THE 'KILLER ROBOT' DEBATE AND HUMAN EMANCIPATION: HOW FEMINISM CAN HELP CRITICAL SECURITY STUDIES TO REMAIN CRITICAL?

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Abstract

One of the main features of undergoing revolution of military affairs (RMA) is the development of autonomous military technology or so-called "killer robots". The increasing need for speed and precision in military operations has made human activities significantly dependent on technology. This leads to the gradual decline of human-decision making and their disappearance from the battlefield. Likewise, as drone warfare indicates, it has profoundly changed the nature of violence. Violence is no longer limited to the clear political and territorial boundaries of interstate conflict, but happens everywhere. However, these developments challenge the CSS' emancipatory human security agenda. This thesis, therefore, asks how CSS can re-engage with emancipatory human security practices at the advent of robotic warfare and post-human subjectivities. Building on Booth's 'security as emancipation" approach, Wyn Jones conceptualizes critical approach of technology that helps to reveal the ambivalent nature of technologies and identify the emancipatory possibilities within the existing world order. However, the existing CSS approach to technology and emancipation does not fully capture the ways how the changing modes of contemporary warfare affects human individuals and emancipatory security politics. This thesis argues that in order to escape this *cul-de-sac*, CSS should re-engage with feminist approaches that comprehensively engage with the relationship between contemporary military technology and human individuals.

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Introduction

In 2015, a group of robotic and artificial intelligence (AI) researchers signed an open letter to express their support for a ban of autonomous military weapons without meaningful human control. [1] The increasing reliance on technology and fast development of AI to eliminate human-errors and fatalities from the battlefields are the main driving factors for the development of fully autonomous military robotics colloquially known as "killer robots". As it was outlined in the letter, one of the biggest concerns is that autonomous weapons will become "the Kalashnikovs of tomorrow".[2] Unlike nuclear weapons, that are costly and require specific facilities, they will become omnipresent and easy to get, from states to non-state actors such as terrorists and local warlords. Autonomous weapon systems are commonly identified as the third wave of revolution in military affairs (RMA), that is used to describe structural and operational transformations in the military.[3] Once tasked robotic weapons have a power to select and engage with targets without any human intervention. At present, there are no fully autonomous military systems. However, the widespread use of semi-autonomous weapon systems has already changed the ways wars are fought. Targeted killings through drones are one of the most evident examples of this swiftly emerging robotic warfare.

What is fundamental here is that the rapid development of autonomous weapon systems in the military sphere has profoundly affected the relationship between humans and technology. This has raised a dynamic debate among roboticist, military experts or human right activists. The proponents assert that autonomous technology can yield more ethical

[1] "Open Letter on Autonomous Weapons," *Future of Life Institute*, https://futureoflife.org/open-letter-autonomous-weapons/, accessed May 29, 2017.
[2] Ibid.
[3] Andrew Latham, "Warfare Transformed: A Braudelian Perspective on the Revolution in Military Affairs'," *European Journal of International Relations* 8 (2002): 231–232.

conflicts and protect soldiers' lives.[4] Opponents, on the other hand, draw attention to the concerns that with autonomous weapons conflicts will become more violent.[5] Evident is the fact that the increasing need for speed and precision in military operations has made human activities significantly dependent on technology. The capability to implement effectively military operations from a distance coupled with the moral imperative to minimize military fatalities have facilitated a gradual removal of the human-soldiers from the battlefields. Here, the most debated issue is the fear of declining human control of technology that consequently raises questions about the ethics of contemporary war.[6] Hence, soldiers fight not on the battlefields, where they face other human individuals, but in front of computer screens and military global positioning systems. James Der Derian famously describes these new wars as "virtuous", where violence is actualized from a distance.[7] Such digitalization and robotization of wars has created not only a physical, but also psychological distance from the human targets and suffering human bodies. Paradoxically, autonomous military technologies distance the experience of war from the soldier, but at the same time it brings war closer to societies and human individuals. Robotic technologies have enabled to fight wars with surgical precision. Likewise, as drone warfare indicates, it has profoundly changed the nature of violence. As targeted killings through drones shows, violence is no longer limited to the clear political and territorial boundaries of interstate conflict, but happens everywhere. As a result, not state territories, but human bodies became the main target of military campaigns. Drone warfare has challenged the classical understanding of sovereignty and geography and,

[4] Ronald Arkin, "The Case for Ethical Autonomy in Unmanned Systems," *Journal of Military Ethics* 9 (2010): 332–341; Bradley Strawser, "Moral Predators: The Duty to Employ Uninhabited Aerial Vehicles," *Journal of Military Ethics* 9 (2010): 342–368.

[5] Ryan Tonkens, "The Case Against Robotic Warfare: A Response to Arkin," *Journal of Military Ethics* 11 (2012): 149–168; Jai Galliott, "Uninhabited Aerial Vehicles and The Asymmetry Objection: A Response To Strawser," *Journal of Military Ethics* 11 (2012): 58–66.

[6] Thomas Adams, "Future Warfare and the Decline of Human Decision-making," *Parameters* 31 (2001): 1-15.

[7] James Der Derian, *Virtuous War: Mapping the Military-Industrial-Media-Entertainment Network* (Boulder, Colorado: Westview Press, 2001).

likewise, introduced new modes violence. These issues became a matter of analysis within the field of security studies.[8] Undoubtedly, new military technologies pose a security challenge to human individuals in unexperienced and complex ways.

A human-oriented approach to security has been promoted by Critical Security Studies (CSS). The underlying argument is that some states are not always able to ensure the security of individuals living inside their territories, sometimes states become a source of insecurity themselves. This approach introduces the concept of 'emancipation' as a fundamental goal of the security research agenda that informs emancipatory security practices.[9] Hence, the main goal of CSS is to reveal and contest structures and mechanisms that create human insecurity. The very aim of emancipatory security practices is to liberate people from structural or incidental constrains or 'life-determining conditions of insecurity'.[10] Such security as the emancipation approach has a direct commitment to transformative practices and political change. In CSS agenda, the relationship between technology and emancipatory security practices have been conceptualized by Richard Wyn Jones, who together with Ken Booth laid the foundations for CSS approach.[11] Wyn Jones rejects the sharp distinction between the instrumental and substantive approaches that interpret technology either as a neutral instrument or as an autonomous societal force. Drawing extensively on Andrew Feenberg's critical theory of technology, he asserts that technology and society should be analysed as dialectically interconnected. Such approach helps to reveal the ambivalent nature of technologies and identify the emancipatory possibilities within the existing world order. As Feenberg points out, critical theory opens

[8] David Grondin, "The Other Spaces of War: War beyond the Battlefield in the War on Terror," *Geopolitics* 16 (2011): 253–279; Derek Gregory, "From a View to a Kill: Drones and Late Modern War," *Theory, Culture & Society* 28 (2011): 188–215.

[9] C.A.S.E. Collective, "Critical Approaches to Security in Europe: A Networked Manifesto," *Security Dialogue* 37 (2006): 448.

[10] Ken Booth, *Theory of World Security*, (Cambridge, New York: Cambridge University Press, 2007), 115.

[11] Richard Wyn Jones, *Security, Strategy, and Critical Theory*, (Boulder, Colorado: Lynne Rienner, 1999).

up technology to contestation "by recovering the forgotten contexts and developing a historically concrete understanding of technology".[12]

However, with the rapid development of military technologies poses a challenge to CSS as a human-oriented security agenda. In Wyn Jones approach, even though dialectically intertwined, technology and society are treated as two separate realities – material and political. However, with a rapid development of robotic technologies and increased human reliance on them, the distinction between human and non-human, between subject and object becomes problematic. Due to their physical limitations, human-soldiers are vitally dependent on advanced technology in military operations or, even more, they are superseded by autonomous machines altogether. As a consequence, advanced technologies are seen as superior to human individuals and, likewise, the ontological primacy of human beings becomes questionable. In a political discourse, this results in a post-human subjectivity and the constitution of a cyborg soldier that is neither entirely human, nor machine. Such an argument seems susceptible to the criticism of being too futuristic and destroying the essential political dialectics between subjects and objects. However, current developments in the military sphere and increased application of robotic technologies calls for a deeper engagement with the question regarding the political agency of technology and its impact on social relations. Even though technologies are still dependent on human decision-making, the increasing reliance on the autonomous technology in the military sphere is seen as an inescapable future. This calls for the reconsideration of CSS approach to the relationship between technology and emancipation at the advent of robotic warfare.

This thesis, therefore, asks how CSS can re-engage with emancipatory human security practices at the advent of robotic warfare and post-human subjectivities. It is argued that the existing CSS approach to technology and emancipation does not fully capture the ways how

[12] Andrew Feenberg, *Transforming Technology: A Critical Theory Revisited* (New York: Oxford University Press, 2010), 82.

the changing modes of contemporary warfare affects human individuals and emancipatory security politics. Hence, in order to escape this *cul-de-sac*, CSS should re-engage with feminist approaches that comprehensively engage with the relationship between contemporary military technology and human individuals. Here, Cristina Masters' analysis of the constitution of the cyborg soldier in American military discourse and Lauren Wilcox's conceptualizations of embodiment and precision warfare as a form of contemporary political violence provide a theoretical basis for the critical engagement with the autonomous military technology and emancipation. Masters demonstrates how increased human reliance on military technology re-writes and re-orients gender representations and produce new techno-masculinized discourse with the cyborg soldier at the centre of it. As a result, male human associated reasoning and rationality shifts from human to machine and, simultaneously, leads to the emergence of post-human subjectivity.[13] In the case of advanced military technology, her insights help to problematize the emancipatory potential of technology. Lauren Wilcox's conceptualizations, on the other hand, helps to problematize the relationship between bodies and practices of international security and violence. In relation to advanced military machines and emancipation, her critical theorizations provide a basis for critical engagement with how bodies the bomber and bombed are asymmetrically co-produced in prevision warfare.[14]

The driving concern of the thesis is that international relations in general and CSS in particular suffers from unproblematized and static rendering of human subjectivity and agency. This precludes CSS from the deeper engagement with autonomous military technology and its impact on emancipatory political practices. Moreover, the changing nature of international political violence reveals CSS' largely unreflective understanding of bodies as simply biological, ahistorical entities. In contemporary precision strike warfare, however,

[13] Cristina Masters, "Bodies of Technology: Cyborg Soldiers and Militarized Masculinities," *International Feminist Journal of Politics* 7 (2005): 112–132.

[14] Lauren Wilcox, *Bodies of Violence: Theorizing Embodied Subjects in International Relations* (Oxford University Press, 2015), 14, 192.

not the territories of the state, but humans and their bodies became the primary targets. The changing modes of warfighting calls for a deeper engagement with bodily politics and practices of violence. Regarding the concepts of subjectivity and political agency, as well as embodiment, and violence, more critical understanding can be found in feminist approaches. The purpose here, nevertheless, is not to create a new theory of emancipation, but rather to demonstrate how the feminist approaches can enhance CSS emancipatory security agenda and to fend off criticism that what is left of CSS is its 'pale afterlife', as theory has exhausted its emancipatory impetus to engage with security practices.[15]

In order to answer the question and advance the argument, the thesis progresses in three parts. The first chapter provides an extensive overview of the phenomena of robotic warfare and the current debates about its implications to international military and security practices. It demonstrates the nature of the autonomous military technologies and why it is a growing topic of interest for security studies, and specifically for the emancipatory human security agenda. The second chapter provides an examination of the CSS human-oriented approach to security. Particular attention is given to the analysis of the relationship between technology and emancipation that has been introduced by Wyn Jones. This helps to demonstrate how CSS approach to emancipation is challenged by the emerging robotic warfare. Lastly, the third chapter demonstrates how the feminist approaches analyze the relationship between autonomous military technologies and human emancipation, and how they can benefit the CSS human-oriented approach to security and revitalize its emancipatory security agenda in confrontation with autonomous military technologies.

