

Old Wine, New Bottles: A Theoretical Analysis of Hybrid Warfare

Written by Timothy Van der Venne

This PDF is auto-generated for reference only. As such, it may contain some conversion errors and/or missing information. For all formal use please refer to the official version on the website, as linked below.

Old Wine, New Bottles: A Theoretical Analysis of Hybrid Warfare

<https://www.e-ir.info/2021/11/30/old-wine-new-bottles-a-theoretical-analysis-of-hybrid-warfare/>

TIMOTHY VAN DER VENNE, NOV 30 2021

In recent years, the term *hybrid war* has taken a conspicuous place in strategic discourse as the latest buzzword indicating yet another revolution in military affairs (Mahnken & Maiolo, 2008; Murray & Mansoor, 2012; Fridman, 2018; Klijn & Yüksel, 2019). Numerous analysts and academics have identified Russia's operations in eastern Ukraine in particular as a wholly "new way of waging war" (Bachmann & Gunneriusson, 2015, p.199), alleging that the Russian mix of conventional and unconventional forces alongside the prolific use of cyber tools and information technology constitutes a break in modern strategic practice (Mahnken & Maiolo, 2008; Murray & Mansoor, 2012; Jordan et al., 2016; Fridman, 2018). Historians, on the other hand, have pointed to the overarching continuity in historical warfare, showing that hybridity in war has been successfully exploited as far back as the Peloponnesian Wars (Heuser, 2010; Murray & Mansoor, 2012). Matters of continuity and discontinuity notwithstanding, throughout the abounding new literature on hybrid warfare, there has been no rigorous analysis of its place within the broader pantheon of strategic theory – while such an approach can help military practitioners and analysts understand the strategic significance and theoretical pedigree of modern hybrid warfare (Gray, 1999; 2005; Murray & Mansoor, 2012; Klijn & Yüksel, 2019).

Taking paradigms from classical strategic theory and contrasting them with modern-day practices in so-called hybrid warfare allows analysts to identify whether these methods are truly new and where such practices fit into the broader field of strategic studies. Therefore, this paper pursues an exploration of the modern discourse on hybrid war within the bounds of classical strategic theory. Consequently, this research intends to contribute to the creation of a more thorough and grounded understanding of a highly complex issue that has come to dominate military discourse over the course of the previous decade. In doing so, it is argued that, while hybrid warfare might not be useful as a doctrinal concept, it might prove useful as an analytical framework to research the nature of war in the broadest Clausewitzian sense. To that end, this text will first outline some conceptual parameters of what constitutes *hybrid warfare*. Based on these parameters, several theoretical concepts will be used to build an analytical framework intended to capture the hybrid warfare phenomenon within a framework of strategic theory. Flowing from this framework, we are able to see what is and what is not new.

Conceptual parameters of hybrid warfare

The term *hybrid warfare* – alongside other allegedly 'new' concepts in war – has come to occupy an increasingly prominent place in military strategic discourse in the past decade, becoming especially salient after Russia's actions in Ukraine in 2014 (Bachmann & Gunneriusson, 2015; Fridman, 2018; Galeotti, 2016; Klijn & Yüksel, 2019). It has since become an inherently contested concept with analysts either defending or criticising its doctrinal usefulness, resulting in a still ongoing definitional debate surrounding the question: what even is *hybrid warfare* (Cullen & Reichborn-Kjennerud, 2017; Murray & Mansoor, 2012; Spearin, 2018)? In order to avoid being bogged down in the definitional specifics, this text does not intend to give one authoritative definition, but rather looks at the historical discourse surrounding the topic in order to set some descriptive parameters on the concept – parameters upon which a broad consensus exists among hybrid warfare's most prominent thinkers.

Canvassing the discourse: A tale of two hybrids

Old Wine, New Bottles: A Theoretical Analysis of Hybrid Warfare

Written by Timothy Van der Venne

A term that, in its essence, refers to the multiplicity — and subsequent mixture — of *all* available instruments of power is bound to cause confusion. Over the years, the term *hybrid warfare* has become bloated, moving from a purely military concept to capturing broader elements of statecraft such as information campaigns, competition, and sabotage that either do or do not fall within the realm of war (NCTV, 2016; Van Loon & Versteegen, 2019; Van Haaften, 2020; Cullen & Reichborn-Kjennerud, 2017). The catch-all nature of the term means that academics and institutions have, since the early 2000s, come up with definitions that each seem to have a different emphasis. As a result, the discourse surrounding the *hybrid* adjective has become split into two overlapping categories: (1) one focusing more narrowly on the *military dimension*, and (2) one focusing on the holistic *threat environment*.

Since the early 2000s, Frank Hoffman (2009) – arguably hybrid warfare’s leading theorist – has expounded a vision of hybrid warfare as a purely military concept. In a series of influential articles, Hoffman posits that conflict in the 21st century will likely be characterised by a convergence of conflict modes: a compression of all levels and methods of war – including conventional capabilities, irregular tactics, various intensity levels, and actor types (Mattis & Hoffman, 2005; Hoffman, 2009; Mahnken & Maiolo, 2008). As Hoffman (2008, p.37) puts it, adversaries will mix “the lethality of state conflict with the fanatical and protracted fervour of irregular warfare.” He defines hybrid warfare as the blending and fusing of “the full range of methods and modes of conflict into a single battlespace” (Hoffman, 2009, p.36). This leads to a conflict environment in which adversaries can effectively adjust the levers of warfare to their liking — emphasising conventional methods one moment and switching to guerrilla warfare the next. There is a historical precedent of mixing conventional with unconventional methods in warfare, but what separates Hoffman’s hybrid warfare concept from previous theories such as *fourth-generation warfare* or *compound wars* is the deep operational and tactical integration of conflict modes through the exploitation of high-technology and the informational sphere (Caliskan, 2019; Mattis & Hoffman, 2009; Hoffman, 2008). In other words, hybrid warfare as a military concept is focused on the *battlespace* which — despite being steered from the strategic level — places emphasis on fusing and coordinating actions on the operational and tactical levels (Caliskan, 2019; Mattis & Hoffman, 2005; Hoffman, 2008).

The limited nature of Hoffman’s hybrid warfare concept was broadened exponentially after Russia’s actions in Ukraine in 2014 — and as the concept broadened, so did confusion regarding its conceptualisation (Bachmann & Gunneriusson, 2015; Caliskan, 2019; Galeotti, 2016). In Ukraine, Russia managed to combine conventional methods, unconventional methods, and non-military means: using covert Special Forces alongside non-state actors, disinformation campaigns, cyberattacks, and energy diplomacy; thus destabilising Ukraine in a successfully holistic fashion to the shock of Western observers (Bachmann & Gunneriusson, 2015; Fridman, 2018; Klijn & Yüksel, 2019; Kilinskas, 2015; Seely, 2017). Prompted by the Russian approach to Ukraine, the focus of the debate shifted towards the non-kinetic aspects of hybridity, moving away from Hoffman’s battlespace-oriented concept towards a broader notion that encapsulates the holistic *threat environment*, which includes — and perhaps even prefers — non-military instruments of power. In other words, moving away from the *strategic* to the *grand strategic* (Caliskan, 2019; Klijn & Yüksel, 2019). The IISS Military Balance 2015, for example, defines Russian hybrid warfare as follows:

“The use of military and non-military tools in an integrated campaign designed to achieve surprise, seize the initiative and gain psychological as well as physical advantages utilising diplomatic means; sophisticated and rapid information, electronic and cyber operations; covert and occasionally overt military and intelligence action; and economic pressure” (IISS Military Balance, 2015).

