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**The Impact of Developing Warfare Technology on Just War
Theory**
English

Bachelor's Thesis

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Declaration

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

In Prague on
01st August, 2023

Anna Shabalina

References

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Abstract

Just War Theory or Tradition has been one of the oldest philosophical concepts, which dates back to Medieval times. However, there are still areas, which are under-researched, particularly when it comes to modern warfare and technological developments. Though the research on this topic is quite scant until today, a number of researchers concur that just war theory requires to be modified in order to remain a valid ethical framework to explain military conflicts. The research question of this thesis is what is the impact of developing warfare technology on just war theory. In order to answer this question, a case study form of research design was chosen and the second Nagorno-Karabakh conflict will be used as this case study. The thesis concludes that the core principles of just war theory are indeed influenced by developing warfare technology and further revision of the theory is required in order for it to be compatible with the fast pace of developing warfare technology.

Keywords

Just War Theory; Developing Warfare Technology; Autonomous Weapon Systems; Jus Ad Bellum; Jus In Bello

Název práce

Vliv vývoje technologie válčení na teorii spravedlivé války

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List of Abbreviations

AWS- Autonomous Weapon Systems

IHL- International Human Law

JWT- Just War Theory or Tradition

LAWS- Lethal Autonomous Weapon Systems

UAV – Unmanned Aerial Vehicles

Table of Contents

TABLE OF CONTENTS.....	8-9
INTRODUCTION.....	10
1. INTRODUCTION.....	10
1.1. Research aim and objectives.....	10
1.2. Useful Concepts.....	11
1.3. The Relevance of the Research.....	11
1.4. Hypotheses.....	12
2. LITERATURE REVIEW	
2.1.PART 1. EVOLUTION OF JUST WAR THEORY	
2.1. Introduction to the chapter.....	13
2.2. Part 1. The Evolution of Just War Theory, its paradigm and modifications.....	14
2.2.1. The philosophical and conceptual evolution of Just War Theory	14-16
2.2.2. Just war theory by Michael Walzer.....	17
2.2.3. Critique of Walzerian Just War Theory.....	18-19
2.3. PART 2. THE PARADIGM OF JUST WAR THEORY AND ITS MODIFICATIONS.....	20-22
2.4. PART 3. DEVELOPING WARFARE TECHNOLOGY AND ITS ETHICAL IMPLICATIONS	
2.4.1. The notion of new wars	23-24
2.4.2. Developing warfare technology, its types and implications for JWT	24-27
2.4.3. The impact of developing warfare technologies on Just War Theory.....	27-29
2.4.4. The necessity to revise JWT as a result of their impact of developing warfare Technology.....	29-31
2.5. Conclusion of the chapter.....	32
3. METHODOLOGY	
3.1. Introduction to the Chapter.....	33
3.2. The Research Question and Research Design.....	34-35
3.3. Research philosophy.....	35
3.4. Research Type.....	35
3.5. Research Strategy	36
3.6. Research Time Horizons.....	36
3.7. Sampling Strategy	36
3.8. Data Collection Methods	36
3.9. Data Analysis Methods	36
3.10. The methodological Limitations	37
3.11 Conclusion	38
4. THE CASE STUDY OF NAGORNO-KARABAKH THROUGH THE PRISM OF JUST WAR THEORY AND DEVELOPING WARFARE TECHNOLOGY	
4.1. Introduction to the Chapter	39
4.2. The Synopsis of Nagorno-Karabakh Conflict	40-41
4.3. The Nagorno-Karabakh Conflict Seen Through The Prism of Just War Theory	42
4.3.1. Just Cause Principle.....	42

4.3.2. Right Authority Principle.....	43
4.3.3. Right Intent Principle.....	43
4.3.4. Principle of Last Resort.....	43
4.3.5. Proportionality Principle.....	43
4.3.6. Reasonable Hope for Success	44
4.4. :Limitations Of the Research	45
4.5. Conclusion of the chapter.....	46
CONCLUSION.....	47
LIST OF REFERENCES.....	48-57

Introduction

1.1. Research aim and objectives

With its roots in the Medieval Christian tradition, Just War Theory (JWT) has served as a dominant framework to judge the morality of war until our time (O'Driscoll, 2015:1; Peperkamp, 2016:315). Having gone through modifications and revisions, the theory, nevertheless, managed to preserve two of its core principles, which are *jus ad bellum* and *jus in bello*. These two principles lay out the criteria to judge whether the initiation and conduct of war are just or unjust. However, until today, there are debates in relation to whether JWT can keep up with the changing nature of war and warfare. Therefore, while a number of scholars argue for the importance of JWT, others suggest that it is outdated and even obsolete. As 21st century has been witnessing a few wars with a big amount of civilian and non-civilian casualties, there is a necessity to revisit the notions of justice and morality of war, particularly when it comes to developing warfare technologies. One way to do it is to analyze a contemporary conflict, during which developing technologies were used and to determine what impact they had on the judgment of justice and morality of this conflict.

The purpose of this thesis is, therefore, to argue that developing warfare technology has an impact on JWT, and finds its flaws and the necessity to revise and modify it. In other words, this research aims to interrogate how the phenomenon of developing warfare technology, which is represented by such equipment as autonomous weapon systems (AWS) including drones and other equipment, influences the core principles of JWT and contributes to changes in its paradigm. In order to achieve this purpose the paper will discuss the extant literature on the topic of JWT, its paradigm, the phenomenon of developing warfare technology and how it has changed the notion of war and JWT. The paper will proceed to discuss the methodology, which was chosen to test the hypotheses of this research.

Finally, the paper will conclude with the case study on the second Nagorno-Karabakh conflict and how the use of evolving technology has been affecting the outcome of the war and the judgment about the justice of this war from the perspective of JWT. By analysing the existing data available on this case study, the thesis concludes that developing warfare technology does have an impact on JWT, and calls for further research and possible revision of the theory.

1.2. Useful concepts

Jus ad bellum

A principle of JWT, which lays out the conditions under which a state may decide to resort to war or use force (International Committee of the Red Cross, 2023).

Jus in bello

A principle of JWT, which lays out the rules for conduct of war during a military conflict (International Committee of the Red Cross, 2023).

Autonomous weapon systems

A weapon system, which is capable of selecting and attacking targets without human intervention (Institute for European Studies, 2023).

1.3. The relevance of the research

The present research is relevant in the sense that warfare technology has been developing rapidly and there is a tendency that it may reach the level of sophistication and autonomy that human intervention will be superfluous. Considering that developing weapon systems do not have human morality and it is challenging to incorporate human morality into technology, there is a growing risk that the morality of war will be significantly challenged. JWT is an ethical framework, which has been evolving together with the evolution of warfare. However, there are doubts among a growing body of scholars that the theory is actually relevant and valid, particularly as far as contemporary conflicts are concerned. Therefore, the relevance of the present research is first of all, concerned with how this challenging new technology can impact JWT and whether JWT as an ethical framework is still relevant or it needs to be replaced or modified. This study may be useful not only within the scope of moral philosophy, but also within the realm of policy making and even politics and international relations. This study represents only one thesis, which cannot be representative enough to draw a theory. However, it gives rise to further research, which can bring about more concrete results.

1.4. Hypotheses

H1. JWT remains an important ethical framework to judge the morality of war. However, when it comes to modern conflicts, it may not be sufficient to be compatible with the changing nature of war and warfare.

H2. Developing warfare technology represents a direct threat to the notion of human morality in war, and therefore challenges just war theory. As autonomous weapons and other warfare technology are being developed, it is hypothesized that this development will have implications that are more serious on JWT.

H3. If autonomous weapons keep developing and are not prohibited, they will have further impact on JWT and the theory will have to be modified in order to acknowledge it.

H4. Developing warfare technology may have both positive and negative effect on JWT. However, at this moment, further research is required to determine its true impact.

H5. The second Nagorno-Karabakh conflict is an important example of how AWS were applied during a modern war and how they arguably predetermined the victory of one state over the other. This case is important from the perspective of JWT since the judgment of justice during the war is different than it would be, should AWS have not been used.

2. Literature Review

2.1. Introduction to the chapter

JWT was developed in the Middle Ages as a response to Christian Pacifism and its main purpose at that time was to justify the decision of a state to go to war. It has been placed between Pacifism and Realism since then. The key principles of the theory were formulated around 13th century and the theory was abandoned and revisited numerous times since then (Patterson, 2005:117). The philosophical significance of JWT cannot be underestimated since it was subject to inquiry of different philosophers at different times. Nevertheless, as the nature of military conflicts kept changing, the theory had to be scrutinized to ensure it was compatible with these changes.

The paradigm of JWT remained relatively sustained. However, scholars are divided on the subject of whether JWT is still a relevant and valid framework to judge the morality of modern military conflicts. Among other challenges to JWT are non-state actors, terrorism and climate change. However, one of the most challenging issues is development of new warfare technologies. What is crucial from the perspective of moral philosophy is whether human morality will be replaced by machines and will become superfluous. Assuming that warfare technology will keep developing and more robotic equipment will be utilized, JWT may not be needed at all, since the factor of human morality will be absent from new wars. Alternatively, it will need to be revised or extended to be compatible with these new conflicts.

The following chapter presents the literature review on the subject of JWT and developing warfare technology. In order to provide the most comprehensive summary of the topic, this chapter is divided into three parts. The first part focuses on the review of the philosophical and conceptual evolution of JWT with particular attention to the work by Michael Walzer and the critique of this work. The second part delves into the discussion of just war paradigm and its modifications over time. The last part focuses on the literature on developing warfare technology and the current ethical dilemmas related to it. It also briefly discusses the notion of new wars and how it can be related to the change in just war paradigm. The combination of the three parts reveals the current state of the extant literature on the subject and where a gap for further research exists. The chapter concludes that despite the lack of extant literature on the subject, there is a clear indication that the topic is important and further research is required, especially in relation to the contemporary cases of military conflicts.

2.2. Part 1. The Evolution of Just War Theory, its paradigm and modifications

2.2.1. The philosophical and conceptual evolution of Just War Theory

Just War Theory (JWT), which is also referred to as *Tradition* or *Doctrine* (Marshall, 2020), is described not as one single theory, but rather a collection of religious, philosophical, legal and intellectual traditions (Finlay, 2019; Cole, 2021). This fact explains the presence of abundant and multi-dimensional literature on the topic. There are a few definitions of JWT. Orend (2007: 571) defines it as a series of concepts and values, which are designed to provide systematic moral judgement in the time of war. Springer and Dordrecht (2007:3) call it a *theory of limited war*. The theory is positioned between the Realist and Pacifist schools of thought, and to some extent even challenges both of them. Just war is a defensive war, whose justification is based on the premise of defense from aggression (Berkebile, 2018: 19; Reiner, 2018:1). Therefore, it is at odds with pacifism, which prohibits any kind of war, but at the same time it is at odds with realism, since it places limits on war to the extent that it is just only if it is fought in self-defense. Until today, JWT has maintained its position as the dominant moral framework to assess the justice of war. However, it has been subject to ever-lasting research and debate.

The philosophical inquiry into JWT can be traced back to Ancient Greece and Rome (Peperkamp, 2016:315). Aristotle and Cicero engaged with the concept of just war, but did not produce a theory per se (O'Driscoll, 2015:1). It was further developed by Christian thinkers in their attempts to oppose Christian Pacifism and to argue that wars could be waged as long as these wars were just. Walzer (2002:925) interprets the formulation of JWT by St. Augustine as a moral justification *in the service of the powers*. According to him, St. Augustine grappled with the complete denial of Christian Pacifists to engage in war, and argued that pious Christian soldiers could do so provided that their fight was without anger and for the sake of religious and imperial peace.

