute and concern in order to arrive at 'object-oriented politics'.

According to Dingpolitik, objects themselves then possess the capability to affect interactions, including human interactions with them, and in doing so, become 'things'

with their own scripts and instructions. Once again, drone warfare provides us with a drastic reality check when it comes to concepts that may otherwise appear rather abstract and theoretical, thus validating Latour's asserting that Dingpolitik is concerned with reality much more than Realpolitik ever hoped to. Appropriately enough, the discussion surrounding the materiality of drones is not limited only to drones themselves, which on their own may be regarded as a rather niche area of study, but also questions our understanding of war itself. A synergy is emerging in academic literature between the insights of ANT and IR, which constitutes a development that tends to be termed the 'materialist turn' in the discipline (Schandorf and Karatzogianni, 2018). The materialist turn has also achieved considerable traction in the area of Critical Security Studies.

The drone is then to be regarded as an actant, being able to affect its interactions with humans and the results of these interactions. Drone warfare is still a relatively new phenomenon and as such, the ANT scholarship attempting to situate it within a network of relations is still forming. Yet, insights of ANT seem to be perfectly compatible with the emerging understanding of drone warfare and its ethical and political implications, especially if we accept the notion that non-human objects can indeed be actants. Of particular interest then may be the question of materiality of drones; after all, drones are not merely passive matter, but active hybrid actants in given actor networks. At the same time, however, we need to restrain from humanising or even fetishising the drone actant. Drones themselves are, after all, not composed of organic matter, but they are constituted by what Holmqvist (2013) called 'steely bodies'. Material agency then arises as an intriguing, if not disturbing, area of study, particularly when we consider the morbid actor-networks of modern military-industrial killing at large distances.

As discussed above, the more human agents depend on the use of robotic warfare, the more we stray from the conventional understanding of the supposed instrumentality of drones. Yet, the fetishism towards drone technologies persists and while this may be especially true for the US military, the trend is also observable in the civilian public too. As Rothstein (2011) articulated the drone fetish well when he stated: "You are obsessed with drones. We all are. We live in a drone culture just as we once lived in a car culture." Drone fetishisation in fact occurs on multiple levels, affecting the machine and the pilot alike, thus reinforcing the hybrid link in the assemblage. Bentley (2018) noted how fetishisation extends to the drone operator because of the discourse surrounding the 'stoic

warrior' (Sherman, 2005) that is deliberately created by the US military and politicians. The reasoning of this official discourse is built on the premise that drone warfare leaves no negative traces on US military personnel because there is no need for soldiers to be physically present on the battlefield. Naturally, the claim that drone warfare is somewhat sanitised of the 'negative' aspects of war begins to crumble once one considers the pervasive rates of PTSD among drone pilots (ibid. p. 96). Drone operators themselves are, after all, human beings, but that does not mean that their participation in the hybrid assemblage, which tends to inherently dehumanise all it see, can have detrimental effects because of the radical separation from reality it induces.

Admittedly, dingpolitik is still a rather new approach to materiality and politics, but then again, the drone is an emergent object that challenges anthropocentric bias present in older discourses.

Drone Agency

The question of drone hybridity inevitably brings to mind the question of drone agency. More specifically, the discourse accumulated around drone warfare tends to collapse into the clash of materialist and sociological perspectives. Where the materialist perspective emphasizes the role of the material object in the act of killing, the sociological view prioritizes human actors and the institutions surrounding them. A renowned account of this dialectic is that of Latour's 'gunman' (1999). Latour argued that instead of trying to shift responsibility on either extreme with arguments pointing at some sort of 'transformation' of either the non-human object, or the human actor, we should focus on the very bond between these two seemingly isolated entities. The combination of the human and non-human elements then results in the literal semiotic hybrid of the 'gunman'. The dualism of the human and non-human has of course been extensively covered in frequently heated debated – one can read the account of Collins and Yearley (1992) who labelled ANT a "post-relativist position" and dismissed its attempt at treating all actants that are "party to the scientific enterprise" in the same manner. It is not the ambition of this paper to provide a full length literature review of this admittedly still ongoing debate, rather, I would like to follow John Law's stream of thought that argues that at its core, ANT is to be understood as "semiotics of materiality" (Law, 1999, p. 4).