[15] Nik Hynek and David Chandler, "No Emancipatory Alternative, No Critical Security Studies," *Critical Studies on Security* 1 (2013): 46, 48.

CHAPTER 1. Autonomous military systems and emancipatory human security agenda

In this chapter I provide an overview of the debate about the development of "Lethal Autonomous Weapons Systems" (LAWS), colloquially referred to as 'killer robots' and their impact on the changing nature of contemporary warfare. Due to the fast development and impact on international security, autonomous military systems became one of the most debated issues in international armament, defence and security politics. Secondly, in order to establish a basis for the critique of the second chapter, it also analyse how the challenges of autonomous military technologies is addressed in the literature of critical security studies that are primarily concerned with human emancipation and ethical security politics.

1.1. The contemporary warfare debate

Due to the effectiveness and advantages of human-machine pairing, contemporary military and warfare experience increasing automatization and robotization. The historical trend of increased human reliance on machines is staggering. If in World War II, with a fleet consisting of 1000 bombers and 10, 000 men, US was able to destroy one Axis ground target, in a Vietnam War 30 bombers controlled by 30 men were able to attack and destroy one target. In Iraq and Afghanistan wars, one pilot was able to destroy six targets with one remotely controlled plane.16 The introduction of new military technology and its application in military campaigns has affected military capabilities, strategies and doctrines. The new models of fighting and implementing strategies is known as the revolution in military affairs

[16] Shane Harris, "Out of the Loop: The Human-free Future of Unmanned Aerial Vehicles", *An Emerging Threats Essays*, Hoover Institution and Stanford University, 2012, 1-2.

(RMA). Drawing on Braudelian conceptualization of history, Andrew Lathan provides a convincing analysis of RMA from three different historical time perspectives. The move from manoeuvre warfare to the precision weapon warfare represents a short historical event of a time that should be interpreted within the wider episode of military and social history. From here, RMA is a consequence of the decline of a huge scale wars and mass industry.17 Finally, RMA can be interpreted form the longue durée perspective that divides the history of war in three epochs or phases –feudal, modern and postmodern.18 Hence, RMA should be seen not only as a technical revolution, but as a manifestation of conceptual and institutional evolution. Such approach helps to avoid narrow, ahistorical treatment of RMA and place it within the context of wider historical developments.

Today, according to roboticist professor Ronald Arkin, the revolution in military affairs is represented by the fast development of unmanned aircraft vehicles (UAV's) or drones.19 The reliance on autonomous weapons such as drones, from surveillance to 'targeted killings' has become a defining feature of US military operations and an important component of the terrorism-fighting arsenal. For instance, after the 9/11 events, a number of drones in the US army increased dramatically – from 54 operating drones in 2001, to more than 4000 drones in 2010.20 To date, there are no fully autonomous weapons, and human operators are needed for mission implementation. However, the incorporation of various autonomous technology into the future weapon systems is seen as inevitable and a desirable direction in military circles.21 This tendency can be illustrated by the active research that is

17 Latham, "Warfare Transformed," 240-241.

18 Ibid., 247.

19 Ronald Arkin, "Lethal Autonomous Systems and the Plight of the Non-Combatant," *AISB Quarterly* 137 (2013), 1.

20 U.S. Department of Defence (DoD), "Eyes of the Army: U.S. Army Unmanned Aircraft Systems Roadmap 2010-2035", 2010, i.

21 Peter Singer, *Wired for War: The Robotics Revolution and Conflict in the Twenty-First Century* (New York: Penguin Press, 2009), 128; Michael Schmitt and Jeffrey Thurnher, "Out of the Loop: Autonomous Weapon Systems and the Law of Armed Conflict," *Harvard National Security Journal* 4 (2012): 237.

being carried out, as well as by the amounts of money invested in this type of developments by US Military.22 Consequently, the LAWS are becoming the object of intensive debates that evolve around legal definition and ethical questions.

According to the United States (US) Department of Defence (DoD), LAWS are defined as weapons that "once activated, can select and engage targets without further intervention by a human operator".23 Some definitions include artificial intelligence (AI) as a crucial element that enables autonomous weapons to adapt to the environment or respond to the changes of the targets.24 Semi-autonomous weapon systems are defined as weapons that "engage individual targets or specific target groups that have been selected by a human operator".25 However, the difference between the two types is not easily discernable in practice as some weapons after being released can travel and select and destroy targets without any further human intervention. The Long Range Anti-Ship Missile (LRASM) that was successfully tested in spring 2017 is one of the newest examples of such technology.26 The terms 'unmanned' or 'human-supervised' are also used to describe weapons with different capabilities of autonomous action, where the decision to use lethal force depends on human decision. Military drones are the most common example of such types of weapons. In this variety, an analytically useful distinction has been offered in Human Rights Watch's "Losing Humanity: The Case against Killer Robots" report. Based on the degree of active human agency in weapons control, three types of autonomy are discerned. Hence, 'human-in-the loop' defines weapons that are controlled by human command, 'human-on-the-loop'

22 U.S. Department of Defence (DoD), "Unmanned Systems Integrated Roadmap FY 2011-2036", 2011.

23 U.S. Department of Defence (DoD), Directive 3000.09 on "Autonomy in Weapon Systems", November 21, 2012 (updated May 8, 2017), 13, http://www.dtic.mil/whs/directives/corres/pdf/300009p.pdf, accessed May 19, 2017.

24 ICRC, "Views of the International Committee of the Red Cross (ICRC) on autonomous weapon systems", April 11, 2016, Geneva, presented at Convention on Certain Conventional Weapons (CCW) meeting of experts on Lethal Autonomous Weapons Systems (LAWS), April 11-16, Geneva.

25 U.S. Department of Defence (DoD), Directive 3000.09 on "Autonomy in Weapon Systems", 14.

26 "LRASM Missiles: Reaching for a Long-Range Punch," *Defense Industry Daily*, April 5, 2017, http://www.defenseindustrydaily.com/lrasm-missiles-reaching-for-a-long-reach-punch-06752/, accessed May 19, 2017.

defines robots that can act autonomously, but are controlled by a human operator and, lastly, 'human-out-of-the-loop' identifies robots that can select targets and deliver the mission without any human intervention after they have been tasked to do so.27 The overview has demonstrated that there is no commonly agreed definition, however the common denominator of all different propositions is the varying role of human involvement in the operation of autonomous technology.

As a response to the increased reliance on autonomous military weapons and fast developments in robotic systems, the question regarding human agency and morality have become central issues related with the current major changes in the nature of warfare. The importance and relevance of the topic is presented by interesting debates between the two camps that regularly appear in the *Journal of Military Ethics.* Roboticist Ronald Arkin asserts that autonomous unmanned systems "can perform more ethically than human soldiers are capable of performing".[28] His argument is largely based on the witnesses about the disturbing mental health of soldiers and the resulting misconduct in the battlefield as well as unethical behavior with (non)combatants. Hence, robotic warfare can reduce the number of casualties among both soldiers and civilians. In his incisive response to Arkin, Rayan Tonkens claims that by eliminating the unethical behavior of the soldiers, wars will not become more ethical as human moral transgressions can continue through autonomous guns that can be manipulated by humans.[29] Quite a similar debate appears between Bradley Strawser, who argues that based on "the principle of unnecessary risk" the use of UAV's is a moral obligation as they can ensure greater protection of soldiers so long as they do not use their advantage for unjust actions,[30] and Jai Galliott, who contends Strawser's argument and asserts that UAV's can cause a morally problematic asymmetry due to the inequality of

[27] Human Rights Watch, "Loosing Humanity: The Case against Killer Robots", 2012, 2.
[28] Arkin, "The Case for Ethical Autonomy in Unmanned Systems," 334.
[29] Tonkens, "The Case Against Robotic Warfare," 149-168.
[30] Strawser, "Moral Predators," 342–368.

combatants and tend to eliminate "an important element of justice in the resort to war".[31] Strawser's position is based on the argument that asymmetry is not important if the conduct of military operations is justified, because combatants fighting for an unjust cause cannot fight justly and be moral.[32] As these debates demonstrate, the scholarly body of knowledge that engages with the question of autonomous weapons can be divided in proponents and opponents of robotic warfare. Their arguments evolve around the possible changes in the combat, the ethical implications that can impact just war principles and, finally, whether this type of technologies should be actually used in the battlefield or banned altogether as making combat unethical affair.

More specifically, and at the same time very existentially, this line of reasoning is expressed about the changing agency and relationship between human and machine. One of the main concerns is related with the gradual decline of human-decision making. The problematic nature of this issue can be very well illustrated with US Colonel Lee Fetterman words that, "the function we should not allow them to perform for us — is the decide function. Men should decide to kill other men, not machines".[33] Consequently, this raises the question of responsibility and accountability of the 'killer robots'. Despite all their capabilities, robots would never be capable of making a clear distinction between combatant and noncombatant or to make moral judgements about the proportionality of action undertaken. Hence, the human role in controlling technology is a fundamental aspect of the ethical conduct of war. However, 'the myth of AI makes it acceptable, and even customary, to describe robots with an anthropomorphic narrative".[34] Some striking examples are

[31] Galliott, "Uninhabited Aerial Vehicles and The Asymmetry Objection," 58–66.

[32] Rory Carroll, "The Philosopher Making the Moral Case for US Drones," *The Guardian*, August 2, 2012, https://www.theguardian.com/world/2012/aug/02/philosopher-moral-case-drones, accessed May 19, 2017.

[33] "Who Decides: Man or Machine?" *Armed Forces Journal*, November 1, 2007, http://armedforcesjournal.com/who-decides-man-or-machine/, accessed May 19, 2017.

[34] Noel Sharkey, "The Evitability of Autonomous Robot Warfare," *International Review of the Red Cross* 94 (2012): 791.

provided by Joel Garreau, in his *Washington post* article "Bot on the ground". One of the described experience of human-robot emotional connection is when colonel interrupted the land mine destroying experiment with a robot, because it was 'inhumane' and unbearable to watch.[35] Even though such behavior can be ascribed to broader emotional experiences, the given example illustrates what potential challenges and dangers to human ethics can have an increasing reliance on autonomous military technology.