The other two most prominent Christian just war theorists are Gratian and Thomas Aquinas (Turner Johnson, 1981: xxiv). In his work *Summa Theologica*, Thomas Aquinas argued that three criteria needed to be met in order to determine if a war is just or not. These criteria are as follow: 1) declaration of war by public authority 2) just cause and 3) right intention (Marshall, 2020; Perez, 2021). Despite being articulated in the Middle Ages, these principles are still consistent with the core principles of JWT. This suggests that modern JWT in its Western interpretation is still based on some of the Medieval principles underpinned by religion.

With time JWT evolved from being purely religious into becoming philosophical and legal (Johnson, 2006:167-168). Starting from 17th century, its core principles were incorporated in the realm of international law, which attempted to place war within legal framework (Douzinas, 2022). Hugo Grotius is credited for improving upon the theory of Aquinas by amalgamating this predominantly divine theory with natural law and enforcing civilian rights. His exploration of JWT was related to the justification of regular wars between states (Lesaffer, 2020). Grotius summarized the main criteria for going for just war as follow: (1) just cause; (2) right authority; (3) right intention; (4) proportionality; (5) resort; (6) peace as its goal; (7) reasonable hope of success (Nabulsi, 2007). Thus, Grotius is considered to be the father of the *just war paradigm*, which is related to the introduction of notion of humanity to warfare. In his book *De Jure Belli ac Pacis* of 1625, he managed to connect the theory to international law (Johnson, 2006:169). This let JWT be both philosophical and legal theory at the same time. Therefore, a substantial amount of the existing publications on the topic review JWT in connection with law, and International Human Law (IHL).

Raphael Fulgosius, Paul Vladimiri, Francisco de Vitoria, Francis Bacon, Emmanuel de Vattel and Immanuel Kant also engaged with JWT and made their own contribution to it. However, with the introduction of the notions of modern state and state sovereignty, the scholar interest towards JWT declined (Walzer, 2002:927). It was after the World War II when both international law and the principles of JWT became aligned in such documents as *United National Charter* and the *Geneva Conventions* (McMahan, 2012). The benchmarks of military conflict, which are closely associated with the revival of JWT are the Vietnam War, Afghanistan War and Kosovo. What sets these conflicts apart from the perspective of JWT is that they transformed this philosophical discussion with legal underpinning into a political debate. At the same time, these conflicts also highlighted the importance of morality and ethics in war. Reviewing Vietnam War, as a particular example, Walzer (2002:928-930) argued that its main value to JWT was that it brought the discussion back to the question of morality and justice. This is what Walzer referred to as *Triumph of just War Theory*.

Johnson (2006:175) argues that the recovery of JWT in the 20th century can be divided into three stages: the first stage is associated with the works by Paul Ramsey and his discourse on the nuclear weapons and Vietnam War. The second stage is related to the name of Michael Walzer and his book *Just and Unjust Wars*, where he looked at the conflicts in Vietnam and Afghanistan and came up with a revolutionary argument on the dualism of jus ad bellum and jus in bello. The third stage is attributed to the Catholic Bishops' pastoral letter *The Challenge of Peace*. This letter raised concerns about nuclear weapon and developing warfare technologies. Additionally, it recapped the religious stance on war and recapitulated the position of Catholic Church on principles of war and deterrence. This letter may be interpreted as an attempt to bring the tradition closer to Christian Pacifism.

Apart from the conflicts, which were mentioned earlier, the revival of JWT is attributed to such phenomenon as the change in international political system. This implies the balance of power and changes, which were made to it following Second World War. The phenomenon of 9/11 was another important event, which triggered an important discussion on JWT in the existing literature. Terrorism and the involvement of non-state actors in war gave rise to further debates on the topic. One conclusion, which can be drawn from the relation of the above phenomena and JWT in the 20th century is that the concept is definitely influenced by changes in political, social and technological spheres. Nuclear weapons were a particular concern among scholars. The possession of weapons by non-state actors is an area of concern too. However the phenomenon of developing warfare technology is particularly important in the discussions of warfare in 21st century, since it has been developing at a high speed.

This brief summary of the philosophical and conceptual evolution of JWT helps makes it clear that the JWT is versatile and changes in parallel with the changes in various spheres. Murnion (2007) argues that the evolution of JWT did not take place naturally, but instead was a chain of paradigm shifts, which were supported by the transformation of values and innovative changes in the political, social and technological spheres. In order for the theory to remain a valid framework it requires systematic and regular revision (Hower, 2006; Douglas, 2013; Taylor and 2017 Joo, 2019). Speaking about the most recent changes in the JWT, it is imperative to discuss the work of Michael Walzer and the critique, which was triggered by this work. The following section discusses Walzerian just war theory in detail.

2.2.2. Just War Theory by Michael Walzer

The name of Michael Walzer is associated with the revival of JWT in the 20th century. He revisited and scrutinized both the strengths and weaknesses of the classic version of the theory and improved upon it, so it could correspond to the context of military conflicts of that time (Chomsky, 2006). In his book *Just and Unjust Wars*, Walzer stands by the idea of just war and believes that JWT is a valid moral framework to judge the ethics of war. He focused on the examples of Afghanistan and Vietnam War, and came up with a revolutionary argument on the moral equality of soldiers, which implies that conscripted soldiers are exempted from moral responsibility no matter whether the war their state wages is just or unjust (Primoratz, 2002). In other words, his argument was that the principle of *jus in bello* does not depend on the principle of *jus ad bellum*. Additionally, Walzer stands by non-combatant immunity, proportionality and combatant equality principles (Lazar, 2017). Walzer transformed the existing model of JWT, which was based on natural law, into liberal theory, which focused on individual rights (Yoo, 2019). These rights are life and liberty (Reiner, 2016:355). What follows from this is that Walzer transformed JWT into a liberal theory.

Walzer (1977) presupposes that there are a few situations when a state may initiate a war. These are a large-scale military struggle for national liberation, violations of human rights and wars, and aggression of one state to another. Walzer makes a clear distinction between combatants and non-combatants and gives immunity to the latter. Walzer stands by the immunity of non-combatants and condemns actions aimed against them. This is often viewed as the link with democratic theory and rights to life and liberty. Walzer assigns the responsibility for unjust wars to politicians and government officials, but exempts conscripts. This also signals Walzer's liberal view of the theory and focus on individual rights. Walzer's work has been one of the most authoritative on the subject of just war. At the same time, it has been exposed to substantial criticism. It is sometimes described as an incomplete theory (Nadeau, 2015). Chomsky (2006) acknowledged the philosophical value of the theory but argued that it is quite static and does not contribute much to the discussion of justice at war. The frequent argument is that it lacks the elements, which would develop further arguments or reject the theories of Utilitarianism, Pacifism and Realism etc (Yoo, 2019). It is argued that Walzer did not aim to make a complete theory but rather a moral framework to assess real conflicts (Nadeau, 2015).

2.2.3. The critique of Walzerian Just War Theory

While discussing *Just and Unjust Wars* by Walzer, Chomsky (2006) presupposed that this work was important but lacked strong arguments to support JWT. This idea was shared by some other researchers who presupposed that the theory is flawed. One of the critics is Primoratz. Focusing on the argument of *moral equality of soldiers*, he rejected the possibility to exempt soldiers from moral responsibility to go to war and to only judge the justice of their actions during the war. Primoratz (2002:223) agrees that a soldier is not responsible for his state to initiate a war. However, soldiers are responsible for their choice to participate in a war, since they may reject to do so. Therefore, the independence of the principles of *jus ad bellum* and *jus in bello* is viewed as lacking in morality by Primoratz. Following this hypothesis means that the actions of the soldiers who participate in an unfair war but fight in a fair manner, are justified.

This creates an important dilemma for the question of justice at war. This question is further complicated for the modern conflicts where autonomous weapon systems are used. Machines do not have this choice. Considering that they are still managed by people suggests that there is still some human agency behind the decision to launch an attack. However, the decision to employ machines instead of people needs to be discussed further since it can both spare combatants, but at the same time cause more civilian harm.

Further critique of Walzerian theory is offered by *Revisionists*. They argue that combatants hold different levels of responsibility based on whether the war they fight is just or unjust. A leading revisionist McMahan (2012) offers a critique of traditional JWT. He grapples with the argument of *moral equality of combatants*, presupposing that it has a paradoxical nature. His counter-argument is that if the premise that unjust combatants fight in according to *jus in bello* principles, and these actions are permissible, the war they fight should then be just. However, according to Walzer, this war is unjust. In other words the actions, which are permissible on individual level, are impermissible on collective level. McMahan highlights that with this argument, really guilty combatants can escape justice. The conclusion McMahan (2012) draws is that governments will be incentivized to initiate unjust wars since combatants will not feel morally wrong to fight in an unjust war. The flaw of the theory, according to revisionists, suggests that unjustified killings can be justified by means of the theory (Barry, 2011:457).

Though the overview of Walzerian theory and its critique presented above is quite concise, one conclusion can be drawn from it that the role of combatants is crucial for the judgements of both jus ad bellum and jus in bello principles. Considering that developing warfare technology tends to replace humans and even to some extent human morality, combatants will be replaced by machines, which may pose some threats to human combatants of the countries, which do not possess more sophisticated arsenals or civilians in case the weapons are not precise enough or there are flaws with the mechanisms. Therefore, the topic of JWT needs to be reviewed from the perspective of autonomous weapon systems and their impact on just war paradigm. This paradigm will be discussed in the following section.

2.3. Part 2. The paradigm of Just War and its modifications

According to traditional JWT, there are two broad criteria, which measure how just or unjust a war is. The first criterion is *jus ad bellum*, which lays out the conditions under which a state can decide to initiate a war or to resort to war and the second criterion is *jus in bello*, which guides the conduct of war and the behavior of soldiers (Enemark, 2008). Sometimes *jus post bellum*, which regulates the behavior of states once the war is over, is also discussed by researchers as the third principles of JWT (Fabre, 2008:963). *Jus ad bellum* includes the principles of *just cause, right authority, right intention, last resort, proportionality* and *probability of success*. The key components of *jus in bello* are the principles of *discrimination* and *proportionality, military necessity* and *fair treatment of prisoners of war* (Dawson, 2013; Marshall, 2020). These principles were shaped long time ago, and have remained sustained until today shaping the moral framework of JST.

Discussing the evolution of JWT, Murnion (2007:27) argued that its development was not organic, but rather a series of paradigm shifts, which depended on various spheres including technological. Murnion (2007:27) then identified the four key paradigms of the theory, which is on the margin of philosophy and law. The first paradigm is referred to as early Medieval paradigm, and is associated with the works of St. Augustine. The second one is related to other Medieval philosophers, the third one is Early Modern paradigm and the fourth one is Contemporary paradigm. Nabulsi (2005:2) distinguished between *Grotian* and *Republican* paradigms. The former paradigm relates to humanist interpretation of JWT. In other words, it aims to bring and develop the notion of humanity to war. In contrast, the Republican paradigm dates back to Rousseau and the uprising against monarchy and feudalism as well as the American Revolution. This paradigm is an amalgamation of justice, with liberty, equality, individual and community rights, whatever else may fall within our concept of justice (Chomsky, 2006).