Yet, it would be a mistake to blunder into the same errors that traditional approaches to International Relations do when it comes down to holistic assessment of agency. Indeed, the materialist perspectives are not without flaws and at times tend to simply attribute agency to a higher-order actor, such as the system or the assemblage (Schandorf and Karatzogianni, 2018, p. 90-91). Similarly, anthropocentric and state-centric approaches rely in their assumptions on the power to act meaningfully of rational actors or on the treatment of states as actors (ibid.). Indeed, our exploration of hybrids has to explore their participation in assemblages without simplifying such complex networks into hierarchies. While post-human perspectives in IR are still only a relatively recent development, the same cannot be said of the ‘materialist turn’ - Indeed, its intellectual history can be traced to Deleuze and Guattari with their specific concept of the ‘assemblage’, in particular the notion of the “collective assemblage of enunciation” (Deleuze and Guattari, 1987, p. 80). At this most basic level, such an assemblage contains properties that only emerge from out of interactions among its constituent components, which are in turn bound to each other by desire (Schandorf and Karatzogianni, 2018, p. 92). Such a conceptualisation truly laid the groundworks for the successive developments not only in International Relations, as I have discussed in this paper, but perhaps even more importantly in social theory. Of course, Deleuze and Guattari most probably did not have military drones in mind when they were writing *A Thousand Plateaus* and their view of assemblages is rather optimistic in its outlook. The duo saw sets of social being (the human and non-human components of assemblages) as having the potential to subvert the ‘societies of control’, which continuously deform the flows of desire (Yu, 2013, p. 197). In the case of drone warfare, however, assemblages are grotesque in their constitution, being motivated by an inherent death drive more than anything else, a desire to survey and kill.

To acknowledge the material agency of drones is to acknowledge drones as actants, which subsequently leads us to a narrower discussion of technological agency. Leander (2013, p. 815) investigated such technological agency with the controversial aspect of extra-judicial drone killings in mind, stating that: “Even if a technology has an origin and was intended for a particular purpose, this does not confine it to that origin or that purpose.” In a Deleuzian fashion, technologies spread rhizomatically, they feed into assemblages and create new hybrids. Latour’s work on fetishes (2010) also shines some light on how material agency is not derived from an object’s origin, but from its implementation in social practices, which eventually results in the formation of fetish. This can be seen in

the case of drones, whose original purpose for mere surveillance and reconnaissance and whose development and funding skyrocketed only after the innovations that enabled drones to kill. Leander (2013) even went as far as to conclude that not only do drones have the agency to define who is and who is not a legal expert by defining associations with emergent fields of expertise and creating technological expert roles, but that the agency of drones is symmetrical to that of humans (ibid. p. 830).

Killing Matter

When it comes to drones then, it is important to abandon the classic way of thinking about weapons as mere instruments of human will and control. Drones deconstruct the very binary of subject and object, they defy their assigned instrumental role and in doing so, approach the ideal hybrids. As a matter of fact, while it may be radical enough to assign drones the role of actors, their true role in the assemblage of warfare is admittedly more complex than that. Indeed, the exact status of drones may ultimately be left unclear due to not only their position as ‘humachines’ but also due to the proliferation of algorithms that act as intermediaries. In fact, it is precisely these governing algorithms and not necessarily the element of human control (which is increasingly debatable anyway) that largely make the drone a drone. Valentin Rauer (2016, p. 152) aptly summarised the complicated status of drones in actor networks thusly: “Seen as actants, drones create a fuzzily defined actor network that extends from one continent to another and enables states to act micro-globally.” While the description ‘micro-globally’ might have appeared as an oxymoron before the inception of drone warfare, Rauer is very much on point in his analysis when he spots the collapsing conception of spatiality in drone warfare. Seen from the perspective of ANT, drones complicate the terms ‘Actor’ and ‘Network’ by their very definition, or rather, they radicalize the theoretical potential of ANT. The rapid development of drone technologies shrinks the globe into a single battlefield, traversed by non-human killing agents, death machines in the literal sense.

The role of the algorithm in the act of drone-administered killing is a problematic one and further adds to the perplexity that arises from our tendency to simplify the world into binary oppositions. Schandorf and Karatzogianni (2018, p. 94-95) sought to deconstruct the traditional binaries such as the division between material/immaterial by drawing a crucial distinction between motivation and intentionality. They stated that:

“Where motivation is inherently rhetorical and affective, an inevitably embodied, affective force or capacity grounded in symbolic social identifications, intentionality is a programmatic, even algorithmic, goal-oriented force or tendency characterizing any agent, human or otherwise, pursuing a set of outcomes and having an influence on other agents in its world.”

The military drone thus defies binarism and in doing so, it affirms its hybrid status. It would be a mistake then to think of drones only as conventional weapons on an imaginary empirical trajectory. Jumbert and Sandvik (2018, p. 29) rejected Leander’s simplification of actants into simply “things” with “agency” (Leander, 2013, p. 813), instead opting for the conception of drones as “technologies”, or more precisely, as “artefacts”. This enables us to better grasp the materiality of the drone, as well as its interconnectedness with human agency. Ultimately, we return to the debates surrounding drone autonomy. Yet, it would seem that the assessment of the materiality of drones requires a new approach rather than that of the inconclusive rational individualism, one that would be more informed by the apparently still too recent insights of phenomenology and ANT. Drone warfare breaks down the entrenched binary distinctions between subject and objects due to the very process of dronification. The drone’s gaze does not set it apart from its environment as some sort of robotic voyeur, no the contrary, the drone becomes part of the observed environment. Holmqvist (2013, p. 544) drew on the phenomenology of Merleau-Ponty by drawing a parallel between drone warfare and the seer/seen relationship. The two are thus not separate from each other, but bound together, or as Holmqvist (ibid.) put it, the drone presents us with the figure of the ‘seer’: “in the form of a seeing individual, a ‘seer’ who can never be distinguished from what he ‘sees’.” The drone manifests itself as this archetypal figure, no longer as a robotic piece of machinery, but as a fully-fledged assemblage.