The extent to which integrated campaigns are new is debatable, but this conceptualisation does expand the notion of hybrid warfare into a much more inclusive concept, going beyond the military and effectively watering down the notion of hybrid *warfare*, with the discourse increasingly referring to hybrid *threats* instead (Caliskan, 2019; Galeotti, 2016; Treverton, Thvedt, Chen, Lee, McCue, 2018). This inclusiveness has subsequently found its way into doctrinal definitions by NATO, the EU, and Western governments which all emphasise the broadness of the hybrid concept (Caliskan, 2019; Galeotti, 2016; Treverton et al., 2018). The system under analysis therefore moved from the battlespace — with a clear military focus — to the *global threat environment* which includes all instruments of state power.

Conceptual parameters

Old Wine, New Bottles: A Theoretical Analysis of Hybrid Warfare

Written by Timothy Van der Venne

Making sense of hybrid warfare as a concept thus means distinguishing between two separate discourses, each with a particular focus: (1) hybridity in the *military dimension*, and (2) hybridity in the *threat environment*. The first discourse refers to a set of operational and tactical choices in a battlespace and is characterised by a convergence of various conflict modes, enhanced by the exploitation of high-tech weaponry (Mattis & Hoffman, 2005; Hoffman, 2008; Seely, 2017). Hoffman (2008) notes Hezbollah in the Second Lebanese War in 2006 as a prime example of a hybrid adversary: a non-state actor using a mixture of guerrilla and conventional tactics in an urban environment with sophisticated weaponry. Hezbollah “effectively fused militia forces with highly trained fighters and antitank guided missile teams into the battle” (Hoffman, 2008, p.37-38). In the military dimension, therefore, the hybrid warfare concept has the following parameters: *taking place within a battlespace and involving the convergence and harmonisation of:*

- *Conventional methods* – conventional tactics, formations, and organisation
- *Irregular methods* – irregular tactics, formations, and organisations; including terrorism, guerrilla and proxy warfare, indiscriminate violence, coercion, and criminal disorder
- *Various actor types* – varying between traditional, irregular, catastrophic, and disruptive; can include state and non-state actors
- *Advanced weaponry and high-technology* – such as network technology, cyber tools, and advanced conventional weapons

The second discourse expands the notion from the battlespace to the global threat environment, with actors using *all* instruments of power in an integrated fashion to achieve specific objectives (Caliskan, 2019; Galeotti, 2016; Treverton et al., 2018; Seely, 2017). The focus on non-kinetic measures, however, dilutes the concept of hybrid warfare beyond any measure of military usefulness, with the focus shifting from hybrid *warfare* to hybrid *threats*, and thus from the *strategic* to the *grand strategic*. Russia’s actions in Ukraine, for example, had a distinctly *grand strategic* character in using the various instruments of state power in concert. In this sense, the literature broadly outlines the following parameters surrounding the second discourse (NCTV, 2016; Treverton et al., 2018): *taking place within a global threat environment and involving the convergence and harmonisation of:*

- *Military means* – both conventional and irregular methods
- *Diplomatic means* – using or influencing processes in international law (e.g. treaties, conventions, and frameworks) to exert diplomatic pressure upon a competitor or adversary
- *Economic means* – generate economic pressure through sanctions, access to markets, energy policy or otherwise disturb a competitor’s economic and commercial activity
- *Cyber tools* – espionage, manipulation, influence, attack, and sabotage
- *Propaganda* – (dis)information campaigns and fake news

One conceptualisation takes the narrow view, while the other takes an expansive, all-inclusive view — creating a definitional hodgepodge which renders the hybrid warfare notion rather useless as a doctrinal concept. However, what both approaches have in common is that each requires a holistic view of the playing field — a playing field in which lines are blurred. In both, in order to be successful, an actor needs to be skilful in knowing which lever to turn up and which to turn down according to the enemy’s weaknesses and one’s own strengths. In both, the strategist is invited to rediscover the all-encompassing nature of war as “more than a true chameleon that slightly adapts its characteristics to the given case” (Clausewitz, 1976, p.89). Hybridity, both in a battlespace-context as in a global context, poses precisely that chameleonic challenge: morphing and shifting at all times. The parameters as outlined above are nothing new in their own right, nor is the integration of them into a whole altogether revolutionary — but to understand the strategic significance of such an integration, it would be beneficial to hold them against the light of already proven strategic concepts. The following section will therefore attempt to capture the above parameters within several core paradigms from the field of strategic theory. Doing so will show that, while hybrid warfare might not be useful as a doctrinal concept, it might prove useful as an analytical framework to research the nature of war in the broadest Clausewitzian sense.

Strategic theory: constructing a framework for analysis

Old Wine, New Bottles: A Theoretical Analysis of Hybrid Warfare

Written by Timothy Van der Venne

The great value of strategic theory lies in its attempt to identify those elements of war which seem to pop up consistently throughout ages of human conflict (Caliskan, 2019; Osinga, 2005). Strategic theory “assumes that all wars in history share certain common characteristics” (Caliskan, 2019, p.41). It is the identification of these characteristics which leads to a holistic system of interrelated concepts that may — through its patchwork character — approximate the great chimera which so many war scholars have attempted to capture: the nature of war. Strategic theory’s various abstract principles are lifted from historical case studies by soldiers with direct experience and astute students of warfare with the aim of establishing generally applicable truths about war (Strachan, 2019; Gray, 1999; 2005) and several of these general truths seem to come together in the hybrid warfare phenomenon.

Within the parameters on hybrid warfare set out in the above section, one witnesses the confluence of several core theoretical paradigms which already have a proven historical track-record. In attempting to capture the hybrid warfare concept within a framework of strategic theory, this paper distinguishes between those theoretical principles making up hybrid warfare’s character — or its defining features — and those making up its operational practices. It is here argued that hybrid warfare’s character is (1) *grand strategic* and (2) *irregular*, while its operations are defined by (3) *information warfare* and (4) the *OODA-loop*. Taken together, these four pillars are applicable to both levels of the hybrid warfare discourse and indicate a broad flexibility, fluidity, and changeability that is in line with classical thinking on the nature of war. However, before examining the theoretical pillars underlying hybrid warfare, it is important to note what is meant in this paper when one speaks of the nature of war.

The nature of war: Thucydides, Clausewitz & Moltke

Studying the nature of war can be compared to trying to catch smoke: it is an elusive and near-impossible task that has spawned a body of literature so expansive that is deserving of its own academic discipline. There are few scholars who have managed to make a lasting contribution to the debate on what precisely constitutes the nature of war, but two who managed to do so are today considered giants in the field: Thucydides and Clausewitz (Schake, 2017; Heuser, 2010; Schuurman, 2010; Van der Venne, 2020). In spite of representing two different disciplines — the former a historian and the latter a military theorist — both men have shaped thinking on the nature of war to a substantial degree. Both consider war to be an inherently human affair that, when studied as a whole – a *gestalt* in Clausewitz’s terms — must include material and non-material elements. Both have created works that are so massive, contradictory, and all-encompassing they can be viewed as the only works that reflect the human complexity of war’s essentially human underpinnings. And both managed to distil the nature of war into an elegant trinity of non-material elements that effectively captures war in the broadest possible sense: as a kaleidoscopic socio-cultural event (Clausewitz, 1976; Handel, 2008; Schake, 2017; Schuurman, 2010; Strassler, 1996; Van der Venne, 2020; Waldman, 2009).