A few arguments, which challenge JWT, have been identified in the extant literature. The first line of argument is concerned with whether the two key principles of JWT should be separated or combined. According to the work by Michael Walzer (1977) for example, these two principles are completely separate. While, his critics-revisionists presuppose that they are inseparable from each other, and separating them will lead to immorality of war. The second line of argument focuses on the cosmopolitan interpretation of JWT. More specifically, cosmopolitan version of JWT calls for humanitarian intervention to protect human rights and the introduction of the principles of *jus post bellum* with the purpose of rehabilitating the aggressor regimes. Cosmopolitan versions of JWT suggests the possibility for soldiers not to rely on the authority to determine if a war is just or not (Reiner, 2018:1). Additionally, it is argued that international institutions should be more involved in just war issues, so combatants could have more information with regards to the last resort and waging war (Reiner, 2018: 4-5). All of the above arguments places a lot of significant on the human aspect of war, since it presupposes strong involvement of soldiers.

Developing warfare technologies, including autonomous weapon systems (AWS) represent a real challenge to this and other arguments, since these types of weapons lack the human aspect and will not be able to judge the morality of going to war and to conduct war. There are a number of arguments, which state that various principles of JWT including the principle of proportionality and non- combatant immunity are never met in modern wars. Some authors argue that core principles of JWT are incompatible with modern warfare due to the speed at which it develops and how it influences both the resort to war and the conduct of war (Berkebile, 2018).

There are also authors who presuppose that every modern war is unjust by the standards of traditional JWT (Rynne,2016). One reason for this argument is that modern wars have much bigger numbers of civilian casualties compared to the wars of the past (Rynne, 2016). Though there are a number of authors who defend the JWT and especially its normative nature (Brown, 2016), the debate on the applicability of JWT in the context of modern conflicts and developing warfare systems remains crucial in academic sphere (Springer& Dordrecht, 2007; Pritchard, 2017).

Hobart and Smith (2007) presuppose that JWT may lose its practical applicability in the contemporary world and become one of the abstract theories, which do not have any practical use.

There have been attempts recently to offer an alternative to JWT. Draper suggested an alternative model to JWT with the key differences as follow: firstly, his model focuses on individual morality and what individuals not states or collective bodies ought to do in wartime. Secondly, his model departs from the principle of double effect. Lastly, Draper's model focuses on the moral rights rather than moral duties (Lacourse, 2020). Draper's model is argued to be quite adequate to create a paradigm shift within JWT. However, this is only one way to modify JWT.

The important conclusion here is that even the alternative models to JWT focus on the human agency in the paradigm of JWT. The question, however, remains what will happen to the JWT paradigm if human agency is gradually replaced by developing warfare technologies. There are several topics, which have been receiving interest with relation to JWT. These topics are JWT and Feminism, JWT and climate change as well as JWT and COVID 19. However, the topic of the impact of developing warfare technology on JWT remains an under-researched area, even though authors acknowledge that it is important. The most appropriate way to start scrutinizing JWT and the impact, which developing warfare technologies have on it is by examining its most recent version, which was put forward by Michael Walzer. The following section will discuss the notion of new wars and how it is different from traditional ones. Additionally, it will focus on the main discussion of the thesis, which how developing warfare technology impacts the tenets of JWT.

2.4. Part 3. Developing Warfare Technology and its ethical implications

2.4.1. The notion of *new wars*

In the discussion of JWT and developing warfare technologies, it is important to also consider the changes in the notion of *war* itself. Merriam Webster dictionary (2023) defines *war* as *an armed conflict between countries, nations, or groups of people*. However, this traditional definition has been subject to scrutiny by a number of scholars, who argue that modern conflicts and their political underpinning significantly change the notion of war and JWT. There are various definitions of modern conflicts: Holsti described them as *third kind of war*, Creveld called them *low-intensity conflicts* and Mary Kaldor introduced the concept of *new wars* (Tufekci, 2018). Though the arguments of these scholars face criticism of those who claim that the basic idea of wars remains the same, there is a growing body of knowledge that at least some of the new conflicts can be characterized as new wars.

Considering the facts, which were discussed in previous sections, contemporary conflicts are characterized by the presence of non-state actors, extremist groups and automated technology. This reveals an important gap in the traditional JWT, since it historically looked at a distinct type of conflict, which is based on the traditional notion of war (Peperkamp, 2016:315). Since the nature of war has been changing, it is safe to assume that the notion of justice in war has been changing too. This fact is important for the assessment of the justice of war.

Kaldor (2013) argues that old and new wars are different in a number of ways, which are the goals, methods and financial support of wars. Her central argument is that new wars are a result of globalization and the changes it brought about. According to Kaldor, new wars are an amalgamation of violence, organized crime and significant violations of human rights (Kaldor, 2012:1-2). Patterson (2005: 120) proposed a similar argument. He outlined a number of criteria which applied to old wars, such as the reasons for starting wars, who declared a war and what means were used in war. Most importantly, it was about how wars were waged. This is related to the technology, which was used in wars. Traditional wars were waged with conventional means while contemporary wars are waged with much more sophisticated technology. Whetham (2016:55) suggests that it is because of new technologies that the difference between the state of war and the state of peace is blurred. In fact, some non-state actors may launch military attacks using new technology without defining it as war (Whetham, 2016). Will JWT apply in this case, since it is not clear if the act is a war or not? The discourse on new wars is extensive. However,

for the purposes of this thesis, only a small part of it was discussed. The main conclusion from this discussion is that wars waged in 20th and 21st centuries are different from the wars of the past, and technology is one of the main catalyzers of this change. This fact serves as a bridge between the JWT and the need to revisit its tenets and developing warfare technology. The next section will discuss what is meant by developing warfare technology in more detail.

2.4.2. Developing warfare technology, its types and implications for JWT

The rapid increase in the development of military technology has been widely acknowledged by various authors (Schwarz, 2018; Königs, 2022). The term *warfare technology* encompasses a wide range of systems, which are used for military purposes and for which a special training is required (Wikipedia, 2023). The terms *military* and *warfare* are often used interchangeably since they both refer to the equipment used for military purposes. Some examples of this warfare include *artificial intelligence, advanced defense equipment, robotics and autonomous systems, immersive technologies, additive manufacturing, big data analytics and block chain* (Startus Insight, 2023). What is understood by *developing* is that these technologies have been developing over an extended period of time and will keep being developed in the future.

The development of warfare technology is an ongoing process from the introduction of hammers and swords, to the creation of gun powder in China and Medieval Europe, and of course the development of planes, engines, guns, nuclear weapons and drones (Riaz, 2022). Each of these technologies had its impact on the notion of war and consequently JWT. Today, the most widely discussed topics are autonomous weapon systems (AWT), which include drones and other equipment with artificial intelligence. The main challenge these machines bring about is how the notion of humanity and human morality can fit into these systems. Since morality is an inherent part of JWT, it is assumed that developing warfare technologies, which lack human morality, are a direct challenge to JWT. Therefore, there is an assumption that by applying the phenomenon of developing warfare technologies to the just war paradigm, some flaws of JWT will be identified within this paradigm or there will be determined a necessity to extend the paradigm further.

The literature on the types of developing warfare technology is as extensive as the discussion on just war itself. However, for the purposes of this paper, only a few selected types will be examined. One of the most widely discussed type of weapons is Autonomous Weapon Systems (AWS). They are defined as *an artificial agent, which, is capable of changing its internal states in order to achieve goals without the intervention of humans or other agents* (Taddeo and Blanchard Citation2022: 15). The word autonomous is quite important here, because it presupposes that these machines are capable of producing an action without human intervention. It is argued that these technologies, especially if they have elements of artificial intelligence, significantly influence the ways wars are fought (Klonowska, 2022). Being more sophisticated than conventional weapons, they can ensure faster military operations and minimize the number of days a war is waged.

The states, which have access to more advanced weapons, have higher chances to win wars (Anand, 1999). This is a direct challenge to one of the jus ad bellum principle, which presupposes that a war ought to be initiated at a right cause. So, if the possession of more sophisticated weapons is a cause to start a war, such a war is not considered to be just because it would presuppose that one state is more certain of victory. It is fair to assume that a state whose regular army outnumbers the army of the state it plans to attack, will also be inclined to launch offensive. However, regular army consists of human combatants, and in case of AWS, it will be machines fighting against humans. This leaves an important question of justice in these circumstances.

Another concern with AWS is that the autonomy, which is given to these weapon systems is so extensive that these systems may show unpredictable ways of attacking (Van Den Boogaard, 2016). Another challenge that these types of weapons bring the interaction between humans and weapons during military conflicts to minimum (Rodhan 2015). This leads to the challenge with the principles of jus in bello, and most importantly the principle of proportionality. Though some drones are characterized by good precision, there is a possibility of the increased risk of collateral damage.

The subject of drones has received a lot of scholarly attention, since these are one of the most frequently used types of technology. Drones are possessed by a growing number of both state and non-state actors including extremist groups, which make their use more dangerous. The use of drones, which are also referred to as *unmanned aerial vehicles* (UAV) is often exposed to criticism, which is largely underpinned by ethical and moral considerations (Coeckelbergh, 2016). At the center of the debate is whether drones have a positive or negative impact on the conduct of war or *jus in bello*.

The opinions are quite divided (Brunstetter & Braun, 2011; Carroll, 2012). Those who argue in favor of drones, highlight that they can be used for pre-emptive strikes and targeted killing, which can reduce collateral damage and contribute to the justice of war. Those who argue against drones, stress their unpredictable nature, which may cause even more harm to civilians. International Committee of Red Cross suggested that developing autonomous weapon systems including drones, contribute to a paradigm shift in warfare technology, since it removes principle human agency and delegates all decisions to machines, which can be prone to inconsistencies and failures (Winter, 2022). Indeed, as it was discussed in previous sections, the notion of human agency can be found in most of the arguments on JWT. Walzer grounded his argument on the division between combatants and non-combatants and the individual rights. Since robots are now part of military conflict and they have a sufficient level of autonomy, it is clear that the theory needs to be revisited to see how it fits within the overall framework. An important question to be addressed is whether automated warfare can ever be perceived as moral agents and how different the moral decision making can be between machines and humans (Coeckelbergh, 2016). This question is still to be discussed further.

There are a few more arguments against the use of drones. One such argument is *disrespectful death* argument. At the center of this argument is the idea that a human being deserves the right to at least see and condemn their killer. Since the use of drones does not often offer this possibility, it is considered to be morally unacceptable. Another argument is *Unfair Killing* argument. The proponents of this argument point to the notion of *power asymmetry*, which is unfair by the principles of morality. Drones have more power than human combatants. Therefore, the fight with drones is not considered to be fair. The last argument is related to *Riskless killing* argument. Those who support this argument suggest that those who can kill their opponents are expected to assume the risk of being killed themselves. However, this is not the case with drones, which implies that there is no reciprocity. (Ogburn, 2020). The presence of the above arguments shows that there is

some research in the field of the ethics of drones. At the same time, it implies that drones are often viewed as more immoral than moral agents.

While discussing the ethical issues associated with the use of autonomous weapon systems and their possible ban as a possible solution to bring back traditional morality to war, Asaro (2012:704) focused on two assumptions. The first assumption states that further evolution of AWS is inevitable. The second assumption is that these technologies will continue developing, which implies that they will become more sophisticated and autonomous. His conclusion was that while it is impossible to stop the development of these technologies, people need to at least stop delegating them decisions, which require morality aspect. This is why it is important to evaluate the impact these technologies have on morality against the backdrop of JWT.