To further continue in the line of thought indicated by ANT, we must not fall into the trap of ‘humanising’ the non-human agent. To state that drones possess some degree autonomy that they derive from their algorithmic agency does not mean that one acknowledges drones as ‘imperfect humans’, actors which share certain qualities with humans but lack others. The drone, in many ways more so than the obedient robot, presents the human actor with the ‘other’, whereby the human actor projects itself into

the non-human drone due to the drone's faculty of agency. Oddly enough, the 'otherness' of drones seems to be extremely under-reported in academic literature. Rauer (2016, p. 153) then raises a crucial point: "[algorithmic] agency should not be confused with the cultural imaginings born of human free will, intentionality, creativity, and freedom." The drone's materiality is no longer merely instrumental but calls into serious question the validity of the anthropocentrism of social sciences. If we indeed accept the notion that material non-human objects possess agency, then we reconsider the very concept of political agency. Such a political agency, however, is more and more shaped by non-humans than by humans. There is indeed something eerie about the way how military drones have come to signify incoming annihilation, when the decisions to extinguish human lives are not even fully taken and orchestrated by human agents. Killing is being outsourced to the algorithm.

Although the concept of weaponized algorithms may sound to some like science fiction, it is nonetheless a development that is well underway. Algorithms do not follow any moral imperatives, they do not have any in-built system of ethics, like the drone, the algorithm feels no empathy. For the drone as for the algorithm, there is no 'fellow neighbour', there is only observed and calculable data. By no means is this a metaphor; under the drone gaze, human lives are abstracted into quantifiable data. Pugliese (2016) perhaps phrased it better when he stated that what we are witnessing is "death by metadata." He too was not exaggerating in his statement; US drone operators routinely rely on metadata to determine what targets to eliminate on their kill-lists without using human intelligence to confirm the target's identity (ibid.). In drone warfare, there are two kinds of strikes. First, there are the so-called personality strikes, where the target's identity is known, and then there are the signature strikes, where patterns of behaviour are employed to determine the target (Keene, 2015, p. 25).

As can be intuited, the latter variety is the one more disturbing, especially once we take into account the fact that in such a case, drones follow the conclusions of the 'pattern of life' analysis. Drones acquire data through surveillance and reconnaissance in order to effectively build up the human target from scratch; the terrorist is assembled by the algorithmic sorting protocol. The data in question does not of course come only from literal stalking of individuals with the use of camera, but also from voice recordings and localizations though cell phone tracking. Without any deeper reason, an innocent

individual may be killed simply for making a call from the ‘wrong’ phone. As Pugliese (2014, p. 3) further observed the shocking reality: “a human subject becomes effectively indistinguishable from their mobile phone.” The data has no body, no face, it is ethereal, lacking context, and in its transformation into metadata, it loses content too. The human being is abstracted into a pattern of numerals that is incompatible with life; it is dronified, no longer human.

With such processes in mind, it is hard to argue that the human is still the ‘measure of all things.’ If we contend that drone-administered and drone-decided killings are indeed the results of state sovereignty, then do we not admit that such a concept is in essence wholly arbitrary, masking its wantonness under the veneer of ‘hard data’? Let us come back momentarily to the idea of the ‘pattern of life’, constructed by the dronified algorithms. The warrant to kill a target from above in practice is not determined by what the target has done (as would be the case in a ‘personality strike’), but by the target’s behaviour and identification. Chamayou (2015, p. 145) expressed the sentiment aptly: “[...] your pattern of life might suggest a 70 percent chance that you are a militant, in other words a combatant, and we accordingly have the right to kill you.” It is no wonder then, that the US representatives claim that drones display unprecedented levels of precision.

Conclusion

This diploma thesis attempted to reconcile the modern status of state sovereignty with the current practise of drone warfare. As drones are fundamentally hybrid actors, our understanding of state sovereignty can no longer rest on the old realist anthropocentric notions, which also prioritise states as the central actors in International Relations. Realism deserves critique perhaps more than its successive discursive perspectives, because its anthropocentrism and state-centrism form the foundation for much of the field of Security Studies and the wider area of International Relations.

Much like other major military inventions and innovations in history, drones mark a milestone on the imaginary timeline of warfare. What makes war drones a particularly fascinating area of study is the sheer formality of the killings they administer. Drones fall into multiple grey zones of categorization at once, which in turn makes their hybridity stand out all that much more. As a result, new approaches to security such as post-

humanism and Actor-Network Theory become absolutely necessary for a comprehensive understanding of drone warfare. At the same time, further research may vindicate some of the theoretical premises of the realist school of thought, which this paper otherwise critiques for its continuing and largely unaddressed dependence on anthropocentrism and state-centrism.

