IDENTIFYING 'HYBRID WARFARE'

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Master Thesis

Public Administration

Crisis and Security Management

Word count: 18.495

ABSTRACT

This thesis attempts to examine how 'hybrid warfare' can be identified in practice. Hybrid warfare is a current buzz-word to explain modern warfare, which has blurred the line between conventional warfare and irregular warfare. However, hybrid warfare is a contested concept, with no universally agreed upon definition, and little empirical evidence. This thesis attempts to take the first step in filling the knowledge gap surrounding hybrid warfare, which will build a bridge between the different perspectives on hybrid warfare and how hybrid warfare is labeled in practice. In order to this an exploratory research approach is used to identify hybrid warfare through a comparative case study approach in the actions of Russia in Crimea from November 2013 until March 2014, and the actions of Daesh in Iraq and Syria from June 2014 until December 2014. A framework is established of different modes of warfare and dimensions of hybrid warfare through building on the works of three hybrid warfare scholars: Frank Hoffman, Russell Glenn, and John McCuen.

Keywords: Hybrid warfare, modes of warfare, dimensions, framework, identification

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1. INTRODUCTION

"Hybrid warfare is an amalgam of overt and covert military power; a combination of bullying and subversion along with just a dash of deniability – all intended to make a full-scale response that much harder" (Marcus, 2014).

"The concept of hybrid threats is at the nexus between internal security and defense, between civilians and military capabilities" (Barnes, 2016).

"Hybrid warfare deliberately integrates the use of various instruments of national power so as to achieve foreign policy objectives in the light of the believed goals and capabilities of the adversary" (Lanoszka, 2016, p. 178).

"In the two years that have passed since Russia annexed Crimea, the expression 'Russian hybrid warfare' has become a fixture in the Western political, media and academic lexicon. It's a catch-all for Russian hostility" (Bershidsky, 2016).

"ISIL is a terror network with territorial ambitions and some of the strategy and tactics of an army" (Obama in Garamone, 2014).

'Hybrid warfare'[1] is the current buzz-word in the media, academic literature, and in the policy-making circles. Looking at the first three definitions above, it is an understatement that there is little agreement on what the concept entails. Nevertheless, the high utilization of the concept in the various platforms suggests that a new form of warfare has come to light. Some academics accredit this transformation in warfare to the increasingly blurred character of modern wars (Wilkie, 2009; Glenn, 2009). Others have attributed the usage of the concept to the fact that the West is not prepared to provide security against adversaries that attempt to target the weaknesses of the West without using traditional military strength (Hoffman, 2007; McCuen, 2008).

Whichever of these reasons might be the cause; the concept hybrid warfare is currently used to explain certain threats and warfare acts. For example, both NATO and the EU recognize Russia's aggression in Crimea and the advances of Daesh in Iraq and Syria as hybrid warfare threats (Council of the European Union, 2015; Miranda Calha, 2015). Both of these

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[1] The thesis will focus on the concept of hybrid warfare. However, this term is used interchangeably in the literature with hybrid threats (Glenn, 2009). The exact differences between these terms is not defined in academic papers, therefore the thesis assumes that a hybrid threat is *the threat that hybrid warfare will be waged by an adversary to another entity*.

organizations are also working on counter measures as they fear for the safety of Europe, because of these two threats labeled as hybrid warfare. However, it seems problematic to label certain warfare acts as hybrid warfare, and developing countermeasures, whilst there is little agreement on what the concept means. Therefore, due to the terminological and conceptual imprecision of the concept, multiple academics have stated that the concept only serves to gain a better understanding of the current difficulties in warfare; not necessarily as a theoretical or a planning concept (Gunneriusson, 2012; Hoffman, 2009b).

Nonetheless, the hybrid warfare concept is used to label the actions of two adversaries, as demonstrated by the two latter citations: Russia and Daesh. Therefore, it can be assumed that there are similarities between these two cases that constitute it as hybrid warfare. However, besides the terminological and conceptual gap, there is limited empirical evidence of other cases of hybrid warfare, the single case of empirical evidence being Hezbollah against Israel in 2006. There are currently no acknowledged factors on how to identify and label hybrid warfare.

This thesis attempts to take the first step in filling the knowledge gap surrounding hybrid warfare, by examining how hybrid warfare is identified in the actions of Russia in Crimea and in the actions of Daesh in Iraq and Syria. This will build a bridge between the different perspectives on hybrid warfare and how hybrid warfare is labeled in practice. The main research question of this thesis is: *How can 'hybrid warfare' be identified in the actions of Russia in Crimea and in the actions of Daesh in Iraq and Syria?* In order to answer this question, the thesis will construct a framework from the hybrid warfare perspectives of three prominent academics: Hoffman, Glenn, and McCuen. Using these indicators and data collection from open sources, the cases of Russia and Daesh will be analyzed to examine how hybrid warfare is identified. This thesis could serve as a beginning to inventory common indicators of hybrid warfare, making it possible to identify acts of war as hybrid warfare and to defend adequately against such acts.

This thesis is structured in the following manner. In the literature review and theoretical framework, the origins of hybrid warfare and the concept itself will be scrutinized and common elements for a framework will be highlighted. In the research design, the methodology and the two cases will be explained and the framework of hybrid warfare will be further explained. In the empirical analysis, first the different modes of warfare in each case will be identified, followed by which dimensions of hybrid warfare are evident in the cases. In the conclusion the main research question will be answered and a further discussion will be elucidated.

2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Since there is no agreed upon definition of hybrid warfare, and due to the fact that it is a rather vague concept; this section of the thesis will examine how the concept of hybrid warfare has evolved in the academic literature. First of all, a brief study will be made of the evolution of warfare, based on two main theoreticians in the field, Clausewitz and Van Creveld. Secondly, the concept of hybrid warfare will be scrutinized: its origins, its definitions, and its criticisms. After, the concept will be operationalized and modes of warfare and dimensions of hybrid warfare will be presented and defined.

2.1 EVOLUTION IN WARFARE – FROM CLAUSEWITZ TO THE 21ST CENTURY

In order to understand warfare, and how it has evolved, it is essential to understand what the term 'warfare' entails. The Merriam-Webster dictionary (n.d.) defines warfare as "military operations between enemies; an activity undertaken by a political unit (as a nation) to weaken or destroy another". However, in military theory, the definition of warfare is often the one that Prussian strategist Carl von Clausewitz (1984, p. 87) gives to it: "war is a mere continuation of politics by other means". Therefore, due to the important position he holds in traditional warfare, this thesis will start with examining briefly the contributions he made in understanding warfare, afterwards the criticism on his work will be explained that led to the development of hybrid warfare.

In his work *On War* (1832), Clausewitz offers the answer on what warfare entails based on the experiences of the Napoleonic Wars. He identified three criteria that an act of aggression must meet for it to be considered warfare. These can be summed up as: violence, instrumental, and political (Rid, 2012). First of all, "war is an act of force to compel the enemy to our will", implying that all warfare is violent in its nature. Secondly, that war always has an instrumental character: "the political object is the goal, war is the means of reaching it, and means can never be considered in isolation of their purpose". The third criterion is that warfare needs to have a political goal, hence the main definition of warfare by Clausewitz. This also implies that the acts of war need to be attributed to one side of the conflict (Clausewitz, 1984; Rid, 2012). Using basic criteria, Clausewitz (1984) attempted to articulate a theory to understand war, whilst taking into account its complexities, and its 'chameleon character', which changes throughout the ages. The work of Clausewitz is still the foundation of the military thinking of Western

nation-states (Andersen, 2012), and therefore his work is linked to the notion of 'conventional warfare' (Wilkie, 2009).

The concept of conventional warfare is not easily defined, but it adheres to the society's way of fighting that includes doctrinal thinking, the structure of the organizations, the rules of engagement, and also the appropriate goals of violence (Payne, 2012). Elements that are instinctively thought of as 'conventional' are described by Russell Weigley (1973), as firepower intensive, industrialized, state centric, focused on armies as the enemy center of gravity, regularized, and regulated. Therefore conventional warfare capabilities are often associated with the military capabilities of a state, for example: large units of armies, fleets, aircraft, and the joint combined arms maneuver warfare (Reyeg & Marsh, 2011).

Nowadays, not everyone agrees that Clausewitz is still the most relevant military theorist in the 21st century in explaining warfare. Clausewitz has been critiqued for his manner of describing war as only being waged by states. For instance, Van Creveld (1991, p. 36) argues that "organized violence should only be called 'war' if it were waged by the state, for the state, and against the state". Due to this criticism, Van Creveld, among others[2], has developed his own theory that does explain warfare in the 21st century (Schuurman, 2010). It was Van Creveld (1991) who predicted in the 1980s, that the main conventional military conflict between regular armed forces of nation-states would decrease in frequency, whilst low intensity conflicts conducted by non-state groups as: militias, warlords, criminal gangs, and paramilitary forces would proliferate severely. He ascribed his forecast to the following causes: the proliferation of nuclear weapons makes conventional war between states less likely[3]; increasing international dependence due to globalization; and the growing identification of territory and nationality to international law (Van Creveld, 2002). These make conventional conquests unacceptable.

Moreover, this prediction of Van Creveld on the 'transformation' in conventional warfare seems to have been affirmed in the last decade (Wilkie, 2009). According to military theorists, the contemporary wars between opponents with unequal capabilities combine

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[2] For more background information on the criticism on Clausewitz's work, look at 'Clausewitz in Wonderland' by Tony Corn, and 'Busting the icon: restoring balance to the influence of Clausewitz' by Philip S. Meillinger. For a more detailed explanation on the diminishing lack of importance of Clausewitz in the 21st century, 'Clausewitz and the 'New Wars' Scholars' by Bart Schuurman is advisable to read.

[3] This statement corresponds with the rational deterrence theory of Kenneth Waltz, which states that the proliferation of nuclear weapons makes war between states less likely, since nuclear weapons encourage defence and deterrence opposed to the possible and unacceptable high costs that the destruction due to nuclear powers can bring to a state and a society (Waltz, 1981).

elements of regular conventional warfare with elements of 'irregular warfare' (Lanoszka, 2016), which are displayed in the low intensity conflicts Van Creveld predicted. Examples of such contemporary wars in the 1990s are Somalia, Rwanda, and the Balkans (Schuurman, 2010).

Similar to conventional warfare, irregular warfare is also not easily defined. Arquilla (2011) uses three elements to define irregular warfare: the engagement of small units of military forces; the prevalence of guerrilla tactics; and resort to terrorism. A situation of irregular warfare can arise when one of the combatants is at the disadvantage in comparison to its opponent, implying that the combatant does not possess the resources to challenge its opponent directly (Weigley, 1973). Moreover, due to the limited amount of resources, human creativity and innovation become essential to develop new tactics and strategies, which leads to higher risks taken due to the inability of direct conventional confrontation (Reyeg & Marsh, 2011). Since both conventional and irregular warfare are difficult concepts to grasp, this overview in Figure 1, which contrasts the two should provide more clarity.

Figure 1 – Conventional and irregular warfare characteristics comparison (Reyeg & Marsh, 2011, p. 9)

Conventional warfare		**Irregular warfare**
Units	Large (Divisions, Fleets, Wings) ⟷	Small (Cellular, Light, Fast)
Supported	Well Resourced ⟷	Comparatively Under Resourced
Doctrine	Joint Combined Arms Maneuver Warfare ⟷	Guerrilla Tactics, Insurgency, Terrorism, Special Operations
Effect	Quick and Decisive ⟷	Protracted and Slow Burning
Objective	Annihilation ⟷	Attrition
Technology	New Weapons Development ⟷	Leverage what is Available

Nevertheless, there are those who are not content with the increasing usage of the term irregular warfare by policy makers and academics. Some academics even call the usage of the concept 'unhelpful and dangerous'; because they believe irregular warfare is nothing more than

tactical asymmetry (Vacca & Davidson, 2011). Another criticism for concern is that irregular warfare is used as a 'catch-all term' to represent anything other than conventional warfare, such as unconventional warfare, asymmetric warfare, guerrilla warfare, civil war, and the global war on terror (United States Forces Command, 2006). It is also argued that irregular warfare in its broadest meaning is not new, that it was also used in wars before, such as the French Revolution and the Franco-Prussian war; which makes it not new or a challenge since conventional armies have had to engage in this for centuries (Vacca & Davidson, 2011). Nonetheless, although that the concept of irregular warfare might be a 'fallacy' (Salmoni, 2007); this does not indicate that the actual activities of irregular warfare are as well. Considering these activities in military discourse can be highly beneficial.

Whilst irregular warfare is under some criticism, it has brought about a new kind of logic of practice for military forces, in the way that it describes war against adversaries who drift from the conventional warfare military thinking (Gunneriusson, 2012). Moreover, while irregular warfare is a contested concept in itself, the complexity has increased since the line between irregular and conventional warfare has started to blur; adversaries are able to adopt both warfare tactics (Arquilla, 2011). This revelation has caused a new wave of warfare concepts to elucidate the blurring of the line between conventional and irregular warfare. Multiple new concepts have been derived, and the hybrid warfare concept is one of them.

