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ABSTRACT

This research paper analyses the changing nature of warfare in order to understand the dynamics of grey zone warfare and evaluates the role of deterrence in the paradigm of Grey zone warfare. The employment of non-military means for fighting wars and blending of conventional and unconventional war strategies have taken the conflicts beyond the enemy lines and into the societies. Pakistan and India presents classical example in this regard. The existing literature on grey zone warfare and deterrence in grey zone warfare is highly fragmented. The deterrence strategies are mostly suggested in connection with the capabilities possessed by the United States and NATO, which further complicates the scenario. These studies neglect the grey zone challenges faced by many other developing countries around the world. The policymakers, academia, and practitioners are facing the challenge to devise the ways and means to deter aggressors operating below the threshold of a conventional conflict. Nuclear deterrence proved successful in preventing interstate wars but it may not deter the actors operating in the grey zone. The awareness and understanding of the grey zone warfare is a critical prerequisite for developing deterrence strategies to deter the adversaries employing ambiguous tactics to alter the status quo.

Key words: Grey Zone Warfare, Nuclear Deterrence, Pakistan, India, Hybrid Warfare, War and Peace.

"We will use the full spectrum of our capabilities – armed force including, ultimately, our nuclear deterrent, diplomacy, law enforcement, economic policy, offensive cyber, and covert means – to deter adversaries and to deny them opportunities to attack us." (The National Security Strategy and Strategic Defence and Security Review 2015: UK)

The security environment of the 21st century is complicated due to profound changes in the characteristics of contemporary warfare. The employment of non-military means for fighting wars and blending of conventional and unconventional war strategies have taken the conflicts beyond the enemy lines and into the

societies. Warfare concepts are fast evolving from rows and columns tactics of First Generation Warfare to technologically advance and hybrid strategies of Fifth Generation Warfare and beyond. August (2016) writes that "contemporary conflicts do not resemble large-scale conventional combat; rather, they appear more as conflicts of varying degrees of violence and nuanced objectives" (p.1). These conflicts are neither black nor white instead; they fall in the middle of the two, which is the grey zone. The concept of grey zone warfare is widely debated/researched topic over the past couple of years in multiple domains including military, academia, policymakers and analysts. The argument generally revolves around the concept of grey zone warfare, techniques to be employed, technologies to be advanced, and actors to be countered. All these aspects make the understanding of grey zone warfare multifaceted and challenging task. The definition of grey zone warfare varies in the literature, and there is terminological confusion. The international community agrees upon the fact that the problem of grey zone warfare exists but no one clearly understands it. As Freier et al. (2016) argue in their report that "It is in this "grey zone"—the awkward and uncomfortable space between traditional conceptions of war and peace—where the United States and its defence enterprise face systemic challenges to U.S. position and authority" (p.xiii). Figure 1 depicts peace, the grey zone and war. The above discussion reveals that grey zone warfare is an essential and sophisticated development that needs further research to define and comprehend the concept accurately.

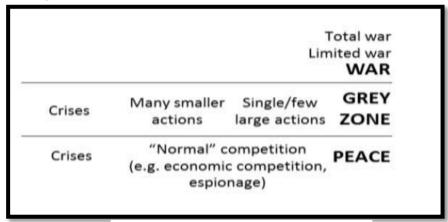


Figure 1 Peace, The Grey Zone and War (Mazarr, 2015)

The contemporary global landscape is unbalanced, uncertain, ambiguous and complex, and is likely to prevail in the foreseeable future and beyond. Nuclear weapons which proved great deterrents during the Cold War may not be effective in contemporary conflicts where NSAs are primary actors. On the other end of the spectrum, Deterrence remains a vital subject of research in a diverse range of fields comprising, but not limited to, International Relations, Politics, Strategic

Studies, Security Studies and War Studies. Deterrence plays a pivotal role in preventing/limiting wars and crisis through different strategies employed in conventional and nuclear domains. Nuclear deterrence remained the most effective instrument to prevent inter-state wars during the second half of the 20th century.

The advancements in fields of international strategic landscape, warfare, communication, and technology have a direct impact on the evolution of deterrence strategies. The norms of conventional inter-state wars played a primary role in shaping the traditional concepts of deterrence widely employed until the end of the 20th Century. However, the dynamic nature of threats and ambiguous types of adversaries are making the equation more complicated. Furthermore, the capability of state and non-state actors to employ hybrid/Grey zone warfare strategies against a host of targets (individuals, groups, corporations and countries) has compounded the situation (Jackson, 2019, p.104). There is a subtle distinction between war and peace in the Grey zone warfare, which creates a response dilemma for the defender. Therefore, the existing mechanisms of deterrence may not be viable to deter adversaries operating in the Grey zone. The recent developments and evolution in the fields of warfare and emerging concepts like Hybrid warfare, Grey zone, ambiguous warfare, and unrestricted warfare have led to a renewed interest in deterrence.

Changing nature of warfare

War has not changed for centuries, but the warfare keeps on changing continuously due to advancements in technology and globalisation. Chambers (2016) famously argues about the changing nature of warfare "it evolved from soldiers with broadswords and bows to soldiers on horseback with repeating rifles, to soldiers with machine guns, driving tanks, and calling in airstrikes from drones" (p.8). An extensive and developing body of literature has explored the changing nature of warfare over the past couple of years. The international community accepts that the emerging concepts like grey zone and hybrid warfare are a significant challenge in modern times; however, nobody has a clear understanding of these evolving forms of warfare (Cullen & Kjennerud, 2017, p. 3). A considerable amount of literature was published on the changing nature of warfare, particularly after the Russian annexation of Crimea in 2014. However, most of these studies have contrasting themes and define these new forms of warfare in different contexts and understandings. There are many terms like 'Hybrid Warfare', 'New Wars', 'Fifth Generation Warfare', 'Ambiguous Warfare', 'unrestricted Warfare', 'New Generation Warfare' and "Grey Zone Warfare"; which are at times used interchangeably to explain the similar but subtly different concepts.