When discussing the theoretical underpinnings of hybrid warfare, it must be noted that the resulting framework is by no means a definitive analysis but should be viewed as a tentative first attempt to give shape to a shapeless thing: the nature of war. For reasons of clarity and a limited scope, this analysis will confine itself to Clausewitz’s vision on the nature of war — more specifically Clausewitz’s primary trinity: war being defined by (1) *policy*, (2) *chance*, and (3) *passion* (Schuurman, 2010; Van der Venne, 2020; Waldman, 2009). The broadness and fluidity of the hybrid warfare concept makes it rather too woolly to serve as a doctrinal concept, but it might help in giving more practical handles to the broad and fluid conceptualisation of Clausewitz’s primary trinity. While the Clausewitzian trinity has become a wellspring of academic controversy, this paper builds its framework within the notion that Clausewitz’s primary trinity “is broad and fluid enough to encompass the entire spectrum of war”, with its non-material focus allowing different scope, actor types, and intensity levels (Van der Venne, 2020, p.3). The primary trinity envisions war as an ever-morphing chameleonic challenge requiring the strategist to be flexible and adaptable – entirely in line with hybrid warfare’s fluctuating features.

To illustrate how Clausewitzian flexibility might find expression in strategic practice, one need only look at his most successful disciple: Helmuth von Moltke the Elder (Hughes, 1993). Despite not leaving behind a systematic body of work in terms of military theory, the Prussian general officer enjoys a reputation as one of “the ablest military [minds] since Napoleon” (Chandler, 1980, p.198) and is viewed as the purest embodiment of Clausewitzian principles (Hughes, 1993; Gross, 2016). Moltke’s thinking on the nature of war directly reflects Clausewitz in that he too

Old Wine, New Bottles: A Theoretical Analysis of Hybrid Warfare

Written by Timothy Van der Venne

believed war to be inherently uncertain (Hughes, 1993). Three key aspects of Moltke's legacy as a strategist bring Clausewitz from the realm of theory into the realm of practice: (1) a *decentralised* operational approach, (2) an emphasis on *flexibility* over doctrine in decision-making, and (3) an emphasis on *speed* (Chandler, 1980; Hughes, 1993; Gross, 2016). Consequently, Moltke's approach to strategy can be seen more as "a pattern of thought" rather than a series of strict procedures; more art than science (Hughes, 1993). These three key aspects can also easily be recognised in the contemporary discourse on hybrid warfare – as will become apparent in the theoretical framework laid out below – foreshadowing hybridity's natural fit within Clausewitzian thought. So, with Clausewitz's view of war as the philosophical backdrop, how does one conceptualise the core theoretical pillars of the hybrid warfare phenomenon?

As Figure 1 shows, the proposed framework — based upon the parameters outlined in the above section — takes existing theoretical paradigms to examine how the concept fits within the broader pantheon of strategic theory. So, against the backdrop of the Clausewitzian primary trinity, hybrid warfare's character is (1) *grand strategic* and (2) *irregular*, while its operations are marked by (3) *information warfare* and (4) the *OODA-loop*. These four pillars undergird the modern hybrid warfare concept.

Character of hybrid warfare

1. Grand strategy

This paper proposes that hybrid warfare is essentially *grand strategic* in character. In using grand strategy as the first pillar in the theoretical underpinnings of the hybrid concept, one should note that this pillar refers primarily, but not exclusively, to the expanded interpretation of hybrid threats which emerged after the Russo-Ukrainian conflict of 2014. Following a definition given by Colin Gray (2010, p.18), the term *grand strategy* should be understood as:

"[the] direction and use made of any or all among the total assets of a security community in support of its policy goals as decided by politics. The theory and practice of grand strategy is the theory and practice of statecraft itself".

The confluence and mixture of all instruments of state power is nothing new and has a theoretical pedigree harking back to thinkers such as Julian Corbett, J.F.C. Fuller, Basil Liddell Hart, Edward Mead Earle, and Colin Gray (Caliskan, 2019; Strachan, 2014; 2019; Fuller, 1923; Liddell Hart, 1928; 1991; Gray, 1999; 2005; Milevski, 2014). In the levels of war, military strategy is essentially subordinate to grand strategy, as Figure 2 shows. As the discourse on hybrid warfare illustrates, the difference between grand strategy and strategy is nearly synonymous to the difference between a *threat environment* and a *battlespace*-oriented view of hybrid warfare: the former focuses on the harmonisation of all the instruments of state power while the latter is limited to the military instrument (Caliskan, 2019; Strachan, 2014; Gray, 1999; 2005; 2010). In *theory*, therefore, a clear distinction is made between military strategy and grand strategy, with military strategy taking a subordinate place (Caliskan, 2019; Strachan, 2014; Gray, 2010). In *practice*, however, such clean boundaries rarely apply. If one considers Colin Gray's (2010, p.28) injunction that "[all] strategy is grand strategy [and military] strategies must be nested in a more inclusive framework," the grand strategy pillar can also be applied to the narrower battlespace-oriented view, be it in a limited capacity. But how precisely does the term grand strategy apply when describing the character of modern hybrid warfare?

Within the range of grand strategic options available to a state, military action is but one element to be applied in concert with other instruments (Caliskan, 2019; Strachan, 2014; Gray, 2010). Based on a penetrating analysis of the grand strategy/hybrid warfare nexus, Murat Caliskan (2019) identifies five main instruments of power which make up a state's grand strategy: (1) economic, (2) social, (3) military, (4) informational, and (5) diplomatic measures — Figure 3 below is a near-exact replica of Caliskan's (2019) model. The previously analysed discourse on hybrid warfare as an expanded concept reflects these instruments almost perfectly, showcasing how the *threat environment* interpretation of hybrid warfare is simply a variation on a theme — a rather tried-and-true theme at that. As Caliskan (2019, p.50) mentions "[it] is interesting and ironic that the defence community rediscovers "grand strategy" with each new term coined".

Russian actions in Ukraine in 2014 — and the resulting buzz surrounding "Russian hybrid warfare" (Fridman, 2018)

Old Wine, New Bottles: A Theoretical Analysis of Hybrid Warfare

Written by Timothy Van der Venne

— can be viewed as nothing more than the successful execution of a grand strategy (Caliskan, 2019; Gray, 2010). This is reflected in the 2013 article by Russia's Chief of the General Staff Valery Gerasimov (as quoted in Galeotti, 2016, p.287), whose vision is seen as a foundation stone for Russian hybrid warfare:

"The focus of applied methods of conflict has altered in the direction of the broad use of political, economic, informational, humanitarian, and other nonmilitary measures – applied in coordination with the protest potential of the population. All this is supplemented by military means of a concealed character, including carrying out actions of informational conflict and the actions of special-operations forces. The open use of forces – often under the guise of peacekeeping and crisis regulation — is resorted to only at a certain stage, primarily for the achievement of final success in the conflict."

Because recent interpretations of hybridity emphasise the harmonisation of military and non-military measures — including economic, social, informational, and diplomatic methods — hybrid warfare is clearly grand strategic in character (Caliskan, 2019; Galeotti, 2016; Treverton et al., 2018; Seely, 2017).