2.2. HYBRID WARFARE

Hybrid warfare has made its appearance in the military discourse at the beginning of the 21st century (Nemeth, 2002). However, it were the actions of Hezbollah in the Lebanon war of 2006, that caused the popularity of the term to grow among academics and politicians. Therefore, before a definition of hybrid warfare is examined, a brief overview to the actions of Hezbollah in 2006 will be given as an explanation of how the hybrid warfare concept has evolved.

2.2.1 UPSWING OF THE HYBRID WARFARE CONCEPT: HEZBOLLAH 2006

One of the most important contributions to the hybrid warfare debate is from Frank Hoffman, whom conducted extensive research on the phenomenon in the aftermath of the success of Hezbollah against the Israeli Defense Forces (IDF) in 2006. According to Hoffman (2007), this case validates the ability of non-state actors to deconstruct the vulnerabilities of Western style military states. The case received worldwide attention in the summer of 2006 when the non-state actor's successfully held off the Israel Defense Forces, who were known for their military excellence (Glenn, 2009). The tactic of Hezbollah in the summer of 2006 was that it mixed a political movement with decentralized cells employing adaptive tactics in ungoverned zones, which revealed that Hezbollah was able both to inflict as take punishment (Hoffman, 2007). The disciplined and well-trained cells contested ground against the modern conventional military force of Israel, whilst using a mixture of guerrilla tactics and technology in often densely packed city centers. Hezbollah exploited their territory to create traps and evade detection, in order to build a strong defense in close proximity of civilians (Exum, 2006). Moreover, it would be unconvinced to claim that Hezbollah 'won' in military terms. Nevertheless, the credibility of the IDF had been diminished, and in an ideological sense Hezbollah came out stronger (Hoffman, 2007). The strength of Hezbollah was not just in its military, it was the combination of its political, social, diplomatic, and informational components that provided the basics for a strong military organization (Glenn, 2009). The Hezbollah case provided for Hoffman, and also for others the opportunity to research the changing nature in military warfare. Furthermore, this case is, in the academic literature, the start of the debate on the hybrid warfare concept.

2.2.2 DEFINING HYBRID WARFARE

Hybrid can be defined as 'something heterogeneous in origin or composition' (Merriam-Webster, n.d.). Therefore, hybrid warfare indicates a combination of two or multiple forms of warfare. As has been demonstrated in the introduction and in the literature review above, it becomes evident that hybrid warfare refers to the simultaneous adoption of multiple modes of warfare. The Hezbollah case demonstrated that states can be attacked by opponents who do not necessary have to be state actors or even command a Western 'standard' armed force (Gunneriusson, 2012). Moreover, this case led into further research of hybrid warfare. Multiple definitions have evolved over the past decade, this thesis will name three that are similar; yet, also have fundamental differences: Hoffman, Glenn, and McCuen.[4]

A. FRANK G. HOFFMAN

First of all, Hoffman has developed his definition on the ideas of the following concepts[5]: 'New Wars', 'War amongst the people', 'Fourth Generation Warfare', and 'Unrestricted warfare' (Williamson, 2009). Hoffman (2009b, p. 2) defines hybrid warfare as: *"any adversary that simultaneously and adaptively employs a fused mix of conventional weapons, irregular tactics, terrorism and criminal activities in the battle space to obtain their political objectives."* It becomes evident from this definition, that Hoffman identifies four critical characteristics: conventional weapons, irregular tactics, terrorism, and criminal behavior. Hoffman does not give his own definitions to these elements, therefore this thesis will. The first two have been explained in the section above, but the latter two need still to be clarified. Terrorism is a contested concept, but can be defined as *"the illegitimate use of force to achieve a political objective by targeting innocent people"* (Laqueur, 1977, p. 7). Criminal activities, on the other hand, are mentioned by Hoffman (2009c) as smuggling, narcoterrorism, illicit transfers of advanced weapons, and the exploitation of gang networks.

However, according to Hoffman (2007), the most important characteristic of hybrid warfare is its *convergence*: the ability to apply and combine different means. For example, the converging of the psychological and physical; of the civilian and the combatant; of nation-building and violence; and, of the informational and kinetic approach (Williamson, 2009).

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[4] Other important contributions in the debate on a definition of hybrid warfare are 'Future war and Chechyna: a case for hybrid warfare' by W.J. Nemeth; and, 'Hybrid warfare: fighting complex opponents from the ancient world to the present' by W. Murray and P. Mansoor.

[5] These concepts will be explained further in the section on the criticism of hybrid warfare.

However, it is essential to underline that Hoffman states that hybrid warfare does not mean the diminishment of conventional warfare or obsolescence of these tools. Hybrid warfare causes additional sorts of dangers of which a modern state needs to be resilient to (Rácz, 2015). Nonetheless, Hoffman anticipates that future adversaries will apply multiple modes of war, simultaneously, to exploit a state's weaknesses by using an optimal blend of tactics that favor their own strategic culture, geography, and priorities (Williamson, 2009). Hoffman has laid the foundation for the debate on the concept of hybrid warfare. As will be discussed next, most authors have based their work on his definition of the term.

B. RUSSELL W. GLENN

Secondly, Glenn (2009, p. 2) adopts the following definition to hybrid warfare: *"when an adversary that simultaneously and adaptively employs some combination of (1) political, military, economic, social, and information means, and (2) conventional, irregular, catastrophic, terrorism, and disruptive/criminal warfare methods. It may include a combination of state and non-state actors."* Although at first glance it is quite similar to Hoffman, there are two main changes: the catastrophic element, and the inclusion of non-military means. First of all, the catastrophic element. Glenn gives credit to Mr. Robert Everson for having this addition in his definition. Glenn (2009, p. 2) defines 'catastrophic' as *"any natural or man-made incident, including terrorism, which results in extraordinary levels of mass casualties, damage, or disruption severely affecting the population, infrastructure, environment, economy, national morale, and/or government functions".* Therefore, Glenn takes into account the impact on the society that is targeted by hybrid warfare. Secondly, the inclusion of non-military means. Surprisingly, whilst Hoffman (2007; 2009a) speaks in his work of non-military methods or tactics, he does not include these specifically in his definition. Glenn (2009) has identified the strength of Hezbollah in 2006, in that it was more than just a military power. Hezbollah had social, diplomatic, political, and informational capabilities that provided the foundation for its military power. Therefore, the inclusion of the non-military means in his definition of hybrid warfare and the catastrophic element is novel in the debate on hybrid warfare (Rácz, 2015).

C. JOHN J. MCCUEN

Lastly, another accredited academic in the field of hybrid warfare is John J. McCuen. Unlike Hoffman and Glenn, McCuen (2008, p. 108) states that hybrid warfare indicates that the battles

are fought on *"both physical and conceptual dimensions: the former a struggle against an armed enemy and the latter, a wide struggle for control and support of the combat zone's indigenous population, the support of the home fronts of the intervening nations, and the support of the international community"*. According to Hoffman (2009b), the definition of McCuen emphasized the battle of the narratives, and this also justified the emphasis of Nemeth that he put on the modern information tools and mobilization of the masses. Nemeth (2002, p. 29) looked at the Chechen-Russian conflict where he described the action of the Chechens' as a *"contemporary form of guerrilla warfare"* who *"employ both modern technology and modern mobilization methods"*. So therefore, McCuen (2008) builds upon Nemeth's considerations and states that hybrid warfare is effective, if the strategic objectives are achieved in physical and conceptual dimensions. Interestingly, McCuen adds the societal element as key to success in hybrid warfare compared to Glenn and Hoffman. Rebuilding and restoring security among the indigenous population, and restore essential services, infrastructure, local government, and the economy, are the key to winning or losing a hybrid war (McCuen, 2008). Thus, using the populations as battleground is another important element in hybrid warfare for adversaries who do not have the conventional military strength to wage war directly.

All in all, these definitions of hybrid warfare include some similarities, yet are also different, which could lead to grand differences in approaching the identification of hybrid warfare in actions of adversaries. Therefore, this thesis will use the dimensions and modes of warfare from the above definitions to operationalize hybrid warfare in the empirical analysis.

2.2.3 CRITICIZING HYBRID WARFARE

Although hybrid warfare is utilized by various platforms, the concept is still a topic of intense debate. Certain topics of criticism are: the extent of the military means, its novelty, its vagueness, and its utility compared with other new concepts.

A. EXTENT OF THE MILITARY MEANS

First of all, one of the criticisms is to what extent the hybrid warfare definition should include non-military means. When looking at the definitions above, it becomes clear that hybrid warfare involves more than just military means. Not everyone agrees with this. For example Murray and Mansoor (2012) have neglected the non-military means in their definition to explain hybrid warfare; they focus only on the manner that forces engage in conduct. Moreover, this is quite

the opposite compared with McCuen (2008), who focuses on the social aspect of hybrid warfare; how adversaries use societies and the international community to achieve their objectives. Additionally, as is demonstrated in the definitions of Hoffman and Glenn, it is not clear whether non-military means should also be taken into account with hybrid warfare. In Hoffman's articles (2007; 2009a), he does state that the hybrid adversaries will target the West's weaknesses, but does not make statements on whether this is done through military and non-military means.

B. NOVELTY

Secondly, the debate continues on whether or not the phenomenon that is described by hybrid warfare is new, or that it has been around through all ages (Wilkie, 2009). Murray and Mansoor[6] (2012) have argued that the use of conventional and irregular means have been war tactics since ancient times. They provide case studies as Rome's efforts to control Germania in 9 AD, and the American revolution, as proof of their statement. For instance, how Rome's adversaries adapted their mode of fighting to offset Rome's disciplined military (Lacey in Murray & Mansoor, 2012). Additionally, Murray (2012) argues that the American revolution was founded in hybrid warfare; from the conventional line battles in the North to the partisan irregular warfare in the South. Others have admitted that when you look at the history, there is nothing new in the current phenomenon that is called hybrid warfare (Glenn, 2009b). Nevertheless, Glenn (2009a) does state that the 'new' concept can inspire a debate for a better understanding of modern warfare today. Therefore, the debate on whether hybrid warfare is a new phenomenon or whether it has been around for centuries is a moot point, because mostly this discussion is due to the fact that there is no universally agreed upon definition or characteristics of hybrid warfare.

C. VAGUENESS

Thirdly, as Hoffman (2009b) admittedly states, the excessive amount of definitions in the academic literature adds to the image of hybrid warfare as a vague concept. Again, this problem can be traced back to the lack of a universally agreed upon definition and characteristics of

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[6] This thesis argues that there is a lack of empirical evidence regarding hybrid warfare. Murray and Mansoor argue that there are a lot of historical cases regarding hybrid warfare, nonetheless this is due to their rather simple definition of the concept that is not shared in this thesis.

hybrid warfare. Therefore the concept is criticized to be unsuitable, because it is too abstract, and no more than a combination of irregular warfare with conventional warfare or as a subset of irregular warfare (Fleming, 2009). There is also the belief that hybrid warfare should only be used as a way to gain a better understanding of the phenomenon and that it is not intended as a concept for policy-making. For instance, Hoffman (2009c, p. 6) states *"at the end of the day we drop the 'hybrid' term and simply gain a better understanding of the large gray space between our idealized bins and pristine Western categorizations, we will have made progress"*. This is in line with Gunneriusson (2012), who believes that he concept of hybrid warfare is wanted and needed, but not primarily as a theoretical or planning concept, until the acceptance of the term will eventually lead to consequences in the theory, planning, and doctrine.

D. UTILITY COMPARED WITH OTHER CONCEPTS

Lastly, the line between conventional and irregular warfare has become blurred, which has caused the origin of a new wave of warfare concepts to explain this. Hybrid warfare is an example of one of these concepts, but there are many more. For instance, in the section on Hoffman (2007) it was stated that he based his definition of hybrid warfare on 'new wars', 'war amongst the people', 'fourth generation warfare', and 'unrestricted warfare', which are four similar types of concepts as hybrid warfare. The criticism on the concept is what makes hybrid warfare unique compared to these other concepts. An overview is presented in Figure 2, which contrasts the characteristics of these concepts with hybrid warfare.

First of all, Mary Kaldor (2007) introduced the concept 'new wars', which take place in the post-Cold War period and have the following characteristics: they are fought by a combination of state and non-state actors; they use identity politics to fight in a name of a label instead of an ideology; the motivation is to achieve political control of a society through the use of control and fear; and, they are not per se financed through the state but through other means. Secondly, Rupert Smith (2005) developed the concept of 'war amongst the people', grasping the concept that conflicts will become more timeless, more political of nature, and that the conflicts are fought more often amongst the population than between conventional armies on the battlefield. Thirdly, Lind (2007) and a group of Marine Corps officers introduce 'fourth generation warfare' (referred to in short by 4GW), which describes the diminishing power of the state as governing mechanism leading to the rise of non-state actors who challenge the legitimacy of the state, and the application of conventional and unconventional measures by the

4GW actor to de-legitimize the governing state, and motivate a social breakdown within the society. Fourthly, two Chinese colonels proposed the term 'unrestricted warfare', where a country at a military disadvantage should use catastrophic and disruptive threats to target vulnerabilities of its opponent, using: economic warfare, financial warfare, tele-communications and network warfare, resource warfare, information and media warfare, and international law warfare (Barno & Benshael, 2015).