This is particularly true when it comes to one of the central interests of this paper, which is state sovereignty. The use of drone warfare distorts state sovereignty into a grotesque shape; as long as drones are used to administer killings in the remote regions of allegedly terrorist infested lands, then power can be dished out in an entirely arbitrary manner. The casual ease with which drone strikes are approved and even promoted, particularly by the US military, can be at times staggering. Drones create literal ‘enclosures’ where anything goes, where human beings are denied not only their basic human rights (which the architects of the War on Terror claim to promote), but their very humanity. This disturbing phenomenon formed my interest in the necropolitical research of drones, which in turned linked back to my post-human investigation of drone agency. Drones are situated in a tangle of agencies and that is why this paper refrained from trying to answer the recurring ethical question of who or what is exactly responsible for drone killings. Yet, what I was able to conclude through this research was the increasing marginalisation of the human element. Human fallibility is increasingly seen as a liability by the US military, a liability that can be rectified by further innovations in drone technologies. With such mindset in place, a continual increase in drone autonomy is to be expected, maybe to such a point where the human involvement will one day be of only symbolic and ceremonial value.

In many respects, specifically the hybridity of drones is still little understood and its impacts on human life extend rather into the field of ethics than political science. It is perhaps this post-human dimension of drones that so far eludes a precise classification, an overarching conceptualisation of the drone as a hybrid. All the trends indicate that the following decades will play out in the sign of the drone. As I established in the course of this paper, drones are not merely objects flying in the skies, nor are they only a mark on the empirical development of weaponry. Drones are the symptoms of a wider process of dronification, whose pervasiveness is only going to increase in the coming years. The civilian side of dronification would provide enough material for a wholly separate work

and if this paper discusses matters that diverge from the strictly military use of drones, it is only in the hope of demonstrating the constantly expanding domain and understanding of security.

I have to strongly emphasise that this paper does not seek to demonise or denigrate the operators of military drones or other technical personnel that is required for their proper functioning. Drone operators may not be involved in direct combat on the battlefield, but their high rates of PTSD and susceptibility to suicidal tendencies are an under-reported but serious issue. Instead, my goal for to comment and critique the very phenomenon of drone strikes, to which drone operators may unwittingly fall victim themselves, as well as to situate this practice within the existing discourse of Security Studies. Drones perhaps truly are the ideal hybrids, in the sense that their hybridity is convoluted to such an extent that we are no longer sure how to dissect their constituent elements into human and non-human parts.

Summary

This paper explored the link between the concept of sovereignty, as it has been presented by the realist school of thought, and the reality of modern drone warfare. Sovereignty, albeit still a relevant concept, is undergoing a transformation. It is increasingly affected by hybrid actors and networks, of which military drones are the prime example. In this turn towards hybridity, the old assumption of anthropocentrism and state-centrism, which realism takes for granted in its analysis, begin to fade away.

The first chapter thus investigated the conceptualisation of sovereignty and provided a critique of the existing realist and neo-realist discourses. Security Studies and International Relations would greatly benefit from paying greater attention to emergent schools of thought, such as post-humanism, whose insights seem to be more in line with the contemporary practise of hybridity. The second chapter then dealt with the socio-technic implications of drone warfare. Military drones can be seen as being necropolitical agents in their function. As such, military drones as hybrids contradict the the anthropocentric approaches as the human involvement in drone-administered killing is in decline. The increasing autonomy of the fetishized military drone places the hybrid in the forefront of the decision-making regarding who has to die so that others may live. As a result, dronification occurs, which is a process that simplifies complex reality into data to

be assessed by algorithms and which in turn produces interventions based on such discriminatory assessments. The third chapter dealt mostly with the potential of the Actor-Network Theory in the analysis of drone warfare. New materialist approaches such as dingpolitik were explored, further undermining the realist paradigms. The role of algorithms in drone warfare was too indicated and examined in as far as it pertains to the act of killing by a military drone.

Under the influence of drone warfare, state sovereignty is returning to a more arbitrary form, where killing is licensed by the dependence on supposedly precise targeting technologies. In reality, however, hybrid actors, such as drones, present us with worrisome effects, particularly when it comes to the degradation of the human subject.

Bibliography

Agnew, J. (2017). *Globalization and Sovereignty: Beyond the Territorial Trap*. 2nd ed. London: Rowman & Littlefield.

Allinson, J. (2015). The Necropolitics of Drones. *International Political Sociology*. 9(2), 113-127.

Amoore, L. (2009). Algorithmic War: Everyday Geographies on the War on Terror. *Antipode*. 41(1), 49-69.

Andrejevic, M. (2007). Surveillance in the Digital Enclosure. *The Communication Review*. 10(4), 295-317.

Andrejevic, M. (2016). Theorizing Drones and Droning Theory. In: A. Zavrsnik, ed. *Drones and Unmanned Aerial Systems: Legal and Social Implications for Security and Surveillance*. New York: Springer, 2016, 21-43.