The concertation of various instruments of state power is therefore nothing new in its own right, but the hybrid phenomenon is not limited to the uppermost regions of (grand) strategic decision-making. As we have seen, the concept began with a purely military focus, with particular attention paid towards harmonisation on the operational and tactical levels, rather than the strategic and grand strategic (Caliskan, 2019; Mattis & Hoffman, 2005; Hoffman, 2009; Mahnken & Maiolo, 2008). While this first pillar might be most useful in describing the expanded *threat environment* notion of hybrid warfare, the remaining three theoretical pillars are applicable to both conceptualisations — and thus to all levels of war.

2. Irregular warfare

The second defining feature of hybrid warfare is its irregularity. In hybrid warfare, irregular methods are mixed with conventional methods (Caliskan, 2019; Hoffman, 2008; Treverton et al., 2018; Seely, 2017), but given Western militaries' propensity to focus on conventional war, it is precisely that irregularity that seems to confuse Western observers (Kitzen, 2012; Gray, 2005). Irregularity is in fact such a fundamental component of hybrid warfare that Thomas Mahnken and Joseph Maiolo (2008, p.vi) — in their invaluable collection of core strategic literature, *Strategic Studies: A Reader* — sort Frank Hoffman's (2009) paper on hybrid warfare under the heading "Irregular warfare and small wars". For these reasons, this paper gives irregularity a rather prominent role as the second pillar in the framework. But before examining why irregular warfare is such a key component in the sprawling hybrid concept, it is necessary to look at what modern irregular warfare entails. The writings of two key figures were particularly instrumental in the development of the term: T.E. Lawrence and Mao Tse Tung.

The heritage of irregular warfare is as old as time itself – with versions of the concept appearing in the writings of Sun Tzu, Thucydides, and Kautilya (Purvis, 2009; Kiras, 2016). Two key 20th century figures, however, gave the term a conceptual rigour not previously seen. Lawrence of Arabia's (1926) *Seven Pillars of Wisdom* and Mao's (2008) *On Protracted War* shaped thinking on modern irregular warfare, which today is seen as:

"[a] violent struggle among state and non-state actors for the legitimacy and influence over the relevant populations. IW favours indirect and asymmetric approaches, though it may employ the full range of military and other capabilities, in order to erode and adversary's power, influence, and will" (Kiras, 2016, p.309).

Such capabilities can include insurgency, terrorism, proxy warfare, and criminal disorder (Caliskan, 2019). Both Lawrence and Mao based their theories of warfare on direct experience, and both agree on several important aspects of the irregular warfare phenomenon: irregular warfare is (1) *asymmetric*, it is a legitimate strategy especially when facing larger conventional powers; (2) *amorphic*, irregulars can easily morph into regulars and vice versa if the situation requires it; and (3) *people-centric*, focused on influencing and controlling populations as opposed to territory (Lawrence, 1926; 2008; Mao, 2008; Kiras, 2016; Purvis, 2009). Irregularity therefore offers a fluid approach which targets a more powerful opponent's legitimacy, posing great conceptual difficulties for large militaries focused on conventional conflict (Kitzen, 2012; Kiras, 2016; Purvis, 2009). Lawrence (1926, p.198) famously describes fighting

Old Wine, New Bottles: A Theoretical Analysis of Hybrid Warfare

Written by Timothy Van der Venne

an irregular foe as “eating soup with a knife”. The overlap with hybrid warfare here is rather obvious.

Hybrid warfare — on both discourse levels — is entirely in line with Lawrence (1926; 2008) and Mao's (2008) view of asymmetric, amorphic, and people-centric conflict. For example, Hoffman's (2008) view of hybrid warfare's multi-modal quality is, at its core, irregular. Only, the shifting between conventional and irregular tactics in battle is helped by a far-reaching operational and tactical integration through network-technology — Hezbollah in the Second Lebanon War is the prime example Hoffman (2008) gives. In turn, Russian “hybrid” actions in Ukraine and beyond also fit the irregular paradigm (Treverton et al., 2018; Fridman, 2018). Russia's holistic use of so-called *little green men*, criminal organisations, and partisan forces alongside its Special Operations forces is a case-in-point, checking the boxes for asymmetric tactics and amorphousness (Bachmann & Gunneriusson, 2015; Fridman, 2018; Klijn & Yüksel, 2019; Kilinskas, 2015; Seely, 2017). Moreover, Russian disinformation campaigns and spreading of propaganda in target states is clearly people-centric in that it aims to delegitimise adversary's governments in the eyes of its populations (Treverton et al., 2018). So, hybrid warfare on both discourse levels is characterised by irregularity, making it a core pillar in this framework.

Operational aspects of hybrid warfare

3. Information warfare

The role of information is critical in all war but in hybrid warfare specifically the way in which information is operationalised and employed might be the only thing that is truly novel. In the early 1990s, the First Gulf War made a significant impression on military theorists who viewed the array of high-technology weapons and communications systems as presaging a new way of waging war driven by information (Arquilla & Ronfeldt, 1997; Molander et al., 1996). However, subsequent analysts have struggled to come to a clear definition of what precisely constitutes information warfare. The term has since then been recast as an umbrella concept, delineated by Burns (1999) as “a class of techniques, including collection, transport, protection, denial, disturbance, and degradation of information, by which one maintains an advantage over one's adversaries”. With relation to hybrid warfare, this finds expression in two concrete ways: (1) the use of network-technology to integrate the battlespace, and (2) the use of information campaigns to undermine an adversary at home, including the use of cyber tools.

First, the use of network-technology to enhance military operations has been given rigorous attention by several scholars attached to the US Department of Defense who developed the concept of *network-centric warfare* (Alberts, Garstka, & Stein, 2008). Network-centric warfare focuses on the “combat power that can be generated from the effective linking or networking of the warfighting enterprise” (Alberts et al., 2008, p.87). In doing so, dispersed groups or cells can create a single shared battlespace awareness that enhances operational and tactical speed, responsiveness, and effectiveness (Alberts et al., 2008; Otaiku, 2018). This is in line with Hoffman's (2009) battlespace-oriented vision of hybrid warfare. But networking also applies to the broader view of hybrid warfare. Fridman (2018) outlines how Russian geopolitical thinker Aleksandr Dugin expanded the concept of network-centric warfare beyond the battlefield, viewing a network as “an informational dimension, in which major strategic operations are developed” (Fridman, 2018, p.78). This conceptualisation means that the informational sphere includes in its purview elements that were once separate: military units, communication infrastructure, managing public opinion, diplomacy, media, and social processes. This envisions a much larger warfare system, which finds expression in the post-2014 conceptualisation of hybrid warfare as a holistic global threat environment.

Second, this broader networked threat environment can be exploited to undermine an adversary's legitimacy at home. Russian information campaigns in target states are an obvious example of how this might be achieved (Treverton et al., 2018; Seely, 2017). Treverton et al. (2018) outline several information-based tools Russia uses in its hybrid warfare approach: propaganda, domestic media outlets like Russia Today (RT), social media, and fake news. In practice, these components tend to bleed into one another, but the core objective is the weaponization of information with the intention of harming one's adversary – perhaps not physically, but morally and socially (Treverton et al., 2018). Related to the increased networking of the global system is the threat posed by cyber tools, including cyberattacks, cyber espionage, and cyber manipulation. In hybrid warfare terms, Russia has repeatedly used information campaigns and cyber tools to precede or complement military operations in the 2014 Russo-Ukraine

Old Wine, New Bottles: A Theoretical Analysis of Hybrid Warfare

Written by Timothy Van der Venne

conflict. Before kicking off military actions, Russia has for example disabled the Ukrainian power grid, attacked government websites, distributed malware, and spread propaganda and fake news via social media and RT (Cerulus, 2019; Treverton et al., 2018; Seely, 2017).