2.4.3. The impact of developing warfare technologies on Just War Theory

The inquiry into how developing technology may impact JWT started relatively recently. Therefore, the literature on this subject is rather scant. However, there are a few ongoing debates on the subject, and a number of authors concur that evolving technology does have an impact on the moral deliberation about war (Schwarz, 2018). As it was discussed in the previous section, developing technology includes various forms of weapons including artificial intelligence and cyber weapons. There is still an ongoing debate on whether these technologies have a positive or negative impact on war as such. At the same time, these weapons are one of the reasons why then notion of war has been subject to change. As far as JWT is concerned, the question is whether the use of these technologies is compatible with the principles of *jus ad bellum* and *jus in bello*.

Blanchard & Taddeo (2022) highlighted that *jus ad bellum* principles are not the most suitable ethical principles when trying to deal with the ethical issues caused by AWS. Their line of argument states that while *jus ad bellum* remains a powerful framework for the assessment of whether the cause and decision to resort to war is just, it fails to recognize the changing nature of war. Earlier Abney (2013) argued that the introduction of new warfare technology did change not only the way wars were conducted (*jus in bello*), but even what the war actually is and why and how it should be started. A similar position was supported by Michael Walzer (1977), who was concerned with the proportionality principle. As the autonomous weapons promise more proportionate wars due to the new technologies employed, states are assumed to be more willing to engage in this type of wars (Abney, 2013).

Even if we follow the argument that developing technologies help minimize the risk of combatant and civilian casualties, which is in line with *jus in bello* principles, this circumstance increases the risk of governments starting wars, which is *jus ad bellum*. Therefore, Berkebile (2018:28-29) examined the *new generation warfare* applying the traditional JWT paradigm with its key tenets of *jus ad bellum* and *jus in bello*. His conclusion was that there are some tents which are incompatible with the developing technology. More precisely, he determined that new generation warfare is incompatible with proper authority principle. He also concluded that the distinction between combatants and non-combatants is very vague. According to him, there was a high percentage of civilians targeted by these weapons and the just war framework was not a valid model to solve this issue. Overall, his conclusion was that modern warfare challenges the traditional principles of JWT and it has to be worked on, if the theory is here to remain.

In this book, Walzer (1977) presupposes that there is a *dualism* between *jus ad bellum* and *jus in bello*, which makes combatants instruments of unjust wars. The main premise here that soldiers are the victims of the state which sends them to fight (Reiner, 2018: 6). Looking at this issue from the perspective of developing technology, it is possible to assume that technology may partially solve this problem and partially challenge it. On the one hand, modern technology is capable of solving this problem by removing responsibility from combatants. At the same time, it poses a much worse risk of eliminating morality of war at all. This sparks a significant debate with relation to the moral permissibility of autonomous and other lethal weapon systems, and links the topic of JWT and developing warfare technology.

According to Walzer, soldiers on both sides act justly as long as they observe the principles of discrimination and proportionality (Asaro, 2008:4). According to Asaro (2008:4) autonomous technologies influence the choice a state has to go to war. It may challenge the concept of sovereignty of a state. This calls for the extension of JWT to provide a full account of this. The possession of more sophisticated technologies incentivizes states and their leaders to initiate a war. A state with an aggressor can launch an attack and the opponent state will need to use self-defense.

Additionally, wars may be initiated accidentally by inappropriate manipulation of autonomous technology, technical error or issues with the mechanisms of technology. These may have unpredictable and severe consequences. All of the above arguments indicate that developing warfare technologies represent a big challenge to the tenets of JWT, and it is necessary to investigate the subject more thoroughly. The following section discusses the necessity to adapt JWT to the context of developing warfare technologies.

2.4.4. The necessity to revise JWT as a result of their impact of developing warfare technology

Murnion (2007) presupposed that JWT was built as a sequence of paradigm shifts, which were caused by changes in politics, social life and technology. A number of philosophers proposed a possibility to revise or extend JWT. Some researchers suggest to use the capabilities approach of Martha Nussbaum to look at the modern conflicts from the perspective of human capabilities (Baker & Toberts, 2011). It was also proposed to revise the theory from the perspective of national defense and human intervention, which are related to cosmopolitan theory of just war. Blanchard and Taddeo (2022) concluded that the principles of jus ad bellum are not capable of solving the ethical problems posed by autonomous weapon systems. The argument against autonomous weapons from the just war perspective is based on the two key principles of jus ad bellum, which are the principles of *proportionality* and the *last resort*. Some authors argue that AWS will increase the likelihood of resort to war by first being more economical and secondly by giving political leaders more opportunities to convince the population that this war will be a success (Asaro, 2008; Blanchard and Taddeo, 2022). While it is difficult to collect calculations of the damage, which autonomous weapons may bring to the civilian populations, it is important to assess the issue from the perspective of moral philosophy. The debate on the moral responsibility of autonomous weapons is related to an earlier debate on the predictability of autonomous weapons. Wiener (1960) presupposed that as machines learn, they develop their own strategies which are not under the control of human agents. Therefore, it is difficult to predict their actions.

The key point in the debate is that autonomous weapons lack morality, which challenges the whole concept of JWT. On the other hand, there is another line of argument which states that there is no such thing as moral autonomy of warfare. Reisen (2022) argues that machines inherit these moral principles from humans. These controversies suggest that JWT can be used as a framework for the moral judgment of it, but certain modifications need to be added, since the traditional JWT is not capable of providing an account of it. Following this argument, it can be concluded that JWT may not be a sufficient ethical framework to discuss modern conflicts, wherein autonomous weapon systems are used. However, it can be revised and modified.

Some researchers argue that the wars waged with the pure reason of self-defense cannot justify the use of autonomous weapon systems (Roff, 2015: 37). The others argue that autonomous weapons have the capacity to cause more harm while a war is conducted. This suggests that there is no principle of proportionality. Being one of the most crucial principles of JWT, the principle of proportionality once violated, presupposes the violation of the other principles too. Therefore, Just War theory cannot play the same role as ethics of war in wars, which are waged or even initiated with the use of these weapons.

The debate on whether such weapons as autonomous lethal weapons should be prohibited for good or some new rules should be devised to limit their use has been ongoing for at least two decades. One such debate is related to the discourse of the two documents which were introduced in 2012: a policy directive by the US Department of Defense on ‘Autonomy in Weapons Systems’ (US DoD Directive) and a report by Human Rights Watch and the Harvard Law School’s International Human Rights Clinic (2012 HRW-IHRC Report). Both documents called for the ban of these weapon systems. This implies that there was a growing number of people who considered these weapons harmful. However, it is also important to understand how much this trend has been influencing the two key concepts of Just War Theory. The following section provides a comparative overview of how these principles were perceived before and after the introduction of lethal weapons.

There is a growing concern that autonomous weapons may not distinguish between combatants and non-combatants. This is a direct violation of Just War Theory principles (Horowitz, 2016:28). Additionally, the lack of human control makes it difficult to make moral judgments during wars, which also challenges the JWT. The first argument which can be used as a hypothesis is that autonomous weapons create the so-called *moral accountability gap*. This implies that it is difficult

to determine who is responsible for the military action. This can bring about the risk of more war crimes being committed (Horowitz, 2016:30).

Roff (2015) checked how compatible the JWT with the use of autonomous weapon systems. His conclusion was that it is incompatible with the principles of proportionality and distinction, which are crucial principles of JWT. Therefore, it is important to revise the theory, so it accounts for the use of autonomous weapon systems. Roach & Eckert (2020:2) argue that JWT has a very narrow focus and relies on traditional facts of human morality and intelligence. Therefore, it is not compatible with modern technology and the effect it produces on humans. This creates a moral gap between humans and autonomous weapon systems. As warfare technology becomes more sophisticated, JWT principles have to be adjusted to provide an adequate account of the principles, which will be compatible with developing warfare technology (Roach & Eckert, 2020: 3). There is a dilemma, which states that in order to develop weapons should have increasing automation. At the same time, automation lacks morality. This is where JWT principles need to be revisited.

The debate on the development and deployment of autonomous weapon systems has been escalating over the past few years. The main challenge in the debate is that these technologies have been developing to the level where their use seems to be inevitable. The proponents and opponents of the development and deployment of autonomous weapon systems are mainly divided over the harm these systems can bring about and the human agency behind it. The proponents suggest that these systems can be so sophisticated that they can spare lives of non-combatants and make conflicts less harmful (Arkin et al, 2019). Authors generally agree that there should be an international treaty, which will adopt a preemptive policy to protect states and individuals from potential harm caused by AWS. In order for such treaty to be adopted, it is important to revisit the principles of JWT and to check how compatible it is with the modern warfare.

2.5. Conclusion of the chapter

The extant literature on the subject of JWT and developing warfare technology shows that there is an abundant research on each subject separately, but rather limited research on the impact of the phenomenon of developing warfare technology on the JWT. At the same time, the extant literature indicates that there is a growing body of research, which points to the critical importance of new technologies such as automated weapon systems, to the notion of morality at war. Moreover, new technologies contribute to the changes of the notion of war transforming it from its traditional definition of an armed conflict between two states into a conflict, which sometimes may not even be referred to as war. There have been identified three main reasons why this is the case in the contemporary world. Therefore, a number of scholars suggest to revisit JWT and revise its tents.

The modern version of JWT is related to the work by Michael Walzer. Though, this theory is used as a basis for contemporary conflicts, it is argued to be lacking strong arguments, which would make the theory compatible with the changes in warfare technology. While Walzerian theory is not complete, it is still very important for the debate on the ethics of war. Like other versions of JWT, it places human morality at the center. This is exactly the point where new technologies challenge the JWT since military actions are performed by robotic machines which are devoid of human morality. Based on the existing research on the subject, it is concluded that JWT as it is, is not a suitable model to discuss the ethics of war when autonomous weapon systems are involved. Therefore, further research is required to first check what impact these technologies have on JWT and then to suggest modifications.

3. Methodology

3.1. Introduction to the chapter

The previous chapter discussed the extant literature on the subject of JWT, its paradigm as well as developing warfare technologies and their impact on the theory. As it was concluded, the research, on the impact of the phenomenon of developing warfare technology on JWT is not very extensive. At the same time, the topic is quite important based on the fact that conflicts of 21st centuries are characterized by increased use of AWS and their use can even influence the decision of a state to go to war. In his research on just war, Michael Walzer relied on real examples, such as Vietnam War and Afghanistan. This methodology was viewed as the most representative, since it could directly test the tenets of the theory on real conflicts.

The research question of this thesis is *what is the impact of developing warfare technology on Just War Theory*. The following chapter presents the methodology, which has been chosen in order to answer this research question. The chapter will discuss the research design, philosophy, research type and strategy as well as focus on the time horizons and research limitations. The chapter will conclude that a case study has been chosen to be the most suitable research design to evaluate the impact developing warfare technology has on the tenets of JWT.

3.2. The Research question and research design

Murnion (2007) argues that the development of JWT has not been an organic evolution, but rather a chain of paradigm shifts, which were based on the transformations in social, economic, political and technological spheres. Though the topic of JWT is quite abundant in the extant literature, there is not enough research until today on the topic of how the phenomenon of developing warfare technology influences the subject. The latest most influential work on JWT is Michael Walzer, wherein he introduced his JWT (Sagan, 2016). Murnion argued that JWT was the most feasible and adaptable compared to the other theories. According to him, this is the reason why it cannot be replaced by any other theory to assess the justice at war. Taking all this in consideration, the design for new research on the topic should be done bearing in mind the peculiar nature of the subject. It was also inspired by the research of Walzer himself.