Human actions become more and more dependent on the technology. Thus, this leads to the gradual decline of human-decision making and their disappearance from the battlefield. As Thomas Adams notes in his warning article, "warfighting is not only leaving the realm of human senses, but also crossing outside the limits of human reaction times."[36] Hence, even semi-autonomous guns that require human intervention can get out of human control as when autonomous weapons is loaded, the human reaction time to make a counter-decision becomes dramatically reduced. This argument can be illustrated with Paul Virilio's notion of dromological fall-out, when in their relationship with technology human individuals become outpaced and overwhelmed.[37] Speed not only flattens vision, but also reasoning. Consequently, in the human-machine pairing, the machine becomes the dominating element. At the same time, the responsibility shifts away from human, but cannot be attributed to the robots. This clearly demonstrates one of the most fundamental and highly debated issues related with autonomous military weapons and 'killer roots' – if 'human errors' can be attributed, so autonomous guns cannot be blamed for their atrocious cruelties and errors despite the apparent agency and subjectivity they possess.

[35] Joel Garreau, "Bots on The Ground," *The Washington Post*, May 6, 2007, http://www.washingtonpost.com/wp-dyn/content/article/2007/05/05/AR2007050501009.html, accessed May 19, 2017.

[36] Adams, "Future Warfare and the Decline of Human Decisionmaking," 2.

[37] John Armitage, "Introduction", in *Virilio Live: Selected Interviews*, ed. John Armitage (London: Sage Publications, 2001), 3.

At first glance, the lessened human role seems like a positive development and, likewise, there is much to admire in autonomous technologies – less casualties, enhanced capabilities of military performance, military robotics can do 3D – dull, dangerous, demeaning – jobs.[38] On the other hand, autonomous military technologies reveal a lot of ethical controversies and raises concerns about the human role in future warfare. Autonomous technologies raise challenges to military strategy and ethics. However, they also have profound effects on international politics and human security.

The emergence of robotic systems and autonomous military technologies are also analyzed from the perspective of international relations. In this body of literature, attention shifts from the military sphere to the society and international security practices. The prevailing theme here is that the *perfection* and *precision* of robotic warfare creates conditions and psychological affects to perpetuate wars. In his pioneering book, *Virtuous Wars,* James Der Derian analyses how technology and distance has changed the nature of warfare and introduced new models of fighting. As he puts it, "technology in the service of virtue has given rise to a global form of virtual violence, virtuous war".[39] Thus diplomatic and political activities are carried out from a distance, without any physical interaction between the adversaries. Technical advantages of autonomous military weapons coupled with the ethical imperative to protect soldiers' lives and keep them out of the battlefield have consolidated "a vision of bloodless, humanitarian, hygienic war".[40] Even though Der Derian is not talking about the 'death from above', targeted killings carried out by drones demonstrates the surgical precision and secrecy of the contemporary wars he is talking about. Such virtuous wars have produced a "military-industrial-media–entertainment-network" or

[38] Recently, the debates started to emphasize the positive aspects of drones in United Nations (UN) peacekeeping operations that are carried out under harsh and dangerous conditions (see Caroline Kennedy and James Rogers, "Virtuous Drones?," *The International Journal of Human Rights* 19 (2015): 211–227; David Whetham, "Drones to Protect," *The International Journal of Human Rights* 19 (2015): 199–210).

[39] Der Derian, *Virtuous War,* 27.

[40] Ibid., xxxi.

MIMENET.[41] Wars become digitalized and entertaining – videos from the battles can be viewed on Youtube, military technologies make war look like a video game.

In his book *Wired for War*, Peter Singer analyzes how the drones, as the ultimate example of the fundamental changes in contemporary military practices, impact the 'warrior ethos' and how these changes manifest in society. According to him, one of the most fundamental changes is the dramatically increased distance between the troops and its target that results in a psychological distance and disconnection.[42] The words of a drone pilot serves as a good example of this concern: "It's like a video game. It can get a little bloodthirsty. But it's fucking cool."[43] Military operations conducted by the autonomous weapons creates moral disengagement as suffering bodies and deaths disappear from the soldiers' gaze and consciousness. According to Michael Shapiro, the use of autonomous technologies results in the derealisation and dematerialization of the enemies.[44] On the screens of military visioning systems, enemies are not perceived as humans anymore. The lives and bodies of real people become mere abstractions. Paradoxically, autonomous military technologies distance war from the soldiers, but bring war closer to the societies and human individuals.

1.2. Violence and human security in an age of robotic warfare

The remotely controlled military technologies and automated weapons have attracted the attention of critical security studies. The changing spatiality and temporality of war have changed the nature of state violence. Targeted killing through drones, as a part of global war

[41] Ibid., 27.

[42] Singer, *Wired for War*, 396.

[43] Ibid., 332.

[44] Michael Shapiro, "That Obscure Object of Violence: Logistics, Desire, War," *Alternatives: Global, Local, Political* 17 (1992): 473-474; Michael Shapiro, *Violent Cartographies: Mapping Cultures of War* (Minneapolis: University of Minnesota Press, 1997), 88-89.

on terrorism, are the prime example of these changes. In his analysis of targeted killing in Afghanistan, Derek Gregory analyses how the "death *of* distance enables death *from* a distance" [emphasis in original].[45] According to him, technologically advanced visual capabilities, what he calls 'scopic regime', collapse the distance and likewise give a sense of proximity to the far away territory.[46] This new scopic regime surpasses human vision and compresses time-space distance between the drone pilot and the target. Drone gaze provides new ways of seeing and experiencing war and gives a sense of human enhancement. Hence, this changes the way soldiers as human beings see themselves.[47] As David Grondin notes, contrary to the traditionally fought war, the drone war is mobile and global with no clearly identifiable battlefield.[48] This results in the new spaces of war beyond the battlefield – television screens, online streaming or video games – that have been identified by Der Derian. This results in the "dronification of state violence."[49] that has profound implications for security theory and practice. Contemporary ways of war are individualized. In other words, it is not the territories that are the main object and goal of new wars, but human targets.[50] This, consequently, has profound implications for security. Human individuals are surveilled, coded and preemptively targeted if any suspicious behavior are indicated. Hence, contemporary robotic warfare because of its surgical precision and immediacy can be seen as the highest manifestation or apogee of Der Derian's 'virtuous war'. As Shaw puts it, drone warfare "has enforced a distinctive twist on a biopolitical logic based on targeting patterns of life".[51] The line between the combatant and non-combatant, between battlefield and everyday life is repealed. Distanced killings challenge the very notion of the sovereign state as the safe

[45] Gregory, "From a View to a Kill", 192.
[46] Ibid., 190-191.
[47] Ibid., 192.
[48] Grondin, "The Other Spaces of War, 253-279.
[49] Ian Shaw and Majed Akhter, "The Dronification Of State Violence," *Critical Asian Studies* 46 (2014): 214.
[50] Ibid., 213-214.
[51] Ian Shaw, "Predator Empire: The Geopolitics of US Drone Warfare," *Geopolitics* 18 (2013): 547.

inside against dangerous outside becomes blurred. Autonomous military technology easily traverse the geographical boundaries and sovereign territories. Due to the precision and perfectness of drone strikes, war becomes individualized. Thus, not the territories, but human bodies are the main target.

"Where is the body in international relations?"[52] – as Campbell's and Dillon's question suggests, body is a significant element in international politics and security. Body is a site of political practices, where various forms of power and control are exercised – from political absence, to surveillance practices, to concrete war experiences. For example, the body of literature analyses the bodily experiences of (in)security at airport security checks, where technology is directly applied on human bodies.[53] However, Campbell's and Dillon's question today can be asked in the drastically changing context of international relations practices. The emerging autonomous military technologies have produced new modes of war. The changing nature of war has had profound effects on the security of individuals as not the territory, but a human body becomes the primary site of war. Another body of literature coming from critical approaches to security analyse how the autonomous technologies – mostly drone warfare – changes practices of violence and what consequences the embodiment of violence and war raises for human security ethics. Contra to (neo)realism, critical approaches to security recognize and problematize the uneasy relationship between international security practices and human body. Feminist theory provides compelling theoretical insights about the relationship between technology and human body.

According to critical feminist approaches, war is a social experience and human bodies and embodied experiences of violence are placed at the centre of analysis. In her book *Body in Pain*, Elaine Scarry problematizes the tendency to analyse war without human

[52] David Campbell and Michael Dillon, *The Political Subject of Violence* (Manchester University Press, 1993), 162.

[53] Mark Salter, "Governmentalities of an Airport: Heterotopia and Confession," *International Political Sociology* 1 (2007): 49–66.

content and without "the acknowledgment that the purpose of the event is to alter (to burn, to blast, to shell, to cut) human tissue".[54] War is not the sequence of disembodied events, but the embodied practices and structures within the military itself and beyond. Hence, in the process of "unmaking' the ontology of war, analytical attention should be given to humans in war and their lived experiences.[55] In her discussion of the human experiences of drone warfare, Caroline Holmqvist draws attention to the problematic and essential relationship between fleshy bodies of humans and steely bodies of military technology. Adopting Maurice Merleau-Ponty's existential phenomenology, she considers war as the "human-material" assemblage that can help to identify the ontological effects of robotic military systems on human security conception.[56] The question here is how material bodies of drones are assembled to human bodies and re-writes them. Her point of critique is that IR theory neglect human experiences of war and think about it in abstract notions. In Holmquist's rendering, the attention to human ontology is way to place the drone warfare and robotic weapons under the scrutinized critique. Consequently, this enables us to think about the contemporary ways of fighting in political and ethical terms. Taking into account the extensive reliance on technology in military operations, this approach enables to think critically how new technologies alter human experiences.

However, the denaturalized understanding of bodies – as inherent and unproblematic objects – in international relations and security studies makes the discipline analytically poor, especially in the context of contemporary ways of fighting wars. This lack of theorization is addressed in Lauren Wilcox's book *Bodies of Violence*. For her, bodies are not natural

[54] Elaine Scarry, *The Body in Pain: The Making and Unmaking of the World* (Oxford, New York: Oxford University Press, 1988), 64.
[55] Ibid., 21.; Christine Sylvester, "War Experiences/War Practices/War Theory," *Millennium* 40 (2012): 483–503.
[56] Caroline Holmqvist, "Undoing War: War Ontologies and the Materiality of Drone Warfare," *Millennium* 41 (2013): 539, 547-548.

objects, but political products of international security discourses and practices.[57] In the case of autonomous military technologies, politicization of bodies help to analyse how drone war as a specific form of violence became a normal tool of warfare. Visual representation of bodies as mere abstractions on the computer screen is not adequate enough to make targeted killings justifiable. Contra to Gregory's argument about the scopic regime and its effects of the practices of violence, Wilcox argues for the analysis of the roots of the disembodied violence should go beyond the distanced gaze of the computer screen, especially when technologies nowadays enable to see the targets on the screens very clearly:

> By theorizing precision warfare as enabled by a conceptualization of human bodies as information processors that are an integral part of a human/technology assemblage, we can better understand the conditions for producing certain bodies as "killable" as well as how this form of warfare comes to be perceived as legitimate in ways that are occluded by theorizing this form of violence as 'disembodied'.[58]

As this quotes demonstrates, it is not only technological advantages of the machines that makes the new modes of war acceptable and politically substantiated. Hence, engagement with the embodied experiences of war and military technology enables feminist approaches to criticize the new modes of warfare. The notion that the human body is modified by technology leads to another valuable feminist insight about the shifting subjectivity.