As is demonstrated in Figure 2, when comparing the various hybrid warfare definitions with the other 'new' concepts, it becomes clear that all of the concepts have similar elements. This also begs the question why hybrid warfare is momentarily used in policy-making circles and the media, whilst there are other similar concepts.

Figure 2 – Hybrid warfare contrasted with other 'new' concepts[a]

Elements	HW			NW	WatP	4GW	UW
	H	**G**	**M**				
Conventional warfare	X	X	X	X	X	X	X
Irregular warfare	X	X	X	X	X	X	X
Terrorism	X	X		X		X	
Criminal activities	X	X					
Catastrophic		X					X
Non-military means		X	X		X	X	X
Among the population			X		X	X	

Note: some abbreviations are used in this figure. HW = hybrid warfare; H = Hoffman; G = Glenn; M = McCuen; NW = new wars; WatP = war amongst the people; 4GW = fourth generation warfare; UW = unrestricted warfare.

[a]: This figure is based on the sources that are discussed in the sections above.

This literature review and theoretical framework has given a broad overview of the origins, the definitions, and the criticisms on the concept of hybrid warfare. It is clear that it is a contested concept, yet it is currently used by different platforms to label certain warfare actions and

develop countermeasures. Therefore, it is interesting to examine how cases are identified as hybrid warfare. But in order to this, the hybrid warfare concept needs to be operationalized.

3. RESEARCH DESIGN

This section will explain the methodological framework of the thesis. Starting with the operationalizing the concept of hybrid warfare. Secondly, the choice of methodology, and a short explanation of both case selections, will be discussed.. Next, the choice and the approach of data collection will be explained. Furthermore, a framework of the concept of hybrid warfare will be presented to analyze how hybrid warfare is identified.

3.1 OPERATIONALIZING THE CONCEPT OF HYBRID WARFARE

It has become evident that there is no common framework on how to identify hybrid warfare, due to the fact that it is a contested concept. This thesis aims to make the first step in filling the knowledge gap by supplementing the empirical evidence of hybrid warfare with empirical evidence drawn from the uncontestably hybrid warfare cases of the action of Russia in Crimea and Daesh in Iraq and Syria. Therefore, this thesis will construct a framework using the hybrid warfare perspectives of three prominent academics: Hoffman, Glenn, and McCuen, to extract their *modes of warfare* and *dimensions*. On an important note, the hybrid warfare scholars have failed to explain the modes of warfare they mention in-depth. Therefore, this thesis had to select its own indicators to explain the modes of warfare by using other non-hybrid warfare literature. This step was necessary, because only clearly defined indicators can be used to identify hybrid warfare in practice.

Hybrid warfare will be operationalized according to Figure 3. From the perspectives of the three hybrid warfare scholars, certain modes of warfare and dimensions will be selected. These are organized in the 'dimensions per author' and the 'modes of warfare per author'. As is evident, there is some overlap between the dimensions and the characteristics. In the Research Design section, an overview will be provided on how the data will be analyzed. This section will explain the dimensions, and clarify the modes of warfare and its indicators.

3.1.1 DIMENSIONS OF HYBRID WARFARE

There are four dimensions[7] of hybrid warfare mentioned across the three authors, Hoffman, Glenn, and McCuen: multi-modality, simultaneity, fusion, and catastrophic. First of all, multi-modality can be defined as the extent to which an adversary can mix and apply different modes of warfare (Hoffman, 2009b).

Figure 3 – Operationalizing hybrid warfare

Author	**Definition**	**Dimensions per author**	**Modes of warfare per author**
Hoffman	*"any adversary that simultaneously and adaptively employs a fused mix of conventional weapons, irregular tactics, terrorism and criminal activities in the battle space to obtain their political objectives."*	• Simultaneity • Fusion • Multi-modality	• Conventional capabilities • Irregular tactics • Terrorist acts • Criminal activities
Glenn	*"when an adversary that simultaneously and adaptively employs some combination of (1) political, military, economic, social, and information means, and (2) conventional, irregular, catastrophic, terrorism, and disruptive/criminal warfare methods. It may include a combination of state and non-state actors."*	• Simultaneity • Fusion • Multi-modality • Catastrophic	• Conventional methods • Irregular methods • Terrorism • Disruptive/criminal methods • Non-military means ▪ Political, economic, social, and information
McCuen	*"battles are not only fought on the conventional battlegrounds, but as well as on the both physical and conceptual dimensions: the former a struggle against an armed enemy and the latter, a wide struggle for control and support of the combat zone's indigenous population, the support of the home fronts of the intervening nations, and the support of the international community."*	• Simultaneity	• Conflict zone population • Home front population • International community

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[7] The definitions that are demonstrated in Figure 3, do not all state the dimensions literally. However, the literature review and theoretical framework section explain these dimensions, which is why these are included.

Secondly, simultaneity is the extent to which an adversary applies simultaneously different modes of warfare (Hoffman, 2009b). Thirdly, fusion means the extent to which an adversary fuses the different modes of warfare toward its own advantage (Hoffman, 2009b). Fourthly, catastrophic can be perceived as the impact on the environment, as cited by Glenn (2009, p.2): *"any natural or man-made incident, including terrorism, which results in extraordinary levels of mass casualties, damage, or disruption severely affecting the population, infrastructure, environment, economy, national morale, and/or government functions"*.

3.1.2 MODES OF WARFARE AND INDICATORS OF HYBRID WARFARE

The three hybrid warfare scholars identify together eight different modes of warfare: conventional capabilities, irregular tactics, terrorism, criminal activities, political, economic, information, and social. These four can be divided into the physical modes of warfare, the first four; and the conceptual modes of warfare, the latter four. This division is based on McCuen (2009), who stated that hybrid warfare is fought on two battlegrounds: "physical and conceptual". The physical battleground therefore includes the physical modes of warfare, whilst the conceptual dimension includes the non-military means of warfare and where is fought for the control and support of the societies (McCuen, 2008). The modes of warfare have all been described before in the sections of the authors. However, in the analysis these modes will be examined using indicators. A flaw of the hybrid warfare scholars is that they have failed to define contested concepts as: conventional capabilities, irregular tactics, and terrorism. Therefore, indicators from other academics are used for the modes of warfare. In Figure 4, an overview is provided with the characteristics and the corresponding indicators. These will be elaborated below.

Figure 4 – Modes of warfare with corresponding indicators

	Modes of warfare	**Indicators[8]**
1	**Conventional capabilities** (Weigley, 1973; Reyeg & Marsh, 2011)	• Usage of armies, fleets, and aircraft • Joint combined arms maneuver warfare • Firepower intensive
2	**Irregular tactics** (Arquilla, 2011; Reyeg & Marsh, 2011; Kiras, 2006)	• Guerrilla tactics • Insurgency • Credibility and legitimatization
3	**Terrorism** (Reinares, 2013)	• Acts of violence to spread fear and anxiety • Unpredictable violence against symbolic targets • Violence conveys threats to gain social control
4	**Criminal activities** (Hoffman, 2009a)	• Smuggling • Illicit transfers of advanced weapons • Exploitation of gang networks
5	**Political means** (Glenn, 2009; Lamb, 2013)	"the intended use of political means to compel an opponent to do one's will, based on hostile intent"
6	**Economic means** (Glenn, 2009)	"the use of, or the threat to use, economic means against a country in order to weaken its economy and thereby reduce its political and military power"
7	**Information means** (Glenn, 2009)	"actions taken to achieve information, information-based processes, information systems, and computer-based networks while defending one's own information, information-based processes, information systems, and computer-based networks"
8	**Social means** (Glenn, 2009; McCuen, 2008)	• Conflict zone population (Control and support) • Home front population (Support) • International community (Support)

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[8] Political, economic, and information means have no indicators, therefore the definitions are presented for these conceptual modes of warfare.

1. CONVENTIONAL

Conventional warfare is one of the contested concepts used to describe hybrid warfare, since conventional capabilities are associated with the military capabilities of the state, the thesis has chosen for the following three indicators: 1) the usage of army, navy, and air force; 2) joint combined arms maneuver warfare; 3) firepower intensive conflicts. These indicators are derived from the works of Weigley and Reyeg & Marsh.

2. IRREGULAR

Irregular warfare is another contested concept, that is used to describe hybrid warfare. Again using Reyeg & Marsh, and also Arquilla, three indicators have been derived to identify irregular warfare: 1) guerrilla tactics; 2) insurgency; 3) credibility and legitimatization. Guerrilla tactics and insurgency need further explanation. Guerrilla tactics can be characterized as "hit-and-run raids and ambushes against local security forces" performed by "armed civilians" (Kiras, 2006, p. 188). Insurgency can be defined as "a rebellion against an authority when those taking part in the rebellion are not recognized as belligerents" (Merriam-Webster, n.d.).

3. TERRORISM

Terrorism is the third contested concept that is used to describe hybrid warfare. In the section of Hoffman, a simple definition of terrorism was given by Laqueur (1977, p. 7): "the illegitimate use of force to achieve a political objective by targeting innocent people". Reinares has a more extensive definition of terrorism that is used for the indicators of the mode of warfare: "1) an act of violence that produces widespread disproportionate emotional reactions such as fear and anxiety; 2) violence is systematic usually directed against symbolic targets; 3) the violence conveys messages and threats in order to communicate and gain social control" (Bjorgo, 2005, p. 120).

4. CRIMINAL ACTIVITIES

Criminal activities are mentioned by Hoffman (2009c) as smuggling, narcoterrorism, illicit transfers of advanced weapons, and the exploitation of gang networks. This thesis has selected for its framework: 1) smuggling; 2) illicit transfers of advanced weapons; 3) exploitation of gang networks.

5. POLITICAL MEANS

Glenn does not provide a definition, therefore this thesis will define the political means as a mode of warfare as "the intended use of political means to compel an opponent to do one's will, based on hostile intent" (Lamb, 2013, p. 22).

6. ECONOMIC MEANS

Glenn does not provide a definition, therefore this thesis will define the economic means as a mode of warfare as "the use of, or the threat to use, economic means against a country in order to weaken its economy and thereby reduce its political and military power" (Encyclopaedia Britannica, n.d.).

7. INFORMATION MEANS

Neither does Glenn define information means as a mode of warfare. There this thesis will use the definition of the U.S. Department of Defense (1996, p. 3) to define information means as a mode of warfare: "actions taken to achieve information, information-based processes, information systems, and computer-based networks while defending one's own information, information-based processes, information systems, and computer-based networks."

8. SOCIAL MEANS

Social as a mode of warfare was mentioned by Glenn, and indirectly by McCuen, and will be used in the thesis to determine the support and control of three groups that were identified by McCuen. These three population groups are: 1) conflict zone population; 2) home front population; 3) international community.

All in all, this is how the thesis operationalizes hybrid warfare. This framework will be used in the empirical analysis to identify how hybrid warfare was identified in the actions of Russia in Crimea and in the actions of Daesh in Iraq and Syria.

Figure 5 demonstrates how the empirical analysis will be structured. First of all, data will be collected to examine if there is evidence that each of the eight modes of warfare can be distinguished in each case. Furthermore, using the data that is collected for the modes of warfare, it will be analyzed whether the four dimensions are found in the case studies. This framework is based on the works of Hoffman, Glenn, and McCuen; and is used in an exploratory research. Therefore, it will not be stated that for a dimension to be 'recognized' in a case, that it needs to have at least four or more modes of warfare. The purpose is to explore whether these modes of warfare and dimensions can be used for further research in examining whether certain actions can be labeled as hybrid warfare.