The use of information in hybrid warfare is of paramount importance: first in the sense of leveraging high-technology to forge a battlespace advantage, and second by weaponizing information in order to degrade an adversary's legitimacy in the court of public opinion. Of course, it is important to bear in mind that the underlying thread in this pillar is *intelligence*, which can — according to Caliskan (2019) — be grouped under the informational component of grand strategy. Intelligence builds available information, and information in a networked environment can lead to speedy and effective decision-making, which brings us to the fourth and final theoretical pillar of the hybrid concept.

4. OODA-loop

The final pillar defining hybrid warfare's execution is the importance of the OODA-loop, developed by John Boyd (Qureshi, 2020; Osinga, 2005; 2015; Olsen, 2015; Coram, 2002). The OODA-loop has a legacy as an oft-quoted but ill-understood strategic concept, frequently being reduced to its simplest interpretation as a decision cycle involving: (1) observe, (2) orient, (3) decide, and (4) act (Osinga, 2005; 2015; Coram, 2002). The common logic is that, in warfare, the actor who manages to “out-pace or out-think the opponent” and go through the OODA-loop more rapidly will come out victorious (Osinga, 2005, p.1). One must “stay one or two steps ahead of the adversary; [and] operate inside the adversary's time scale” (Coram, 2002, ch.24). Honouring his fighter pilot background, Boyd thus places immense emphasis on speed and adaptability, with his biographer Robert Coram (2002) marking the OODA-loop as an inherently time-based theory of conflict. The strategic utility of the OODA-loop stretches beyond the immediate battlefield, however. Giving a thorough analysis of the nuances of the OODA-loop in itself goes well beyond the scope of this paper, and better men than I have done so with greater savvy and alacrity (see Osinga, 2005; 2015). This section will therefore limit itself to giving a necessarily minimised overview of the core and versatility of the concept and how it relates to hybrid warfare.

Colin Gray (1999, p.90-91) wrote the following with reference to the OODA-loop's versatile logic of conflict: “Boyd's loop can apply to the operational, strategic, and political levels of war [...] The OODA loop may appear too humble to merit categorization as grand theory, but that is what it is”. The OODA-loop's simplicity is deceiving: it might be presented as a single loop, but in reality, it is much more complex (Osinga, 2005; 2015; Coram, 2002). The most complete drawings of the OODA-loop in Boyd's famous presentations show “thirty arrows connecting the various ingredients, which means hundreds of possible *loops* can be derived” (Coram, 2002, ch.24). When moving through the decision-cycle, a warfighter brings several factors to the table which impact how that person moves through the loops: e.g. cultural traditions, previous experiences, genetics, and information processing habits (Coram, 2002). As a result, each loop is as unpredictable as the next – and “unpredictability is crucial to the success of the OODA-loop” (Coram, 2002). Moreover, one need not complete every aspect of the loop every time: when a commander has the proper understanding of the rapidly changing environment (or *Fingerspitzengefühl*) the loop can speed up substantially. In essence, Boyd's theory of conflict therefore puts “uncertainty, and cognitive processes central stage” (Osinga, 2015, p.92), with speed and adaptability as core tenets, echoing Moltke's view of strategy as a “pattern of thought” (Hughes, 1993, p.7).

According to Osinga (2015, p.92), the OODA-loop's focus on adaptability presents the warfighter — on every level — with a “rich array of ideas and levers to manipulate” as the situation changes. This aspect, combined with Boyd's emphasis on fluidity rather than rigid doctrine, make the OODA-loop a natural fit to the execution of hybrid warfare. Again, taking Russian actions in Ukraine as an example, the Russians directly applied Boyd's injunction to make use of “variety, rapidity, surprise, creating uncertainty and multidimensional warfare” (Osinga, 2015, p.54). In a series of rapid moves using multiple instruments of state power, exploiting the political and military confusion in Ukraine, and making use of various actor types and conflict modes, Russia managed to destabilise Ukraine in a speedy, adaptable, and holistic manner, leaving Ukraine quite reeling and onlookers shocked (Freedman, 2019; Bachmann & Gunneriusson, 2015; Fridman, 2018).

The OODA-loop is, in its essence, elegant and parsimonious enough to be applicable to all conflict (Gray, 1999). Its

Old Wine, New Bottles: A Theoretical Analysis of Hybrid Warfare

Written by Timothy Van der Venne

emphasis on adaptability, speed, and fluidity makes Boyd's theory a natural fit with the fluid and chameleonic nature of the hybrid warfare concept — on both discourse levels. Hybrid warfare invites the strategist to adapt quickly to a multidimensional conflict environment, offering several levers to turn up or down as the situation demands — overlapping with the OODA-loop's focus on adaptability and cognitive processes (Osinga, 2015). In the end, the OODA-loop interlocks with the other pillars of the theoretical framework and together form a comprehensive view of the strategic theory underlying the hybrid warfare phenomenon.

Conclusion: A framework for thought

Throughout the abounding new literature on hybrid warfare, there has been no rigorous analysis of its place within the broader pantheon of strategic theory — while such an approach can help military practitioners and analysts understand the contested concept's strategic significance and theoretical pedigree (Gray, 1999; 2005; Murray & Mansoor, 2012; Klijn & Yüksel, 2019). To that end, the framework proposed in this paper is meant to capture the hybrid concept as broadly as possible. Following Caliskan's (2019, p.41) reminder that strategic theory "is a system of interlocking concepts and principles pertained to strategy, which postulates that there exists a system of common attributes to all wars", the four pillars as presented above must not be seen in a vacuum. All four elements are intertwined, entangled, and overlapping; together making up hybrid warfare's theoretical base. Based on the parameters of the existing discourse, the hybrid warfare phenomenon is therefore best captured when viewing it as a composite of four theoretical paradigms: (1) *grand strategy*, (2) *irregularity*, (3) *information warfare*, and (4) the *OODA-loop*. All concepts effectively bleed into one another. As a result, hybrid warfare's theoretical underpinning is vast, both in terms of depth and breadth, which directly reflects how sprawling the nature of the hybrid concept has become. This has several implications for the usefulness of the hybrid warfare concept.

First, hybrid warfare consists mainly of already proven strategic concepts and its *newness* is therefore minimal. Claims of novelty in war abound when a strategic context is subject to change and after the 2014 Russo-Ukrainian conflict, hybrid warfare was hailed something completely new (Mahnken & Maiolo, 2008; Murray & Mansoor, 2012; Fridman, 2018; Klijn & Yüksel, 2019). However, with strategic theory as a guide, the above analysis shows that only one of the four pillars can be seen as relatively new: information warfare. Hybrid warfare as a strategic concept is therefore in essence a coming-together of several well-tested principles of strategic theory into a single broad concept.