In relation to advancements in autonomous military technology and new modes of warfare, another body of critical feminist critical security studies analyses how autonomous technologies result in changing human subjectivity. According to Donna Haraway, "we are all chimeras, theorized and fabricated hybrids of machine and organism; in short, we are

[57] Lauren Wilcox, *Bodies of Violence: Theorizing Embodied Subjects in International Relations* (Oxford, New York: Oxford University Press, 2015), 13.
[58] Ibid., 6.

cyborgs".[59] The main idea is that due to the rapidly developing technological possibilities for human enhancement, in order to overcome physical body limitations, humans become cyborgs. Hence, the emergence of cyborgs symbolizes the transgressed boundaries between the dualities that define Western philosophical tradition – mind/matter, man/woman or flesh/steel. Similarly, Claudia Springer notes that this process leads to the emergence of new post-human subjectivity that is constructed both socially and materially, it is "neither human nor artificial, but the hybrid of two".[60] Hence, due to the increased human-machine interconnection, as well as fast development of autonomous technologies create new forms of subjectivity. It is important to note that when interfacing with the technology humans lose the integrity and coherence of their body. However, their subjectivity is not entirely lost – it is significantly altered by the technology.

In her journal article *Bodies of Technology*, Cristina Masters analyses how the cyborg soldier within the American military is constituted through militarized technological discourses that produces feminine soldiers and masculine cyborgs.[61] I will return to Masters' work in greater detail in Chapter 3, where I discuss feminist contributions to technology. For this moment, it is important to mention that the engagement with her analysis of shifting gender representations helps to elucidate how human dependency on technology shifts political subjectivity from human to non-human. Drawing on Haraway and Springer, her analysis also demonstrates how such intrinsically human properties as reasoning and decision-making is transferred to autonomous military weapons.[62] Her analysis of re-articulation of techno-masculinized discourses as well as shifting subjectivities from human

[59] Donna Haraway, *Simians, Cyborgs, and Women: The Reinvention of Nature* (London: Free Association Books, 1991), 150.
[60] Claudia Springer, *Electronic Eros: Bodies and Desire in the Postindustrial Age* (Austin: University of Texas Press, 1996), 33.
[61] Cristina Masters, "Bodies of Technology: Cyborg Soldiers and Militarized Masculinities," *International Feminist Journal of Politics* 7 (2005): 112–132.
[62] Ibid., 115.

to non-human technologies provides a problematized account on the emancipatory potential of technology. The autonomous military technologies represent the liberation of a human soldier form the battle. However, at the same time such liberation creates disentanglement and disembodiments from the enemy-target that strengthens the violence practices towards the other. The reliance of the technology and constitution of the cyborg soldier collapse the once clear distinctions distinction between the man/machine, man/woman. According to Masters, the eliminations of such hierarchical binaries has emancipatory potential.[63] At the same time, technology becomes the site where power and knowledge relationship are manifested. This challenges the notion of technology-emancipation nexus that has been conceptualized by Wyn Jones.

The emancipatory role of technologies in international security theory and practices has not been left unnoticed by Critical Security Studies (CSS). The emancipatory security agenda promoted by CSS is primarily engaged with bodily experiences of (in)security and violence that harms human individuals. In Ken Booth's words,

> to practice security (freeing people from life-determining conditions of insecurity) is to promote emancipatory space (freedom from oppression, and so some opportunity to explore being human), and to realise emancipation (becoming more fully human) is to practice security (not against others, but with them).[64]

In such rendering of security, as well as in feminist approaches, the primacy is given to human individuals. In his book *Security, Strategy and Critical Theory*, Richard Wyn Jones emphasizes critical engagement with reality in order to recognise its ambivalent nature and look for the alternative possibilities that go beyond the existing order.[65] Building up on Booth's conceptualization, he applies security as an emancipation approach to technology,

[63] Ibid., 129.

[64] Ken Booth, *Theory of World Security*, (Cambridge, New York: Cambridge University Press, 2007), 115.

[65] Richard Wyn Jones, *Security, Strategy, and Critical Theory*, Critical Security Studies (Boulder, Colorado: Lynner Rienner, 1999), 100-102.

specifically to nuclear weapons. According to Wyn Jones, "even military technologies reveal an ambivalence that can be directed in ways that form a potentially useful part of a wider emancipatory project."[66] In other words, technological development enables society to make choices, but these choices are dependent on existing power configurations. Critical analysis can help to reveal the problematic nature and dangers of these arrangements. In his conceptualizations of an emancipatory approach to military weapons, Wyn Jones invokes critical theory of technology that emphasizes the dialectical interconnection between technology and society.

According to Wyn Jones, technological developments do not determine the fate of human beings, but introduce a range of possibilities and options, and which of these options are chosen depends on the existing power relations in the society. Hence, the final outcome is the result of the political negotiations and power struggles.[67] Even though technology and society are mutually constitutive and dialectically intertwined, they are seen as two different realities – material and ideational. What is important here is that such a clear distinction of matter and mind provides an unproblematized rendering of the ontological primacy of human individuals over material objects – the power of decision is in the hands of individuals/societies. However, as debate about autonomous military technology and changing modes of warfare demonstrates, the very human ontology is challenged by the new technological developments – subjectivity shifts from humans to technologies. Hence, such technological changes raise challenges the existing emancipatory approach to military technology conceptualized by CSS. Wyn Jones' critical approach to technology continues to be a sophisticated conceptualization of relationship between technology and society. However, if CSS wants to keep its emancipatory security agenda up-to-date, a few

[66] Ibid., 134.
[67] Ibid., 5.

modifications need to be incorporated into CSS approach to emancipatory potential of technology.

CHAPTER 2. Critical Security Studies (CSS) and technology

The end of the Cold War challenged ontological assumptions of (neo)realism and traditional security studies, creating the conditions for alternative understandings of security to emerge. The new approaches have moved away from the objectivist understanding of security, calling it an 'essentially contested concept'.[68] With reflectivism gaining a foothold, security started to be perceived as social construction that needs to be analyzed as a discourse, knowledge and governmental practices.[69] New approaches to security – from the 'Copenhagen' and 'Paris' schools to feminism and poststructuralism – have been identified as 'critical security studies'. Even if analitically unhelpful, for Keith Krause and Michael Williams such a broad definition has a value in its ability to engage all the alternative security conceptualizations in the intellectual dialogue and debate.[70] Nevertheless, the term *Critical Security Studies (CSS)* is more commonly used in academia to refer to the 'Aberystwyth' school of security studies, because of its intellectual roots coming from post-Marxist critical theory. The emergence of CSS is primarily associated with Ken Booth and Richard Wyn Jones. The analysis of their theoretical contributions to CSS is fundamental in refining the emancipatory security agenda's conceptual engagement with modern technologies.

[68] Barry Buzan, *People, States, and Fear: An Agenda for International Security Studies in the Post-Cold War Era* (New York: Harvester Wheatsheaf, 1991), 6.

[69] C.A.S.E. Collective, "Critical Approaches to Security in Europe: A Networked Manifesto," *Security Dialogue* 37 (2006): 444–445.

[70] Keith Krause and Michael Williams, *Critical Security Studies: Concepts and Cases* (London: UCL Press, 1997), x-xi.

This chapter presents the core theoretical assumptions of Critical Security Studies (CSS) that defines its approach to security, emancipation and technology. Primarily, attention is given to the concept of 'emancipation' and the introduction of the new, human-oriented security agenda, which is seen as the central idea of this theory. And, secondly, the presentation moves to the relationship between technology and emancipation in CSS that has been proposed by Wyn Jones. The elaboration of Wyn Jones' conceptualization of technology and emancipation shows that even if the dialectical approach to technology and society has been useful in analyzing such traditional military technologies as nuclear weapons, in the age of robotic warfare, CSS needs a few modifications that would help them to keep up with realizing its emancipatory potential and transformative political agenda.

2.1. Humans first! CSS and the emancipatory security agenda

CSS entered the discipline by shattering (neo)realist's ontological and epistemological assumptions about world order and security. In traditional security studies, the state was regarded as the main and the ultimate referent object of security. CSS objects to the argument and suggests that the security of individuals, and not of the states, should be the ultimate objective of the renewed agenda of security studies.[71] Such deep feeling of disappointment with (neo)realism and the turn towards an emancipatory security agenda has been influenced by the transnational threats and the need of the global community to engage in order to control and solve them.[72] The emergence of CSS is primarily associated with Ken Booth's pioneering article "Security and emancipation" (1991), which defines the new human-oriented security agenda. Booth argues that states are unreliable security providers, as state

[71] C.A.S.E. Collective, "Critical Approaches to Security in Europe: A Networked Manifesto," 448.
[72] Ken Booth, *Theory of World Security*, (Cambridge; New York: Cambridge University Press, 2007), 26.

institutions and their governmental practices can sometimes be the biggest source of insecurity to the people.[73] Hence, the best way to conceptualize security is to associate it with individuals and to read it as emancipation, which is "the freeing of people (as individuals and groups) from those physical and human constraints which stop them carrying out what they would freely choose to do."[74] The Frankfurt School of critical theory provides a conceptual framework for rethinking security and giving it qualitatively a different meaning.

In opposition to (neo)realists' objectivist rendering of security, CCS defines it as a derivative concept. In traditional security studies military issues are commonly analysed based on a series of implicit assumptions about the environment they are stemming from.[75] One of the most well-known examples of such underlying premises of (neo)realism are the anarchy of the international system or the primacy of the state as a security object. Consequently, the broader political and institutional context are mostly ignored and alternative forms of security and world politics cannot be delineated.[76] CSS challenges such encapsulated and unreflective understanding of security and world politics:

> Security is conceived comprehensively, embracing theories and practices at multiple levels of society, from the individual to whole human species. 'Critical' implies a perspective that seeks to stand outside prevailing structures, processes, ideologies, and orthodoxies while recognizing that all conceptions of security derive from particular political/theoretical positions; critical perspectives do not make a claim to objective truth but rather seek to provide deeper understandings of prevailing attitudes and behavior with a view to developing more promising ideas by which to overcome structural and contingent human wrongs[77]

CSS has a capacity to critically evaluate the existing power structures, to challenge them and, in this way, to open the spaces for emancipation to take place. Such re-conceptualized

[73] Ken Booth, "Security and Emancipation," *Review of International Studies* 17, (1991): 319.
[74] Ibid.
[75] Wyn Jones, *Security, Strategy, and Critical Theory,* 102.
[76] Ibid., 103.
[77] Ken Booth, *Critical Security Studies and World Politics*, (Boulder, Colorado: Lynne Rienner Publishers, 2005), 16.

security is understood as a derivative concept, because, as Wyn Jones puts it, 'security reflects deeper assumptions about the nature of politics and the role of conflict in political life'.[78] This quote demonstrates that understanding of security cannot be defined, but is dependent on the ways the world is perceived and on the ways the mechanisms of the political life work in a particular context. The security can be identified via the insecurity that individuals face.[79] This means that how one sees and experiences the world will influence how one perceives threats, defines security and identifies the objects that need protection. Unlike in (neo)realist understanding, contextual factors become important.