Figure 5 – Modes of warfare and dimensions of hybrid warfare
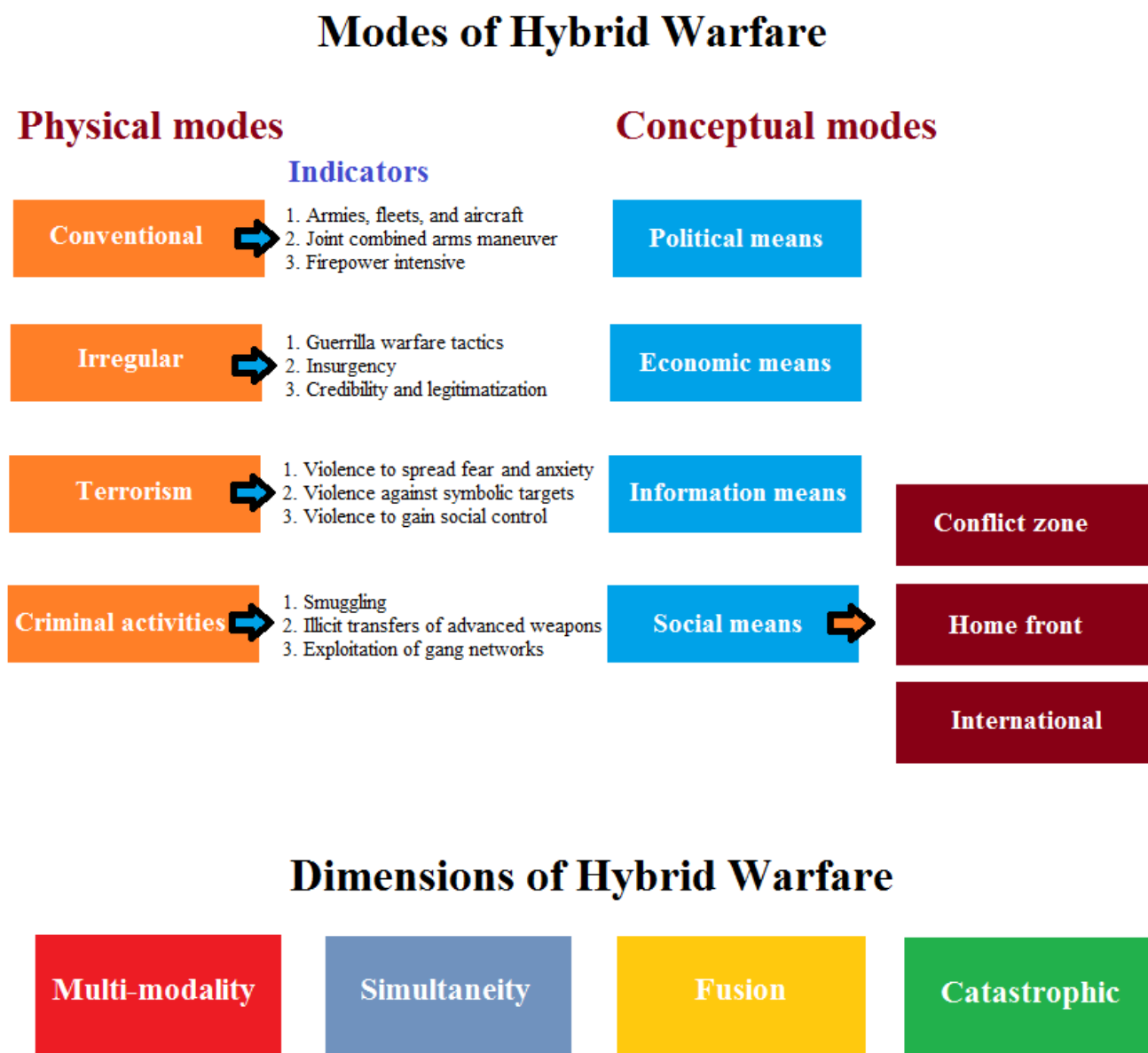
3.2 CHOICE OF METHODOLOGY

This thesis will follow a qualitative research methodology based on a comparative case study design. A qualitative case study method allows to explore a phenomenon within its context using diverse data sources (Baxter & Jack, 2008). Therefore, Robert Yin defines a case study as *"an empirical enquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident"* (Yin, 2009, p. 46). A case study methodology was chosen, because hybrid warfare is a complex and contested concept with lots of theoretical, but little empirical evidence. Moreover, a comparative case study approach will allow for an in-depth analysis and provide thorough insights. This approach provides high internal validity, at the cost of the external validity and reliability (Bryman, 2012). These deficiencies are countered through triangulation via diverse data sources. Additionally, the triangulation of data sources allows for a "thick description of the phenomenon under scrutiny" (Shenton, 2004, p. 69).

3.2.1 CASE SELECTION

The cases that are selected for the comparative analysis are: Russia's actions in Crimea (November 2013 – March 2014) and the actions of Daesh[9] in Iraq and Syria (June 2014 – December 2014). These cases are selected, because multiple authors have labeled these as cases of hybrid warfare (Lanoszka, 2016; Frank, 2015). Nevertheless, it is not specified what exactly is identified as hybrid warfare in the actions of Russia and Daesh, which makes it interesting to contrast these cases using similar modes of warfare and dimensions of hybrid warfare. Below a brief summary of the two cases and the chosen time frames.

A. RUSSIA'S ACTIONS IN CRIMEA

First of all, the conflict between Russia and Ukraine is currently (June 2016) ongoing, yet, this thesis will only look at the start of the conflict: the annexation of Crimea. Therefore, the chosen time frame is from November 2013 until March 2014. This time period is chosen due to the enormous amount of information that is available of the actions of Russia in Crimea. The

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[9] Daesh has many other names, such as 'Islamic State', 'IS' 'Islamic State in Iraq and the Levant', 'ISIL', 'Islamic State in Iraq and Syria', and 'ISIS'. However, Daesh is used in this thesis, because it is "neither Islamic nor a state" (Black, 2014).

annexation of Crimea was chosen as focus point of Russia's actions in the conflict, because it serves as focal point in the conflict.

Historically, Crimea has been on and off a part of Russia. In 1954, Crimea was transferred back to Ukraine. Crimea is the only area in Ukraine, where its population has a majority of ethnic Russia: approximately 60% of its 2.3 million habitants are ethnic Russian (Paul, 2015).

The conflict originated when Ukrainian President Yanukovich rejected the Association Agreement with the EU in December 2013, which caused protests throughout Ukraine because Ukraine 'turned its back' on the EU for closer relations with Russia (Traynor & Grytsenko, 2013). After Yanukovich was ousted and fled Ukraine to Russia, and a the new interim government was formed, violent protests began in eastern Ukraine, the Russian speaking Donbass region. Furthermore in Crimea, 'little green men' appeared and buildings of local authorities were occupied, along with the naval bases and airports in Crimea (Pifer, 2014). In the presence of armed men, the Crimean parliament elected a new leadership on 27 February 2014. A referendum was held on 16 March on the status of Crimea, which led to a signing of a treaty in Moscow to the annexation by Russia.

B. DAESH IN IRAQ AND SYRIA

The conflict of Daesh in Iraq and Syria is currently also ongoing. But similar to the first case, the time frame chosen will be from June 2014 until December 2014. This time period is chosen due to the enormous amount of information that is available, and June 2014 marks the date that Daesh self-proclaimed the caliphate Islamic State.

Daesh is a militant movement that has occupied territory in western Iraq and eastern Syria. The organization originates from the al-Qaeda Iraq faction, nonetheless, it has split from the faction. In June 2014, after conquering territories in Iraq, as the cities Mosul and Tikrit; Daesh proclaimed itself as the Islamic State as the caliphate, claiming political and theological authority of Muslims all over the world (Laub, 2016). However its state-building has been justified by Shari'a law, and its battlefield victories have attracted thousands of foreign fighters (BBC, 2015a).

Both of these cases have been labeled as cases of hybrid warfare, and the purpose of this thesis is to examine how hybrid warfare is identified by contrasting these cases.

3.3 DATA COLLECTION

The data that will be collected for these case studies will be done through triangulation of publicly available open sources. Most of the sources that will be used are international news media, human rights reports, minutes of UN meetings, reports of governments, and reports of Western think tanks. In order to gather the relevant sources, specific terms were inserted in the search engine. For the Russian case, it were: 'Russia', 'Crimea', '2014', and then the specific modes and/or indicators that were examined. It proved to be more difficult for the Daesh case, due to the many synonyms for the group. Therefore, multiple searches had to be performed to find the relevant open sources. Terms in this case included: 'Daesh', 'ISIS', 'ISIL', 'Islamic State', 'Syria', 'Iraq', '2014', and then again the specific modes and/or indicators that were examined. For the triangulation method, each piece of information was cross-referenced among multiple independent open sources. This approach does bring two limitations: 1) not all data can be found in publicly available sources; and, 2) the data is Western biased, because no Russian, Ukrainian or Arabic sources were included to the language barrier. However, the publicly available data provides still the most information on these cases that is available to the author of the thesis. Additionally, translated data and data collected from Russian, Ukrainian, and Arabic sources were used in the empirical analysis, in order to diminish these two limitations to the author's best capacity.

4. EMPIRICAL ANALYSIS

In this section the above framework on hybrid warfare based on the works of Hoffman, Glenn, and McCuen is used to identify which modes of warfare, and which dimensions can be identified in the case of Russia's actions in Crimea, and in the case of Daesh's actions in Iraq and Syria. Starting off, identifying hybrid warfare in the actions of Russia in the annexation of Crimea.

4.1 IDENTIFYING HYBRID WARFARE IN THE ACTIONS OF RUSSIA

4.1.1 MODES OF WARFARE

1. CONVENTIONAL CAPABILITIES

On 1 March 2014, Russian President Putin receives authorization from the Russian Parliament for the use of Russian troops in Ukraine (Beese & Kahn, 2014). A Kremlin statement said: "in the case of further violence in eastern regions (of Ukraine) and Crimea, Russia maintains the right to protect its citizens and the Russian-speaking population that lives there" (Sullivan & Isachenkov, 2014). However, multiple sources state that weeks before the authorization of the Russian Parliament, thousands of extra soldiers and 'civilian volunteers' were already dispatched to the Russian rented bases in Crimea (Simpson, 2014; Sullivan & Isachenkov, 2014). On 3 March, President Putin ordered military exercises involving, the army, navy, and air force in the districts bordering Ukraine (Walker, 2014). These acts together constituted "an act of aggression" according to Ukraine's Permanent Representative of the UN (UN Security Council, 2014). Due to the fact that Russian soldiers were already dispatched to Crimea before the authorization of the Russian Parliament, and additionally the involvement of the "little green men", which are discussed below; it is not evident the number of Russian military troops were in Crimea.

Although Russia did not use its fleets and aircraft in a military manner directly against Ukraine; but President Putin ordered surprise military exercises on the border of Ukraine and at its base in Sevestopol[10] (Yuhas, 2014). Moreover, on 5 March 2014, Russian sailors "scuttled ships… blocking Ukrainian vessels at their base at Novoozerne", which eventually at the end of March led to the surrender of the "majority of Ukraine's Crimean naval bases and associated

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[10] Since the end of the Cold War, Russia 'rents' its naval base in Sevastopol from Ukraine (Lally, 2014).

vessels to Russian forces" (Naval Today, 2014). A week before that, the airports in Crimea were "seized" (BBC, 2015c), "controlling access by pro-Russian separatists" (Salem, Walker, and Harding, 2014). Ukraine's Interior Minister Arsen Avakov stated that: "the airports were controlled by Russian navy troops" and described it as "a military invasion and occupation" (CBS News, 2014).

In Crimea, Russia did not display joint combined arms maneuver warfare, nor was the conflict firepower intensive. The take-over in the end of February and beginning of March is described as "fairly bloodless" (Hsu, 2014); as "a bloodless invasion" (Beckhusen, 2014); or as "a remarkable, quick, and mostly bloodless coup d'état" (Simpson, 2014). However abductions and ill-treatment of captives in Crimea are frequent (Amnesty, 2015a); especially Crimean Tatars, activists and others critical of Russia are targets (Human Rights Watch, 2014a).

2. IRREGULAR TACTICS

'Little green men' have been fanned out in Crimea since the beginning of 2014 (Pifer, 2014). Russian President Putin calls them "members of self-defense groups organized by locals" (Lally & Englund, 2014), and denies any involvement of Russian troops. However, many platforms have "mounting evidence of the opposite" that Russia indeed sent troops to Crimea (Amnesty, 2015a, p. 32), who took part in occupying the Ukrainian navy bases, airports, and local government buildings in Crimea (Herbst & Polyakova, 2016). Also Ukrainian media challenge Putin's claims: "Russian invaders and occupiers from Russia" (Ukrayinska Pravda in Shevchenko, 2014); "the military presence in Crimea is an armed intervention" (Segodnya in Shevchenko, 2014). Another popular blogger writes that the term "little green men" is invented by spin doctors from Russia who "are creating an image of a Russia liberator-soldier wearing a nice new uniform and armed with beautiful weapons, who has come to defend peaceful towns and villages (Varlamov in Shevchenko, 2014). Therefore, the actions of 'little green men' by Russia is described as a "military occupation that is staged as a non-occupation" (Yurchak, 2014). This usage of 'little green men' amongst the pro-Russian separatists and 'volunteers' in Crimea to take over the major important locations in Crimea (Simpson, 2014); this can be seen as an act of guerrilla warfare.

Insurgency can also be identified in this case. The Euromaidan protests led to the ousting of President Yanukovich and the installation of a pro-European interim government; which was perceived in Southern and Eastern Ukraine, respectively 27% and 26%, as a "political coup

d'etat" (International Republican Institute, 2014, p. 105-106). The aim of the pro-Russian groups was "to keep Ukraine in Moscow's orbit and prevent its integration with Europe" (Coalson, 2014). With Crimea being the only area in Ukraine, where the majority of its population is ethnic Russian, and speaks Russian (BBC, 2015b); Russia with the assistance of the pro-Russian groups as described above took control over Crimea, which led eventually into the annexation by Russia.