International strategic and security landscape has seen a rapid transformation after the culmination of the Cold War. The terrorist attacks in the United States in 2001 and the ensuing global war on terror further complicated the landscape of

warfare. The changing nature and dynamics of warfare have severely impacted many countries around the world (Iqbal, 2018, p.2). The conflicts in Afghanistan, Iraq, Libya, Syria, Ukraine, Georgia and Kashmir are classic manifestations of the changing nature of warfare. States and non-state actors involved in these conflicts adopted innovative strategies of waging war by blending a wide range of tactics from multiple domains of conventional and irregular warfare (Hoffman, 2009, p.35). The lines between peace and war are obscuring in contemporary conflicts due to ever-increasing activities in the ambiguous domain. States and NSAs blend a diverse range of strategies in kinetic and non-kinetic domains, which becomes challenging for a defender to counter or deter.

Chinese concept of 'Unrestricted Warfare' b was also a significant development which was introduced by two officers from the People's Liberation Army in their seminal work published in 1999. This study analysed the events of the Gulf war 1991 and proposed the way forward for future conflicts for developing countries in general and China in particular. In the preface of their book, Liang and Xiangsui (1999) write that "in the days to come mankind has no choice but to engage in war, it can no longer be carried out in the ways with which we are familiar" (pp.1-3). They foresee that the future wars are going to be entirely different from the past wars, and this argument also supports the 'new wars' thesis of Kaldor (2013). This argument holds good for the contemporary forms of warfare which is in stark contrast to the past. The book further reveals that there is a reduction in physical violence, but there is a surge in political, economic and technological violence (Liang & Xiangsui, 1999). The conflicts over the past two decades are manifestations of this argument, although physical violence has also increased in new shapes.

Liang and Xiangsui (1999) argue that the states will employ a diverse range of military and non-military resources in varying combinations. Summarising the Work of Liang and Xiangsui, Cruceru (2014) writes that "the concept of unrestricted warfare is based on the innovative employment of an unlimited number of measures (military and non-military), from all directions (inside or outside of a state/human group), from the ground/air/ sea/space/cyber-space, by multidimensional coordination of a multitude of governmental, non-governmental, international and private actors" (p.234). The concept of unrestricted warfare lies very close to the idea of hybrid warfare and grey zone as there is no limitation of ways, means and ends. The most compelling argument about unrestricted warfare is "the first rule of unrestricted warfare is that there are no rules, with nothing forbidden" (Liang & Xiangsui, 1999, p.2). However, the major limitation of this study is the narrow focus on countering the threats emerging from the United States and allies. Secondly, the adoption of such form of warfare, which did not follow the International Humanitarian Law (IHL), may be problematic and morally restricting. The current situation owing to spread of Corona Virus Disease 2019 (COVID-19) is termed by many including Trump as the 'Chinese Virus', and many conspiracies are stating it as a biological weapon (Chiu, 2020). Nonetheless, the

possibility of COVID-19 being a biological weapon cannot be ruled out if viewed from the analytical lens of 'unrestricted warfare'.

The most crucial development in the changing nature of warfare was the hybrid warfare which is a buzz word in contemporary times. Hybrid warfare is defined in diversity by different countries under their prevailing environment, and there is no universally accepted definition and understanding of hybrid warfare. William J. Nemeth coined the phrase 'Hybrid warfare' in 2002, and the connotation and usage of the phrase have transformed a lot since then (Herta, 2017, p.138). Nemeth (2002) argues that warfare represents the societies who wage it, so contemporary warfare is hybrid due to the hybrid nature of modern societies. A growing number of studies over the past two decades have provided valuable information on the concept of hybrid warfare. Several studies say that there is nothing unique about hybrid warfare, while others compete that it is a novel and distinctive concept. Recently, there has been a swelling quantity of literature to understand and explain the hybrid warfare. The research interest on hybrid warfare got renewed impetus from the events happening in Eastern Europe in 2014 where Russia invaded Ukraine and annexed Crimea. Subsequently, the United States, United Kingdom and NATO members launched numerous projects and conducted multiple studies to understand and counter the hybrid warfare threats emerging from Russia and China.

Russian do not use the term Hybrid warfare and are more inclined towards the terms 'New Generation Warfare', 'Non-linear Warfare' and 'Gerasimov Doctrine'. Valery Gerasimov, Russian Chief of the General Staff, explained the changing nature of warfare based on his analysis of the Colour Revolutions and the Arab Spring. He highlighted the employment of non-traditional methods of waging war as the fundamental cause for the changing nature and dynamics of contemporary conflicts. Gerasimov argues that new generation warfare is "the broad use of political, economic, informational, humanitarian and other non-military means ... supplemented by civil disorder among the local population and concealed armed forces" (Wither, 2016). Gerasimov doctrine and Jackson (2019) arguments have similarity as both have used the concept of unmarked or concealed soldiers and non-military means. NATO considers the Russian invasion of Georgia (2008) and the annexation of Crimea (2014) as the expressions of the Russian Hybrid Warfare strategy. However, from the Russian point of view: these conflicts were aimed to preserve Russian national interests from the hybrid threats emanating from NATO. In the final part of his article on hybrid warfare Wither (2016) writes "Although the term "hybrid" is currently the most popular, it is by no means the only one to describe these wars" (p.86).

There is no universally accepted definition of the grey zone warfare, and it is defined in diversity. As Chambers (2016) highlights that "the grey zone is the space between peace and war. It is an operating environment in which aggressors use ambiguity and leverage non-attribution to achieve strategic objectives, while limiting counter-actions by other nation-states" (p.22). This research paper adopts

the definition of grey zone warfare given by the United States Special Operations Commands, which says "grey zone challenges are defined as competitive interaction among and within state and non-state actors that fall between the traditional war and peace duality. They are characterised by ambiguity about the nature of the conflict, opacity of the parties involved, or uncertainty about the relevant policy and legal frameworks" (Bratton, 2020, p.42). This definition is precise and comprehensive and provides linkages between a diverse range of actors and activities

Both states and non-state actors employ grey zone strategies and achieve objectives by staying below the level of a conventional war. Russian actions in Ukraine and Chinese activities in the South china are extensively described as classic manifestations of grey zone warfare. The dissertation argues that a grey zone actor may employ a blend of conventional and asymmetric approaches to achieve their strategic objective while staying below the threshold of an effective response by the defender. Prior studies have noted that these approaches may include:

- a. Fait Accompli
- b. Salami Tactics
- c. Proxy Warfare
- d. Cvber Warfare
- e. Information Operations
- f. Special Operations

Concept of deterrence

"Deterrence can be a technique, doctrine and a state of mind. In all cases it is about setting boundaries for actions and establishing risks associated with crossing these boundaries." Sir Lawrence Freedman (Freedman, 2004)

The concept of deterrence emerged in military and academic circles in the 1950s and gained prominence during the Cold War. The concept of deterrence can be traced back in history to the writings of Sun Tzu and Machiavelli because they supported the significance of defence to deter a potential antagonist by making the costs of attack exponentially higher (Goldstein, 1999, p.69; Jackson, 2019, p. 110, p.110; Lorenz, 2017, p. 22, p.22). The Greek historian Thucydides also wrote that an aggressor chooses to wage war because he is not discouraged by fear and thinks the benefit superior to the sufferings (Thucydides, 1998, pp.59-62). As highlighted by sir Lawrence Freedman in the above-given quote, the traditional concept of deterrence is based on the principle of discouraging a potential attacker by making him believe that the risk is too high in comparison to the desired objectives. Deterrence and coercion are used interchangeably by few scholars. Nevertheless, deterrence seeks to thwart a particular course of action by a subject while coercion

compels a subject to adopt a particular course of action (UK government, 2019). Gray (2000) argues that "Deterrence is an integral part of the permanent canon, or lore, and the eternal practice of statecraft and strategy" (p.255). Gray's argument is justifiable because states always adopt specific strategies as part of diplomatic and defence policies to deter potential aggressors. The previous chapter focussed on the concept of grey zone warfare. This chapter analyses the concept of deterrence and how it operated in the past to draw findings for deterrence strategies to deter aggressors operating in the grey zone.

Defining deterrence

Defining deterrence is less problematic in comparison to grey zone warfare, but the concept of deterrence also varies to a certain extent in various disciplines. Deterrence can be simply defined as an endeavour to discourage an adversary from aggression. According to a definition provided by Gray (2000) deterrence is, "a condition wherein a deterree—the object of deterrent menaces—chooses not to behave in ways in which he would otherwise have chosen to behave, because he believes that the consequences would be intolerable" (p.256). This definition explains the central objective of deterrence to alter the behaviour of a potential aggressor by giving clear posture through appropriate mechanisms. This definition is close to that of Matisek (2017), who defines deterrence as "shaping another's perception of costs and benefits to dissuade threatening behaviour" (p.6). Gray (2000) definition of deterrence is supplemented by Matisek (2017) as both highlight the importance of a modification in behaviour of attacker by making him believe in conducting cost-benefit analysis before commencing any hostile action. Similarly, Jackson (2019) defines deterrence as "Deterrence is thus a psychological means to alter the cost-benefit interaction between actor and adversary" (p.101). Most of the papers written on deterrence during the cold war emphasise the employment of intimidating tactics to change the behaviour of attacker while neglecting the role of soft power, diplomacy and non-coercive strategies.

While a variety of definitions of the term 'deterrence' have been suggested, this dissertation adopts the North Atlantic Treaty Organization (NATO) definition of deterrence which defines deterrence as "The convincing of a potential aggressor that the consequences of coercion or armed conflict would outweigh the potential gains. This requires the maintenance of a credible military capability and strategy with the clear political will to act" (UK government, 2019, p.3). This is a very comprehensive definition which is adopted by all the NATO members and is also mentioned in the UK doctrine of deterrence. This definition incorporates the additional element of political will to act upon the laid down strategies, which is very crucial for the success of such strategies. Lorenz (2017, pp. 23-25) and Mallory (2018) state three themes of deterrence in historical perspective: deterrence by denial through augmenting defences, deterrence by punishment

through nuclear weapons, and extended deterrence by a powerful state to a weaker ally (pp.23-25, pp.3-4). Similarly, Jackson (2019) asserts that the intentions of an adversary can be transformed through denial or through punishment (pp.111). In contrast to Jackson, Lorenz (2017) contends that deterrence cannot operate solely through threats instead should be supplemented by incentives to reduce the chances of confrontation. Lorenz, Jackson and Mallory reached similar positions on deterrence in their analytical studies. Other researchers, however, who have looked at deterrence, highlight deterrence in terms of conventional and nuclear deterrence which are same as described by Loren, Mallory and Jackson.

Concept of deterrence during the cold war

The concept of deterrence prevailed in four distinct waves during and after the Cold War, as highlighted earlier in the literature review. The development and employment of nuclear weapons in 1945 gave the impetus for the first wave of deterrence owing to the enormous impact of the nuclear bombing of Japan. Nuclear weapons emerged as the most potent tool of deterrence by punishment. The second wave was in 1950 to 1960s principally embedded in the dynamics of the cold war based upon game theory. The third wave triggered in the 1970s, where conventional deterrence was analysed through case studies. The fourth wave originated post-Cold War to perceive the mechanism of deterrence in a unipolar world where non-state actors were also involved in various conflicts (J. W. Knopf, 2010, pp. 1-2, pp.1-2). The main motive for these waves of deterrence theory was to adjust the mechanisms for maintaining stability in the changing dynamics of international relations. Nuclear weapons remained as the main instrument of deterrence during this time frame, and states were the primary subjects of deterring strategies.

The concept of Mutual Assured Destruction (MAD) prevented direct aggression by both the USSR and the USA. Both the countries did not engage in direct confrontation due to threat of escalation to a nuclear war and resorted to indirect confrontations which ensured a high level of international stability in a bipolar system (Matisek, 2017, p.7). This gave a notion of nuclear weapons being the only viable deterrents, and there was a race among many countries to join the nuclear club. The concept of extended deterrence was also extensively employed during the Cold War as the USA and the USSR provided a nuclear umbrella to their respective allies. The end of the Cold War gave birth to the idea that the deterrence or at least nuclear deterrence may not be required in future, but the later events proved that it was not a valid argument.