CSS' conceptualization of security argues for the real and clearly identifiable meaning of security that is based on the objectivist ontology. Buzan's attempt to challenge realist rendering of security with an argument that security is an "essentially contested concept" is seen as preserving the *status quo* and ignoring the real problems. The very essence of the security cannot be contested, because it has a core element – the absence of threats – that can be identified.[80] Poststructuralism has also received a fierce criticism from CSS for its static and indifference towards the emancipation of the suffering individual human being.[81] Despite their exclusive reliance on deconstruction of security practices and generally shared skepticism towards the idea of security, poststructuralists do not provide any alternatives. Such obscurity and uncertainty that comes from constant questioning of the meaning of security hamper the possibility to move out of the condition of insecurity. There is an important practical need to have a reasonable definition, because if security cannot be named, it cannot be achieved either.[82] In his later conceptualizations, Booth elucidates that the real security is not only about the removal of objective constrains and life threatening conditions,

[78] Ibid., 166.
[79] Booth, *Theory of World Security*, 101.
[80] Ibid., 98-100.
[81] Booth, *Critical Security Studies and World Politics*, 270.
[82] Booth, "Security and Emancipation,", 317.

but also about feeling safe.[83] This clearly demonstrates that not only objective security as the absence of threats, but also subjective security as personal feelings are an equivalent result of emancipation.

Security acquires a positive meaning and is seen as a value, because more security means more freedom from any forms of oppression. Hence, contra to poststructuralist accounts, who view security politics as a form of oppression, in the CSS approach, security is desirable. According to Booth, security is a "*survival plus*… the *plus* being some freedom from life-determining threats, and therefore space to make choices".[84] In contrast, the condition of insecurity means "a determined life".[85] The insecure environment constrain people's choices and precludes them from self-realisation. From here comes Booth's criticism towards political realism, propagating narrow, state-centered agenda and hostile ethics in relation to individual human beings and their needs. The already mentioned situation in Pakistan villages, where targeted killings are carried out serves as a good example of how daily lives of people can be dramatically affected by the state of insecurity and fear. Wyn Jones continues to argue along the same lines and argues that emancipatory security politics should be concerned with with "real people in real places".[86] The desirability of security is not related to the ontological need of the human being to feel and actually be secure.[87] According to CSS, security has an instrumental value, because practicing security leads to the creation of "emancipatory space", where politics and community life can further be developed.[88] The oppressing and disempowering forces are eliminated, which eventually lead

[83] Booth, *Theory of World Security,* 110.
[84] Ibid.*,* 102.
[85] Booth, *Theory of World Security*, 101.
[86] Wyn Jones, *Security, Strategy, and Critical Theory*, Critical Security Studies, 214.
[87] Bill McSweeney, *Security, Identity, and Interests: A Sociology of International Relations*, (Cambridge: Cambridge University Press, 1999), 154-156.
[88] Booth, *Theory of World Security,* 115.

to the freeing and empowerment of the people. Because of this emancipatory security practices are seen as positive and desirable.

Even a tough "security as emancipation" agenda sees the individual as the ultimate referent object of security, it is not individualistic that makes it resistant to charges of methodological individualism. As Wyn Jones notes, humans do not exist in a cavity, but are members of various societal settings.[89] Hence, identity, community and security are interconnected concepts, because individual meaning of security is a part of communal identity. Drawing on Immanuel Kant's maxim that humans should be treated not as ends, but as means, as well as on Andrew Linklater's more recent amplification of Jürgen Hubermas' communicative action theory, Booth argues of a world community, based on institutionalized relations.[90] Thus, in his conceptualization, emancipation is not achieved at the expense of the security of the others, but is guided by the communitarian principles and humane practices on an everyday basis. Even if it is an idealistic aspiration, it should serve as a guiding principle for the security communities and global governance practices.[91] Hence, security as an emancipation approach can be seen as a universal security project. Such ethically driven engagement with the politics of security can help to solve the transnational problems and lead to global security.

Emancipation becomes the ultimate objective of the new security agenda, proposed by CSS. Critical theory relies on the dialectical approach, which constantly seeks to identify and challenge the existing assumptions so that new perceptions would be revealed. Hence, at the heart of critical project of security analysis lies the logics of emancipation.[92] Even though absolute emancipation and a disappearance of threats are not possible, security studies should reveal the conditions and practices that constrain human potential and through political

[89] Wyn Jones, *Security, Strategy, and Critical Theory,* 116.
[90] Booth, *Theory of World Security*., 54-57, 80-87, 124-133.
[91] Ibid., 427.
[92] Wyn Jones, *Security, Strategy, and Critical Theory,* 77.

engagement.[93] This clearly identifies CSS's aspiration to actively engage with emancipatory security practices, leading to the actual change of security environment. This means that critical security agenda not only seeks to explore the world and the ways the order of society is constructed, but also to challenge them by critically exploring the sources of insecurity and its underlying structures. Hence, the other element that is at the heart of the critical project is its propensity for practice.

CCS emphasise the theory's direct engagement with the political and transformative nature of emancipatory security politics and practices. Booth argues that it is a practice-oriented theory, which he identifies as 'emancipatory realism'.[94] Emancipatory security theory is not concerned with the abstract, philosophical definitions of security, but with real people and their bodily experiences of insecurity.[95] CCS engagement with the re-conceptualization of security and its application has concrete practical purpose.[96] The critique of (neo)realist ahistorical and, thus, the static understanding of security and practices in achieving the secure condition can be seen as a practice oriented commitment to re-conceptualise the state-centred understanding of security. Booth acknowledges that security is a powerful political concept that has a potential to transform and mobilize material power.[97] Here security is seen as a means to an end - that is emancipatory politics. Because of this, security practices should be applied to the implementation of an emancipatory security agenda.

For CSS, the new theory of world security should be equally concerned with both theoretical commitment and practice-oriented political endeavors. Relying on the Frankfurt

[93] Ibid., 23.

[94] Booth, *Theory of World Security,* 249- 277.

[95] João Nunes, "Reclaiming the Political: Emancipation and Critique in Security Studies," *Security Dialogue* 43 (2012): 351.

[96] Booth, "Security and Emancipation," 317-319.

[97] Ken Booth, "Critical Explorations", in *Critical Security Studies and World Politics*, ed. Ken Booth, (London: Lynne Rienner, 2005), 23.

school of critical theory and especially on the Italian philosopher Antonio Gramsci, Wyn Jones, in his 1999 book *Security, Strategy and Critical Theory*, clearly identifies a new guiding principle and ultimate objective of new security agenda. According to this principle, critical theory should not only interpret the world, but also actively participate in changing it. For him, emancipation is pursued by "placing the experience of those men and women and communities for whom the present world order is a cause of insecurity rather than security at the centre of the agenda and making suffering humanity rather than *raison d'etat* the prism through which problems are viewed".[98] This quote not only demonstrates Wyn Jones's engagement with emancipatory political practices, but also indicates his critical view towards the state-oriented traditional studies of international security. In Wyn Jones' rendering of emancipation, academia's active political engagement with security politics is crucial. His suggested strategy in doing that is by criticizing and challenging the hegemonic setting and supporting alternative views.[99] Wyn Jones theoretical conceptualizations are highly influenced by Gramsci. This can explain why a special role is assigned to the intellectuals and why they are seen as agents of emancipation. They interpret the world and provide security conceptualizations across societies that, in turn, assist and facilitate the emancipatory security politics.

Booth also shares the same commitment to practices. In his account, CSS is seen as an explicitly practical theory with the enduring commitment to the strategies of transformation, also known as 'emancipatory realism'. [100] The real situations of insecurity that oppress human individuals and the strategies to remove or alleviate people from 'life-determining conditions' are the core concerns. Practicing security is seen as an instrumental value, because it helps to create the spaces of freedom from fair. Booth commitment to practice is

[98] Wyn Jones, *Security, Strategy, and Critical Theory*., 159.
[99] Ibid., 161.
[100] Booth, *Theory of World Security,* 6, 101.

built on Habermas' communicative action theory or critical pragmatism that challenges hegemonic social structures. Theory's critical engagement with reality and resistance against oppression is seen as a commitment to practice and to the actual implementation of changes – human emancipation, which is based on the devotion to the ethics and the belief in the progress of society.[101] For Wyn Jones, the Habermasian approach is not sufficient enough, as here the role of intellectuals is marginalized.[102] Booth shares the same position with Wyn Jones, by saying that 'security as emancipation" has both theoretical and practical purposes. However, he does not put an explicit emphasis on the role of intellectuals, but concentrates on the actual change driven by ethical aspirations.

CSS have to analyse the conditions of insecurity and reveal the existing constraints and coercion mechanisms that maintain insecurity and preclude individuals from self-realization. For this purpose, the strategy of immanent critique that targets dominant discourses and existing institutional practices should be employed.[103] This strategy is closely related with already discussed CCS re-conceptualization of security as a 'derivative concept'. As Karin Fierke notes, an immanent critique aims at addressing a critique of an existing order and doubting its claims about truth and order.[104] According to Wyn Jones Gramscian reading, intellectuals play an important role here.[105] The critique, consequently, helps to identify social structures and situations where emancipatory potential can be realized through politics. Such reflexive engagement with reality creates the conditions for a change and is seen as a contrast to (neo)realist reliance on problem-solving theory, which takes the nature of world politics as given. The avowed ahistorical account of the (neo)realists holds that the present

[101] Ibid., 112-115.

[102] Wyn Jones, *Security, Strategy, and Critical Theory,* 89.

[103] Matt McDonald, *Security, the Environment and Emancipation: Contestations over Environment Change*, (Abington: Routledge, 2012), 60; Booth, *Theory of World Security*, 148.

[104] Karin Fierke, *Critical Approaches to International Security* (Cambridge, Malden: Polity, 2007), 167.

[105] Wyn Jones, *Security, Strategy, and Critical Theory,* 160.

order is independent of time and contingencies.[106] The immanent critique, in contrast, is focused on the analysis of the historical context, its origins, underlying structures and institutions, in which such certain social constructions became possible. In this sense, immanent critique strategy is irreplaceable technique directly linking theory to practice.

Due to its commitment to practice and political change, security practices have 'an intrinsically ethical dimension'.[107] CSS provides a critique of the existing arrangements and informs the possible political practices of emancipatory transformation that can liberate individuals and communities from structures and conditions. Thus, a critical security agenda undertakes a position that is inevitably informed by ethical and political assumptions about the world structures that are intended to be changed. However, the ethical implications of security practices and its role in CSS agenda is an especially complicated matter of discussion. Attempts to define what ethical security is or how to make it ethical can result in very different understandings.[108] Relying on Kosovo conflict analysis, Mike Bourne and Dan Bulley argue that the idea of secure ethics should be renounced, because moral choices are uncertain and ambiguous. Hence, insecurity of ethics should be accepted as inevitable possibility of any action that is undertaken.[109] This example clearly illustrates the complexity of the question at stake. Ethics is implicitly related with its engagement of practice and especially with the development and widespread use of the autonomous military technologies.

[106] Robert Cox, "Social Forces, States and World Orders: Beyond International Relations Theory," *Millennium Journal of International Relation*s 10 (1981): 128–130.
[107] João Nunes, "Security, Emancipation and the Ethics of vulnerability", in *Ethical Security Studies: A New Research Agenda*, ed. Joanna Nyman and Anthony Burke, (Abingdon, New York: Routledge, 2016), 89.
[108] Joanna Nyman and Anthony Burke, "Introduction: Imagining Ethical Security Studies," in *Ethical Security Studies: A New Research Agenda*, 7.
[109] Mike Bourne and Dan Bulley, "Securing the Human in Critical Security Studies: The Insecurity of a Secure Ethics," *European Security* 20 (2011): 455, 467.