Archambault, E. (2019). A good guy with a drone: On the ethics of drone warfare. *Contemporary Political Theory*.

Armand, L. (2018). The Posthuman Abstract: AI, DRONOLOGY & „BECOMING ALIEN“. *AI & Society*. 1-6.

Baloch, M.Z. (2016). *Implications of the Use of Drones on the Notion of State Sovereignty*. Islamabad: ISSI, Islamabad Papers No. 27.

Bartelson, J. (1995). *A Genealogy of Sovereignty*. Cambridge: Cambridge University Press.

Beer, D. (2019). *The Data Gaze: Capitalism, Power and Perception*. London: SAGE.

- Bentley, M. (2017). Fetishised Data: counterterrorism, drone warfare and pilot testimony. *Critical Studies on Terrorism*. 11(1), 88-110.
- Bergen, P. and Tiedemann, K. (2011). Washington's Phantom War: The Effects of of the U.S. Drone Program in Pakistan. *Council on Foreign Relations*. 90(4), 12-18.
- Bijker, W. E. (1993). Do Not Despair: There is Life after Constructivism. *Science, Technology, & Human Values*. 18(1), 113-138.
- Bowman, T. (2012). Air Force Chief Leaves Legacy In The Sky: Drones. *NPR*. [Online]. Available from: <https://www.npr.org/2012/08/10/158521495/air-force-chief-leaves-legacy-in-the-sky-drones?t=1584403265842&t=1595765072389> [Accessed 25 May 2020].
- Boucher, D. (1998). *Political Theories of International Relations*. Oxford: Oxford University Press.
- Bourne, M. (2012). Guns Don't Kill People, Cyborgs Do: A Latourian Provocation for Transformatory Arms Control and Disarmament. *Global Change, Peace, and Security*. 24. 141-163.
- Brooks, L. and Atkinson, C. (2004). Structuration in Research and Practice: Representing Actor Networks Their Structured Orders and Translations. In: Kaplan, B., Truex, D.P., Wastell, D., Wood-Harper, A.T. and DeGross, J.I., eds. *Information Systems Research: Relevant Theory and Informed Practice*. Boston: Kluwer Academic Publishers, 2004, 389-409.
- Calhoun, L. (2018). Totalitarian Tendencies in drone strikes by states. *Critical Studies on Terrorism*. 11(2), 357-375.
- Collins, H. M. and Yearley, S. (1992). Epistemological chicken. In: Pickering, A., ed. *Science as Practice and Culture*. Chicago: University of Chicago Press, 301-326.
- Cudworth, E. and Hobden, S. (2011). *Posthuman International Relations: Complexity Ecologism and Global Politics*. London: Zed Books.
- Cudworth, E. and Hobden, S. (2013). Of Parts and Wholes: International Relations beyond the Human. *Millenium: Journal of International Studies*. 41(3), 430-450.
- Cudworth, E. and Hobden, S. (2013). Complexity, Ecologism, and Posthuman Politics. *Review of International Studies*. 39(3), 643-664.
- Cudworth, E. and Hobden, S. (2018). The Posthuman Way of War. In: E. Cudworth, S. Hobden and E. Kavalski, eds. *Posthuman Dialogues in International Relations*. Oxon: Routledge, 2018, 159-180.
- Davies, W. (2019). *Nervous States: Democracy and the Decline of Reason*. New York: W. W. Norton & Company.

- Deleuze, G. And Guattari, F. (1987). *A Thousand Plateaus: Capitalism and Schizophrenia*. Minneapolis: University of Minnesota Press
- Dillon, M. and Reid, J. (2009). *The Liberal Way of War: Killing to Make Life Live*. Oxon: Routledge.
- Douglass, R. (2016). Hobbes and Political Realism. *European Journal of Political Theory*. 19(2), 250-269.
- Dyndal, G.L., Berntsen, T.A. and Redse-Johansen, S. (2017). Autonomous Military Drones: No Longer Science Fiction. *NATO Review*. [Online]. Available from: <https://www.nato.int/docu/review/articles/2017/07/28/autonomous-military-drones-no-longer-science-fiction/index.html> [Accessed 22 June 2020].
- Fatic, A. (2017). The ethics of drone warfare. *Filozofija i druzstvo*. 28(2), 349-364.
- Espinoza, M. (2018). State Terrorism: Orientalism and the Drone Programme. *Critical Studies on Terrorism*. 11(2), 376-393.
- Fleming, C. (2019). Remote Drone Dispatch: Law Enforcement's Future? *IACP Police Chief*. [Online]. Available from: <https://www.policechiefmagazine.org/remote-drone-dispatch/> [Accessed 5 June 2020].
- Franke, U.E. (2018). *The Unmanned Revolution: How Drones are Revolutionising Warfare*. Thesis (PhD). University of Oxford.
- Gellman, P. (1988). Hans J. Morgenthau and the legacy of political realism. *Review of International Studie*. 14(4). 247-266.
- GlobalData. (2019). The Global Military UAV Market 2019-2029. *ReportLinker*. [Online]. Available from: <https://www.reportlinker.com/p04647023/The-Global-Military-UAV-Market.html> [Accessed 15 June 2020].
- Greenwald, G. (2012). Bravery and Drone Pilots. *Salon*. [Online]. Available from: https://www.salon.com/2012/07/10/bravery_and_drone_pilots/ [Accessed 8 June 2020].
- Gueldry, M. (2013). Posthuman International Relations. Complexity, Ecologism and Global Politics. *Environmental Politics*. 22(2), 347-348.
- Gusterson, H. (2016). *Drone: Remote Control Warfare*. Cambridge, Massachusetts: MIT Press
- Haraway, D. (1988). Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective. *Feminist Studies*. 14(3), 575-599.
- Harper, J. (2020). \$98 Billion Expected for Military Drone Market. *National Defense*. [Online]. Available from: <https://www.nationaldefensemagazine.org/articles/2020/1/6/98-billion-expected-for-military-drone-market> [Accessed 10 June 2020].