Second, the hybrid warfare concept is far too bulky to serve as a guiding doctrinal concept. As the discourse expanded from a battlespace-oriented view to a threat environment-oriented view of hybridity, so did confusion regarding its use. Each government and each institution appears to have its own definition, leading to further confusion as to how best to shape policy (Caliskan, 2019; Galeotti, 2016; Treverton et al., 2018; Seely, 2017). Attempting to disentangle the woolly concept, the above analytical framework further shows that – when distilling hybrid warfare to its essence – the hybrid concept in fact repackages older paradigms which have a far better utility for policymakers. This paper therefore agrees with Caliskan's (2019, p.55) assertion that "hybrid warfare does not merit adoption as a doctrinal concept".

Third, while the hybrid warfare concept is hardly new and while the broadness of the concept undermines its doctrinal usefulness, it might however serve as an analytical framework to research the nature of modern war in the broadest Clausewitzian sense. In looking at the nature of war through Clausewitz's primary trinity, one tends to stay within the realm of non-material aspects, philosophising about a phenomenon that cannot be fully grasped (Clausewitz, 1976; Handel, 2008; Schake, 2017; Schuurman, 2010; Strassler, 1996; Van der Venne, 2020). This paper shows that hybrid warfare shares several key features with abstract thinking on the nature of war in the tradition of Clausewitz and Moltke: i.e. fluidity, changeability, and uncertainty. As such, the proposed framework can be seen as a tentative first attempt to give some practical handles to an abstract subject: the nature of war.

Lastly, it must be noted that this analysis is thoroughly limited. Though ambitious in scope of ideas, the scope of the word count restricts the depth of analysis. Each pillar's relation to the hybrid concept can spawn whole books but has been treated here in a necessarily minimised – and perhaps rather blunt – manner. Moreover, several important aspects have not been included in this text, including the inherent confusion surrounding what constitutes war and

Old Wine, New Bottles: A Theoretical Analysis of Hybrid Warfare

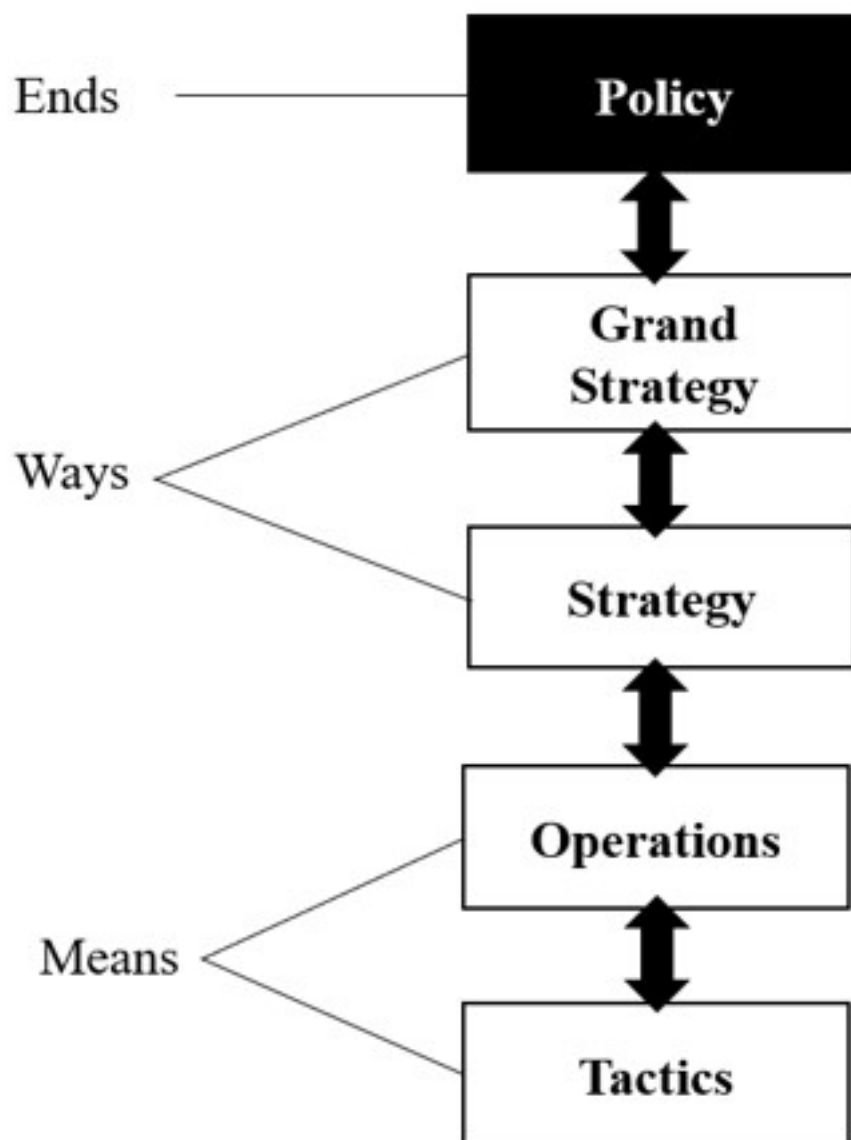
Written by Timothy Van der Venne

peace in a hybrid context and the relation of hybrid warfare to grey zone conflict. There is a lot that has not been said. Following Clausewitz’s (1976, p.132) instruction that theory is meant “to clarify concepts and ideas that have become, as it were, confused and entangled”, this paper hopes to contribute in some degree to the elucidation of a befuddled concept. It is clear, however, that the debate surrounding the hybrid warfare concept is far from over.

Figures

<div>Clausewitz’ primary trinity</div> <ul style="list-style-type: none">- Broad and fluid conceptualisation of war- Allows different scope, actors, and intensity levels- All-encompassing		
Character	<div>Grand Strategy</div> <ul style="list-style-type: none">- All instruments of state power in pursuit of <i>state</i> objectives- Includes economic, social, military, informational, and diplomatic measures- <i>Key thinkers</i>: Julian Corbett, J.F.C. Fuller, Basil Liddell Hart, Colin Gray	<div>Irregular Warfare</div> <ul style="list-style-type: none">- Violent struggle among state and non-state actors- Focused on legitimacy and influence- Asymmetric, amorphic, people-centric- Target roots of enemy power- <i>Key thinkers</i>: T.E. Lawrence, Mao, Sun Tzu, Thucydides
Operations	<div>Information Warfare</div> <ul style="list-style-type: none">- Operational doctrine turning technological and information advantage into a competitive advantage- Joint battlespaces- Includes network-centric warfare- <i>Key thinkers</i>: US Department of Defense, Aleksandr Dugin, John Arquilla	<div>OODA Loop</div> <ul style="list-style-type: none">- Observe, orient, decide, act- Enemy as complex adaptive system- Competitive decision-making on the battlefield, using time as a strategic factor- <i>Key thinkers</i>: John Boyd, Frans Osinga