2.2. Technology/emancipation nexus in CSS

For Booth, the desire of the states to enhance their military capabilities together within 'technological momentum' is the main cause of insecurity at the international level that produces wars and, thus, seriously hamper human emancipation. According to Booth, nuclear strategy demonstrates the danger of instrumental reason. The prioritization of state security and national defence put the military goals and processes at the forefront of security politics. In such a situation, human individuals, as well as their security are misrepresented and, likewise, the conditions for various forms of oppression emerges.[110] Thus, in Booth's account, military technology, because it is related with state-centrism of traditional approaches to security, is seen as inherently negative and as an impediment to emancipation. Wyn Jones, on the other hand, acknowledges the ambivalent and contestable nature of security and provides a more problematized relationship between technology and the CCS project.

In *Security, Strategy and Critical Theory*, Wyn Jones problematizes the relationship between technology and society. Like Booth, he expresses his skepticism towards (neo)realist understanding of military technology and describes it as "erroneous, undialectical, and ahistorical."[111] However, he does not stop there and provides a re-conceptualized understanding of the military-society nexus. Wyn Jones argues that critical analysis of military technology can play a crucial role in emancipatory politics. For him, nuclear weapons serve as a good example that demonstrates how military technology does not exist in isolation, but inevitably intersects with society, embodying social values and can reveal the existing power arrangements. The main purpose of critical theory is to reveal the possibilities

[110] Ken Booth, "Critical Explorations", in *Critical Security Studies and World Politics*, ed. Ken Booth, (Boulder, Colorado: Lynne Rienner Publishers, 2005), 1.
[111] Richard Wyn Jones, *Security, Strategy, and Critical Theory*, Critical Security Studies (Boulder, Colorado: Lynner Rienner, 1999), 166.

for transformation that are inherent within the prevailing status quo. In his theoretical elaboration on technology and society, Wyn Jones rejects the rigid distinction between subjects and objects and argues for the dialectical relationship between technology and society that enables the emancipatory potential of CSS.

In his account, attention is given to the nuclear strategy, which is seen as an interesting case which can demonstrate the intersections between technology and society, where emancipatory possibilities can be revealed. Even though Booth does not share the same engagement with technology as Wyn Jones does, the questions of technology and emancipation are inherent to CSS. As Columba People notes, critical security studies with their philosophical roots coming from the Frankfurt school and Gramscian theory have much to contribute to the analysis of the traditional issues such as weapons proliferation and control.[112] Wyn Jones conceptualized the dialectical approach to technology which enables identifying and analysing the mutually constitutive relationship between technology and society. This, consequently, helps to challenge the taken-for-granted approach to technological development and to identify the ambiguous nature of technology. Such realization creates a space for the emancipatory potential to take place.

The case of nuclear weapons technology that defined the Cold War era is the best example of the technology-society nexus. According to Wyn Jones, not only nuclear technology was at the centre of attention of the Cold War era military strategies, but was also seen as a representation of the fundamental change that indicated fundamental changes in warfare and in the relationship between "men and machines".[113] For these reasons, the nuclear weapons, for Wyn Jones, are a particularly interesting and challenging case for the critical analysis of the relationship between technology and society. In his analysis, Wyn Jones discusses three conceptualizations of technology: the instrumental view sees

[112] Peoples, *Justifying Ballistic Missile Defence,* 6.
[113] Wyn Jones, *Security, Strategy, and Critical Theory,* 134.

technology as a neutral tool in the hands of humans, the substantivist view sees technology as an autonomous force in the social world, whereas the critical view sees technology as an ambivalent process that contains a number of possibilities depending on existing power relations.[114] The majority of the existing literature on nuclear weapons fall into the instrumentalist or substantivist view of technology. These two approaches can be found not only in academic debate, but also in international political practices.[115] None of these approaches engages with the question of the relationship between the technology and society, which Wyn Jones finds deeply problematic and even dangerous.

According to the instrumentalist view, "technology does not affect the social, political and cultural fundamentals in either domestic or international politics".[116] Human individuals are in charge of the technological developments and, thus, all the technological developments are subordinated to human needs. This is, the existing attitudes, politics and strategies dictates and order the way the guns are used. The innovativeness and destructive power of the guns do not cast any significant effect on the societal structures or patterns of behaviour. The title and the content of Colin Gray's book *Weapons Don't Make War* is an example of the instrumentalist treatment of technology, in which he argues the transformative power of technology.[117] Another example is a famous phrase of Mao Tse-Tung, who saw the atom bomb as a 'paper tiger'.[118] These examples illustrate how the nuclear bomb and the threat of nuclear war is seen as a passive political tool shaping Cold War era international relations.

[114] Ibid., 135.

[115] Relying on Wyn Jones insights, Columba Peoples analyses the US Ballistic Missile Defence (BMD) debate and demonstrates how instrumental and substantivist views different approaches to the technology and society manifests not only in the academic literature but also in US foreign and defence policy (see Columba Peoples, *Justifying Ballistic Missile Defence: Technology, Security and Culture*, (Cambridge: Cambridge University Press, 2010).

[116] Wyn Jones, *Security, Strategy, and Critical Theory,* 100.

[117] Ibid., 136.

[118] Guang Zhang Shu, "Between 'Paper' and 'Real Tigers': Mao's View of Nuclear Weapons", in John Lewis Gaddis (ed.), *Cold War Statesmen Confront the Bomb: Nuclear Diplomacy since 1945* (Oxford: Oxford University Press, 1999), 196-215.

The instrumental view can also be discerned in Booth's book *Theory of World Security*, in which he provides a rather unproblematized rendering of technology – neutral instrument serving their needs.[119] The engagement with weapons and military technologies is seen as a matter of realism and enhancement of military capabilities. This can explain the instrumental treatment of technology and a limited engagement with this issue in Booth's human-oriented security conceptualizations.

The substantivist approach suggests that 'technology has an autonomous logic of its own which determines a particular form of social organization.[120] Hence, technology is not a neutral artefact, but has the power to impact and shape social relations. An illustrative example is Kenneth Waltz's proposition to have more nuclear weapons in the international society of states. According to him, nuclear deterrence that structures and shapes behaviour of the states and creates more international stability.[121] Proponents of substantivism talks about the fatalistic nature of nuclear technology. Freedman's article – *"I Exist; Therefore I Deter"* – is an illustrative example. As Wyn Jones, the proponents of existential deterrence believe that possessing a nuclear bomb is enough for other states to deter from any hostile actions. The nuclear deterrence can be seen as such autonomous force that has unrecognizably changed the nature of international relations during the Cold War and beyond. Furthermore, substantivist view holds that technological progress is inevitable and, thus, humans are unavoidably subordinated to technology. The introduction of the technologies that come with new possibilities, determine the way of life of human individuals. Even if technologies are conceived and devised by humans, some of their aspects

[119] For example, a critical position is provided towards Zygmund Bauman's Holocaust equation with modernity and its advancement in technologies. According to him, mass atrocities of the twentieth century, such as Holocaust or Rwanda genocide were political act 'committed with the technology at hand' (see Booth, *Theory of World Security*, 120).

[120] Wyn Jones, *Security, Strategy, and Critical Theory,* 102.

[121] Kenneth Waltz, "Nuclear Myths and Political Realities," *The American Political Science Review* 84 (1990): 731–45.

supersede human intensions and introduce unanticipated effects. Thus, technologies condition society and social behaviour, but not necessarily in the way anticipated during the creation process. Instead, these effects are the consequence of their usage and enmeshment in the social world.

Wyn Jones does not reject any of the approaches, but draws attention to the potentially dangerous limitation of the sharp distinction between them.[122] Instrumentalism holds that technology in a neutral instrument under control of human individuals, who determine the ways technologies are used and utilized. Consequently, technological development is seen as purely optimistic and desirable. It is related with progress and achievements of humanity: enhanced productivity, efficiency, modernisation. As Wyn Jones notes, such an approach is evident in the early works of Max Horkheimer, who sees technological progress as creating conditions for emancipation.[123] What is potentially dangerous here is that negative and destructive aspects of technologies can be underestimated and overlooked. As technology acquires the life of its own and is delinked from any possible political interventions, the control of the consequences and further developments of technology can be lost.[124] Substantivism asserts that technological revolutions alter human behaviour, social structures, international relations. This approach is pessimistic about technological progress and sees it as an inevitable movement towards the technologically determined future and human subordination to technology. This view is shared by Martin Heidegger in his apocalyptic visions of the future, characterized by the inability of humankind to control the course of events.[125] One of the arguments is that the decision-making as well as responsibility will be taken away from humans and will be transferred to

[122] Wyn Jones, *Security, Strategy, and Critical Theory,* 85-87.

[123] Ibid., 27.

[124] Columba Peoples, "Technology and Politics in the Missile Defence Debate: Traditional, Radical and Critical Approaches," *Global Change, Peace & Security* 19 (2007): 278.

[125] Martin Heidegger, *The Question Concerning Technology, and Other Essays* (New York: Harper Torchbooks, 1977), 28.

machines. Such eerie understanding of technology and humanity pose a danger to overlook the liberating potential of technology and creating the conditions for the oppressive structures to be reinforced over humans.

In order to avoid a deterministic and uncritical rendering of technology, Wyn Jones proposes a critical approach that "recognizes the mutual implication of technology and culture – a conceptualization that recognizes their dialectical interdependence rather than collapsing one into the other or drawing strict dividing lines between them."[126] Such dialectical rendering of technology does not deny the fact that technology has a certain degree of autonomy, but also does not eliminate the role of humans in the process of technological development. Further, it denies the technological determinism of instrumentalist and substantivist views that technology is an inescapable destiny, either bright or gloomy. Wyn Jones extensively relies on Andrew Feenberg's notion that "technology is not a destiny but a scene of struggle".[127] In other words, technological development is seen as an equivocal and contradictory process that has plenty of alternative possibilities. The introduction of technology sets certain constraints over the society, but also creates new choices and possibilities. The implementation of these choices and possibilities is dependent on social relations, existing power relations and structures of domination.[128] Constant contestation, proposed by critical theory, helps to critically evaluate the existing structures, reveal constrains and search for the emancipatory alternatives within technological progress. In such rendering, active role of human agency and its ethical dimension is at the heart of the utilization of technology.[129] Thus, Wyn Jones reconceptualises the issue of technology-

[126] Wyn Jones, *Security, Strategy, and Critical Theory,* 142.

[127] Andrew Feenberg, *Transforming Technology: A Critical Theory Revisited* (New York: Oxford University Press, 2010), 15.

[128] Wyn Jones, *Security, Strategy, and Critical Theory*, 88.

[129] Ibid., 133.

security nexus and establishes a link with human individuals and society that enables an emancipatory politics to take place.