Russia made numerous attempts to increase its credibility for its actions in Crimea and to legitimize its actions. It legitimized its rights to intervene under the pretext of "to protect its citizens and the Russian-speaking population that lives there" (Sullivan & Isachenkov, 2014). The annexation was legitimized by the result of the referendum that was held on 16 March, which according to the *Russian Times* over 95.7% voted in favor for the annexation with a voter turnout of 81.37% (RT, 2014).

3. TERRORISM

As mentioned previously, the occupation and annexation of Crimea were almost bloodless, and although the threat of violence was present to gain social control; unpredictable violence against symbolic targets and to spread fear and anxiety cannot be identified in the case of the Russian annexation. The Russian surprise military exercises on Ukraine's doorstep involving the army, navy, and air force, (Salem, et al., 2014), "to check combat readiness of armed forces in western and central military districts as well as several branches of the armed forces" (Smith-Spark, Black & Pleitgen, 2014) can be seen as acts of intimidation. Nonetheless, otherwise the terrorism indicators are non-existent in this case.

4. CRIMINAL ACTIVITIES

Criminal activities were evidently a part of Russia's actions in the annexation of Crimea. Although smuggling cannot be found in its strategy, rather as a result of the Russian takeover, since "Crimea has long been a center of criminal activity and interest… its supply convoys were infamously misused for smuggling of every kind" (Galeoitti, 2014a). Moreover, the Ukraine permanent representative of the UN accused Russia, that before the occupation in Crimea, that "the Russian Federation provided numerous supplies of arms into Crimea… the continuous flow of sophisticated weapons and ammunition had had a disastrous and destabilizing effect"

(Kateryna Bila in UN Security Council, 2015a). Other resources report similar findings: "the flow of weapons into Ukraine has fueled separatist tensions… pro-Russian forces have shot down Ukrainian helicopters and planes with similar heavy weapons" (Munteanu, 2014); "the provision of tanks, advanced air defence systems and other heavy weapons to the separatists" (NATO, 2014).

The exploitation of the gang networks can also be found in the Russian takeover of Crimea, "Kremlin uses criminal as instruments of state policy and also how the underworld and upperworld have become inextricably entwined as a consequence" (Galeoitti, 2014b). For example, the Kremlin's elected acting Prime Minister of Crimea after the Russian annexation was Sergei Aksyonov, whom has repeatedly been connected with criminal networks (Flintoff, 2014; Shuster, 2014). Aksyonov used to go by the nickname 'Goblin', as a member of a cigarette-smuggling gang called 'Salem' in the 1990s, however, the court records and police reports of his activities have gone missing (Galeoitti, 2014b). Another source quotes an anonymous Ukrainian prosecutor who claims that "Aksyonov and his Russian separatist associates share sordid pasts that mix politics, graft, and extortion in equal measure and together they helped steer Crimea into the Russian federation" (Dettmer, 2014). An American think tank stated in 2012, that "political corruption is ingrained in eastern Ukrainian political culture" (Kuzio, 2012). This would imply that politics and corruption have always connected in Ukraine and Crimea, and therefore these gang networks were easily exploited in 2014 by Russia.

5. POLITICAL MEANS

At the beginning of November 2013, President Putin met with President Yanukovich to struck a deal, and this meeting led to the winning of "the tug-of-war" between Russia and the EU, because shortly after President Yanokovich postponed the signing of the EU Association Agreement indefinitely (Spiegel, 2013). The deal implied a Russian 15 billion dollar investment in Ukraine and a reduction of a third of the price that Naftogaz, Ukraine's national energy company, has to pay for its gas imports from Russia (Piper, 2013). This decision led to the Euromaidan protests in Ukraine, and the clash between the pro-Russian groups and the anti-government groups (Kononczuk, 2014). However, also the political events on 1 March seem "orchestrated": Crimea's new Prime Minister Aksyonov asks Russia for help; Russia's lower house of Parliament urges President Putin to stabilize Crimea; President Putin agrees; and he obtains permission of the Parliament to use force in Ukraine (Friedman, 2014). All these

political decisions were helpful for Russia in 'legitimizing' its occupation and annexation of Crimea.

6. ECONOMIC MEANS

The political deal that was made between Russia and Ukraine, also includes the economic denominator. In 2013, Ukraine had slid into recession, and therefore faced economic problems (Spiegel, 2013). One of its causes, is that Ukraine is "energy inefficient" (Clark, 2014), and highly dependent on Russian gas; "the cost of purchasing Russia gas, subsidized to a large extent from the state budget, rose from US$ 8 billion in 2009 to US$ 12 billion in 2013" (Kardas & Kononczuk, 2014). Therefore, the deal that President Putin offered to President Yanukovich, would offer especially on the short-term solutions for Ukraine. Once again, this decision led eventually to the Euromaidan protests, since moving towards closer relations with Russia, meant moving away from the European Union (Grytsenko, 2013).

7. INFORMATION MEANS

Several sources have spoken of Russia's "information war" in Crimea (Yuhas, 2014); NATO's Supreme Commander even called it: "the most amazing information-warfare blitzkrieg we have ever seen in the history of information warfare" (Vandiver, 2014). "Russia has already mastered the use of an information war strategy to influence local populations, confuse the outside's world perception of ground events and shut down opposing sources of online information" (Hsu, 2014). The main example are the "little green men" in Crimea that the Russian military disguised and denied were Russian military (Ash, 2015). However, the actions of Russia go beyond that. As mentioned previously, Crimea is a region that has an ethnic Russian majority; moreover, the area belongs to the Russian media and cultural space: "Russian television channels for two-third of the population; and, 555 Russian-language schools compared to six Ukrainian-language schools" (Kononczuk, 2014). There is also a propaganda campaign launched in Crimea: "local Crimean television is replaced with Russian broadcasts, which deliver nonstop feed simultaneously discrediting the new government in Kiev and the West while building up Moscow as a savior and protector" (Yaffa, 2014). All in all, "Russian officials and state media grossly distorted, manipulated, and at times invented information about the conflict" (Human Rights Watch, 2015a).

8.1 SOCIAL MEANS: CONFLICT ZONE POPULATION

The annexation of Crimea by Russia was legitimized by the result of the referendum that was held on 16 March, which according to the *RT* over 95.7% voted in favor for the annexation with a voter turnout of 81.37% (RT, 2014). Various sources have stated that the Crimean population of 2 million, with a 60% majority of ethnic Russian (Sullivan & Isachenkov, 2014), have "welcomed" the intervention by Russia (Simpson, 2014). However, the Kiev International Institute of Sociology took in February 2014 in various regions of Ukraine a poll of the public opinion who want Ukraine to join Russia. In Crimea, this percentage had been the highest in both 2013 and 8-18 February 2014 with respectively 35.9% and 41.0% (Kyiv International Institute of Sociology, 2014). It is difficult to state whether the results of the election are correct and do indeed reflect the support of the Crimean population. Nonetheless the elections were held during "an aggressive propaganda campaign carried out under armed occupation" (Yaffa, 2014).

As described above, the Russians had after the official annexation of Crimea, complete control over it (Simpson, 2014). However, the Crimean Tatars, an ethnic group of Crimea, have been targeted by the Crimea authorities for expressing pro-Ukrainian groups, which led to beatings and abductions of the Crimea Tatars (Amnesty International, 2015a). Furthermore, restrictive laws were imposed to suppress the rights of freedom of assembly, association, and expression in the territory (Amnesty International, 2015a); and the Crimean residents were declared Russian citizens, or otherwise the authorities would be notified which have led to cases of similar results as the pro-Ukrainian Crimean Tatars (Human Rights Watch, 2014a).

8.2 SOCIAL MEANS: HOME FRONT POPULATION

President Putin and the Russian leadership received "overwhelming" support from the Russian population due to the "widely hailed annexation of Crimea" (Amnesty International, 2015a). The Levada Center took an opinion poll for Putin's approval rating, which is at "72% -- the highest in more than three years" (Smith & Eschenko, 2014). The Russians praise President Putin for "Crimea coming home" as well as his "handling of relations with foreign powers, such as the U.S. and the EU" (Simmons, Stokes & Poushter, 2015). Moreover according to statistics of the Pew Research Center, 88% of Russia has confidence in Putin in handling international affairs, as well as the overall confidence in Putin has risen with 19% since before the involvement in Crimea (Poushter, 2015).

8.3 SOCIAL MEANS: INTERNATIONAL COMMUNITY

The opposite of the home front population, the international community are not in support of Russia's actions in Crimea. First of all, they do not recognize the referendum on the annexation of Crimea and recognize "Ukraine's sovereignty, political independence, unit and territorial integrity within its internationally recognized borders" (UN General Assembly, 2014). Therefore, the UN General Assembly has adopted a resolution "calling on States, international organizations and specialized agencies not to recognize any change in the status of Crimea" (UN General Assembly, 2014). Other international reactions to the annexation of Crimea were: "flagrant breach of international law" (Prime Minister Cameron); "illegal and illegitimate" (NATO Secretary General); "unacceptable" (President of the European Parliament Martin Schulz); "deeply worrisome and dangerous" (Ministry of Foreign Affairs of Romania) (Jarrín, J, 2014).

Therefore it can be concluded that the modes of warfare presented below in Figure 6, are found in the actions of Russia in the annexation of Crimea in the period of November 2013 until March 2014.

Figure 6 – Modes of warfare identified in the actions of Russia in Crimea

	Modes of warfare	**Indicators**	**Found?**
1	**Conventional capabilities** (Weigley, 1973; Reyeg & Marsh, 2011)	• Usage of armies, fleets, and aircraft • Joint combined arms maneuver warfare • Firepower intensive	Yes No No
2	**Irregular tactics** (Arquilla, 2011; Reyeg & Marsh, 2011; Kiras, 2006)	• Guerrilla tactics • Insurgency • Credibility and legitimatization	Yes Yes Yes
3	**Terrorism** (Reinares, 2013)	• Acts of violence to spread fear and anxiety • Unpredictable violence against symbolic targets • Violence conveys threats to gain social control	No No No
4	**Criminal activities** (Hoffman, 2009a)	• Smuggling • Illicit transfers of advanced weapons • Exploitation of gang networks	Yes Yes Yes
5	**Political means** (Glenn, 2009)	"the intended use of political means to compel an opponent to do one's will, based on hostile intent"	Yes
6	**Economic means** (Glenn, 2009)	"the use of, or the threat to use, economic means against a country in order to weaken its economy and thereby reduce its political and military power"	Yes
7	**Information means** (Glenn, 2009)	"actions taken to achieve information, information-based processes, information systems, and computer-based networks while defending one's own information, information-based processes, information systems, and computer-based networks"	Yes
8	**Social means** (Glenn, 2009; McCuen, 2008)	• Conflict zone population • Home front population • International community	Yes Yes No

4.1.2 DIMENSIONS OF HYBRID WARFARE IN THE CASE OF RUSSIA

The above presented modes of warfare and indicators of hybrid warfare can aid analyzing how the dimensions of hybrid warfare fit into the case of the actions of IS in Iraq and Syria.

First of all, the multi-modality dimension. In Russia's actions in the annexation of Crimea, the following modes of warfare can be identified: some conventional; irregular; criminal activities; non-military, including political, economic, information, and social. This means that besides terrorism, Russia displayed seven out of the eight characteristics of the modes of hybrid warfare. Its conventional capabilities were displayed by its army being present in Crimea, and its army, navy and air force doing military exercises in the districts bordering Ukraine, which were seen as an "act of aggression" (Salem, et al., 2014). Irregular warfare can be found in the usage of the 'little green men' to covert that Russia had sent troops to Crimea, as well as using insurgency tactics, and the attempts to increase the legitimatization of the annexation by the results of the referendum (RT, 2014). Criminal activities were indicated in the Russian illicit transfer of weapons to the pro-Russian separatists (UN Security Council, 2015a); and the usage of the existing gang networks to spread its political influence in Crimea through for example, appointing Aksyonov as the Prime Minister of Crimea (Galeoitti, 2014b). Political and economic means of warfare were displayed by Russia, since the political deal struck between President Putin and President Yanukovich in November 2013 led to uproar and a divide in Ukraine due to the "tug-of-war" between EU and Russia over the relations with Ukraine (Spiegel, 2013). Information warfare was a characteristic that was well found in Russia's actions: propaganda was used in Crimea to discredit the West and the EU, and to "build up Moscow as a savior and protector" (Yaffa, 2014). Moreover, the social aspect of warfare is also forthcoming in both the conflict zone population as in the home population. Multiple sources have stated that the Crimean population "welcomed" the annexation by Russia, referendum results show 95.7% voted in favor (Simpson, 2014). Furthermore, the home front population praised President Putin with him "bringing home" Crimea (Simmons, et al., 2015), and his approval rating went up to the highest point in the last three years (Smith & Eschenko, 2014). Therefore, it can be stated that Russia demonstrated the multi-modality dimension of hybrid warfare in its actions of the annexation of Crimea.