Concept of deterrence post-cold war

The end of the Cold war, with the termination of Warsaw Pact and collapse of the USSR, witnessed a unipolar world and the United States emerged as the sole superpower. This has a considerable impact on the threat perception of the US and

Western Europe as the communist ideological threat got warded off. This transition changed the nature of conflicts from interstate wars to intrastate wars and so on. Non-state actors started to play a massive role in the conflicts in the late nineties. Deterrence also evolved with the change in dynamics of the conflicts, and it gained a new impetus after the 9/11 attacks. The fourth wave of deterrence mainly focuses on this time frame as it evaluates deterrence strategies in the asymmetric and unconventional conflicts, which were significant developments after 9/11 incident (J. W. Knopf, 2010, p.1). The questions were raised regarding how to deter the terrorists and rogue states having Weapons of Mass Destruction (WMDs)? Academics, military experts and policymakers raised severe concerns about the operability of deterrence to deter the non-state actors like Al-Qaeda who were devoted to their cause with their lives. This was a significant concern because the first decade of the 21st witnessed a sharp increase in terrorist attacks around the world. These challenges prompted scholars to revisit deterrence strategies to deter terrorists and other non-state actors. All these endeavours are categorised under the fourth wave of deterrence.

Many Scholars (J. W. Knopf, 2010, p.2) have consensus on the fact that deterrence can counter the terrorism up to a significant extent. However, the arrangements are not fool proof or failsafe, and there is a concern of reliability of prevailing strategies against a diverse range of actors with varying motives and ideologies. Most of the research in the fourth wave focussed on the deterrence mechanisms that can operate in the non-traditions security scenarios. The analysts shifted their focus from conventional and nuclear deterrence to a broader framework which can encompass and integrate various instrument to ensure credibility of deterrence beyond the military or nuclear retaliation (J. Knopf, 2008). However, fourth wave scholars agree that deterrence 'will not and should not' be the key element as it was during the Cold War. This argument implies that although deterrence may be able to counter a diverse range of threats, it should not be seen as a silver bullet. However, many scholars argue that the strategy of deterrence is still significant as it was during the Cold War. Lebovic (2007), for example, argues that deterrence is not a leftover conception of the Cold War and deterrence framework should be the central theme to counter the contemporary threats originating from terrorists and rogue states. He further highlights that deterrence may fail in some instances where other means may be engaged to curtail the threats. Drawing on an extensive range of sources, J. W. Knopf (2010) that deterrence has a better chance of success against state actors including rogue states in comparison to violent non-state actors, but he further argues that many scholars cast doubt even on the success of deterrence against state actors (pp.5-6). Most of the deterrence conceptions after 9/11 were focussed on how to deter actors involved in terrorism. One of the prominent ideas was of George (2003), who proposed the concept of 'Indirect deterrence' which aims to dissuade the third party who facilitates the aggressors instead of directly deterring the aggressors (p.465). Overall, there seems to be some evidence to indicate that the terrorism

may be better deterred by using the threat of punishment to the states and other enterprises which enable terrorist to conduct such activities instead of directly punishing the terrorists. However, Wyn Bowen argues that the states or other enterprises sponsoring terrorism may not give up quickly by the threats of punishment but he does not reject the idea of indirect deterrence (J. W. Knopf, 2010, p.11). Given all that has been mentioned so far, one may suppose that the fourth wave of deterrence aims to see the efficacy of deterrence strategies in a unique environment characterised by asymmetric and multidimensional threats from states and NSAs. The strategies like non-nuclear and non-military means of deterrence also gained prominence during this time frame along with improvisation in strategies of deterrence by denial and deterrence by punishment. Furthermore, many scholars argue that 'Fifth wave' of deterrence is commencing to cater for evolving nature of contemporary conflicts (Jackson, 2019, p.112). Prior (2018) Suggests that the fifth wave of deterrence aims to "establish socio-technical systems with the dynamic ability to anticipate and respond proactively to potential threats by learning and adapting" (p.64).

Deterrence and emerging types of warfare

Gray (2000) initially argued that deterrence in 21st century would be all the same as it was in the 20th Century and before, but later he concluded that it would be much more difficult because we will not know that whom to deter, why to deter and how to deter (pp.257-261). Grey's concluding argument highlights amply the complications of deterrence in the 21st Century owing to developments in technology and the changing nature of warfare. The identification of friend and foe is almost impossible in the contemporary grey zone and hybrid conflicts owing to the blurring boundaries between war and peace. Additionally, the surging participation of NSAs has made the modern battlefields increasingly ambiguous. Cullen and Kjennerud (2019) posed the question that, "it is not immediately obvious why applying the 'hybrid label' should fundamentally change our approach to deterring many long-existing threats" (p.1). However, what Cullen and Kjennerud (2019) fail to do is to understand the changing dynamics of warfare which goes beyond the labels and requires a transformation in doctrines and strategies to fight in new domains thud requiring at least similar or maybe higher level of change in deterring mechanisms.

J. W. Knopf (2010) contends that there is a debate between scholars about the role of deterrence against terrorism and diverse NSAs however there is a divide among scholars: few say that deterrence will prevail against terrorism while others say it will not. The key weakness of the study is the failure to address the implications for deterrence in relation to terrorism because there is no agreement even on the definition of terrorism. One nation's terrorists may be the freedom fighters for the other as it is happening in Kashmir and Palestine freedom movements which are being termed as terrorism movement by India and Israel respectively while freedom movements by Kashmiris and Palestinians. Matisek

(2017) draws our attention to the argument that the United States and allies are facing the challenge to deter the actors who are not scared of coercive strategies: those actors employ the information tools being enabled by globalisation to build narratives to stay undeterred (p.2). Matisek argument is valid for the for contemporary conflicts and the Western world as well as various countries in the East are facing similar challenges. The swift developments in technology have made the world a true global village. The ever increased accessibility of masses to high-speed internet, portable electronic gadgets, and social media platforms make complete control over narratives an impossible task. The affiliation of such actors with a state or state-sponsored actors can further compound the state of affairs.