In the case of the military, warfare technology and emancipation seems like two hardly compatible elements. Wyn Jones acknowledges this fact and remarks that the quest for ethical emancipatory possibilities is a problematic task in the realm of military technologies, as these technologies represent an inherently destructive and inhuman nature of war.[130] Critical analysis of technology seeks to "denaturalize" military technologies and to expose the process from which these technologies emerge.[131] This suggests that in Wyn Jones rendering technological development is not inherently harmful but an ambivalent process. This ambivalence means that technology "opens up a range of options or choices for society, and the options chosen depend in part on the configuration of power relationships within that society and almost invariably serve to reinforce the position of the hegemonic group".[132] For this reason, the specific contexts of technology application should be constantly open to criticism and contestation. Civilizational choices are not autonomously determined by the technologies, but can be affected by human action.[133] Hence, the aim of the critical approach to technology is to reflect on these power structures and on how emancipatory politics can be achieved within the present institutions and relationships. Such commitment demonstrates Wyn Jones attempt to go beyond abstract concerns with idealistic notions of happiness and freedom and to engage with what he calls "concrete utopias".[134]

In order to illustrate his critical reconceptualization of technology and emancipation, Wyn Jones provides an analysis of nuclear politics. According to Wyn Jones, the tendency "to fetishize military hardware" is obvious in the case of traditional approaches to technology

[130] Ibid., 134.
[131] Ibid., 144.
[132] Ibid., 139.
[133] Feenberg, *Transforming Technology,* 14.
[134] Wyn Jones, *Security, Strategy, and Critical Theory,* 76-78.

that tends to concentrate on means.[135] The exceptional concentration on military means implicates instrumental rationality and amoral stance. Consequently, the ethical and political consequences that ensues from invocation of military means are left unaddressed. The ignorance of society can be illustrated by his evaluation of nuclear politics. For Wyn Jones, the apocalyptic understandings of nuclear weapons represent the "bureaucratic and political power struggles rather than any rational enemy threat".[136] This clearly illustrates how the ethical and political consequences that ensues from invocation of military means are left unaddressed. In such a rendering, society is seen as a neutral and isolated entity.

As a response to this ignorance in society, Wyn Jones suggests analysing the relationship between technology and society in a dialectical way. The following quote clearly demonstrates his refusal to interpret technology either in an instrumental way as a neutral tool or in a substantivist way as a destiny:

> Technology does have a logic in that it simultaneously creates and constrains the choices available to society, yet technology does not predetermine which one of those particular choices is made. That decision is a social one, and as such reflects a whole series of social, cultural and power relations. The fact that these relations are contestable lead to the argument that technology is a scene of struggle.[137]

Technology and society as two realities engage in an ambiguous and contradictory process. Hence, critical theory of technology helps to contest the ways military strategies are conceptualized and implemented. In this sense, technology has an effect on society and individuals. However, technology does determine civilizational choices. All the choices made are the results of human action and reasoning. In this sense, technology is essentially political

[135] Ibid., 5.

[136] Wyn Jones, *Security, Strategy, and Critical Theory*., 140.

[137] Richard Wyn Jones, "The Nuclear Revolution," in *Fin De Siècle: The Meaning of the Twentieth Century*, ed. Alex Danchev (London: Tauris Academic Studies, 1995), 99, quoted in Columba Peoples, *Justifying Ballistic Missiles Defence*.

and contestable process through which power and knowledge relations are manifested. In such rendering technology is seen not as a reification, but as a process,

In this political struggle for emancipation, the role of critical theory is to deconstruct the existing power structures and to offer alternative possibilities.[138] Hence, CSS engagement with technology can be seen as a promising solution to the so-called 'Collingride Dilemma', coined by David Collingride in his 1980 book, *The Social Control of Technology*. According to him, there is a double-bounded problem in technological development: "when change is easy, the need for it cannot be foreseen; when the need for change is apparent, change has become expensive, difficult and time-consuming."[139] This means that the outcomes cannot be foreseen until a new technology is adopted, but when technologies get inserted in the social world, their control becomes difficult. The critical approach to technology helps to expose internal assumptions and contradictions. As a result, the present stability is problematized. Such deconstruction opens a space for alternative scenarios. This is exactly what Wyn Jones does in his analysis of nuclear technology. Within the latest debates on nuclear weapons, the critical approach has helped to contest the truth claim that nuclear disarmament can be achieved only after stable peace in the world is reached and has opened a political space for the delegitimization of nuclear weapons to take place.[140]

In the military realm, the critical approach can expose military technology to political controversy and, thus, denaturalize the presence of weapons and raise ethical concerns about the purposes and the ways they are used. This is particularly important in relation to technological progress and its effects on the contemporary military and warfare. Wyn Jones emphasize the danger of accepting the advanced features and destructive capabilities of contemporary military technology as inevitable outcome of progress. In order to avoid this,

[138] Ibid., 143.
[139] David Collingridge, *The Social Control of Technology* (London: Frances Pinter, 1980), 11.
[140] Bourne, "Guns Don't Kill People, Cyborgs Do", 150.

the critical approach to technology "must seek to intervene in this process in order to try to ensure that new technologies are not developed and imposed in ways which simply recreate and reinforce present patterns of domination and injustice."[141] As we can see, for Wyn Jones the value of critical theory of technology rests in its practice-oriented commitment to contest the existing military strategies and their implementation.

Wyn Jones' critical approach to technology and emancipation is based on a clear distinction between the social reality of human beings and material reality of technologies. However, it does not fully capture the ways how the changing modes of contemporary warfare has affected the relationship between human and technology and what implications these changes bring to the emancipatory security politics. The clear distinction between human subjectivity and the objectivity of things collapses at the advent of robotic warfare and extensive human reliance on autonomous technology in military operations. As has been demonstrated in the first chapter, human experiences are affected and the very relationship between human-soldier and technology is profoundly altered via interactions between humans and contemporary autonomous military technologies. The distinction between human subjectivity and objectivity of technologies collapses. Consequently, in the face of advanced military technology and changing subjectivity, the CSS emancipatory approach begs for a few modifications. As will be demonstrated in the following chapter, valuable conceptual changes can be provided by feminist approaches to the relationship between contemporary military technology and the human individual.

CHAPTER 3. Feminist "interventions" in the 'killer robot" debate

[141] Wyn Jones, "The Nuclear Revolution," 106, quoted in Peoples, *Justifying Missile Defence*.

The feminist theory's critical interrogations of techno-culture, human body and practices of violence is centrally important within the context of contemporary warfare. Feminist approaches can provide security studies with the necessary reflectivity on bodies and war practices in international relations and security studies. This blurred line between subjectivity and objectivity introduces the post-human subjectivity of the cyborg soldier. The emergence of the cyborg soldier raises challenges to the technology and emancipation approach of CSS. Hence, Master's analysis of the constitution of the cyborg soldier in American army via techno-scientific discourse of power, together with other insights from feminist theory, such as Lauren Wilcox's theorization of bodies and violence, serves as a basis to demonstrate how the relationship between technology and emancipation changes in an age of RMA.

3.1. What would feminists say about 'killer" robots and human emancipation?

In her analysis of the constitution of the cyborg soldiers in American military discourses, Cristina Masters indicate that "advanced technologies now constitute the subjects and human soldiers constitute the objects of military discourses".[142] In this sense, the machine acquires ontological primacy that is traditionally associated with human subjectivity. Humans, on the other hand, become a part of the machine, as they cannot act independently anymore or are even replaced by the machines altogether. As Masters demonstrates, in American military discourse soldiers as human beings are no longer the sites of power and knowledge. Human reasoning and thinking from human subject are transferred to technology.[143] These changes, dictated by the RMA, not only transfers subjectivity from

[142] Cristina Masters, "Bodies of Technology: Cyborg Soldiers and Militarized Masculinities," *International Feminist Journal of Politics* 7 (2005): 115, doi:10.1080/1461674042000324718.
[143] Ibid., 114.

human to machines, but rearticulates masculine aesthetics in relation to contemporary warfare. Further implications of the shifting subjectivity are the disembodied international practices of violence, where human individuals are no longer the political objects.

The constitution of the cyborg soldier manifests the radical rewriting of the subjectivity. As Masters puts it, because of "the discursive positioning of military technologies as superior to the human soldier, machines are now the subject of the text".[144] Consequently, soldiers are no longer seen as a representation of the military power – fleshy bodies of soldiers have been replaced by the steely bodies of technology. Contemporary warfare exclusively relies on advanced military technologies. The ability to use the advanced military technology is seen as an essential skill that contemporary soldier must master. The construction of human-soldiers into war fighting machines is not a new phenomenon.[145] However, today these changes are even more fundamental. Technology is seen not as a supplement than enhances, but as an inextricable element that constitutes and makes the contemporary warrior. Such increase reliance and integration of contemporary soldier with military technology creates cyborg-soldiers or a warfighting human-machines.[146] The cyborg soldier is the "juncture of ideals, metals, chemicals, and people that makes weapons of computers and computers of weapons and soldiers".[147] Even more fundamentally, in the current context of RMA, the soldier's fleshy body is seen as problem that needs to be solved. Human no longer can keep up with the technological developments. and become dependent on them. Nowhere else this tendency is so strikingly visible as in the military. Advanced

144 Cristina Masters, "Bodies of technology and the politics of the flesh", in *Rethinking the Man Question: Sex, Gender and Violence in International Relations*, ed. Jane Parpart and Marysia Zalewski, (London, New York: Zed Books, 2013), 94.

145 At all times the body of a soldier was a site upon which a disciplinary power has been acted upon. In his book *Discipline and Punish*, Michael Foucault takes example of a soldier to elucidate how the "docile bodies" are created through discipline and training (see Michel Foucault, *Discipline and Punish: The Birth of the Prison* (New York: Vintage Books, 1977), 135).

146 Springer, *Electronic Eros,* 10.

147 Chris Gray, *Postmodern War: The New Politics of Conflict*, (London: Routledge, 1997), 8.

military technologies and cyborg soldier are seen as superior in almost every way to the human male body with all its imperfections. Hence, the privilege to demonstrate the power of the military as well as political subjectivity have shifted from human-soldier to cyborg and military machines.

Advanced military technologies not only have eradicated the distinction between human and machine and shifted subjectivity, but also have introduced new techno-militarized re-articulation of masculinity. Military machines have been masculinized, while soldiers' bodies have been re-articulated by attaching the new meaning that have traditionally been associated with femininity. Masculine rationality and reasoning as well as physical performance are transferred to technology.[148] Cyborgs are seen as the perfect representation of military power and control. In her analysis of techno-erotization of bodies, Springer demonstrate how gendered metaphors of femininity and masculinity are written in popular culture representations.[149] The "hybermasculine cyborgs" such as Terminator and Robocop perfectly relates with gender re-articulations in contemporary American military discourses. As Masters substantiate, not the soldier, but the military technology represents the masculinity and power of American military:

> Techno-militarized masculinity has come to symbolize the model American soldier, represented in the machine-man interface through the reciprocal processes of technologies constituting soldiers and militarized masculinity constituting technology. The machine–man interface in so many ways is literal in the American military, where everyday experience is characterized by constant interaction with advanced technology, from weapons to computers, from training simulations to real battle.[150]

On the other hand, human 'error' and emotional weakness related with femininity are seen as the weakest link in contemporary military operations that needs to be removed. *For instance, US* Defense and Advanced Research Projects Agency (DARPA) is investing in

[148] Cristina Masters, "Feminisms, Technology, and the Military", in *Gender Matters in Global Politics: A Feminist Introduction to International Relations*, ed. Laura Shepherd, (Routledge, 2010), 182.
[149] Springer, *Electronic Eros,* 95-124.
[150] Masters, "Bodies of Technology,"119-120.

developing brain implants for the emotional mind control.[151] The main of this technology is to enhance the capability to recover American soldiers from adverse events or to remotely monitor soldier's performance during intense operations, as well as map and manipulate if needed. This example clearly demonstrates how soldier's body is seen as a weak link as an impediment to reach the maximum military strength and performance. Such body-anxieties are vividly expressed in military debates about the robotic weapons and fully autonomous military technologies. The underlying argument of the proponents of the robotic weapons is the moral obligation to save the body of the soldier. For the illustrative purposes, it worth remembering the debate about the use of UAV's in military operations. At the same time, techno-masculinized contemporary war blurred the line between the soldier and citizen and, likewise, created the situation in which civilian bodies can be easily transformed into militarized bodies.[152] Drone pilots are the example of the militarized civilian bodies or the cyborgs, who participate in war via human-computer interface and does not have to be in physical battle.

