

New Warfare Domains and the Deterrence Theory Crisis

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Currently, we witness a volatile, polarized and destabilizing international security environment that has exposed us to the grey zones of war and peace. Security challenges arising from both hybrid threats and hybrid warfare (both multiple and synchronized threats that aim to target states' vulnerabilities at different levels covering domains other than military) seem to have held front seat on the global security agenda thereby altering the relevance of nuclear deterrence. Deterrence is generally understood as an ability to dissuade a state from embarking upon a course of action prejudicial to one's vital security interests, based on demonstrative capability. The nuclear deterrence theory, as propounded by Brodie (Brodie 1946, p. 76), which is grounded in political realism, enriches our thought process to comprehend the potential character of nuclear weapons. The focus of nuclear deterrence was on averting wars through the psychological manipulation of an adversary's mind. Thus, it is argued that renewed warfare domains and non-military threats seems to have marginalized the relevance of deterrence theory. Therefore, new mechanisms are required to defend societies and build a correlation between deterrence and evolving wide-ranging threats that are non-military in nature. It is further argued that a long-term holistic approach to deterrence as an instrument is needed that focuses on both current military and renewed non-military threats which cover political, economic, social and digital landscape.

Evolving Nature of Nuclear Deterrence

The end of World War II, for instance, witnessed the innovation of nuclear weapons along with their delivery means, which redefined the character of warfare. The introduction of nuclear weapons by the US, and later their use generated extensive debates in political and academic circles on the concept of deterrence. Although the world has never witnessed a two-sided nuclear war, nuclear competition between the US and the Soviet Union (now Russia) during the Cold War, taught us difficult lessons. In this context, US-based think tanks such as RAND and leading Western scholars such as Brodie (1946), Shelling (1966, p.22) and Wohlstetter (1959, pp. 211-234) made substantial contributions to the understanding of the character and role of nuclear weapons.

That said, we have witnessed four transmuting phases of the nuclear learning curve to date that suggest the transformation of the character of weapons and the nature of deterrence. For example, the first wave evolved after the innovation of nuclear technology, when strategists such as Bernard Brodie propagated that the invention of the atomic bomb had fundamentally altered the nature of war and strategic revolution had occurred. Brodie rightly asserted, 'thus far the chief purpose of our military establishment has been to win wars. From now on its chief purpose must be to avert them. It can have almost no other useful purpose' (Brodie, 1946). Here Brodie means that the possibility of 'total destruction' inherent in the use of nuclear weapons has made victory unachievable but at the same time he taught us that through risks of retaliation states could psychologically manipulate an adversary's mind. On a similar note, Robert J. Art contended that 'balance in the nuclear age is the power to hurt not the power to defeat.' (Art, 1985, p. 127) Thomas C. Shelling reminded us that '[v]ictory is no longer a prerequisite for hurting the enemy' which later modified and constrained states' behaviour towards a more rational direction. The above notions contextualize what we now refer to as Deterrence Theory (Morgan, 2003, p.8). Deterrence is generally understood as an ability to dissuade a state from embarking upon a course of action prejudicial to one's vital security interests, based on demonstrative capability.

The second phase emerged in the milieu of intense arms competition during the Cold War. The strategic concept of

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nuclear deterrence further evolved based on the diversified theoretical notions. As the Cold War developed, Thomas Schelling, one of the master thinkers along with Herman Kahn (Kahn, 1965) and Albert Wohlstetter, as well as Henry A. Kissinger, became fascinated with the complexities of nuclear strategy. Schelling in 'The Strategy of Conflict' categorized war as a 'bargaining process' in which enemies try to manipulate each other's expectations and intentions by means of threats, promises and action. He considered war as the art of deterrence, coercion and intimidation and nuclear weapons apt for punitive action (Schelling, 1960). William argues that Schelling introduced the concept of the focal point, often called the Schelling point, to explain a solution that people reach without benefit of communicating, relying instead on "each person's expectation of what the other expects him to expect to be expected to do" (William Grimes, 2016). In his *Meteors, Mischief, and War* (Schelling, 1960), Schelling debated the notion of accidental war. For Schelling, decisions cause war and accidents can trigger decisions. He gave remedy not just for preventing accidents but constraining decisions. In parallel, Herman Kahn in his *On Escalation* (Kahn, 1965), offered lessons to limit a potential risk of war to a certain level through escalation control strategies maintaining a degree of uncertainty to make deterrence credible.