Mallory (2018) suggests that the challenge to deter hybrid warfare actors operating in space and cyberspace will further aggravate the mechanics of operability of deterrence in hybrid warfare. Cyberspace is the most suitable terrain for the employment of grey zone warfare. The first clear manifestation of cyberspace in a hybrid/grey zone conflict is the Russian invasion of Georgia in 2008 (Mallory, 2018, p.6). The emergence of the cyber domain has supplemented to the intricacies of grey zone / hybrid warfare, and it further blurs the identities. The cyber-attacks can be conveniently conducted while sitting thousands of miles away from the intended targets. How to deter these actors operating in cyberspace is a further challenging debate, and the dilemma of attribution remains ambiguous. In their analysis of deterrence in hybrid warfare domain, Cullen and Kjennerud (2019) identify cyberspace dimension of hybrid warfare as the most challenging aspect to be deterred by existing strategies of deterrence (p.1). The dilemma of attribution makes cyberspace a perfect terrain for the employment of grey zone strategies. Ducaru (2016) suggests that a system of alliance deterrence may be effective to deter an aggressor in hybrid warfare domain and such a system may comprise higher levels of operational readiness, missile defence complemented by other conventional and nuclear deterrents (p.14). The deterrence mechanisms which worked well in the conventional realm may not work against the actors in employing grey zone strategies because they will not be deterred by coercive means, as suggested by Matisek (2017). The need to define and understand grey zone warfare is a prerequisite to create and maintain deterrence in grey zone conflicts. Therefore, this area needs more research and scholarly endeavours to see the operability of deterrence in Grey Zone Warfare.

Implications for deterrence in the realm of grey zone warfare

The introduction of concepts of Hybrid warfare and grey zone warfare further complicated the woes of researchers and policymakers who were still trying to cope with deterrence strategies in a unipolar world. Most of the debate in contemporary studies revolve around the question that, how can the United States and NATO allies deter adversaries that undermine their interests around the world? A small number of studies have attempted to explain the role of deterrence in

hybrid warfare and grey zone warfare, but interestingly almost all studies were conducted form the United States perspective. This approach makes all the studies unidirectional with a little overview of the broader picture. These studies only suggest the American deterrence strategies and neglect the grey zone threats elsewhere in the world. The evidence also suggests that the US is striving hard to maintain hegemonic posture; therefore, most of the studies focus only on the grey zone threats that challenge the US led world order (Matisek, 2017, pp.7-8). Similarly, Freier et al. (2016) argue that "The trends in international security and deliberate adversary activity clearly compel urgent and sophisticated U.S. defence adaptation to its unique demands" (p.3).

Matisek (2017) believes that modern grey zone warfare is unique in comparison to the traditional notion of war. Researchers, analysts and policymakers need to think out of the box about deterrence in the grey zone warfare, and the existing notion of deterrence may not operate in the realm of grey zone warfare (p.9). Contemporary complex spectrum of conflicts and international relations may make it increasingly challenging or inappropriate to employ traditional instruments of statecraft including diplomatic, political and economic domains. Decision makers may not dare to take risks which may lead to a direct military confrontation owing to associated risks and consequences(Votel, Cleveland, Connett, & Irwin, 2016, p.109). Another critical implication for deterrence in the grey zone relates to the system of governance in the defending country. Fitton (2016) argues that liberal democracies may not adopt coercive strategies due to inherent ambiguity in grey zone warfare due to the question of the legitimacy of such actions and moral binding. However, non-democratic regimes may not be restrained due to such obligations and may be able to adopt a broader set of deterrent actions against grey zone aggressors. Similarly, Freier et al. (2016) claim that the grey zone warfare has associated risk of unintentional escalation to a full scale war or steady erosion of significant redlines in the face of resolute opponents (p.3).

Nuclear deterrence in grey conflict: a case study of India and Pakistan

India and Pakistan were at odds since their independence from British Raj back in 1947, and this enduring rivalry is continuing through contemporary times. The complicated and hasty partition process of sub-continent produced mayhem by forcing approximately 11 million individuals to migrate between newly created states. This process of faulty partition and associated violence sowed the seeds of enmity between India and Pakistan in the shape of the disputed territories and unjustified distribution of state resources. Chari, Cheema, and Cohen (2009, p. 15), p.15 argue that India and Pakistan so-called democratic states have had approximately 15 conflicts and crisis of varying threshold since their independence in 1947. The concept of deterrence between both countries operates in all three domains underlined by Lorenz (2017): deterrence through denial, deterrence through punishment and extended deterrence. India and Pakistan primarily

approached deterrence by adopting deterrence through denial strategies and invested heavily to augment their defences by importing various defence systems from technologically advanced countries. Both countries also strengthened their relations with major powers to gain strategic leverages. However, after the declaration of nuclear capability in 1998 by both India and Pakistan, the concept of deterrence through denial transformed into the concept of deterrence through punishment. Narang (2010) also argues that the nuclear posturing matters a lot, especially in the South Asian context in defining asymmetry in deterrence and stability (p.39). In the case of Pakistan and India, the notion of extended deterrence is less prominent because no major power assured them the availability of the nuclear umbrella. However, India relied heavily on Russia and Pakistan looked towards the United States and China during several conflicts and crisis scenarios in the past. In contemporary landscape, Pakistan is trying to balance relations with the United States and China; meanwhile, India also enjoys good relations with the United States as well as Russia.

India and Pakistan have a conflict or crisis after every four years, which points out complications in operability of deterrence strategies in South Asia. The concept of conventional, as well as nuclear deterrence, functioned between the two countries most of the times, but the question arises how the concept of deterrence will operate with changing dynamics of conflicts? Vasquez (2005) suggests that nuclear deterrence could not singularly prevent crisis during the Cold War as well as in the case of India-Pakistan rivalry (p.76). Vasquez claim is based on substantial evidence as one can see even though both Pakistan and India possess the second-strike capability in the nuclear domain, the crisis manifest in one form or the other. Kargil conflict, 2001-02 stand-off, 2008 Mumbai attacks, Uri attacks, Pathankot attacks and now the Pulwama attacks and ensuing crisis are classical manifestations of flaws in deterrence strategies. The employment of various instruments of grey zone warfare like propaganda, media warfare, surgical strikes, and terrorist's attacks trailed by blame games further deteriorate the state of affairs. As Mallory (2018) highlights, "These stratagems are intended to sow confusion and uncertainty in the deterrer's ranks and to create a reasonable doubt as to the identity and responsibility of the ultimate instigator of the aggression"(p.5). Mallory's argument is tailored fit to the situation between Pakistan and India: there is always a confusion and uncertainty that who instigated what? The employment of grey zone warfare by both countries compounds the fog of war by concealing actions in ambiguity. The media hysteria further blurs the distinction between perception and reality by building narratives of hatred and jingoism.