The virtual reality and the interface of the military weapon constructs a vision where there are no vulnerable bodies – a vision of a body-free world and theatre of war. According to Masters, "the more bodily matters are taken up by military and government institutions, the more bodies are disappeared and made absent".[153] The technological developments paired with moral obligation to minimize military fatalities made soldiers' deaths unacceptable in the eyes of the public. For Masters, the memories of the humiliation and defeat of American masculinized military-self are the driving factor behind the current techno-masculinization of American military. According to her, every fatality represents the weakness of the military

[151] Robbin Miranda et al., "DARPA-Funded Efforts in the Development of Novel Brain–Computer Interface Technologies," *Journal of Neuroscience Methods* 244 (2015): 52–67.

[152] John Armitage, "Militarized Bodies: An Introduction," *Body & Society* 9 (2003): 3.

[153] Masters, "Bodies of Technology and the Politics of the Flesh", in *Rethinking the Man Question,* 91.

and destroys the discourse of absolute hegemony and dominance.[154] Hence, the technological developments paired with moral obligation to minimize military fatalities made soldiers' deaths unacceptable in the eyes of the public. Hence, the rationale of RMA can be seen not only pure technical desire to enhance military capabilities, but also a pressure and a need to save a soldier. The remotely controlled technologies, from drones to robotic weapons, provide the desired safety and superiority. Consequently, the techno-wars creates the image and perception of the battlefield without fleshy human bodies.

One of the dangerous consequences of remotely controlled techno-war is "the heightened and hyper-disembodiment and disembeddedness from the materiality of war".[155] In other words, contemporary cyborg soldiers do not actually meet and engage with the enemy "other" as they do not experience the material reality of battlefield. They fight their wars sitting by the military computer screens without any direct visual encounter with their human targets. Drone pilot does not have "a story of bodies meeting bodies and bodies meeting and penetrating the ground".[156] Contemporary soldier see enemy targets not in their fleshy bodies, but is absolute abstractions such as flashing points of a radar screen or number and codes on the military computer. Such disembodiment from the reality of violence in the theater of war has deadly consequences as the enemy other is dehumanized and striped off from all his human characteristics and virtues. Drawing on her insights about American military, Masters conclude that the disappearance and denial of bodies in warfare is a result of "the inscription of military technology as the subjects of techno-scientific masculinity, and of human bodies, both soldier and civilian, as the objects of power and knowledge".[157] In other words, the discursive superiority of the machine over human resulted the shifted subjectivity and agency from human to technology in contemporary military discourse. Such

[154] Masters, "Bodies of Technology," 120-121.
[155] Masters, "Bodies of technology and the politics of the flesh", in *Rethinking the Man Question,* 90.
[156] Shapiro, *Violent Cartographies,* 155.
[157] Masters, "Bodies of Technology," 124.

ontological primacy of the military technology also replaced the responsibility of the decision-making.

As it was already demonstrated in the first chapter, contemporary modes of war, based on precision strikes, ignores the territorial boundaries of the state and instead targets human individuals. Such new mode of fighting has had considerable effects on human security. On computer screens, human bodies are graphical abstractions that creates an impression that no human life is present. As Masters rightly observes, the advanced military technology and constitution of the cyborg have changed the nature of responsibility towards the 'other'. According to her, targeted killings became "the right to kill without committing murder, because to constitute killing as murder would necessitate the recognition of life."[158] This observation is crucial as it demonstrates the way the new modes of warfighting changes human subjectivity. The disappearance of human bodies from the gaze of the military screens, erases them from the political realm as well.

For Wilcox, it is not enough to limit the analysis to the effects of the new technologies that enables fighting from the distance and resulted in the disembodied war practices. Advanced military technologies enable to see the human features of the targets on the computer clearly enough. In the context of the emerging robotic warfare, Wilcox's problematized rendering of the relationship between bodies and international security practices is especially important and worth taking a closer look. According to her, it is important to understand "how precision warfare constitutes a political adaptation of bodies themselves, of the pilots and drone operators as well as those of the targets and those at risk from aerial warfare".[159] In such a way, Wilcox problematize the prevailing tendency in IR literature to treat bodies as natural organisms and ignore their political nature. Hence, such

[158] Masters, in "Bodies of technology and the politics of the flesh", *Rethinking the Man Question, 99*.
[159] Wilcox, *Bodies of Violence,* 6.

politicized rendering of bodily experiences of violence suggests that bodies on the military computer screens are seen as mere abstractions, but rather as stateless, depoliticized bodies.

As Master's analysis of techno-masculinized military discourses together with the other insights from the feminist theory has demonstrated, technology is both liberating and repressive. Remotely controlled weapons remove soldiers from the battlefields. In this sense, technology is liberating, because advanced military technology ensures the safety of soldiers. Additionally, advanced military technologies, as for example targeted killing through drone strikes, introduces new modes of war that are quick and surgical and less bloody. In this sense, technology has the emancipatory potential and liberates human individuals form atrocious war. However, as the engagement with feminist has demonstrated the rewritten and reproduced masculine aesthetics of warfare become more dangerous. Wilcox's theorizing of bodies and how they are politically constituted in relation with violence give a critcal tools to understand how human relations and experiences are changed and altered during interactions with autonomous military technologies. The introduction of the autonomous technologies created the cyborg soldier who represent the disembodied nature of contemporary war. Such disembodiment created the illusion of the absence of violence as all the violence from direct physical encounters and battlefield has been transferred to the computer screens. This raises the major challenge to the emancipatory potential of the technology as such, but even more feminist theory helps to reveal to what challenges is exposed CSS emancipatory agenda. However, the engagement with feminist theorizing of shifting subjectivities and bodies as politically produced entities can help to enhance CSS' emancipatory security agenda.

CONCLUSIONS

In reviewing CSS' human-oriented security agenda in an age of autonomous military technology, this thesis has sought to problematize the relationship between technology and emancipation, that has been conceptualized by Wyn Jones in order to provide a critical rendering of nuclear politics. If Wyn Jones has been primarily concerned with fetishization of nuclear weapons, so today one of the main challenges concerning human security ethics and international politics is the fetishization of advanced military technologies. The pressing questions about the current targeted killing campaigns through drones and even more worrisome visualisations of the future wars fought by military robots are rapidly occupying international political agenda. In relation to these current developments, a critical eye has been cast over CSS potential to cope with the contemporary challenges and to prove its commitment to transformative political practices. It has been argued that the existing CSS approach to technology and emancipation, nevertheless, does not fully capture the ways how the changing modes of contemporary warfare affects human individuals and emancipatory security politics.

By introducing a security as emancipation approach, CSS conceptualized a human-oriented security agenda pre-occupied with freeing people from military and non-military threats that create conditions of insecurity and preclude individuals from their human potential. Drawing in this, CSS is a practice-oriented theory of security that seeks to inform the security practices and aid the transformation of real world insecurities. This commitment to practice is seen in theory's conceptualization of security not as objective condition, but as a derivative concept. The idea is that security should be context-sensitive and engage with the concrete situations of insecurity and oppression. Hence, security relates not only with the elimination of threats, but also with the fundamental questions of political life and the role of human individuals. However, in Booth's account, emancipation is seen as the ultimate objective, an idealized final state. For Wyn Jones, on the other hand, emancipation is not an

end-state, but a process and direction. Hence, emancipation cannot be completed, however emancipatory security politics enables to reveal the potentialities within the present power structures. These potentialities are related with Wyn Jones's re-conceptualization of technology and emancipation as an attempt to engage with concrete institutions and relationships. Building on Booth's 'security as emancipation" approach, Wyn Jones demonstrates how critical treatment of technology can lead to more emancipated reality. In order to do so, he has critical approach to technology. By introducing a notion of dialectical interconnection between subjects and objects, Wyn Jones expanded the Frankfurt School view of technology that evolved around either instrumental or substantivist treatment of technology.

Hence, according to this critical approach proposed by Wyn Jones, the technology and society is seen as dialectically intertwined. Thus, technology is not interpreted from the instrumentalist perspective as a neutral tool in the hands of humans. At the same time, it is not interpreted from the substantivist perspective as an autonomous cultural force that determines human lives. Rather, as Wyn Jones argued, technology and society are dialectically interconnected. This means that new technologies emerge with a variety of possibilities, and it depends on the power-knowledge dynamics which possibility will be chosen. Hence, the aim of Wyn Jones' critical approach to technology and emancipation is to identify these possibilities that enable change within the existing world order. What is important here to realize is that this approach relies on dualistic treatment of material things and social relations. However, as the current military debates and real world observations illustrate, due to the dramatically increased reliance on technology, the relationship between soldier and technology is altered and affected so profoundly that it leads to the constitution of a cyborg-soldier. As a result of human-technology interaction, the distinction between human subjectivity and objectivity of technologies collapses. In the face

of these changes that could not have been clearly foreseen at the time when Wyn Jones proposed his critical rendering of technology, CSS emancipatory approach needs a few modifications and improvements. As the thesis has demonstrated, they can be found in feminist theorizing.

Feminist approaches to technology and society can help to revitalize CSS and enhance its emancipatory security agenda. First of all, feminist approach provides a comprehensive account on the power/knowledge relations and shifting subjectivities from humans to non-humans that constitutes cyborg-soldiers. In such a way, feminist approaches provide a problematized rendering of emancipation that at the same time can have liberating and oppressive effects. Secondly, and closely related with the first refinement, feminist theory provides a more problematized rendering of bodies as political entities and violence as a constitutive force. In CSS' approach, the questions about the bodily experiences of insecurity and violence are at the heart of its human emancipation agenda. Hence, denaturalized rendering of bodies as political bodies can enhance CSS critical potential in analysing conditions of insecurity and violence, especially in the current context of the changing nature of international political violence. Precision warfare is the best example. Denaturalized understanding of bodies can help to understand how the bodies are constituted and how it enables certain form of violence take place. The lessons learned from these theoretical explorations could prove to be of the utmost importance in CSS human-oriented security agenda in confrontation with the emerging robotic warfare and dramatic human reliance on technology.

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