Secondly, another dimension of hybrid warfare is simultaneity. The time frame covered in this case was from November 2013 until March 2014, and the following modes of warfare where displayed simultaneously during this period: conventional, irregular, criminal activities, social, and information. The political and economic means are not included, because these took

mainly place in November, and were not simultaneous with the other modes that took place in February and March. Whilst the Russian army were doing the surprise military exercises on the border of Ukraine, the 'little green men' occupied Ukrainian navy bases, airports, and local governments in Crimea (Herbst & Polyakova, 2016). Moreover, criminal activities were carried out by trafficking weapons to the pro-Russian separatists (NATO, 2014), as well as using gangs and the existing "political corruption" in Crimea (Kuzio, 2012). The information means were also simultaneously used because there was contentious confusion for "the outside's perception of ground events" in Crimea. Although multiple sources reported that the little green men were Russia troops, no action was taken by Ukraine and the international community. The social aspect was also used simultaneously before, during, and after the entire time frame. The Crimean population faced "an aggressive propaganda campaign carried out under armed occupation", but already before the events in 2014, Russia was increasing its sphere of influence in Crimea through "Russian television channels and Russian-language schools" (Kononczuk, 2014). Therefore, it is evident that also the simultaneity dimension is evident in the actions of Russian in the annexation of Crimea.

The third dimension of hybrid warfare is fusion. In the annexation of Crimea, Russia fused its conventional and irregular modes of warfare. The most evident aspect of this is the usage of the 'little green men'. The little green men were Russian troops, according to multiple sources (Shevchenko, 2014; Yurchak, 2014; Simpson, 2014), yet, President Putin called them "members of self-defense groups organized by locals (Lally & Englund, 2014). These little green men were responsible in occupying the Ukrainian navy bases, airports, and local government buildings in Crimea at the end of February (Herbst & Poykova, 2016). Hence, the covertly usage of military troops, 'hiding' amongst civilians; can be seen as both conventional and irregular warfare. The other modes that were mentioned previously in the case, were not fused if they were present.

The last mode of hybrid warfare is catastrophic. The above indicators of the hybrid warfare characteristics do indicate that there was a high level of disruption affecting the population, national morale, and government functions. Although, the annexation of Crimea by Russia has been described as "a remarkable, quick, and mostly bloodless coup d'état" (Simpson, 2014), it did have catastrophic effects. The actions of Russia disrupted the lives of population of Crimea, the entire population of Ukraine, and also of the international community, "a profound breach of international agreements to change borders in Europe in the 21st century" (Jarrín, 2014). Furthermore, Ukraine lost governmental control over Crimea, whose new Prime

Minister is Aksyonov (Galeoitti, 2014b). Therefore, although the annexation did not cause mass casualties and use of force, the effects of the annexation of Crimea did have catastrophic effects. Therefore, the catastrophic dimension of hybrid warfare can also be found in the case of the actions of Russia from November 2013 until March 2014.

All in all, all four dimensions of hybrid warfare can be traced back in the case of Russia's actions in Crimea in the period November 2013 until March 2014.

4.2 IDENTIFYING HYBRID WARFARE IN THE ACTIONS OF DAESH

4.2.1 MODES OF WARFARE

1. CONVENTIONAL CAPABILITIES

From June 2014 onwards, Daesh was no longer "simply a terrorist organization – it is now a full-blown army seeking to establish a self-governing state" (Watson, 2014). It is unclear how many fighters are in the ranks of Daesh in the second half of 2014. The numbers from different sources vary: "between 20,000 and 32,000 in Iraq and Syria" (CIA - BBC, 2015a); "more than 50,000 fighters in Syria alone" (Syrian Observatory of Human Rights - Al Jazeera, 2014; "70,000 gunmen of various nationalities" (Russia – Gartenstein-Ross, 2015); "total membership of Daesh could be close to 100,000" (Bagdad-based security expert Hisham al-Hashimi – Mohammed, 2014); and, "CIA's estimates are far too low, Daesh has at least 200,000 fighters" (Fuad Hussein, Chief of Staff of Kurdish President – Cockburn, 2014). In October 2014, there were rumors that Daesh had acquired six planes at the Syrian air force base of Al-Jarrah and was locating professional pilots to fly these places (The Meir Amit Intelligence and Terrorism Information Center, 2014). However, according to Centcom Commander General Lloyd Austin, the usage of aircraft by Daesh does not currently pose "a significant threat" (Marrapodi, 2014). No sources can be found of a possible command of Daesh over a fleet, which seems unlikely since the area that Daesh is active in, in Iraq and Syria, is landlocked.

Multiple sources have affirmed that IS has joint combined arms maneuver warfare. On Daesh's capabilities in Iraq: Daesh "displayed professionalism in equipment preparation and basic tactical combined arms proficiency" (Nichols, 2014); U.K. defence specialist Paul Beaver: "Daesh's military operations are based on terror, speed and suicidal devotion whereas they're fought on a more traditional level by forces using a combined arms approach" (Elyatt, 2015). The fighters of Daesh in Iraq and Syria have been in combat for over a decade, they "have adapted their tactics, techniques and procedures accordingly" (Farley, 2014). In numerous videos that are uploaded by Daesh, this is well visible: "use support-by-fire positions, in which heavy weapons like machine guns are used to provide covering fire for fellow advancing elements of troops in order to attack from multiple positions" (Gibbons-Neff, 2014).

The actions of Daesh in Iraq and Syria are firepower intensive, although other methods are as well used as "beheadings, crucifixions, and mass executions" (Chiaramonte, 2014). As described above in the uploaded videos by Daesh, Daesh is presented as "an extremely capable fighting force" (Gibbons-Neff, 2014). This is due to the amount and variety of weapons they

have available, according to a UN source in November 2014: "light weapons, assault rifles, machine guns, heavy weapons, including possible man portable air defence systems (MANPADS), field and anti-aircraft guns, missiles, rockets, rocket launchers, artillery, aircraft, tanks, and vehicles, including high-mobility multipurpose military vehicles" (UN Security Council, 2014).

2. IRREGULAR TACTICS

Although the above describes the conventional capabilities of Daesh, Daesh is also capable of irregular tactics. The Iraqi commanders called IS "professionals in guerrilla warfare techniques" (Georgy, 2015); and a "highly organized and flexible fighting force" (McCoy, 2014b). Examples of Daesh's guerrilla warfare: "incorporate suicide bombings as a battlefield tactic to break through lines and demoralize enemies" (Hendawi, Abdul-Zahra & Mroue, 2015); Moreover, whilst Abu Bakr al-Baghadi is at the head of Daesh, its military is diffused and his lieutenants are acting autonomously, which creates a "swarm tactic", which is "a swarm of autonomous small teams, with low signature and high mobility as a key tactical advantage" (McCoy, 2014b).

Insurgency can be found in the case of Daesh; the self-proclaimed Islamic State, calling out to Muslims to join the caliphate with Abu Bakr al-Baghdadi as the 'the caliph', separate from the leadership of the Shiite governments, (Politico, 2014). Typical insurgent aspects as "taking over and holding territory, controlling populations, even governing at local level" (Meyerle, 2014). One source even claims that Daesh is "not (or is no longer) an insurgency", that Daesh has outgrown this label and has become "a state-building enterprise" (Kilcullen, 2015).

An important, and often neglected, factor in Daesh are its credibility and legitimatization: "legitimacy and consent are critically important concepts for Daesh and their systems of power" (Denselow, 2015). As well as in its state-building efforts, as in its place in the global jihadist movement; "the issue of legitimacy is central" (Bakich, 2015). In 2007, the Islamic State's Shari'a Council presented a justification for a statehood claim, 'Informing mankind of the birth of the Islamic State' with three elements for a ruler to assume power of the Islam; which "justified the Islamic State's statehood claim on the basis of its supposed political success and promotion of Salafi theology and Islamic law" (Bunzel, 2015, p. 19). Moreover, "its target 'citizenry', the population who can grant the Islamic State the legitimacy

it needs to survive as a caliphate, are those Muslims from around the world who elect to immigrate to the swath of territory held by Daesh to actively participate in this cosmic political construction effort" (Bakich, 2015).

3. TERRORISM

Two out of three[11] indicators of terrorism can be found back in the case of Daesh in Iraq and Syria. Spreading terror and anxiety is used as "a tool" by IS (Ignatius, 2015), "it has seized territory, destroyed antiquities, slaughtered minorities, forced women into sexual slavery and turned children into killers" (Arango, 2015). The Syrian Observatory for Human Rights has stated in September 2015, that in a year time "more than 10,000 men, women, and children have been executed" in Iraq and Syria (Joshi, 2015).The actions of Daesh are described as: "remorseless, faceless, and vicious" (Cordall, 2014). Another tactic of Daesh is to spread on Twitter the pictures and videos of the massacre of hundreds of Iraqi soldiers, "in a deliberate effort to inspire fear" (Richards, 2014). Therefore, by using "mass executions, public beheadings, rape, and symbolic crucifixion displays to terrorize the population" (Byman, 2015), and Amnesty International (2015b, p. 10) even adds "ethnic cleansing on a massive scale" to the list of the crimes committed by Daesh. These measures did Daesh use violence to spread fear and anxiety.

Moreover, Daesh also displays violence to gain social control. As mentioned previously, Daesh "governs" its taken territory (Cockburn, 2015). Human Rights Watch (2014b) reported "killing, kidnapping, and threatening religious and ethnic minorities in and around Mosul… and ordering all Christians to convert to Islam, pay 'tribute money', or leave Mosul". The basic tactic of Daesh is "to make a surprise attack, inflict maximum casualties and spread fear before withdrawing without suffering heavy losses" in order "to drive the unwanted out of the captured lands and building a human population in sectarian terms in the controlled territories, this strategy provides Daesh a submissive human population and thus makes the holding phase easier to realize" (Gurcan, 2014, p. 7).

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[11] No evidence could be found of IS using unpredictable violence against symbolic targets in the time frame applied in this thesis. Nonetheless, when IS reached Palmrya in May 2015, they targeted Islamic sites and heritage, which has been called the "worst cultural heritage crisis since WWII" (Romey, 2015). But since this is not in the time frame of the thesis, this indicator cannot be taken into account in the thesis.

4. CRIMINAL ACTIVITIES

The criminal activities of Daesh include smuggling, illicit transfers of advanced weapons and the exploitation of gang networks. First of all, smuggling. Smuggling is a large part of the income of Daesh, especially oil-smuggling (Bronstein & Griffin, 2014; Baker, 2015). According to smugglers and Iraqi officials, Daesh has the oil supplies in Iraq in its grip and smuggles oil to "Turkey, Jordan, and Iran", with which Daesh earns "millions of dollars a week" (Hawramy, Mohammed & Harding, 2014). The International Energy Agency estimated that by August 2014, Daesh could "generate 70,000 barrels of oil per day" (Charles, 2014; Wilkin, 2014). Additionally, Daesh takes oil "directly from pipelines and storage tanks", selling it "for 42% to 74% below market value" (Charles, 2014; Giglio, 2014). Besides oil, Daesh "makes millions" from its stolen Islamic antiquities (Erciyes, 2014). In a single region of Syria, Daesh got "36 million dollars" from smuggling the plundered artifacts (Pringle, 2014).

Multiple sources have confirmed that Daesh has illicit transfers of advanced weapons. Amnesty International (2015b, p. 5) has published a report, after "analyzing thousands of videos and images taken in Iraq and Syria", that the "majority" of Daesh's weapon arsenal is made up of "weapons and equipment looted, captured or illicitly traded from poorly secured Iraqi military stocks", which were manufactured in more than twenty countries, as "Russia, China, the USA, and Europe". Daesh is described, as mentioned previously, as "an elite army, with advanced weapons" (Pazira, 2014). Examples of the weapons arsenal of Daesh were already mentioned above in a UN report, but the advanced weapons are: "tanks, MANPADS, Sidewinder missiles, AIM-9 Sidewinder missiles" (Bender, 2014; Lumby, 2014).

Furthermore, Daesh has exploited gang networks, or some sources described Daesh in itself as a criminal network, due to its methods used are "akin to a criminal gangs" (Saltman & Winter, 2014, p. 25). Such as its "extensive smuggling networks" (Luna, 2016), "trafficking of weapons" (Pazira, 2014); "smuggling migrants" (Walt, 2015); and "abducting women for slavery" (Stoter, 2015). Although no further evidence can be found of alleged gang networks that are being exploited by Daesh, the above should clarify that the characteristic of criminal activities does apply for Daesh.

5. POLITICAL MEANS

Non-military warfare for a non-state entity as Daesh is different than it is for a state. The indicator political means cannot be traced back in this case, simply, because Daesh cannot be seen as a state: "this is a terrorist group and not a state" (Shariatmadari, 2014). Moreover, U.S. President Obama stated in a speech in 2014, that Daesh is "not recognized by no government, nor by the people it subjugates" (Obama, 2014). Furthermore, "the word 'state' implies a system of administration and governance, it's not a term that would be used to characterize a terrorist group or militia that is merely rolling up territory" (David Philips in Ross, 2014). Therefore, no evidence could be found for the political means.