The third-era thinkers focused on understanding the underlying reasons that had led to crises and the mechanisms to prevent such crises. They dedicated their attention to understand the process of compromising, as a degree of compromise can prevent or resolve conflicts (Henry Kissinger, 1973). The two superpowers got past the brink of confrontation to enter in an era of détente. US President Richard Nixon and Soviet leader Leonid Brezhnev pledged to permanently limit their countries' offensive nuclear arsenal. Thus, arms control mechanisms, a negotiating toolkit regulated some aspect of US and Soviet military capabilities or potential. These arrangements were applied to the location, amount, readiness, and types of military forces, weapons, and facilities in order to reduce risks of war. They forged some form of cooperation or joint actions regarding their military programs.

Gradually, the fourth phase emerged after the end of the Cold War on the applicability of deterrence. In contrast to earlier theories, non-traditional threats became a primary focus of strategic thinkers. The primacy of military security, the core traditionalist assumption, was questioned. The collapse of the Soviet Union brought down with it the whole military-political security agenda that had dominated world politics during the Cold War. Debates on the environment and the economy appeared more pronounced. Barry Buzan (1983) developed a holistic understanding of security thereby applying it to a wide range of subjects such as politics, economics, society and environment in addition to the traditional military sector without compromising the essence of the concept. During this phase, new nuclear weapon states such as India and Pakistan demonstrated nuclear capability in 1998 and developed their nuclear policies subsequently. India and Pakistan are historical rivals. India considers both China and Pakistan as security threats while Pakistan perceives an existential threat from India. The empirical evidence – such as the Kargil War in 1999, and a series of crises (Lalwani and Hannah, 2018) thereafter between India and Pakistan verified the emergence of the stability-instability paradox (Krepon, 2005) in South Asia. This means that nuclear weapons could avert major wars but peace remained fragile and war highly-likely at the conventional level. Thus deterrence did successfully avert war between the US and Soviet Union during the peak of Cold War but it substantially remained unstable and peace fragile between India and Pakistan.

Within this phase, major events such as 9/11 led to change the nature of warfare thereby exposing the world to the phenomena of asymmetric wars. 'Thus 9/11 not only exposed the inability of America to defend [its homeland]: by implication it also demonstrated that the US (Western) deterrence strategy had failed to protect against the challenges presented across a more contemporary spectrum of conflict, leading to the 'first war of the 21st century'' (Knott, 2004). Indeed, in response to 9/11, the US attack on Afghanistan was aimed at initiating military strikes as precisely as possible in order to control escalation and minimize collateral damage and preserve non-combatants. This, in a way, has questioned the relevance of nuclear weapons and deterrence theory (Norton-Taylor, 2001). Nuclear weapons appeared to be of no use against such threats and enemy. The US missile defence project also became irrelevant. Thereafter deterrence was no longer viewed only in the light of nuclear weapons and conventional war as renewed broader range of threats, including violent non-state actors and asymmetric warfare led to complicate the deterrence dynamics (Knott, 2004). The main question emerged whether deterrence could also be used against non-traditional threats such as terrorism? Many argued that nuclear weapons hold no utility against non-state actors or proxies. Nuclear weapons indeed could neither provide any solutions to deal with proxies between the two superpowers in Western Europe during the Cold War nor between India and Pakistan today.