- Hashim, A. S. and Patte, G. (2012). "What is that Buzz?" The rise of drone warfare. *Counter Terrorism Trends and Analyses*. 4(9), 8-13.
- Havercroft, J. (2012). Was Westphalia 'All that'? Hobbes, Bellarmine, and the Norm of Non-Intervention. *Global Constitutionalism*. 1(01), 120-140.
- Hennigan, W. J. (2015). Air Force hires civilian drone pilots for combat patrols; critics question legality. *Los Angeles Times*. 27 November [Online]. Available from: <https://www.latimes.com/nation/la-fg-drone-contractor-20151127-story.html> [Accessed 20 June 2020].
- Hobbes, T. (1651). *Leviathan*. Reprint. London: Penguin Books, 2017
- Holmqvist, C. (2013). Undoing War: War Ontologies and the Materiality of Drone Warfare. *Millenium: Journal of International Studies*. 41(3), 535-552.
- Chamayou, G. (2015). *Drone Theory*. London: The New Press.
- Chernilo, D. (2017). *Debating Humanity: Towards a Philosophical Sociology*. Cambridge: Cambridge University Press.
- Chesney, R. (2012). Text of John Brennan's Speech on Drone Strikes Today at the Wilson Center. *Lawfareblog*. 30 April. [Online]. Available from: <https://www.lawfareblog.com/text-john-brennans-speech-drone-strikes-today-wilson-center> [Accessed 20 June 2020].
- James, P. (1995). Structural Realism and the Causes of War. *Mershon International Studies Review*. 39(2), 181-208.
- Jumbert, M.G. and Sandvik, K.B. (2016). Introduction: What Does It Take To Be Good? In: K.B. Sandvik and M.G. Jumbert, eds. *The Good Drone*. Oxon: Routledge, 2016, 1-25.
- Kanger, L. (2017). Mapping 'the ANT Multiple': A comparative, critical and reflexive analysis. *Journal for The Theory of Social Behaviour*. 47(4), 435-462.
- Kello, L. (2017). *The Virtual Weapon and International Order*. New Haven: Yale University Press.
- Keene, S.D. (2015). *Lethal and Legal? The Ethics of Drone Strikes*. Pennsylvania: United States Army War College Press.
- Kindervater, K.H. (2017). Drone strikes, Ephemeral Sovereignty, and Changing Conceptions of Territory. *Territory, Politics, Governance*. 5(2), 207-221.
- Lancaster, S. (2018). *You Are Not Human: How Words Kill*. London: Biteback Publishing.
- Latour, B. (1996). On Actor-Network Theory: A few Clarifications. *Soziale Welt*. 47(4), 369-381.

- Latour, B. (2005). *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford: Oxford University Press.
- Law, J. (1999). After ANT: complexity, naming and topology. *The Sociological Review*. 47(S1), 1-14.
- Leander, A. (2013). Technological Agency in the Co-Constitution of Legal Expertise and the US Drone Program. *Leiden Journal of International Law*. 26(4), 811-831.
- Love, M.C. (2019). *Global Issues beyond Sovereignty*. 5th ed. Maryland: Rowman & Littlefield.
- Luke, T.W. (1997). At the End of Nature: Cyborgs, 'Humachines', and Environments in Postmodernity. *Environment and Planning A: Economy and Space*. 29(8), 1367-1380.
- Lundborg, T. and Vaughan-Williams, N. (2015). New Materialisms, Discourse Analysis, and International Relations: A Radical Intertextual Approach. *Review of International Studies*. 41(1), 3-25.
- Lundborg, T. (2019). The Ethics of Neorealism: Waltz and The Time of International Life. *European Journal of International Relations*. 25(1), 229-249.
- MacKenzie, D. (2014). *A Sociology of Algorithms: High-Frequency Trading and the Shaping of Markets*. Working paper. University of Edinburgh.
- Malafouris, L. (2008). At the Potter's Wheel: An Argument for Material Agency. In: C. Knappett and L. Malafouris, eds. *Material Agency: Towards a Non-Anthropocentric Approach*. New York: Springer, 2008, 19-36.
- Malette, S. and Stoett, P. (2018). Posthumanist international relations and ecopolitics. In: E. Cudworth, S. Hobden and E. Kavalski, eds. *Posthuman Dialogues in International Relations*. Oxon: Routledge, 2018, 109-127.
- Marx, K. (1867). *Capital: Volume One: A Critique of Political Economy*. Reprint. London: Penguin Books, 1992
- Mbebe, A. (2011). *Necropolitics*. Durham: Durham University Press
- Michael, M. (2016). *Actor-Network Theory: Trials, Trails and Translations*. London: Sage
- Morgenthau, H. (1948). *Politics Among Nations: The Struggle for Power and Peace*. Reprint. Boston: McGraw-Hill, 1992.
- Murphie, A. (2017). On Being Affected: Feeling in the Folding of Multiple Catastrophes. *Cultural Studies*. 32(1), 18-42.
- Oren, I. (2009). The Unrealism of Contemporary Realism: The Tension Between Realist Theory and Realist Practice. *Perspectives on Politics*. 7(2), 283-301.