The present research aims to determine the impact developing warfare technology has on JWT. Therefore, in order to answer this question, it is necessary to scrutinize the tenets of the theory while they are impacted by developing warfare technology. In other words, to place the phenomenon of developing warfare technologies within the framework of JWT. Allenby (2013:62-64), who inquired into the subject earlier, presupposed that a new research into the subject should focus on how the laws of war should be revised and modified in order to reflect the influence of emerging technologies. The most appropriate way to do so is to analyse one of the most recent military conflicts.

A *case study* has been chosen as the most suitable research design to answer the research question. There are a few reasons why this form of research design was given preference to. Firstly, it is argued that that case study is a research method that helps to observe and understand a phenomenon within its natural context, especially in social sciences (Zainal, 2007). As it is the case with the thesis topic, one concrete example will be sufficient to observe phenomena in a real situation. Additionally, this research aims only to test a hypothesis and the form of case study is considered to be the most feasible method for this (Crossman, 2019).

There are various types of case studies, which include *exploratory case studies*, which aim to interrogate a phenomenon. The second type is *descriptive case studies*, which intend to describe the phenomenon in a certain context. The third category is *explanatory case studies*, which aim to examine a phenomenon in more detail and delve further in the topic (Zainal, 2007:3). A descriptive case study was chosen as the most appropriate form of case study for this research, since it will describe the conflict in the context of JWT.

3.3. Research philosophy

The case study of Second Nagorno-Karabakh War has been chosen for this thesis. The data, therefore, will be based on the analysis of this conflict through the prism of JWT and the use of developing warfare technology during the conflict. The research will deal with secondary data only, which will include articles and publications on the subject. At first sight, the research philosophy for this thesis may seem to be difficult to determine: just war theory is a broad normative theory. At the same time, warfare technology can be scrutinized by using positivist approach. The primary difference between positivist and interpretivist approaches is that the former focuses on scientific facts, while the latter focuses on the interpretation of the meaning of certain phenomena (Soleymani, 2017). Since the topic of any military conflict is quite sensitive and involves substantial confidentiality, positivist approach was dismissed as a research philosophy. Since a case study form is used in this research, an interpretivist approach will let the researcher observe the two phenomena of JWT and developing warfare technologies in the context of the second Nagorno-Karabakh conflict.

3.4. Research type

As it was mentioned earlier, the subject of JWT and developing military technology is relatively new. Therefore, there are not many theories related to the impact of one on the other. Therefore, the present research does not aim to test an existing theory, but instead it aims to develop foundation for a new theory based on the analysis of the conflict. By observing the interaction of two phenomena in the context of a contemporary conflict, the research will identify new trends and observations, which will be used for developing a new theory.

3.5. Research strategy

The present research aims to interrogate how the phenomenon of developing warfare technology can impact or even cause a paradigm shift in the JWT. Given the nature of the research question, quantitative research method was dismissed due to a number of reasons. First of all, due to the confidential nature of the topic due to its relation to a military conflict, it would be difficult to reach the right audience. Secondly, the bias of people in discussions of similar topics is expected to be high. Since the topic of the research has not received much attention and little empirical research has been conducted, the research will have explorative nature. This is the reason why qualitative research method has been chosen. This method is argued to be the most appropriate when there is a social problem or issue, which needs to be comprehended (Creswell & Poth, 2018).

3.6. Research Time horizons

The following research will focus only on one case study. The analysis of the available secondary data is expected to take between two weeks to one month. Such time horizon has been selected in order to have sufficient time to analyse one case in the context of JWT and its interaction with the phenomenon of developing warfare technology.

3.7. Sampling strategy

Since the present research has a qualitative nature, there will be no sample population chosen for the purposes of the research. The research will be based only on the secondary data available.

3.8. Data Collection Methods

The following research will use secondary data only. It will examine the extant empirical research as well as the articles and publications on the subject.

3.9. Data Analysis Methods

Descriptive analysis method will be used for this research.

3.10. The Methodological Limitations

There are a number of difficulties in conducting research on war and conflict related studies. Firstly, not much of data is available on the subject due to the fact that the conflict occurred quite recently. Additionally, research do not always have access to the most complete information due to the nature of military conflicts. There are also differences in the experiences of opposing groups in the conflict and the probability of high bias is quite high (Barakat et al, 200). Lastly, some statistical data may not be accurate enough.

3.11. Conclusion

The purpose of the chapter was to explain the choice of the research strategy, research philosophy and other relevant research methods. Since the previous academic research focused on the examples of real conflict such as Vietnam and Afghanistan, a case study form of research was chosen. Given the sensitive nature of the topic and potential high bias, it was decided to use qualitative method. The Second Nagorno-Karabakh Conflict was selected as one of the most recent conflicts to be evaluated against the backdrop of JWT. The research has quite a few limitations, which are related to the availability of data, accuracy of statistics and the sensitivity of the topic.

4. The case study of Second Nagorno -Karabakh War through the prism of Just War Theory and autonomous weapon systems

4.1. Introduction to the chapter

The following chapter presents the analysis of the selected case study. The example of the Second Nagorno-Karabakh War was chosen as the case study for this thesis for a number of reasons. Firstly, this is one of the most recent conflicts in the 21st century. It took place in September 2020. At the same time, it has long roots and it has remained one of the most debatable territorial disputes since the 20th century. However, most importantly, it is discussed as a conflict, wherein autonomous weapon systems were actively utilized and their use is linked to the fast victory of Azerbaijan. A former US colonel John Antal (2022) made an analysis of the conflict and hypothesized that this was the first military conflict, whose result was predetermined by the use of AWS. Antal suggests that politicians ought to use this conflict as an example of new type of conflicts with a strong influence of new warfare technologies. Lastly, both Azerbaijan and Armenia are argued to be states with undemocratic regimes, and this fact may have an implication for the assessment of how legitimate the jus ad bellum principle is.

The purpose of the present research is related to the analysis of the conflict through the prism of moral philosophy. By applying the JWT model to the Second Nagorno-Karabakh War and blending it with the phenomenon of developing warfare technology, which means Autonomous Weapon Systems (AWS), the research aims to answer the question how developing warfare technology impacts JWT. Using the JWT the research determines that modern JWT is not capable of providing an adequate account of morality of modern conflicts when new warfare technologies are applied. Therefore, the most important effect of developing technologies on JWT is related to the call for revision of JWT and its further extension of the theory.

4.2. The synopsis of Nagorno-Karabakh conflict

Nagorno-Karabach conflict has been at the center of a century-long territorial dispute, which provoked several military conflicts. Nagorno-Karabach region was founded in the Soviet Union in 1923 and was inhabited by about 95 % of ethnic Armenians. Towards the collapse of the Soviet Union, the regional legislature of Nagorno-Karabach declared their intention to join the Republic of Armenia. This provoked an armed conflict, which was kept under control. However, in 1991, with the collapse of the Soviet Union, both countries became independent and initiated fighting to gain the newly independent region. This conflict caused about 30,000 casualties and hundreds of people were forced to flee the land (International Crisis Group,org. 2023).

In 1993, Armenia gained control of Nagorno-Karabakh and took over about 20 % of the geographic land of Azerbaijan. In 1994, Russia brokered a ceasefire, which left Nagorno-Karabach an independent region with a self-proclaimed government (Center for Preventive Action, 2023). The latest conflict took place between 27th September and 9th November 2020 (Amirkhanyan, 2022). This conflict is referred to as *Second Nagorno –Karabach War*. The conflict lasted for about six weeks. However, it is considered one of the most serious conflicts of the 21st century.

There are a few reasons why this conflict has been chosen for this case study. Firstly, as Hans Gutbrod (2021) argued this war highlights the important role JWT still plays to analyze modern conflicts. Gutbrod made his own evaluation of the conflict through the prism of the tents of JWT and concluded that it was a perfect model to analyze the justice of war. Secondly, this war is argued to be at the center of the debate on the role of such warfare technology as drones. According to Hecht (2022), such warfare as drones has been subject to a prolonged debate. According to Hecht, the question is whether drones are only another tool to wage wars or it is a real revolutionary invention in warfare technology. At the same time, Antal (2022) argues that this conflict has an important implication for the future of warfare since new technologies were used during this conflict and they are argued to have contributed to the fast victory of Azerbaijan. Antal's argument is based on the premise that it was the first conflict whose outcome was predetermined by the use of autonomous weapons. The operation was conducted with the maximum use of unmanned aerial vehicles (Terzic, 2021).

Therefore, the possession of drones is argued to have given a significant advantage to Azerbaijan. There is evidence of it on various videos, where it is captured that unmanned drones strike anti-aircraft weapons and armored cars (De Arriba Munoz, 2023). It is widely argued that without more sophisticated technology, Azerbaijan would not have been able to win the war that easily and quickly (Hecht, 2022). With the above facts in mind, the case of the Second Nagorno-Karabakh War is viewed as a suitable case study to interrogate the impact of developing warfare technologies, which are AWS and predominantly drones on the paradigm of JWT.

4.3. Nagorno-Karabakh seen through the prism of Just War Theory with the application of the phenomenon of developing warfare technology

As it was mentioned earlier, Nagorno-Karabakh conflict is a long territorial dispute, which involved numerous negotiations and the involvement of international organizations. It is also referred to as a *continuous armed attack* (Ruys & Rodriguez, 2020). There is not much data on the previous analysis of the conflict through the prism of JWT. At the same time, the use of drones during the latest conflict made a big difference in the conflict and has significantly shortened it (Dixon, 2020). Analyzing the conflict through the prism of Walzerian JWT may be quite challenging. Both classic and Walzerian models of JWT presuppose that there are human combatants on both sides of a conflict. In the case of this conflict, Azerbaijan had a significant advantage in terms of automated systems and drones. Walzer himself acknowledged an important role of technology in wars, but he presupposed that it was not the most decisive factor determining the outcome of a conflict (Tonoyan, 2022). This is ad odds with the hypothesis of Antal (2022), who hypothesized that it was the main determinant of why the conflict was won so quickly. In order to understand which of the JWT tenets are impacted by the phenomenon of developing warfare technology, it is important to analyse each tent separately. The following sub-sections provide analysis of these tenets.

4.3.1. The principle of Just Cause

The first just war principle, which will be scrutinized in relation to the conflict is the principle of *just cause*. The opinions on the justice of this conflict are divided. Some authors argue that this conflict is unjust, since there was no direct threat to Azerbaijan and, therefore, there was no necessity for self-defense (Tonoyan, 2022). At the same time, due to the flaws in the agreement on ceasefire, either side of the conflict can re-launch hostilities and no justification will be needed (Ruys & Rodriguez, 2020). This circumstance makes it quite challenging to judge the justice of this war even without touching upon the use of weapons.

As it is acknowledged by researchers on the subject, Azerbaijan had more sophisticated weapons, which were mainly comprised of drones and other unmanned systems. In fact, this conflict is referred to as the first postmodern conflict, in which *unmanned-aircraft overwhelmed a conventional ground force* (Hecht, 2022). This fact suggests that the decision to initiate an attack might have been influenced by the possibility of higher chances to win for Azerbaijan. This assumption is aligned with what was discussed in the *Literature Review* section of the thesis, namely that the possession of more sophisticated weapons may incentivize a state to initiate a war for a number of reasons. Since JWT distinguishes between *jus ad bellum* and *jus in bello*, and the use of weapons pertains to the latter (Blanchard & Taddeo, 2022), there is only an assumption that the possession of more sophisticated weapons could give an incentive for Azerbaijan to re-launch the offensive. However, there is no definite evidence that it was the main or one of the main motivations to initiate offensive.