Mallory's argument is also valid for the Pulwama attack because the source and patronage of miscreant, who conducted the attack, was ambiguous at the onset but India put blame straightforwardly on Pakistan without any evidence and linkages. Indian TV channels and social media further deteriorated the situation by stimulating public feelings through fake news and hate speech. India conducted

limited airstrikes on Balakot region of Azad Kashmir, which shows that the availability of nuclear arsenals could not avert the escalation in an ambiguous situation. The attribution was not established in this case, and Pakistan also denied any involvement in the Pulwama attack. Later on, it was established that indigenous Kashmiri conducted the attack but it was too late. Pakistan also responded with airstrikes, and Pakistan Air Force shot down two Indian Air Force jets due to which a sudden surge in escalation to the outbreak of a full-fledged war was imminent. Here the deterrence does not seem to operate, while the event was not directly attributable to Pakistan. Although, Jash-e-Muhammad, a banned outfit in Pakistan, accepted the responsibility for the attacks and Pakistan government expressly stated that Pakistan has no linkage with these acts of violence and also condemned the attacks (Hashim, 2019; India Today web Desk, 2019; Pandya, 2019; Rashid, 2019; The Economic Times, 2019). This incident shows that the concept of classic deterrence (Conventional and Nuclear) may not be operable in the realm of grey zone Warfare, because it was conceived in the traditional interstate rivalry. The changing nature of conflicts and non-state actors demand a different or improvised set of deterrence strategies.

Major findings from research

The primary aim was to comprehend the changing nature of warfare in order to understand the dynamics of grey zone warfare. The second aim of this study was to evaluate the operability of deterrence strategies in the realm of grey zone warfare. This research has identified the following major findings.

- a) The most prominent finding to emerge from this study is that the concept of grey zone warfare is not well defined, and there are contrasting themes which undermine the conceptual clarity. There is no universally accepted definition, and numerous terminologies are utilised to express the same context.
- b) The second major finding was that the grey zone is mostly defined in the context of the United States and many scholars argue that only those threats which undermine the US led world order constitute grey zone conflict. Similarly, most of the studies for countering grey zone warfare are conducted in the context of how the United States should counter threats emerging from Russia, China, North Korea and Iran. This approach neglects the grey zone employment elsewhere in the world like South Asia and the Middle East. This dissertation recommends that extensive research may be conducted in other regions for conceptual clarity and better understanding.
- c) Grey zone warfare is not a specific type of conflict; instead, it an operational environment where aggressors and defenders can adapt to changing dynamics. Therefore, there is no unique recipe to counter the grey zone warfare. The defenders also need to adapt to the changing dynamics through improvised and innovative strategies to effectively

- counter grey zone threats. The out of box strategies may be adopted to surprise the adversaries operating in grey zone.
- d) Actors employing grey zone warfare endeavour to remain ambiguous and pursue their strategic aims without any interference from international institutions, laws and norms. This ambiguity also creates the dilemma of attribution, and the aggressors have the leverage to deny involvement. The international community may take up this issue at appropriate forums like the United Nations General Assembly and the United Nations Security Council for the formulation of laws and norms to counter existing and future challenges in the grey zone. There is an immediate requirement to address issues related to cyber and information domains.
- e) Deterrence has evolved with the changing nature of warfare, but most of the existing deterrence strategies may not operate in the realm of grey zone warfare. Conventional coercive strategies and nuclear weapons may not dissuade non-state actors involved in grey zone conflicts. There is a requirement to build more resilient military systems and infrastructures to deter the challenges of grey zone warfare. Special forces operations would constitute an enormous part of future conflicts.
- f) A better understanding of the variable shades of grey zone warfare can assist in interpreting the activities of non-state and state actors operating in the grey zone, which will further support to devise grey zone deterrent measures. As Chambers (2016) argues that defining grey zone warfare concept can play a significant role for analysts, scholars, leaders and policymakers to have a shared understanding of the dynamic nature of contemporary conflicts to develop capabilities for countering and winning in a multifaceted world (p.22).

Conditions for successful deterrence

In his seminal article, Lorenz (2017) identifies four principal conditions for successful deterrence which are essential for influencing the calculations of a potential aggressor to avoid confrontations (p.26). The conditions suggested by Lorenz (2017) are:

- a) The defender should identify core interests and communicate to the potential aggressor that he is ready to defend those interests.
- b) The defender should clearly communicate the consequences if a red line is crossed.
- c) The defender should have the capability to follow through on his threats.
- d) Finally, the defender should exhibit that he is prepared to employ his capability to inflict costs on the potential aggressor.

Proposed deterrence strategies for grey zone warfare

Existing deterrence approaches may need to be improvised to effectively respond to aggression in the grey zone that remain below the threshold of a conventional war. As Arquilla (2018) argues that the modern aggressors are adopting innovative and novel ways of employing warfare but the US and its partners are stuck in the old fashioned concepts of conventional warfare (p.120). The new enemy cannot be deterred with the old strategies. The grey zone actors could be deterred by improvising the deterrents in line with the prevailing operating environment and as suggested by the Lorenz (2017).