Orend, B. (2013). *The Morality of War*. 2nd ed. Peterborough, Ontario: Broadview Press.

Osiander, A. (2001). Sovereignty, International Relations, and the Westphalian Myth. *International Organization*. 55(2), 251-287.

Packer, J. and Reeves, J. (2013). Romancing the Drone: Military Desire and Anthropophobia from SAGE to Swarm. *Canadian Journal of Communication*. 38(3), 309-331.

Paust, J. (2013). Drone Attacks Can Be Justified Under International Law. *JURIST*. [Online]. Available from: <https://www.jurist.org/commentary/2013/10/jordan-paust-drones-justification/> [Accessed 20 June 2020].

Peck, M. (2016). Four Companies Dominate the Military Drone Market. *C4ISRNET*. [Online]. Available from: <https://www.c4isrnet.com/unmanned/uas/2016/04/06/four-companies-dominate-the-military-drone-market/> [Accessed 15 June 2020].

Pilkington, E. (2015). Life as a Drone Operator: ‘Ever step on ants and never give it another thought?’ *The Guardian*. 19 November. [Online]. Available from: <https://www.theguardian.com/world/2015/nov/18/life-as-a-drone-pilot-creech-air-force-base-nevada> [Accessed 28 May 2020].

Poster, M. (2004). The Information Empire. *Comparative Literature Studies*. 41(3), 317-334.

Pugliese, J. (2016). Death by metadata: the bioinformationalisation of life and the transliteration of algorithms to flesh. In: H. Randell-Moon and R. Tippet, eds. *Security, race, biopower: essays on technology and corporeality*. London: Palgrave Macmillan, 2016, 3-20.

Rauer, V. (2016). Drones: The Mobilization of Algorithms. In: R. Seyfert and J. Roberge, eds. *Algorithmic Cultures: Essays on Meaning, Performance and New Technologies*. Oxon: Routledge, 2016, 140-157.

Roberge, J. and Seyfert, R. (2016). What Are Algorithmic Cultures? In: R. Seyfert and J. Roberge, eds. *Algorithmic Cultures: Essays on Meaning, Performance and New Technologies*. Oxon: Routledge, 2016, 1-25.

Rothstein, A. (2011). Drone Ethnography. *Rhizome*. [Online]. Available from: <https://rhizome.org/editorial/2011/jul/20/drone-ethnography/> [Accessed 28 May 2020].

Royakkers, L. And van Est, R. (2010). The Cubicle Warrior: the Marionette of Digitalized Warfare. *Ethics and Information Technology*. 12, 289-296.

Sanders, N.R. and Wood, J.D. (2020). *The Humachine: Humankind, Machines, and the Future of Enterprise*. Oxon: Routledge.

Sherman, N. (2005). *Stoic Warriors: The Ancient Philosophy behind the Military Mind*. Oxford: Oxford University Press.

Sayankina, S. (2017). Drone Strikes in Violation of Territoriality: How Are They Justified? *Journal of Territorial and Maritime Studies*. [Online]. Available from: <https://www.journalofterritorialandmaritimestudies.net/single-post/2017/05/19/Drone-Strikes-in-Violation-of-Territoriality-How-Are-They-Justified> [Accessed 1 July 2020].

Serle, J. (2016). Obama Drone Casualty Numbers A Fraction of Those Recorded Recorded by the Bureau. *The Bureau Investigates*. 1 July. [Online]. Available from: <https://www.thebureauinvestigates.com/stories/2016-07-01/obama-drone-casualty-numbers-a-fraction-of-those-recorded-by-the-bureau> [Accessed 8 June 2020].

Shane, S. (2011). C.I.A. Is Disputed on Civilian Toll in Drone Strikes. *The New York Times*. 11 August. [Online]. Available from: <https://www.nytimes.com/2011/08/12/world/asia/12drones.html> [Accessed 8 June 2020].