6. ECONOMIC MEANS

Only limited evidence could be found for the economic mode. "Daesh controls every detail of the economy" of its occupied territories, and in this manner uses "economic persecution as a recruitment tactic" (Paraszczuk, 2015). Therefore, people keep joining the army of Daesh, because they are "desperate for money and are struggling to find a way to survive" (Bender, 2015); and, "out of economic interest" (Khatib, 2015). Moreover, the Daesh has a large capital, estimated at "2 billion dollars in October 2014" (Charles, 2014), due to: "oil exports, illicit trade of antiquities, bank looting, customs tax, passage fees, business and other taxes, ransoms for kidnappings" (Drent, Hendriks & Zandee, 2015, p. 17). This money allows Daesh not only to finance its army, but also to "pay the salaries of public sector employees, finance the repair and maintenance of infrastructure and social welfare" (Drent, et al., 2015, p. 16).

7. INFORMATION MEANS

Daesh has its non-military warfare strength in its information warfare, which is its "trademark" to reach a "massive audience" and recruit (foreign) fighters (Peled, 2015). A study by Brookings Institute reveals that in the period 4 October until 27 November 2014, 46,000 Twitter accounts supported Daesh (Berger & Morgan, 2015, p. 2). It has been mentioned previously, that Daesh "uses publicized the slaughter in polished but grimly macabre videos that were uploaded onto the Internet as propaganda, hostage-bargaining and recruitment tools" (Amnesty, 2015a, p. 40). So information is not only used to spread world-wide fear and anxiety, but also as recruitment tools for its army (Richards, 2014). Daesh uses "cinematic production techniques, Hollywood-style special effects, 'immersive' video game-style media, and dramatic

apocalyptic narratives to draw the viewer's attention and secure media coverage" (Williams, 2016, p. 3). A "omnipresent theme" in the videos of Daesh is its 'winner's message', "which portrays Daesh as an unstoppable force capable of defeating all enemies" (Gartenstein-Ross, Barr & Moreng, 2016, p. 4). The Soufan group[12] estimated in June 2014, that "approximately 12,000 foreign fighters" had jointed Daesh (The Soufan Group, 2015, p. 4).

8.1 SOCIAL MEANS: CONFLICT ZONE POPULATION

There are difficulties in measuring the support of the conflict zone population and the home front population, since the population that Daesh has on its territory is only occupied, and therefore conflict zone population. Hence, the home front population will not be discussed, and instead it will focus on the support and control of Daesh's occupied 'conflict zone' population. This is not easily measured, as the Daesh territory, and therefore its population, is continuously expanding and diminishing, as explained above (BBC, 2015a). The Red Cross put the number of the population living under Daesh, at a "rough 10 million" in March 2015 (Nebehay, 2015). An analysis of four polls[13] display that Daesh has a "minimum of 8.5 million strong supporters", and "42 million who feel somewhat positively towards Daesh" in the "Arab world" (Mauro, 2015). However, this does not present the view of the specific population living under Daesh, rather of the entire Arab world.

Daesh holds tight control on its population, "the aims of the Caliphate explicitly include population control" (Gilsinan, 2014), and therefore it has imposed "intense Shari'a law" (BBC, 2015a). The oversight of Shari'a law in the Islamic State is done by the Sharia Council, and is responsible for the brutal enforcement (The Clarion Project, 2015). On the one hand, Daesh takes care of the "finance the repair and maintenance of infrastructure and social welfare" (Drent, et al, 2015, p. 17). On the other hand, Daesh is guilty of "shocking violence, that even the leader of al-Qaeda has disavowed them" (McCoy, 2014a).

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[12] The report also includes how many foreign fighters approximately from every country has joined IS: http://soufangroup.com/wp-content/uploads/2015/12/TSG_ForeignFightersUpdate3.pdf

[13] This estimate is based on a March 2015 poll by the Iraq-based Independent Institute for Administration and Civil Society Studies; a November 2014 poll by Zogby Research Services; another November 2014 poll by the Doha-based Arab Center for Research and Policy Studies and an October 2014 poll by the Fikra Forum commissioned by the Washington Institute for Near East Policy (Mauro, 2015).

8.3 INTERNATIONAL COMMUNITY

The international community does not support the actions of Daesh in Iraq and Syria. United Nations Security General Ban Ki-moon has stated that "now Daesh and all the extremists are spreading like a cancer around the world" (PressTV - UN, 2016). Moreover, in a report of the United Nations it has stated that Daesh "may have committed genocide, war crimes and crimes against humanity in its attacks against ethnic and religious groups in the country [Iraq]" (Rebello, 2016). The UN Security Council has stated "unanimously" that Daesh to be an "unprecedented threat to international peace and security" (UN Security Council, 2015b).

Figure 7 – Modes of warfare identified in the actions of Daesh in Iraq and Syria

	Modes of warfare	Indicators	Found?
1	**Conventional capabilities** (Weigley, 1973; Reyeg & Marsh, 2011)	• Usage of armies, fleets, and aircraft • Heavily resooint combined arms maneuver warfare • Firepower intensive	Yes Yes Yes
2	**Irregular tactics** (Arquilla, 2011; Reyeg & Marsh, 2011; Kiras, 2006)	• Guerrilla tactics • Insurgency • Credibility and legitimatization	Yes Yes Yes
3	**Terrorism** (Reinares, 2013)	• Acts of violence to spread fear and anxiety • Unpredictable violence against symbolic targets • Violence conveys threats to gain social control	Yes No Yes
4	**Criminal activities** (Hoffman, 2009a)	• Smuggling • Illicit transfers of advanced weapons • Exploitation of gang networks	Yes Yes Yes
5	**Political means** (Glenn, 2009)	"the intended use of political means to compel an opponent to do one's will, based on hostile intent"	No
6	**Economic means** (Glenn, 2009)	"the use of, or the threat to use, economic means against a country in order to weaken its economy and thereby reduce its political and military power"	No
7	**Information means** (Glenn, 2009)	"actions taken to achieve information, information-based processes, information systems, and computer-based networks while defending one's own information, information-based processes, information systems, and computer-based networks"	Yes
8	**Social means** (Glenn, 2009; McCuen, 2008)	• Conflict zone population • Home front population • International community	Maybe ---- No

4.2.2 DIMENSIONS OF HYBRID WARFARE IN THE CASE OF DAESH

The above presented characteristics and indicators of hybrid warfare can help analyzing how the dimensions of hybrid warfare fit into the case of the actions of Daesh in Iraq and Syria.

First of all, multi-modality. In the characteristics of hybrid warfare, there were seven modes of warfare. As explained in the table above in Figure 7, Daesh fits into five of these characteristics: conventional, irregular, terrorism, criminal activities, and information. The indicators of these specific characteristics are all evident in the actions of Daesh. Daesh possesses conventional capabilities, comparable with that of a state. The number of fighters in the Daesh army varies from 20,000 to 200,000 fighters (BBC, 2015a; Cockburn, 2015); using conventional tactics as "combined arms proficiency" (Nichols, 2014; Gibbons-Neff, 2014); and the actions of Daesh can be called firepower extensive, whilst also using "beheadings, crucifixions, and mass executions" (Chiaramonte, 2014). Furthermore, the irregular tactics component is evident in the actions of Daesh: "professionals in guerrilla warfare techniques" (Georgy, 2015); the insurgency aspect is the fact that Daesh was established as the caliphate (Politico, 2014); and, credibility and legitimatization are paramount, legitimacy being a "central issue" (Bakich, 2015). Although, in the period June 2014 to December 2014, Daesh did not focus its violence on symbolic targets, the other two indicators of terrorism were found in the evidence: the brutal force of violence (also online) to "inspire fear" (Richards, 2014); as well as using violence to increase social control, "inflict maximum casualties" and "spread fear" to "provide a submissive population" (Gurcan, 2014, p. 7). Criminal activities are also perceptible, smuggling is a large part of the income of Daesh ranging from smuggling oil to humans (Baker, 2015); the weapons arsenal of Daesh is founded on the illicit transfers of advanced weapons (Amnesty International; 2015b); and Daesh has centered itself as a criminal network, when taking the above examples along with "women slavery" (Stoter, 2015) into account. From the non-military warfare means, only information warfare was identified. As a non-state entity, Daesh does not have the relations and means to use political tools, and beside its oil smuggling, its economic means of warfare are also rather limited. However, information warfare and spreading its propaganda through videos and Twitter is a large part of the actions of Daesh, for example for recruiting foreign fighters (The Soufan Group, 2015). Therefore, it can be stated that the dimension of multi-modality is evident in the actions of Daesh.

The second dimension is simultaneity; the above have established that five of the seven modes of warfare were present in the case of Daesh. But were these modes used simultaneously? The answer to that question is yes, "terrorism, urban guerrilla warfare, and

more conventional tactics" (Umana, 2015). The five modes of warfare that are thoroughly explained in the characteristics, and briefly above, were applied simultaneously in the examined period from June 2014 until December 2014. To occupy territory, the Daesh used its army, a combined-arms approach of advanced weapons together with its guerrilla warfare tactics, such as the "swarm tactic" (McCoy, 2014b). Once the territory was claimed, Daesh used various terrorist tactics to spread fear and violence to gain control, through strict Shari'a law with brutal punishments as: "mass executions, public beheadings, and symbolic crucifixion" (Byman, 2015). To fund its military fighters and control its population, Daesh had the revenue from "smuggling oil, and plundered artifacts" (Pringle, 2014). Information warfare is also seen simultaneously throughout the entire period, since social media is used to spread the propaganda of Daesh to install fear, but also to recruit (foreign) fighters (Peled, 2015). It shows that the different modes of warfare were applied simultaneously in the actions of Daesh in Iraq and Syria.

The third dimension of hybrid warfare is fusion. It has been established that five separate modes of warfare were identified, but did Daesh fuse these modes as well together? Daesh applied conventional warfare combined with irregular warfare against the Iraqi army in 2014. In several different attacks, described by Iraqi military, Daesh fused conventional with irregular tactics: in response to the air campaign led by the U.S., Daesh fighters "travel at night and in smaller units" and "are wearing civilian clothes to blend in" (Malas, Nissenbaum & Abi-Habib, 2014). Additionally, Daesh "employs not only terrorism" (Umana, 2015), which makes them more than a terrorist organization and better than its precedent Islamic groups. Fighting the U.S. and coalition forces in Iraq and the Syrian army from 2012, gave Daesh "a lot of opportunities to learn and to grow and to master the craft of warfare" (Isquith, 2014). Through simultaneity and fusion, Daesh "allows decentralized commanders to use their experienced fighters against the weak points of its foes", whilst "the center retain enough operational control to conduct medium-to-long term planning on how to allocate forces, logistics, and reinforcements" (Farley, 2014). Therefore, it seems to be that Daesh has fused three modes of warfare together: conventional, irregular, and terrorism.

The last dimension of hybrid warfare is catastrophic. The above indicators of the hybrid warfare characteristics do indicate that there was a high level of mass casualties, damage and disruption affecting the population, infrastructure, and environment. The Syrian Observatory for Human Rights has stated in September 2015, that in a year time "more than 10,000 men, women, and children have been executed" in Iraq and Syria (Joshi, 2015). There are no exact

numbers or indications of how many casualties are brought about by Daesh. However, the evidence of multiple sources confirming the brutal actions of Daesh as "slaughtering minorities, forcing women into sexual slavery, and turning children into killers" (Arango, 2015), indicates that there is a high level of damage and disruption affecting the population, infrastructure and environment.

All in all, all four dimensions of hybrid warfare can be found in the actions of Daesh in Iraq and Syria in the period June 2014 until December 2014.

5. CONCLUSION AND DISCUSSION

5.1 CONCLUSION

The aim of this thesis was to examine how certain cases are labeled as hybrid warfare. Due to the lack of common definition of the concept, the multiple criticisms, and little empirical evidence of hybrid warfare; this was not a simple matter to do. Using the theories of three hybrid warfare scholars, Hoffman, Glenn, and McCuen, a framework was established to use an exploratory comparative case study approach to identify hybrid warfare. In order to do this, eight modes of warfare were highlighted: conventional, irregular, terrorism, and criminal activities as the physical modes; and political, economic, information, and social as the conceptual modes. The authors did not have indicators or definitions of all these modes of warfare in their literature, and therefore this thesis used definitions and indicators from other sources. Additionally, four common dimensions of hybrid warfare were forthcoming in the literature of the three academics: multi-modality, simultaneity, fusion, and catastrophic. Using triangulation of publicly available data sources, this thesis attempted to identify these modes of warfare and dimensions of hybrid warfare in the two case studies: Russia's actions in the annexation of Crimea and Daesh's actions in Iraq and Syria. This was all done to answer the main research question of the thesis: "How can 'hybrid warfare' be identified in Russia's actions in Crimea and Daesh's actions in Iraq and Syria?"