In his analysis Gutbrod (2021) argues that Azerbaijan had the most plausible reason to re-launch the attack due to the displacement of its population. Therefore, he stands by the right cause on the side of Azerbaijan. In this case, the fact that Azerbaijan had unmanned vehicles and did not have to use combatants could save costs and assure the people in the country that the victory will be quick. The principle of the right cause is therefore partly affected by the technologies used during the conflict. It can only be assumed that it contributed to the determination of Azerbaijan to initiate a war.

4.3.2. The principle of Right Authority

The war was declared by the government of Azerbaijan, which matches the principle of right authority. However, some scholars question the legitimacy of the President since the democratic regime in the country is quite dubious (Gutbrod, 2021). This fact may raise the question of the legitimacy of launching offensive by authority who is not considered to be completely legitimate. The fact that this authority could make a decision knowing about the availability of autonomous weapons may be alarming. However, like with the previous principle, there is no direct evidence that there was an impact of developing warfare technology on this principle. Following this, the principle of right authority may not be affected or only partially affected by developing warfare technologies.

4.3.3. The principle of right intent

It is assumed that Azerbaijan has the right intent to fight since it aims to return the displaced Azeri population to their land. At the same time, Gutbrod (2021) argues that this claim is not completely legitimate, since Azerbaijan claims the whole region of Karabakh. This claim is not compatible with the claim of Armenia for self-determination of their population. Therefore, the use of AWS may be considered as dangerous, should the country employ those to capture a bigger part of the land, which is claimed by another counterpart.

4.3.4. The principle of Last Resort

It is acknowledged that the attempts to solve the conflict by means of diplomacy and negotiations have been unsuccessful. The involvement of international organizations did not bring about fruitful results. The claim of Azerbaijan for last resort is viewed as plausible by Gutbrod (2021). At the same time, the complication is that the conflict has been ongoing, and, as it was discussed earlier, the country might have been incentivized to initiate a war for the reason of having better weapon systems. This tenet of JWT is the first one, which can indicate that Azerbaijan might have started the offensive because of the more sophisticated weapons. Alternatively, this conflict might have started earlier. Therefore, there is lack of further conditions under the principle of last resort to provide an account of justice in this situation. This is an indication that JWT is not sufficient to cope with the issues caused by the presence of new warfare technology.

4.3.5. The principle of Proportionality

The principles of proportionality is incorporated in the Article 51 of the Geneva Conventions First Additional protocol. It bans all indiscriminate attacks, which may potential harm civilians (Crootof, 2023). As it was discussed AWS. Therefore, it is assumed that this principle is the one, which would be mostly affected by the use of autonomous weapon systems in this conflict. Azerbaijan is argued to have used indiscriminate shelling. Armenia faced similar accusations with shelling residential buildings (Human Rights Watch, 2023). While the statistics is not easily available and may be not accurate, there is a significant possibility of the violation of the principle of proportionality. There was eventually an issue of inaccurate targeting, which is the direct challenge to the precision principle of AWS. In Azerbaijan, the Ministry of Defense posted regular videos about drone strikes, which can serve as an evidence of using autonomous weapon system (Dixon, 2020).

JWT lays out this principle but does not provide further account of justice. Consequently, it is hard to determine how to mitigate the issue of injustice. Therefore, the principle of proportionality is not functional when it comes to the use of autonomous weapon systems. Considering the justice of the issue further, JWT will not be able to determine whether the justice was done or not, since the principle of proportionality appears to be vague.

4.3.6. Reasonable hope of success

The main difference between the Second Nagorno-Karabakh War and the previous conflicts over the same dispute is that in this conflict Azerbaijan is assumed to have more hope for success. The winner had more advanced weapons. It is unanimously agreed that Azerbaijan had more sophisticated weapons, which let it win the war within a short period of time (Bivainis, 2022). However, the main question is how this modern and more advanced technology influenced the interpretation of the conflict from the perspective of JWT. This topic is still very new and practically no research has been done on it. It is important to understand how the perception of the justness of war has changed if both wars are compared from the moral perspective.

4.4 The use of AWS and the principle of non-combatant immunity

The principle of non-combatant immunity is one of the core principles articulated by Michael Walzer. The use of AWS directly challenges this principle, since the question of how precise these weapons are is highly dubious. Noncombatant immunity states that intentionally killing noncombatants is impermissible. However, the challenge with AWS is that it is hard to judge whether these killings were intentional or not. When it comes to the statistics of the Second Nagorno-Karabakh conflict, it is particularly hard to get the correct evaluation of the situation. The principle of proportionality dictates that the unintentional killing of noncombatants is permissible only if it is proportionate to the goals the attack is intended to achieve. And combatant equality applies these principles and others governing conduct in war identically to all combatants, regardless of what they are fighting for. These principles divide the possible victims of war into two classes: combatants and noncombatants. This is particularly challenging in the case of the conflict discussed in this thesis. Therefore, it directly challenges JWT.

4.5. Limitations of the research

Given the nature of the research and the fact that the data is quite confidential, the present research does not have much statistics to rely on. This is viewed as a limitation of the research.

4.6. Conclusion of the chapter

The analysis of the Second Nagorno –Karabakh through the prism of JWT and by applying the phenomenon of AWS, illustrates that there is a lot more to investigate within the existing JWT and to extend it. The model does not seem to be answering the questions of proportionality, last resort and non-combatant immunity. JWT remains quite stagnant and requires more flexibility to account for the use of AWS instead of combatants. Key to the theory is human agency and moral judgment. This is absent from the use of AWS. Though, there is no sufficient statistics to provide real numbers, it is still doubtful from philosophical point of view how moral the AWS are. Therefore the presence of the phenomenon of developing warfare technologies not only challenges JWT, but also reveals its flaws.

5. Conclusion

This thesis analyzed the interaction of the phenomenon of developing warfare technology with the principles of JWT, and argued that developing warfare technology has an impact on the paradigm of JWT. The present research revealed that the principles of JWT are not sufficient to provide a complete account of developing warfare technology and the impact they have on modern wars. By analyzing the extant literature, it was revealed that the topic, despite being relatively new, is quite important, since a number of scholars acknowledge the growing concern over the use of autonomous weapons and there are even attempts to ban them. Therefore, further research is necessary. Since quantitative research methods would be difficult to do and the bias is expected to be high, it has been decided to use a qualitative research method in the form of a case study. The case, which was chosen for these purposes is the second Nagorno-Karabach conflict. By applying the JWT principles to it in order to determine whether the victory of Azerbaijan was just, it was determined that due to the use of AWS, it was difficult to make a definite conclusion. Therefore, the model of JWT proved to be insufficient to judge the outcome of the conflict. Further research is required in order to ensure that the same holds true for more conflicts and how JWT model needs to be modified to comply with developing warfare technologies.

6. References

- Abney, K. (2013). Autonomous robots and the future of just war theory. **In:** *Routledge handbook of ethics and war: just war theory in the twentieth-first century*. London.
- Allenby, B. (2013). The Implications of Emerging Technologies for Just War Theory, *Public Affairs Quarterly*, vol. 27, no. 1, pp. 49–67. [Online]. Available at: (Accessed on 18.02.2023).
- Amirkhanyan, Z. (2022). A Failure to Innovate: The Second Nagorno-Karabakh War, *United States Army War College Press*. [Online]. Available at: <https://press.armywarcollege.edu/parameters/vol52/iss1/10/>. (Accessed on 10.02.2023).
- Anand, V. (1999). Impact of Technology on Conduct of Warfare. *Strategic Analysis*. [Online]. Available at: https://ciaotest.cc.columbia.edu/olj/sa/sa_99anv02.html. (Accessed on 18.02.2023).
- Arkin, R.C. (2009). *Governing Lethal Behavior in Autonomous Robots* (Boca Raton, Fla.: CRC Press).
- Arkin, R. C. (2010). The Case for Ethical Autonomy in Unmanned Systems, *Journal of Military Ethics*. 9 (4): 332-41.
- Asaro, P.M. (2008). How Just Could a Robot War Be? *Current Issues in computing and Philosophy*. [Online]. Available at: https://books.google.cz/books?hl=cs&lr=&id=8A7vAgAAQBAJ&oi=fnd&pg=PA50&dq=use+of+robotic+soldiers&ots=c5iBCBJkAq&sig=9TlhnkmpfNxcXtZEqF4C8ZFWBTo&redir_esc=y#v=onepage&q=use%20of%20robotic%20soldiers&f=false. (Accessed on 12.02.2023).
- Asaro, P. (2012). On banning autonomous weapon systems: human rights, automation, and the dehumanization of lethal decision-making. *International Review of the Red Cross*. Volume 94 Number 886. [Online]. Available at: <https://international-review.icrc.org/sites/default/files/irrc-886-asaro.pdf>. (Accessed on 26.06.2023).
- Baker, D.P. & Roberts, D. (2011). Extending Just War Theory: The Jus Ad Bellum and The Capabilities Approach to Armed Conflict. *Scientia Militaria - South African Journal of Military Studies*. [Online]. Available at: https://www.researchgate.net/publication/269865465_EXTENDING_JUST_WAR_THEORY_THE_JUS_AD_BELLUM_AND_THE_CAPABILITIES_APPROACH_TO_ARMED_CONFLICT. (Accessed on 18.02.2023)
- Barakat, S., Chard, M., Jacoby, T., & Lume, W. (2002). The composite approach: research design in the context of war and armed conflict. *Third World Quarterly*, Vol 23, No 5, pp 991–1003. [Online]. Available at: <https://library.fes.de/libalt/journals/swetsfulltext/15164509.pdf>. (Accessed on 26.02.2023).
- BBC. (2022). Just War – introduction. [Online]. Available at: <https://www.bbc.co.uk/ethics/war/just/introduction.shtml>. (Accessed on 26.02.2023).

Berkebile, Richard. (2018). New Generation Warfare and the Just War tradition. *Research Gate*. [Online]. Available at: https://www.researchgate.net/publication/327253483_New_Generation_Warfare_and_the_Just_War_tradition. (Accessed on 10.01.2023).

Blanchard, A., Taddeo, M. (2022). Autonomous weapon systems and jus ad bellum. *Springer Link*. [Online]. Available at: <https://link.springer.com/article/10.1007/s00146-022-01425-y#citeas>. (Accessed on 07.04.2023).

Blanchard, A. & Taddeo, M. (2022). Jus in bello Necessity, The Requirement of Minimal Force, and Autonomous Weapons Systems, *Journal of Military Ethics*, 21:3-4, 286-303, [Online]. Available at: <https://www.tandfonline.com/action/showCitFormats?doi=10.1080%2F15027570.2022.2157952>. (Accessed on 25.04.2023).

Brown, G. (2016). Just War Theory Isn't Obsolete. *Public Discourse*. [Online]. Available at: <https://www.thepublicdiscourse.com/2016/04/16772/>. (Accessed on 07.01.2023).

Braun, M. & Brunstetter, D.R. (2013). Rethinking *the criterion for assessing CIA-targeted killings: drones, proportionality and jus ad vim*. *Journal of Military Ethics*. 12(4):304–324. [Online]. Available at: <https://cpb-us-e2.wpmucdn.com/faculty.sites.uci.edu/dist/2/799/files/2019/04/JME-proportionality.pdf>. (Accessed on 07.04.2023).

Braun, C. & Gallioth, J. (2019). Jus ad Vim and the Question of How to Do Just War Theory. [Online]. Available at: https://www.researchgate.net/publication/350754456_Jus_ad_Vim_and_the_Question_of_How_to_Do_Just_War_Theory/citation/download. (Accessed on 25.04.2023).