Figure 1 A theoretical framework for analysis of hybrid warfare



***Figure 2** The levels of war*

Old Wine, New Bottles: A Theoretical Analysis of Hybrid Warfare

Written by Timothy Van der Venne

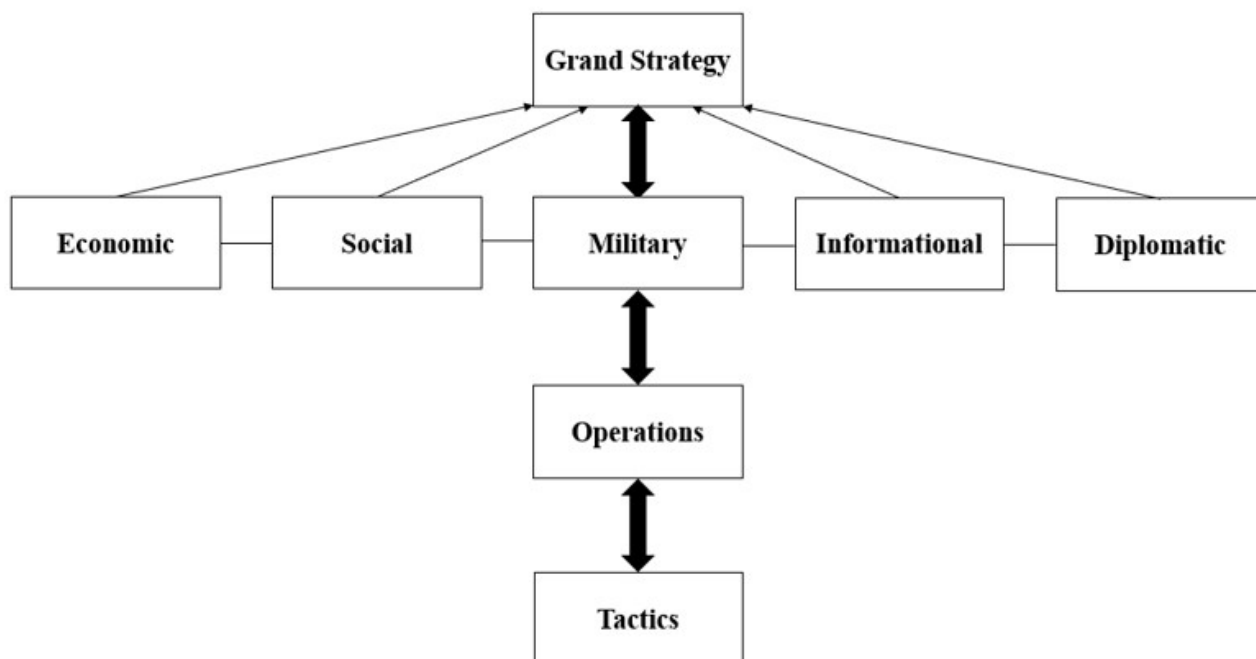


Figure 3 Elements of grand strategy

Bibliography

Alberts, D.S., Garstka, J.J., & Stein, F.P. (2008). Network Centric Warfare: Developing and Leveraging Information Superiority. *C4ISR Cooperative Research Program (CCRP)*. Washington, DC: Library of Congress.

Arquilla, J., & Ronfeldt, D. (1997) *In Athena's Camp: Preparing for Conflict in the Information Age*. Santa Monica, CA: RAND Corporation.

Bachmann, S., & Gunneriusson, H. (2015). Russia's Hybrid Warfare in the East: The Integral Nature of the Information Sphere. *Georgetown Journal of International Affairs*, 16(Special Issue), 198-211.

Blount, C. (2018). Useful for the Next Hundred Years? Maintaining the Future Utility of Airpower. *The RUSI Journal*, 163(3), 44-51.

Burns, M. (1999). Information Warfare: What and How? *Carnegie Mellon University*. Retrieved from <https://www.cs.cmu.edu/~burnsm/InfoWarfare.html>

Caliskan, M. (2019). Hybrid warfare through the lens of strategic theory. *Defense & Security Analysis*, 35(1), 40-58.

Cerulus, L. (2019, 14 February). How Ukraine became a test bed for cyberweaponry. *Politico*. Retrieved from <https://www.politico.eu/article/ukraine-cyber-war-frontline-russia-malware-attacks/>

Chandler, D. (1980). *Atlas of Military Strategy*. New York, NY: Free Press.

Clausewitz, C. von. (1976). *On War*. (Howard, M., & Paret, P., Trans.). Princeton, NJ: Princeton University Press. (Original work published in 1832).

Old Wine, New Bottles: A Theoretical Analysis of Hybrid Warfare

Written by Timothy Van der Venne

- Coram, R. (2002). *John Boyd: The Fighter Pilot Who Changed the Art of War*. New York, NY: Hachette Book Group.
- Cullen, P.J., & Reichborn-Kjennerud, E. (2017). MCDCC Countering Hybrid Warfare Project: Understanding Hybrid Warfare. Multinational Capability Development Campaign. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/647776/dar_mcdc_hybrid_warfare.pdf
- Freedman, L.D. (2019). *Ukraine and the Art of Strategy*. Oxford, UK: Oxford University Press.
- Fridman, O. (2018). *Russian 'Hybrid Warfare': Resurgence and Politicisation*. London, UK: Hurst & Company, London.
- Fuller, J.F.C. (1923). *The Reformation of War*. London, UK: Hutchinson & Co.
- Galeotti, M. (2016). Hybrid, ambiguous, and non-linear? How new is Russia's 'new way of war'? *Small Wars & Insurgencies*, 27(2), 282-301.
- Gray, C.S. (1999). *Modern Strategy*. Oxford, UK: Oxford University Press.
- Gray, C.S. (2005). *War, Peace, and International Relations* (2nd ed.). London, UK: Routledge; Taylor & Francis Group.
- Gray, C.S. (2010). *The Strategy Bridge: Theory for Practice*. Oxford, UK: Oxford University Press.
- Grier, P. (2017, 30 January). The Perils of Hybrid War. *Air Force Magazine*. Retrieved from <https://www.airforcemag.com/article/the-perils-of-hybrid-war/>
- Gross, G.P. (2016). *The Myth and Reality of German Warfare: Operational Thinking from Moltke the Elder to Heusinger*. Lexington, KY: The University Press of Kentucky.
- Handel, M.I. (2008). Who is afraid of Carl von Clausewitz?. In T.G. Mahnken, & J.A. Maiolo (Eds.), *Strategic Studies: A Reader* (pp.53-71). Abingdon, UK: Routledge.
- Heuser, B. (2010). *The Evolution of Strategy: Thinking War from Antiquity to the Present*. Cambridge, UK: Cambridge University Press.
- Hoffman, F.G. (2009). Hybrid warfare and challenges. *Joint Force Quarterly*, 52, 34-39.
- Hughes, D.J. (1993). *Moltke on the Art of War: Selected Writings*. New York, NY: Presidio Press.
- IISS. (2015). *The Military Balance 2015: The Annual Assessment of Global Military Capabilities and Defence Economics*. London, UK: International Institute for Strategic Studies & Routledge.
- Isherwood, M.W. (2009, 1 October). Airpower for Hybrid War. *Air Force Magazine*. Retrieved from <https://www.airforcemag.com/article/1009hybrid/>
- J.L. Gaddis. (2018). *On Grand Strategy*. London, UK: Penguin Press.
- Jordan, D., Kiras, J.D., Lonsdale, D.J., Speller, I., Tuck, C., & Walton, C.D. (2016). *Understanding Modern Warfare* (2nd ed.). Cambridge, UK: Cambridge University Press.
- Kilinskas, K. (2015). Hybrid Warfare: an Orientating or Misleading Concept in Analysing Russia's Military Actions in Ukraine? *Lithuanian Annual Strategic Review*, 14, 139-158.