In both case studies, the modes of warfare were identified using triangulation of data sources, as well as the dimensions of hybrid warfare using the data that was gathered in the modes of warfare. In Figure 8, an overview is provided of both cases' modes of warfare. It can be identified that Russia has demonstrated eight[14] modes of warfare and Daesh has displayed five modes of warfare. Interestingly, Russia has more of the conceptual modes, compared to Daesh, who only demonstrated strong information means in its case. This difference would explain why Russia's actions were almost bloodless, whilst Daesh is responsible for many casualties. There are four common modes of warfare identified, which are conventional, irregular, criminal activities, and information means. The first two can explain that there is indeed a new form of warfare, where conventional and irregular warfare get converged. Interestingly, criminal activities were also discovered. In Russia there was many evidence for especially, the illicit transfers of weapons to the pro-Russian separatists and the exploitation of

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[14] Eight modes of warfare can be identified in Russia's actions in Crimea, although only one of the conventional indicators was found evidence for in the data sources.

Crimea's gang networks. In the case of Daesh, there was more evidence for smuggling, which served as revenue for the Islamic State, and as well the illicit transfer of weapons, as the explanation for the size of its weapons arsenal.

Figure 8 – Comparing modes of warfare of Russia and Daesh

Modes of warfare	Indicators	Russia	Daesh
Conventional capabilities (Weigley, 1973; Reyeg & Marsh, 2011)	• Usage of armies, fleets, and aircraft • Joint combined arms maneuver warfare • Firepower intensive	Yes No No	Yes Yes Yes
Irregular tactics (Arquilla, 2011; Reyeg & Marsh, 2011; Kiras, 2006)	• Guerrilla tactics • Insurgency • Credibility and legitimatization	Yes Yes Yes	Yes Yes Yes
Terrorism (Reinares, 2013)	• Acts of violence to spread fear and anxiety • Unpredictable violence against symbolic targets • Violence conveys threats to gain social control	No No No	Yes No Yes
Criminal activities (Hoffman, 2009a)	• Smuggling • Illicit transfers of advanced weapons • Exploitation of gang networks	Yes Yes Yes	Yes Yes Yes
Political means (Glenn, 2009)	"the intended use of political means to compel an opponent to do one's will, based on hostile intent"	Yes	No
Economic means (Glenn, 2009)	"the use of, or the threat to use, economic means against a country in order to weaken its economy and thereby reduce its political and military power"	Yes	No
Information means (Glenn, 2009)	"actions taken to achieve information, information-based processes, information systems, and computer-based networks while defending one's own information, information-based processes, information systems, and computer-based networks"	Yes	Yes
Social means (Glenn, 2009; McCuen, 2008)	• Conflict zone population • Home front population • International community	Yes Yes No	Maybe ---- No

Another interesting discovery was the usage of information means in both cases. Russia and Daesh used their information means to its fullest as a way to spread its propaganda. In the case of Russia this was done to mislead and confuse the international community of its actions, and

to influence the Crimea population in its favor. In the case of Daesh, the information means were applied for two reasons: first of all, to recruit Muslims as foreign fighters to join the caliphate; and secondly, to spread fear and anxiety amongst the international community by publishing its brutal actions in videos online. Moreover, Russia applied also the other conceptual modes of warfare, political, economic, and social means, that eventually led to the annexation of Crimea. Daesh did not apply any other conceptual mode of warfare, besides information means; and, instead used terrorism amongst its modes.

Figure 9 – Comparing dimensions of hybrid warfare of Russia and Daesh

Dimensions	Russia	Daesh
Multi-modality	Conventional, irregular, criminal activities, political means, economic means, information means, and social means	Conventional, irregular, terrorism, criminal activities, information means
Simultaneity	Conventional, irregular, criminal activities, information means, and social means	Conventional, irregular, terrorism, criminal activities, information means
Fusion	Conventional and irregular	Conventional, irregular, terrorism
Catastrophic	Yes, society, national morale, government function	Yes, many casualties

Furthermore, the data that was collected was applied to explain whether the dimensions of hybrid warfare could be identified in these two cases. It would seem that there was evidence in each case for each dimension, which is demonstrated in Figure 9. The multi-modality dimension was in both cases identified, because both actors demonstrated multiple modes of warfare. These modes of warfare that were in common are already mentioned. The simultaneity dimension is also identified. The modes of warfare that both actors used simultaneously are conventional, irregular, criminal activities, and information means. The fusion dimension can also be applied in both cases, Russia fuses conventional with irregular warfare; whilst, Daesh combines conventional with irregular and terrorism. The last dimension was catastrophic, and in each case the actions of Russia and Daesh had a catastrophic outcome.

Returning to answering the main research question of this thesis. The framework was established using Hoffman, Glenn and McCuen to identify different modes of warfare to explain the hybrid warfare dimensions. Each actor displayed multiple modes of warfare, that led to the conclusions that multi-modality, simultaneity, fusion, and catastrophic dimensions are identified. Hence, it can be explained how according to this framework hybrid warfare was identified in order to understand why Russia's actions in Crimea, and Daesh's actions in Iraq and Syria are labeled as hybrid warfare. Multiple modes of warfare were applied by the actors, and all of the dimensions were recognized in their actions.

5.2 DISCUSSION

Despite the limitations of the thesis and through its strengths, some interesting remarks can be made that have come up whilst completing this research, as well as some suggestions for future research.

5.2.1 LIMITATIONS AND STRENGTHS

This thesis aimed to establish a framework on the definitions and perspectives of the three hybrid warfare scholars, Hoffmann, Glenn, and McCuen, to identify hybrid warfare in practice. Although every attempt was made to build a strong thesis, there are some limitations in this research: 1) framework was tested on two cases; 2) data was collected from publicly available resources; and, 3) the data collected is Western biased.

First of all , the framework of identifying hybrid warfare was tested on only two case studies. According to Bryman (2012) although this does assure high internal validity, it is at the cost of external validity. Therefore this thesis cannot state that the framework on hybrid warfare is applicable to other cases that are labeled as hybrid warfare. Fortunately, that was not the aim of the thesis. This framework was intended as a first step in building a bridge between the existing perspectives of hybrid warfare, and the labeling of cases in practice as such. Therefore in using two cases that are labeled as hybrid warfare, instead of only the case of Russia or Daesh, this thesis has attempted to increase also the external validity of the research.

Secondly, the data that was collected to analyze which modes of warfare were present in each of the two cases, publicly available data was used. This could potentially have injured the results, since not all information can be publicly available. For example, all relevant data on the political and economic means that were used in each case are most likely not all available on public record. However, it is not possible for anyone to have access to all this data, and therefore the decision to use publicly available data in a triangular manner to examine the modes of warfare available in both cases still provides trustworthy data to explore hybrid warfare in the actions of Russia and Daesh.

Thirdly, due to the author's lack of knowledge of Russian, Ukrainian, and Arabic, this research is based on English data. This can be a limitation to the thesis, since it can be certain that in the cases of Russia and Daesh, relevant data is available in those three languages; which implies that the data collection is limited. However, for a first attempt to build a framework on identifying hybrid warfare and exploring its utility by using two case studies that are labeled as

hybrid warfare, this Western bias should be seen as a major limitation. Multiple Russian, Ukrainian and Arabic sources were used in the data collection that were translated to English, and yet have a Russian, Ukrainian or Arabic perspective. This way the thesis has attempted to limit its Western bias, whilst being aware that although it is limited, that it is present throughout the thesis.

However, this thesis also possesses certain strengths: 1) a first attempt is done to identify hybrid warfare in practice by building a framework; and, 2) by using two case studies that are identified by the EU (Council of the European Union, 2015) and NATO (Miranda Calha, 2015) as hybrid warfare, this thesis supplements empirical evidence for the hybrid warfare debate.

First of all, although there is some literature available that labels the cases of Russia and Daesh as hybrid warfare, these studies have not clarified how they have made those assumptions of hybrid warfare. For instance, Lanoszka (2016, p. 175) described the actions of Russia as hybrid warfare due to their "subtler approach intended approach to give the Kremlin 'plausible deniability' while reducing the costs associated with engaging Ukraine's armed forces directly". Moreover, the actions of Daesh are described as "they apply means of conventional warfare such as bombings and artillery, while also relying on ways of non-conventional warfare including suicide attacks and chemical warfare against adversaries" (Frank, 2015). However, there is no literature available that provides certain indicators of hybrid warfare that could be used in practice. Therefore this thesis can be a first step in the debate on identifying hybrid warfare in practice.

Secondly, this thesis supplements empirical evidence to the hybrid warfare debate. The actions of Hezbollah against the Israel Defense Forces in 2006 provided empirical evidence on this rather new concept. However, besides literature as described above by Lanoszka and Frank, there is little to none empirical evidence on how hybrid warfare is identified in practice. This thesis examined the actions of Russia in Crimea from November 2013 until March 2014, and the actions of Daesh in Iraq and Syria from June 2014 until December 2014, to supplement empirical evidence to the hybrid warfare debate through applying the framework on these cases.

Although the thesis has certain limitations, through being aware of these, these were attempted to be diminished in any possible manner. Additionally, by recognizing the strengths of this thesis, some interesting remarks that could add to the hybrid warfare debate were revealed.

5.2.2 THE ADDED VALUE OF HYBRID WARFARE IS BROUGHT IN QUESTION

A critical remark can be made after this research: the dimensions were rather easily identified in the case studies, which begs the question how useful the concept of hybrid warfare is, since it seems its definitions are too general to be used for identifying hybrid warfare in practice.

First of all, this thesis built a framework on the definitions and perspectives of the three hybrid warfare scholars, Hoffman, Glenn, and McCuen, to identify hybrid warfare in practice. It was discovered that there are common dimensions and different modes of warfare, which were used in the framework to identify hybrid warfare in the two case studies. However, when looking at the results of how many modes of warfare could be identified in each case and how this led to the quite easily fulfillment of the dimensions; it begs the question whether or not hybrid warfare is a too general concept to be used to label warfare actions in practice. This criticism is shared by some scholars of hybrid warfare, for instance Gunneriusson (2012) and Hoffman (2009a) claim that the concept of hybrid warfare serves to gain a better understanding of the current difficulties and changes in warfare; and not necessarily as a theoretical or a planning concept. But it seems that the problem of hybrid warfare goes beyond the manner in which it can be used. As repeatedly stated throughout the thesis, hybrid warfare lacks thorough definitions through which hybrid warfare can be identified. This was one of the problems that this thesis ran into when creating the framework based on the definitions of hybrid warfare. All three authors, but specifically Hoffman and Glenn, have defined the concept of hybrid warfare with using multiple other contested concepts in its definition; for instance, conventional, irregular, terrorism, and criminal activities. That these authors used contested concepts is not per se an act of negligence, but the lack of providing definitions of these concepts, to understand their interpretation of them, is. As is demonstrated in the thesis, future theories and frameworks that are built on the definitions of these prominent scholars can be used in the own interpretation. This thesis did aim to match indicators for the modes of warfare and dimensions as close to the presumed intentions of the authors', yet the question remains if this framework represents indicators how Hoffman, Glenn, and McCuen would have intended it. The fact that in both of the explored cases in the thesis, that the framework was rather easily filled, only strengthens the remark that the current literature that is available on hybrid warfare is not specific enough to identify hybrid warfare in specific cases; implying that the concept of hybrid warfare is too general to add value to the debate that the line between conventional and irregular warfare has started to blur.

In the criticism section on hybrid warfare, four other concepts were mentioned that are similar to hybrid warfare: 'new wars', 'war amongst the people', 'fourth generation warfare', and 'unrestricted warfare'; which also have the similar elements that hybrid warfare possesses. Each has a different focal point in its definition, but all these concepts aim to explain how conventional warfare and irregular warfare can be applied in a simultaneous manner. The question can be raised why hybrid warfare is chosen as a label for the actions of Russia in Crimea and the actions of Daesh in Iraq and Syria, whilst these other similar concepts can also be viewed as potential labels for these cases. For instance, Mary Kaldor (2007) assigns the following characteristics to new wars: they are fought by a combination of state and non-state actors; they use identity politics to fight in a name of a label instead of an ideology; the motivation is to achieve political control of a society through the use of control and fear; and, they are not per se financed through the state but through other means. Using the information that was collected on hybrid warfare for both cases of Russia and Daesh, these points seem to be similar to those results that were found. This does not imply that the hybrid warfare does not have added value; but it does raise the question why hybrid warfare is used as a label instead any of the other similar concepts.

5.2.3 FUTURE RESEARCH

This thesis has demonstrated with using a framework of hybrid warfare perspectives to identify hybrid warfare in practice, that the definitions of hybrid warfare and its elements are too general, which leads to doubt of its added value in the debate. Therefore a suggestion of future research would be to specify the elements of hybrid warfare further, to produce solid elements that can be examined in practice. This will ensure that the hybrid warfare definitions and also of its elements get less vague, and the concept will be able to distinguish itself from other similar concepts. Once this is achieved, a more coherent framework can be established of the modes of warfare and dimensions to identify hybrid warfare in practice. Hence, this can lead to more and likely better empirical evidence of hybrid warfare, which then can assist countries and organizations as the EU and NATO in developing counter measures regarding hybrid warfare. But for now, as a closing remark, with the current literature and empirical evidence; it seems that hybrid warfare remains a better theoretical than operational concept.

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