Brunstetter, D., & Braun, M. (2011). The Implications of Drones on the Just War Tradition. *Ethics & International Affairs*, 25(3), 337-358. doi:10.1017/S0892679411000281

Childress, J. F. (1978). Just-War Theories: The Bases, Interrelations, Priorities, and Functions of Their Criteria. *Theological Studies*, 39(3), 427–445. [Online]. Available at: <https://journals.sagepub.com/doi/10.1177/004056397803900302>. (Accessed on 18.02.2023).

Coeckelbergh, M. (2016). Drones, Morality, and Vulnerability: Two Arguments Against Automated Killing. In: Custers, B. (eds) *The Future of Drone Use. Information Technology and Law Series*, vol 27. T.M.C. Asser Press, The Hague. [Online]. Available at: https://www.researchgate.net/publication/309183782_Drones_Morality_and_Vulnerability_Two_Arguments_Against_Automated_Killing. (Accessed on 18.02.2023).

Cook, M. L. (1998). Applied Just War Theory: Moral Implications of New Weapons for Air War. *The Annual of the Society of Christian Ethics*, 18, 199–219. [Online]. Available at: <http://www.jstor.org/stable/23561086>. (Accessed on 05.06.2023).

Crossman, A. (2019). Conducting Case Study Research in Sociology. *ThoughtCo*. [Online]. Available at: <https://www.thoughtco.com/case-study-definition-3026125>. (Accessed on 26.04.2023).

Cumming, R.P. (2013). The State of Just War Theory Today. In: *The African American Challenge to Just War Theory. Content and Context in Theological Ethics*. Palgrave Macmillan, New York. https://doi.org/10.1057/9781137350329_2.

De Arriba Munoz, J.J. (2020). The Drone Warfare in the Just War Theory. *Global Strategy*. [Online]. Available at: <https://global-strategy.org/the-drone-warfare-in-the-just-war-theory/>. (Accessed on 01.06.2023).

Dixon, R. (2020). Azerbaijan's drones owned the battlefield in Nagorno-Karabakh. [Online]. Available at: https://www.washingtonpost.com/world/europe/nagorno-karabakh-drones-azerbaijan-aremenia/2020/11/11/441bcbd2-193d-11eb-8bda-814ca56e138b_story.html. (Accessed on 11.04.2023).

Douglas, Mark. (2003). Changing the Rules Just War Theory in the Twenty-First Century. https://www.researchgate.net/publication/258197582_Changing_the_Rules_Just_War_Theory_in_the_Twenty-First_Century Theology Today. [Online]. Available at: https://www.researchgate.net/publication/258197582_Changing_the_Rules_Just_War_Theory_in_the_Twenty-First_Century. (Accessed on 23.06.2023).

Douzinas, C. (2022). A Short History of Just War. *CLT*. [Online]. Available at: <https://criticallegalthinking.com/2022/03/15/a-short-history-of-just-war/>. (Accessed on 03.04.2023).

Enemark, C. (2013). Ethics of war. In Fritz Allhoff, Nicholas Evans & Adam Henschke (eds.), *Routledge Handbook of Ethics and War: Just War Theory in the 21st Century*. Routledge. pp. 327.

Enemark C (2014). Drones, risk, and perpetual force. *Ethics Int Aff* 28(3):365–381. [Online]. Available at: https://www.researchgate.net/publication/271664675_Drones_Risk_and_Perpetual_Force. (Accessed on 25.06.2023)

Etzioni, A. & Etzioni, O. (2017). Pros and Cons of Autonomous Weapons Systems. *Military Review*. [Online]. Available at: <https://www.armyupress.army.mil/Journals/Military->

Review/English-Edition-Archives/May-June-2017/Pros-and-Cons-of-Autonomous-Weapons-Systems/. (Accessed on 16.04.2023).

Evans, Mark (ed.), 'Conclusion In Defence of Just War Theory', in Mark Evans (ed.), *Just War Theory: A Reappraisal* (Edinburgh, 2005; online edn, Edinburgh Scholarship Online, 20 Sept. 2012). [Online]. Available at: <https://academic.oup.com/edinburgh-scholarship-online/book/22039/chapter-abstract/182138658?redirectedFrom=fulltext>. (Accessed on 10.07.2023).

Fabre, C. (2008). *Cosmopolitanist, just war theory and legitimate authority*. In: *International Affairs*. 84:5. (963-976).

Finlay, C. (2019). *Is Just War Possible?* Cambridge: Polity Press.

Fisher, D. (2012). Can a medieval just war theory address 21st century concerns? *The Expository Times*, 123(4), 157–165. [Online]. Available at: <https://journals.sagepub.com/doi/10.1177/0014524611426762>. (Accessed on 15.04.2023).

Forde, S. (1998). Hugo Grotius on Ethics and War. *The American Political Science Review*, 92(3), 639–648. [Online]. Available at: <https://www.jstor.org/stable/2585486>. (Accessed on 08.04.2023).

Gutbrod, H. (2021). Assembling the Moral Puzzle – Just War Tradition and Karabakh. *Global Policy*. [Online]. Available at: <https://www.globalpolicyjournal.com/blog/25/02/2021/assembling-moral-puzzle-just-war-tradition-and-karabakh>. (Accessed on 10.04.2023).

Himma, K. E. (2007). Artificial agency, consciousness, and the criteria for moral agency: what properties must an artificial agent have to be a moral agent? *Ethicomp Proceedings*, Global e-SCM Research Center & Meiji University, pp. 236–245.

Holliday, I. (2003). Ethics of Intervention: Just War Theory and the Challenge of the 21st Century. *International Relations*, 17(2), 115–133. <https://doi.org/10.1177/00471178030172001>

Horowitz, M.C (2014). “The Looming Robotics Gap: Why America’s Global Dominance in Military Technology is Starting to Crumble,” *Foreign Policy Magazine*.

Horowitz, M.C, Kreps, S.E. & Fuhrmann, M. (2016). “The Consequences of Drone Proliferation: Separating Fact from Fiction,” working paper. Philadelphia: University of Pennsylvania.

Horowitz, M.C. (2016). and Paul Scharre, “The Morality of Robotic War,” *The New York Times*, May 26, 2015, <http://www.nytimes.com/2015/05/27/opinion/the-morality-of-robotic-war.html>. Also see Paul Scharre, “Autonomous Weapons and Operational Risk,” Center for a New American Security.

Horowitz M.C (2016). *The Ethics & Morality of Robotic Warfare: Assessing the Debate over Autonomous Weapons*.145 (4): 25–36. doi: https://doi.org/10.1162/DAED_a_00409

Human Rights Watch, *Losing Humanity* (2023). *The Case against Killer Robots*. New York

International Committee of the Red Cross, (2023). *What You Need to Know About Autonomous Weapons*. [Online]. Available at: <https://www.icrc.org/en/document/what-you-need-know-about-autonomous-weapons>. (Accessed on 02.04.2023).

International Crisis Group. (2023). *The Nagorno-Karabakh Conflict: A Visual Explainer*. [Online]. Available at: <https://www.crisisgroup.org/content/nagorno-karabakh-conflict-visual-explainer>. (Accessed on 08.04.2023).

Johnson, J.T. (2006). The just War Idea: The State of the Question. *Social Philosophy & Policy Foundation*. USA. [Online]. Available at: <http://t4.stthom.edu/users/smith/socialjustice/james%20turner%20johnson%20just%20war.pdf>. (Accessed on 08.04.2023).

Kabot, C. (2022). The (Benevolent) Eye in the Sky: Just War Theory and the Ethics of Drone Warfare. *Berkley Center for Religion, Peace and World Affairs*. [Online]. Available at: <https://berkleycenter.georgetown.edu/responses/the-benevolent-eye-in-the-sky-just-war-theory-and-the-ethics-of-drone-warfare>. (Accessed on 19.02.2023).

Kaldor, M. (2012). *New and Old Wars*. 3rd edition. UK. Polity Press. [Online]. Available at: https://dl1.cuni.cz/pluginfile.php/654678/mod_resource/content/1/kaldor%20-%20old%20and%20new%20wars.pdf. (Accessed on 09.04.2023).

Klonowska, K. (2022). Shifting the narrative: not weapons, but technologies of warfare. *Humanitarian Law & Policy*. [Online]. Available at: <https://blogs.icrc.org/law-and-policy/2022/01/20/weapons-technologies-warfare/>. (Accessed on 18.02.2023).

Königs, P. (2022). Artificial intelligence and responsibility gaps: what is the problem?. *Ethics Inf Technol* 24, 36. [Online]. Available at: <https://link.springer.com/article/10.1007/s10676-022-09643-0#citeas>. (Accessed on 02.07.2023).

Lacourse, K. (2020). Stone, P. Rethinking the Foundations of Just War Theory. *Ethic Theory Moral Prac* 23, 475–481. [Online]. Available at: <https://link.springer.com/article/10.1007/s10677-019-10040-8>. (Accessed on 26.06.2023).

- Langan, J. (1984). The Elements of St. Augustine's Just War Theory. *The Journal of Religious Ethics*, 12(1), 19–38. <http://www.jstor.org/stable/40014967>
- Lazar, S. (2017). Evaluating the Revisionist Critique of Just War Theory. *Daedalus*. 146 (1): 113–124. doi: https://doi.org/10.1162/DAED_a_00426
- Lazarski, Anthony, "Legal Implications of the Uninhabited Combat Aerial Vehicle," *Air & Space Power Journal* (March 27, 2001)Google ScholarCharles University in Prague CUNI Link.
- Lee P (2013) Debate: Is the use of unmanned military drones ethical or criminal? *The Guardian*, 2 December. Available at: <http://www.theguardian.com/commentisfree/video/2013/dec/02/unmanned-military-drones-battle-ethical-video-debate/> (Accessed on 06.04.2023).
- Lesaffer, R. (2020). Grotius on the Use of Force: Perfect, Imperfect and Civil Wars. An Introduction. *BRILL*. [Online]. Available at: https://brill.com/view/journals/grot/41/2/article-p255_255.xml?language=en. (Accessed on 06.04.2023).
- Lin, P., Bekey, G., & Abney, K. (2007). Autonomous military robotics: risk, ethics, and design. Report for US Department of Navy, Office of Naval Research. San Luis Obispo: Ethics+Emerging Sciences Group at California Polytechnic State University.
- Marchant, Gary & Allenby, Braden & Arkin, Ronald & Barrett, Edward & Borenstein, Jason & Gaudet, Lyn & Kittrie, Orde & Lin, Patrick & Lucas, George & O'Meara, Richard & Silberman, Jared. (2010). International Governance of Autonomous Military Robots. *Columbia Science and Technology Law Review*. 12. 10.1007/978-90-481-9707-1_102.
- Marshall, A. (2020). What is Just War Theory? *Boot Camp and Military Fitness Institute*. [Online]. Available at: <https://bootcampmilitaryfitnessinstitute.com/2020/12/23/what-is-just-war-theory/>. (Accessed on 12.02.2023).
- McMahan J (2006) Preventive war and the killing of the innocent. In: Rodin D, Sorabji R (eds) *Ethics and World Politics: Shared Problems in Different Traditions*. Hants: Ashgate, pp. 169–190.
- McMahan J (2013) *Where to Now for Just War Theory?* The Oxford Institute for Ethics, Law and Armed Conflict Seminar Series. (Recording 2 April 2013). Available at: <https://podcasts.ox.ac.uk/where-now-just-war-theory> (accessed 22 December 2017).
- McMahan, J. (2012). Rethinking the Just War, *The New York Times*. [Online]. Available at: <https://archive.nytimes.com/opinionator.blogs.nytimes.com/2012/11/11/rethinking-the-just-war-part-1/>. (Accessed on 12.02.2023).