Old Wine, New Bottles: A Theoretical Analysis of Hybrid Warfare

Written by Timothy Van der Venne

Kiras, J.D. (2016). Part V Irregular warfare. In D. Jordan, J.D. Kiras, D.J. Lonsdale, I. Speller, C. Tuck, & C.D. Walton (Eds.), *Understanding Modern Warfare* (pp.298-375). Cambridge, UK: Cambridge University Press.

Kitzen, M. (2012). Western Military Culture and Counterinsurgency: An Ambiguous Reality. *Scientia Militaria*, 40(1), 1-24.

Klijn, H., & Yüksel, E. (2019, Nov 28). Russia's Hybrid Doctrine: Is the West Barking Up the Wrong Tree?. *Clingendael Magazine*. Retrieved from <https://www.clingendael.org/publication/russias-hybrid-doctrine-west-barking-wrong-tree>

Lammi, P. (2019). A Brief Introduction to Information Warfare. *Medium*. Retrieved from <https://medium.com/social-media-writings/a-brief-introduction-to-information-warfare-4958cf982d71>

Lawrence, T.E. (1926). *Seven Pillars of Wisdom* (1962 Reprint). London, UK: Penguin Group.

Lawrence, T.E. (2008). Science of guerrilla warfare. In T.G. Mahnken, & J.A. Maiolo (Eds.), *Strategic Studies: A Reader* (pp.266-273). New York, NY: Routledge.

Liddell Hart, B.H. (1928). *When Britain Goes to War: Adaptability and Mobility*. London UK: Faber & Faber.

Liddell Hart, B.H. (1991). *Strategy*. New York, NY: Plume.

Lonsdale, D.J. (2016). The study and theory of strategy. In D. Jordan, J.D. Kiras, D.J. Lonsdale, I. Speller, C. Tuck, & C.D. Walton (Eds.), *Understanding Modern Warfare* (pp.21-38). Cambridge, UK: Cambridge University Press.

Mahnken, T.G., & Maiolo, J.A. (2008). *Strategic Studies: A Reader* (2nd ed.). New York, NY: Routledge.

Mao, T.T. (2008). Problems of strategy in China's civil war. In T.G. Mahnken, & J.A. Maiolo (Eds.), *Strategic Studies: A Reader* (pp.274-308). New York, NY: Routledge.

Mason, R.A. (1970). Sir Basil Liddell Hart and the Strategy of the Indirect Approach. *Royal United Services Institution Journal*, 115(658), 37-41.

Mattis, J.N., & Hoffman, F.G. (2005). Future Warfare: The Rise of Hybrid Wars. *U.S. Naval Institute Proceedings*, 131(11).

Milevski, L. (2014). Grand Strategy and Operational Art: Companion Concepts and Their Implications for Strategy. *Comparative Strategy*, 33(4), 342-353.

Molander, R.C., Riddile, A., & Wilson, P.A. (1996). *Strategic Information Warfare: A New Face of War*. Santa Monica, CA: RAND Corporation.

Murray, W., & Mansoor, P.R. (2012). *Hybrid Warfare: Fighting Complex Opponents from the Ancient World to the Present*. Cambridge, UK: Cambridge University Press.

NCTV. (2016). Chimaira: Een duiding van het fenomeen 'hybride dreiging'. *Nationaal Coördinator Terrorismedbestrijding en Veiligheid (NCTV)*.

Olsen, J.A. (2015). *Airpower Reborn: The Strategic Concepts of John Warden and John Boyd*. Annapolis, MD: Naval Institute Press.

Osinga, F.P.B. (2005). *Science, Strategy, and War: The Strategic Theory of John Boyd*. Delft, NL: Eburon Academic.

Old Wine, New Bottles: A Theoretical Analysis of Hybrid Warfare

Written by Timothy Van der Venne

Osinga, F.P.B. (2015). The Enemy as a Complex Adaptive System: John Boyd and Airpower in the Modern Era. In J.A. Olsen (Ed.), *Airpower Reborn: The Strategic Concepts of John Warden and John Boyd* (pp.48-92). Annapolis, MD: Naval Institute Press.

Otaiku, A.A. (2018). A Framework for Hybrid Warfare: Threats, Challenges and Solutions. *Journal of Defense Management*, 8(3), 1-13.

Purvis, J.W. (2009). Traditional and Irregular Warfare: A Flawed Concept for Categorizing Conflict. (Dissertation, Joint Advanced Warfighting School, Norfolk, VA). Retrieved from <https://apps.dtic.mil/dtic/tr/fulltext/u2/a530173.pdf>

Qureshi, W.A. (2020). The Rise of Hybrid Warfare. *Notre Dame Journal of International & Comparative Law*, 10 (2), 174-208.

Schake, K. (2017). What Causes War?. *Orbis*, 61(4), 449-462.

Schuurman, B. (2010). Clausewitz and the “New Wars” Scholars. *Parameters*, 40(1), 89-100.

Seely, R. (2017). Defining Contemporary Russian Warfare. *The RUSI Journal*, 162(1), 50-59.

Smith, M.T. (2015). Airpower in Hybrid War: Ethical Implications for the Joint Force Commander. *Naval War College Department of Joint Military Operations*. Retrieved from <https://apps.dtic.mil/dtic/tr/fulltext/u2/a609211.pdf>

Spearin, C. (2018). Russian “Hybrid Warfare”: Resurgence and Politicisation Review. *Parameters*, 48(4), 86-87.

Strachan, H.F.A. (2014). *The Direction of War*. Cambridge, UK: Cambridge University Press.

Strachan, H.F.A. (2019). Strategy in theory; strategy in practice. *Journal of Strategic Studies*, 42(2), 171-190.

Strassler, R.B. (1996). *The Landmark Thucydides: A Comprehensive Guide to the Peloponnesian War*. New York, NY: Free Press.

Treverton, G.F., Thvedt, A., Chen, A.R., Lee, K., McCue, M. (2018). Addressing Hybrid Threats. *Swedish Defence University*. Retrieved from <https://www.hybridcoe.fi/wp-content/uploads/2018/05/Treverton-AddressingHybridThreats.pdf>

Van der Venne, T. (2020). Misreading Clausewitz: The Enduring Relevance of On War. *E-International Relations*. Retrieved from <https://www.e-ir.info/2020/02/04/misreading-clausewitz-the-enduring-relevance-of-on-war/>

Van Haaften, Y.D.B. (2020, 21 January). Oorlogvoering in vredestijd. Effecten van hybride operaties op de Nederlandse krijgsmacht. *Militaire Spectator*. Retrieved from <https://www.militairespectator.nl/thema/operaties/artikel/oorlogvoering-vredeestijd>

Van Loon, T., & Verstegen, S. (2019, 16 September). Manoeuvring in the Hybrid Environment. On the Importance of Cooperation, Resilience and Strategic Thinking. *Militaire Spectator*. Retrieved from <https://www.militairespectator.nl/thema/strategie-internationale-samenwerking/artikel/manoeuvring-hybrid-environment>

Waldman, T. (2009). *War, Clausewitz, and the Trinity*. (Doctoral dissertation, University of Warwick, Warwick, UK). Retrieved from <https://core.ac.uk/download/pdf/40048786.pdf>

Wilkie, R. (2009). Hybrid Warfare: Something Old, Not Something New. *Air & Space Power Journal*, 23(4), 13-17.