- a) Human capital plays a significant role in developing and employing deterrence strategies in the modern world. The governments and militaries need to develop expertise in various fields like cyberspace to deter potential aggressors. If the expertise is not available, then deterring a skilled grey zone actor may not be possible. As Olson (2015) highlights "We need experts not just in warfare, but also in languages, foreign cultures, religions, global micro-regions and more...and reject our traditional notion of military victory in favour of local acceptance of enduring success."
- b) Matisek (2017) suggests the concept of pre-deterrence (p.23). The key objective of pre-deterrence is to dissuade individuals from joining networks of terror and insurgency. However, Troxell (2004) highlights that the extensive use of coercive force may be avoided in pre-deterrence strategies in order to be successful.
- c) The strategy of maintaining ambiguity in deterrence strategies can also play a significant role to deter grey zone aggressors. If the aggressor could not conceive the magnitude of response, then it will be challenging to act in uncertainty. As the UK official stance is "the United Kingdom (UK) employs a policy of deliberate ambiguity in its strategic nuclear deterrent. As a result, adversaries of the UK are unaware of "when, how and at what scale" (HM Government, 2006).
- d) The mutual interdependence in the economic domain can also be an effective deterrence strategy in the grey zone. Many countries in the world can wield greater influence on a particular state and non-state actors due to economic interdependence. China can influence North Korea, and Russia can influence Iran due to the economic stakes of Iran and North Korea. In the contemporary context, the potential consequences of a trade war between the United States and China act as a potent mutual deterrent to avoid direct confrontations (Dobbins, Gompert, Shlapak, & Scobell, 2011, p.vii).
- e) Canada's approach to accomplishing resilience in the grey zone and hybrid warfare relies on building resilience by countering vulnerabilities through integrated response by the governments and civilian. This strategy can be implemented at domestic as well as an international arena

- through social, political, economic, infrastructure and informational means (Jackson, 2019, p.112).
- Deterrence can be simply defined as an endeavour to discourage an adversary from aggression. The concept of deterrence dates back to ancient times, but the modern concept of deterrence emerged at the end of the Second World War with the invention of nuclear weapons. This concept gained prominence during late 1950 due to the dynamics of the Cold war. The deterrence theory emerged in four waves to cater to the changing nature of conflicts. The end of the Cold War and the employment of hybrid warfare and grey zone warfare have a significant impact on the existing deterrence strategies. The modern grey zone warfare is unique in comparison to the traditional notion of war. Researchers, analysts and policymakers need to think out of the box about deterrence in the grey zone warfare, and the existing notion of deterrence may not operate in the realm of grey zone warfare. Many scholars argue that the fifth wave of deterrence is commencing to counter actors employing grey zone and hybrid warfare strategies. Existing deterrence approaches may need to be improvised to effectively respond to aggression in the grey zone that remains below the threshold of a conventional war

Future of deterrence and grey zone warfare

Grey zone is the space between war and peace. Grey zone strategies have existed in warfare for centuries. However, globalisation and the recent developments in the fields of technology and communication have given a new life to those old strategies. Grey zone warfare will continue to dominate the spectrum of conflicts in the foreseeable future. The success of grey zone tactics is evident from the conflicts in Ukraine, the South China Sea, the Middle East and elsewhere around the world. Grey zone warfare will remain a major tool for state and non-state actors owing to its inherent advantages of non-attribution and deniability. The defenders will keep improvising their responses and deterrence strategies to cater to evolving threats. However, the aggressors will have the advantage of the initiative and will always come up with novel ideas to pursue their objectives. The future battlefields will also look entirely different in comparison to the contemporary milieu. The developments in Artificial Intelligence (AI) will change the landscape of conflicts. The humans may not be directly fighting in battlefields of the 2050 and beyond as robots and swarms of UAVs may be fighting. These developments will lead to new concepts of warfare and relative changes in deterrence Strategies. The world politics can never be purely idealist or realist; rather, these will keep on moving on the spectrum from one side to other. As wars are aimed to achieve political objectives through other means so warfare will also keep evolving.

The current COVID-19 pandemic has exposed the fragile nature of the world economy, politics and societies, COVID-19 has equally proved a disaster for developed, developing and underdeveloped economies. This shows that our current systems and infrastructures are fragile and can be easily hampered by manmade and natural disasters. The possibility of genetically modified viruses as an instrument of warfare cannot be ruled out as was conceived in the Chinese philosophy of Unrestricted Warfare. There is a requirement to make the economic and political systems more resilient to counter the challenges posed by the grey zone and ambiguous warfare. If the state systems are stronger, these will withstand future challenges. The states should seriously retrospect their internal, societal and economic fault lines for developing better societal, economic and military structures. Militaries around the world need to be restructured to face the future battlefields and extensive research is proposed in this regard to foresee the future force structures, equipment and training requirements. The grey zone challenges can be deterred with the innovative and highly flexible response in military, economic, diplomatic, societal and political domains. Policymakers, academia and practitioners need to develop out of box solutions for grey zone challenges. Adaptability will play a vital role in mitigating the challenges posed by grey zone warfare and innovation will be key for deterring the actors employing grey zone.

Reference

- Arquilla, J. (2018). Perils of the Gray Zone. Prism, 7(3), 118-129.
- August, M. B. (2016). *The red zone: Russian conflict management in the gray zone.* (10140836 M.S.), San Diego State University, Ann Arbor. Retrieved from
 - http://proquest.umi.com/login/athens?url=https://search.proquest.com/docvie w/1821910273?accountid=11979 ProQuest Dissertations & Theses A&I database.
- Bratton, P. C. (2020). The not so gray zone in South Asia. *Comparative Strategy*, 39(1), 41-61. doi: 10.1080/01495933.2020.1702346
- Chambers, J. (2016). Countering Gray-Zone Hybrid Threats: An Analysis of Russias New Generation Warfare and Implications for the US Army: US Military Academy-Modern War institute West Point United States.
- Chari, P. R., Cheema, P. I., & Cohen, S. P. (2009). Four crises and a peace process: American engagement in South Asia. Washington D.C.: Brookings Institution Press.
- Chiu, A. (2020). Trump has no qualms about calling coronavirus the 'Chinese Virus.' That's a dangerous attitude, experts say. Retrieved 05 04, 2020, from https://www.washingtonpost.com/nation/2020/03/20/coronavirus-trump-chinese-virus/
- Cruceru, V. (2014). On contemporary warfare: short review of specific concepts. Land Forces Academy Review, 19(3), 231.