Miller, L. (1964). The Contemporary Significance of the Doctrine of Just War. *World Politics*, 16(2), 254-286. [Online]. Available at: https://www.jstor.org/stable/2009507?saml_data=eyJzYW1sVG9rZW4iOiJhNTg1MzJmNS05ZTY4LTRmMWQtOGQ5My0zZjk3MzhjMDNhNDYiLCJlbWFpbCI6InNwb2x1Y25vc3RjekBnbWFpbC5jb20iLCJpbnN0aXR1dGlvbkklkcyI6WyI3YWVNmMjYzNS03OGEyLTQ0ODQtYmRiYS11NTY0YzAxMjEyNTkiLCJhYTE1OTc0ZS0xOWQ5LTQwNzItOTU5My1kZDQ1MTYzOGQ1ODciXX0&seq=19. (Accessed on 03.04.2023).

Miller, P.D. (2020). The History and Purpose of Just War Doctrine. *The Ethics and Religious Liberty Commission*. [Online]. Available at: <https://erlc.com/resource-library/articles/the-history-and-purpose-of-just-war-doctrine/>. (Accessed on 03.04.2023).

Human Rights Watch (2023). *Nagorno-Karabakh*. [Online]. Available at: <https://www.hrw.org/tag/nagorno-karabakh>. (Accessed on 03.03.2023).

Nasu, H. & Korpela, C. (2022). *Stop the “Stop the Killer Robot” Debate: Why We Need Artificial Intelligence in Future Battlefields*. Council on Foreign Relations. [Online]. Available at: <https://www.cfr.org/blog/stop-stop-killer-robot-debate-why-we-need-artificial-intelligence-future-battlefields>. (Accessed on 26.06.2023).

Newman, E. (2004). The ‘New Wars’ Debate: A Historical Perspective is Needed. *Security Dialogue*, 35(2), 173–189. <https://doi.org/10.1177/0967010604044975>

O’Driscoll, Cian, “Learning the Language of Just War Theory: The Value of Engagement,” *Journal of Military Ethics* 6, no. 2 (2007), pp. 107–16CrossRefGoogle ScholarCharles University in Prague CUNI Link, at 113.

O’Driscoll, Cian, *The Renegotiation of the Just War Tradition and the Right to War in the Twenty-First Century* (New York: Palgrave Macmillan, 2008), p. 163Google ScholarCharles University in Prague CUNI Link.

O’Driscoll, C. (2015). *Rewriting the Just War Tradition: Just War in Classical Greek Political Thought and Practice*. *International Studies Quarterly*, 59(1), 1–10. [Online]. Available at: <https://www.jstor.org/stable/43868836>. (Accessed on 22.04.2023).

Ogburn, L. (2020). Drones and War: The Impact of Advancement in Military Technology on Just War Theory and the International Law of Armed Conflict. *Ethics & International Affairs*. [Online]. Available at: <https://www.ethicsandinternationalaffairs.org/online-exclusives/drones-and-war-the-impact-of-advancement-in-military-technology-on-just-war-theory-and-the-international-law-of-armed-conflict>. (Accessed on 20.03.2023).

Øverland G (2014) Moral obstacles: An alternative to the doctrine of double effect. *Ethics* 124(3): 481–506.

- Patterson, E. (2005). Just War in the 21st Century: Reconceptualizing Just War Theory after September 11. *International Politics*, 42, (116–134). [Online]. Available at: <https://link.springer.com/content/pdf/10.1057/palgrave.ip.8800100.pdf>. (Accessed on 19.03.2023).
- Pattison, James. (2008). Just War Theory and the Privatization of Military Force. *Ethics & International Affairs*. 22. 143 - 162. 10.1111/j.1747-7093.2008.00140.x.
- Pagallo, U. (2011). Robots of Just War: A Legal Perspective. *Philos. Technol.* 24, 307–323. <https://doi.org/10.1007/s13347-011-0024-9>
- Peperkamp, L. (2016). The Blurry Boundaries Between War and Peace: Do We Need to Extend Just War Theory? *ARSP: Archiv Für Rechts- Und Sozialphilosophie / Archives for Philosophy of Law and Social Philosophy*, 102(3), 315–332. [Online]. Available at: <http://www.jstor.org/stable/45175323>. (Accessed on 19.03.2023).
- Pfaff, A. (2020). The Ethics of Acquiring Disruptive Military Technologies. *Texas National Security Review*, Vol 3, Iss 1 Winter 2019/2020, pp. 34–61. [Online]. Available at: <https://tnsr.org/2020/01/the-ethics-of-acquiring-disruptive-military-technologies/>. (Accessed on 05.02.2023).
- Primoratz, I. (2002). Michael Walzer’s Just War Theory: Some Issues of Responsibility. *Ethical Theory and Moral Practice*, 5(2), 221–243. [Online]. Available at: <http://www.jstor.org/stable/27504234>. (Accessed on 12.02.2023).
- Reiner, J.T. (2018). *New Directions in Just-War Theory*. USAWC Press. US. [Online]. Available at: <https://press.armywarcollege.edu/cgi/viewcontent.cgi?article=1396&context=monographs>. (Accessed on 06.04.2023).
- Reisen, E. (2022). *The Moral Case for the Development of Autonomous Weapon Systems*. [Online]. Available at: <https://blog.apaonline.org/2022/02/28/the-moral-case-for-the-development-of-autonomous-weapon-systems/>. (Accessed on 02.04.2023).
- Riaz, A. (2022). The Rise of AI and the Future of War. *Paradigm Shift*. [Online]. Available at: <https://www.paradigmshift.com.pk/future-of-war/>. (Accessed on 30.06.2023).
- Ruys, T. & Rodriguez Silvestre, F. (2020). The Nagorno-Karabakh Conflict And the Exercise Of “Self-Defense” To Recover Occupied Land. *Just Security*. [Online]. Available at: <https://www.justsecurity.org/73310/the-nagorno-karabakh-conflict-and-the-exercise-of-self-defense-to-recover-occupied-land/>. (Accessed on 20.06.2023).
- Schwarz, E. (2018). Technology and moral vacuums in just war theorising. *Journal of International Political Theory*, 14(3), 280- 298. [Online]. Available at: <https://journals.sagepub.com/doi/10.1177/1755088217750689>. (Accessed on 01.05.2023).

Schwarz, E. (2018). Technology and moral vacuums in just war theorising. *Journal of International Political Theory*, 14(3), 280–298. [Online]. Available at: <https://doi.org/10.1177/1755088217750689>. (Accessed on 12.02.2023).

Soleymani, S. (2017). Positivism vs. *Interpretivism in research*. [Online]. Available at: <https://saber.medium.com/positivism-vs-interpretivism-in-research-1299e4a6877a>. (Accessed on 29.06.2023).

Springer & Dordrecht, (2007). *Just War Theory and the Challenges It Faces*. In: Lee, S.P. (eds) *Intervention, Terrorism, and Torture.*, vol 1. https://doi.org/10.1007/978-1-4020-4678-0_0

Startus Insights (2023). *Startus insight*. [Online]. Available at: <https://www.startus-insights.com/innovators-guide/top-10-military-technology-trends-2022/>. (Accessed on 05.05.2023).

Taddeo, M. (2014). Information Warfare and Just War Theory. In: Floridi, L., Taddeo, M. (eds) *The Ethics of Information Warfare. Law, Governance and Technology Series*, vol 14. Springer, Cham. [Online]. Available at: https://link.springer.com/chapter/10.1007/978-3-319-04135-3_8#citeas. (Accessed on 01.05.2023).

Taddeo, M., Blanchard, A. (2022). Accepting Moral Responsibility for the Actions of Autonomous Weapons Systems—a Moral Gambit. *Philos. Technol.* 35, 78. <https://doi.org/10.1007/s13347-022-00571-x>

Taylor, I. (2017). Just War Theory and the Military Response to Terrorism. *Social Theory and Practice*, 43(4), 717–740. <http://www.jstor.org/stable/26405304>

Terzić, M. (2022) Critical review of the protection of aircraft defense forces during the conflict in Nagorno Karabakh in 2020, *Small Wars & Insurgencies*, 33:6, 1017-1031, [Online]. Available at: <https://www.tandfonline.com/action/showCitFormats?doi=10.1080%2F09592318.2021.2025286>. (Accessed on 18.04.2023).

Totten, Mark, *First Strike* (New Haven, Conn.: Yale University Press, 2010), pp. 186
CrossRefGoogle ScholarCharles University in Prague CUNI Link, 172, 183.

Tufekci, Ozgur. (2018). What is Distinctively New about so-Called ‘New Wars’?.

Turner, Johnson, J. (1981). *Just War Tradition and the Restraint of War: A Moral and Historical Inquiry*. Princeton University Press. New Jersey. [Online]. Available at: https://www.google.cz/books/edition/Just_War_Tradition_and_the_Restraint_of/gcn_AwAAQB-AJ?hl=cs&gbpv=1&dq=Just+War+Tradition+and+the+Restraint+of+War&pg=PA329&printsec=frontcover. (Accessed on 05.04.2023).

Van Den Boogaard, J. (2016). Proportionality and Autonomous Weapons Systems. *OpinionJuris*. [Online]. Available at: <http://opiniojuris.org/2016/03/23/proportionality-and-autonomous-weapons-systems/>. (Accessed on 03.02.2023).

Walzer, M. (2002). The Triumph of Just War Theory (and the Dangers of Success). *Social Research*, 69(4), 925–944. [Online]. Available at: <http://www.jstor.org/stable/40971584>. (Accessed on 05.04.2023).

Weckert, J., & Moor, J. (2004). Using the precautionary principle in nanotechnology policy making. *Asia Pacific Nanotechnology Forum News Journal*, 3(4), 12–14.

Whetham, D. (2016). “Are We Fighting Yet?” Can Traditional Just War Concepts Cope with Contemporary Conflict and the Changing Character of War? *The Monist*, 99(1), 55–69. [Online]. Available at: <http://www.jstor.org/stable/44012734>. (Accessed on 12.02.2023).

Williams, J. (2008). Space, Scale and Just War: Meeting the Challenge of Humanitarian Intervention and Trans-National Terrorism. *Review of International Studies*, 34(4), 581–600. <http://www.jstor.org/stable/40212493>

Winter, E. (2022). The Compatibility of Autonomous Weapons with the Principles of International Humanitarian Law, *Journal of Conflict and Security Law*, Volume 27, Issue 1. Pages 1–20, <https://doi.org/10.1093/jcsl/krac001>

Wood, N.G. (2023). Autonomous weapon systems and responsibility gaps: a taxonomy. *Ethics Inf Technol* 25, 16. [Online]. Available at: <https://link.springer.com/article/10.1007/s10676-023-09690-1#citeas>. (Accessed on 26.06.2023).

Zainal, Z. (2007). *Case study as a Research Method*. [Online]. Available at: https://www.researchgate.net/publication/41822817_Case_study_as_a_research_method. (Accessed on 25.05.2023).

Zajac, M. (2023). AWS compliance with the ethical principle of proportionality: three possible solutions. *Ethics Inf Technol* 25, 13. <https://doi.org/10.1007/s10676-023-09689-8>