Sharkey, N. (2010). Saying 'No!' to Lethal Autonomous Targeting. *Journal of Military Ethics*. 9(4), 369-383.

Shaw, I.G.R. and Akhter, M. (2011). The Unbearable Humanness of Drone Warfare in FATA, Pakistan. *Antipode*. 44(4), 1490-1509.

Schandorf, M. and Karatzogianni, A. (2018). Agency in posthuman IR: Solving the problem of technosocially mediated agency. In: E. Cudworth, S. Hobden and E. Kavalski, eds. *Posthuman Dialogues in International Relations*. Oxon: Routledge, 2018, 159-180.

Schell, J. (2011). Attacking Libya – and the Dictionary. *Le Monde Diplomatique*. [Online]. Available from: <https://mondediplo.com/openpage/attacking-libya-and-the-dictionary> [Accessed 20 May 2020].

Schmidt, B.C. (1998). *The Political Discourse of Anarchy: A Disciplinary History of International Relations*. Albany: State University of New York Press.

Schwarz, E. (2015). Hybridity and Humility: What of the Human in Posthuman Security?. *E-International Relations*. [Online]. Available from: <https://www.e-ir.info/2015/12/20/hybridity-and-humility-what-of-the-human-in-posthuman-security/> [Accessed 21 May 2020].

Singer, P. W. (2009). *Wired for War*. London: Penguin Books

Singer, P.W. (2013). War of the Machines. In: the Editors of Scientific American, eds. *The Changing Face of War*. New York: Scientific American, 2013, no pagination.

Richardson, M. (2018). Drone Capitalism. *Transformations*. 31, 79-98. <https://www.nytimes.com/2011/08/12/world/asia/12drones.html>

Sloterdijk, P. (2009). *Terror from the Air*. Los Angeles: Semiotext(e).

Star, S. L. (1990). Power, technology and the phenomenology of conventions: on being allergic to onions. *The Sociological Review*. 38(S1), 26-56.

- Srnicek, N. (2017). *Platform Capitalism*. Cambridge: Polity Press.
- Tucker, P. (2016). Report: Weapons AI Increasingly Replacing, Not Augmenting, Human Decision Making. *Defense One*. [Online]. Available from: <https://www.defenseone.com/technology/2016/09/report-weapons-ai-increasingly-replacing-not-augmenting-human-decision-making/131826/> [Accessed 10 June 2020].
- Vasilaki, R. (2012). Provincialising IR? Deadlocks and Prospects in Post-Western IR Theory. *Millenium: Journal of International Studies*. 41(3), 3-22.
- Timmers, P. (2019). Ethics of AI and Cybersecurity When Sovereignty is at Stake. *Minds and Machines*. 29, 635-645.
- Trevithick, J. (2018). US Navy Wants to Hire Contractors to Fly Their Own MQ-9 Reaper Drones in Afghanistan. *The Drive*. 10 Jan. [Online]. Available from: <https://www.thedrive.com/the-war-zone/17571/us-navy-wants-to-hire-contractors-to-fly-their-own-mq-9-reaper-drones-in-afghanistan> [Accessed 8 June 2020].
- Walters, W. (2014). Drone Strikes, *Dingpolitik* and Beyond: Furthering the Debate On Materiality and Security. *Security Dialogue*. 45(2), 101-118.
- Waltz, K.N. (1979). *Theory of International Politics*. Boston: Addison-Wesley.
- Wamberg, J. and Thomsen, M.R. (2017). The Posthuman in the Anthropocene: A Look through the Aesthetic Field. *European Review*. 25(1), 150-165.
- Wang, B.H., Wang, D.B., Ali, Z.A., Ting, B.T. and Wang, H. (2019). An Overview of Various Kinds of Wind Effects on Unmanned Aerial Vehicle. *Measurement and Control*. 52(7-8), 731-739.
- White, J.I. (2019). A Critical Reflection on Sovereignty in International Relations Today. *E-International Relations*. [Online]. Available from: <https://www.e-ir.info/2019/02/09/a-critical-reflection-on-sovereignty-in-international-relations-today/> [Accessed 20 June 2020].
- Williams, B.G. (2013). *Predators: The CIA's Drone War on al Qaeda*. Washington, D.C.: Potomac Books.
- Wilson Center. (2012). The Efficacy and Ethics of U.S. Counterterrorism Strategy. *Wilson Center*. [Online]. Available from: <https://www.wilsoncenter.org/event/the-efficacy-and-ethics-us-counterterrorism-strategy> [Accessed 14 June 2020].
- Yousaf, F and Rahmanullah. (2014). Drone Strikes in FATA: A Violation of Pakistan's Sovereignty. *Tigah: A Journal of Peace and Development*. 5, 117-132.
- Yu, J. E. (2013). The Use of Deleuze's Theory of Assemblage for Process-Oriented Methodology. *Historical Social Research*. 38(2), 197-217.
- Žižek, S. (2002). *Welcome to the Desert of the Real*. London: Verso Books