- Cullen, P. J., & Kjennerud, E. R. (2017). Understanding Hybrid Warfare *A Multinational Capability Development Campaign project* London.
- Cullen, P. J., & Kjennerud, E. R. (2019). Hybrid Warfare: Understanding Deterrence *A Multinational Capability Development Campaign project* (pp. 6). London.
- Dobbins, J., Gompert, D. C., Shlapak, D. A., & Scobell, A. (2011). Conflict with China: Prospects, consequences, and strategies for deterrence: RAND ARROYO CENTER SANTA MONICA CA.
- Ducaru, S. D. (2016). The cyber dimension of modern hybrid warfare and its relevance for NATO. *Europolity-Continuity and Change in European Governance*, 10(1), 7-23.
- Fitton, O. (2016). Cyber Operations and Gray Zones
- Challenges for NATO. Connections, 15(2), 109-119.
- Freedman, L. (2004). Deterrence: Polity.
- Freier, N., Burnett, C. R., Cain Jr, W., Compton, C. D., Hankard, S. M., Hume, R. S., . . . Mouton, D. E. (2016). Outplayed: regaining strategic initiative in the gray zone: ARMY WAR COLLEGE CARLISLE BARRACKS PA CARLISLE BARRACKS United States.
- George, A. (2003). The need for influence theory and actor-specific behavioral models of adversaries. *Comparative Strategy*, 22(5), 463-487.
- Goldstein, J. S. (1999). International relations (3rd ed. ed.). New York: Longman.
- Gray, C. S. (2000). Deterrence in the 21st century. *Comparative Strategy*, 19(3), 255-261. doi: 10.1080/01495930008403211
- Hashim, A. (2019). What is Jaish-e-Muhammad? Retrieved 03 04, 2020, from https://www.aljazeera.com/news/2019/02/profile-jaish-muhammad-190215061851082.html
- Herţa, L.-M. (2017). *Hybrid Warfare–A Form of Asymmetric Conflict*. Paper presented at the International conference Knowledge-based organization.
- HM Government. (2006). The Future of the United Kingdom's Nuclear Deterrent: HM Stationery Office Norwich, UK.
- Hoffman, F. G. (2009, 2009/01//). Hybrid warfare and challenges. *Joint Force Quarterly*, 34+.
- India Today web Desk. (2019). Pulwama terror attack on CRPF indigenous, Pakistan was not involved, claims Imran Khan. Retrieved 14 12, 2019, from https://www.indiatoday.in/india/story/pulwama-terror-attack-indigenous-pakistan-not-involved-claims-imran-khan-1572829-2019-07-24
- Iqbal, S. (2018). Hybrid Warfare and its Impact on Pakistan's Security: Hybrid Warfare and its Impact on Pakistan's Security: Saghir Iqbal.
- Jackson, N. (2019). Deterrence, Resilience and Hybrid Wars: The Case of Canada and NATO. *Journal of Military and Strategic Studies*, 19(4).
- Kaldor, M. (2013). In defence of new wars. *Stability: International Journal of Security and Development*, 2(1).

- Knopf, J. (2008). Three items in one: Deterrence as concept, research program, and political issue.
- Knopf, J. W. (2010). The Fourth Wave in Deterrence Research. *Contemporary Security Policy*, 31(1), 1-33. doi: 10.1080/13523261003640819
- Lebovic, J. H. (2007). Deterring international terrorism and rogue states: US national security policy after 9/11: Routledge.
- Liang, Q., & Xiangsui, W. (1999). *Unrestricted warfare*: PLA Literature and Arts Publishing House Arts Beijing.
- Lorenz, W. (2017). The Evolution of Deterrence: From Cold War to Hybrid War. *The Polish Quarterly of International Affairs*, 26(2), 22-37.
- Mallory, K. (2018). New Challenges in Cross Domain Deterrence: RAND Corporation Santa Monica United States.
- Matisek, J. W. (2017). Shades of Gray Deterrence
- Issues of Fighting in the Gray Zone. Journal of Strategic Security, 10(3), 1-26.
- Mazarr, M. J. (2015). Mastering the gray zone: understanding a changing era of conflict: US Army War College Carlisle.
- Narang, V. (2010). Posturing for peace? Pakistan's nuclear postures and South Asian stability. *International Security*, 34(3), 38-78.
- Nemeth, W. J. (2002). Future war and Chechnya: a case for hybrid warfare. Monterey, California. Naval Postgraduate School.
- Olson, E. (2015). America's Not Ready for Today's Gray Wars. Defense One, 10.
- Pandya, A. (2019). The Future of Indo-Pak Relations after the Pulwama Attack. *Perspectives on Terrorism*, 13(2), 65-68.
- Prior, T. (2018). Resilience: The 'Fifth Wave'in the Evolution of Deterrence *Strategic Trends 2018: Key Developments in Global Affairs* (pp. 63-80): Center for Security Studies (CSS), ETH Zurich.
- Rashid, H. I. (2019). Jaish-e-Mohammed claims responsibility for Pulwama attacks. Retrieved 02 04, 2020, from https://economictimes.indiatimes.com/news/politics-and-nation/jaish-e-mohammed-claims-responsibility-for-pulwama-attacks/articleshow/68003116.cms
- The Economic Times. (2019). Pakistan claims to fulfilling sanctions obligations against Jaish-e-Mohammad. Retrieved 14 12, 2019, from //economictimes.indiatimes.com/articleshow/68036595.cms?from=mdr&utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst
- Thucydides. (1998). The History of the Peloponnesian War: Prometheus Books.
- Troxell, J. F. (2004). Military power and the use of force. *US Army War College Guide to National Security Policy and Strategy*, 187-210.
- UK government. (2019). *Joint Doctrine Note (JDN) 1/19, Deterrence: the defence contribution*. Swindon: The Development, Concepts and Doctrine Centre Retrieved from https://www.gov.uk/government/publications/deterrence-the-defence-contribution-jdn-119.
- Vasquez, J. A. (2005). General theories of war, rivalry, and deterrence. In T. V. Paul (Ed.), *The India-Pakistan Conflict: An Enduring Rivalry*. New York: Cambridge University Press.
- Votel, J. L., Cleveland, C. T., Connett, C. T., & Irwin, W. (2016). Unconventional warfare in the gray zone. *Joint Forces Quarterly*, 80(1), 101-109.
- Wither, J. K. (2016). Making Sense of Hybrid Warfare. *Connections* (18121098), 15(2).

Deterrence in	Realm	of Grey	Zone	Warfare