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Currently we are witnessing the fifth wave in which deterrence is under further stress and crisis due to complex evolving patterns: One, the arrival of smarter technologies such as drones, artificial intelligence, supersonic glided vehicles, global prompt strikes (GPS) systems, rising asymmetries, states' changing doctrinal strategies such as concept of preemptive strikes (Abbasi and Khan, 2019) and a new normal on selective surgical strikes. For example, the US killing of Iranian general Suleimani (Thomas Seiber, 2020) and the recent Balakot strikes between India and Pakistan (Shahzad, 2019) have led to questions of the utility of nuclear weapons in a selective war theater. The contention is that the stronger states have adopted smarter technologies to engage selective targets in order to minimize collateral damages, reduce cost of war and avoid risks of escalation. It is evident that the probability of full-scale war has been reduced between rising and declining powers as Graham Allison rightly argues that war between US and China is not inevitable and avoidable because of interdependent trade relationship and stable nuclear deterrence and their ability to accommodate each other by striking a grand bargain. Allison proposes restraining America's commitment to Taiwan in exchange for concessions in the South and East China seas (Allison, 2017). However, considering the innovation of smarter technologies, smart, short and precise wars yet remain relevant in parallel to deployment of other hybrid means to achieve national goals. The presence of nuclear weapons may not get the US and China or India and Pakistan into a large-scale war due to fear of retaliation – but the probability of security driven arms races and the possibility of smart strikes and/or limited confrontations cannot be ruled out. Thus, smarter conventional technologies seem to be changing the course of nuclear weapons in the contemporary war theater.

Security challenges arising from both hybrid threats and hybrid war as explained by Hoffman (2007) have further complicated the threat spectrum and security settings between states. Hybrid war refers to the employment of unconventional strategies as part of a multi-domain warfighting approach. Through this method, the aim is to disrupt and disable an opponent's actions without exposing frontiers for an open aggression. There is universal clarity that hybrid warfare does include both multiple and synchronized threats that aim to target states' vulnerabilities at different levels covering their religion, military, political, economic, cyber and information domains. Hybrid warfare capabilities include the movement of conventional forces equipped with smarter technologies; nuclear force intimidation, trade wars, economic manipulation, energy coercion; propaganda and disinformation, use of proxies and insurgencies, diplomatic pressure and cyber disruption that are being employed through direct or covert means. In contemporary times, rapidly growing connectivity and reliance on information technology is a vulnerability that is being targeted by cyber-attacks. Futter argues, the growth of cyber capabilities and the associated technological dynamics of the information age are undoubtedly providing new challenges for established nuclear thinking. 'There is the challenge to safe, secure and reliable nuclear [command and control]; new problems for information security, proliferation and the safeguarding of highly sensitive nuclear secrets; challenges for strategic deterrence and escalation' (Futter, 2016). He highlights the growing threat posed by hackers seeking to gain access to, or interfere with, these highly sensitive systems, their infrastructure, and the weapons that they control (Futter, 2018).

There is an ongoing low intensity cyber conflict between nation states that includes attacks and counter-attacks on critical infrastructure, such as power grids. A further aim is targeting the enemy's military and civilian populations; and wider audiences of allies from whom it harvests global backing. Different agencies are involved in hybrid actions such as academia, state/private armies, militias, private military enterprises, media, diplomatic cells etc (Deep 2015). Thus, hybrid warfare deeply blurs the lines between civilian and combatant zones (Hoffman, 2007). Arguably, states no longer aspire to fight direct wars or escalate them while they aim at reducing the cost of war to achieve objective through non-military means. Nuclear deterrence cannot deter hybrid threats thus it no longer holds the central position that it had held during the Cold War, or in the early 2000s. Traditional deterrence theory does not offer lessons to resolve contemporary complex challenges arising from hybrid threats, therefore, new theories, thinkers and approaches are needed to deal with renewed threats. A question arises as to how deterrence correlates under such conditions?

Deterrence in New Warfare Domains

Deterrence has become more complex and volatile. Thus, a range of measures are needed to correlate deterrence to the evolving hybrid threats. More resources are required to enhance capabilities of non-military or civilian zones to deal with newer type of threats as deterrence holds no relevance to deal with the threats where an adversary is

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invisible.

1. States have to embrace unilateral measures to respond to hybrid threats by adopting a resilience approach.

The resilience approach is more appropriate for small or new nuclear weapon states. Arguably, response options to counter hybrid attacks are limited due to attribution factors and the dearth of readily available universal playbooks. Therefore, states' should: a) build advance public awareness while establishing an educational base to understand new wide-ranging challenges; b) deploy resources perceptively to conduct self-assessments in order to comprehend internal current vulnerabilities and that how hybrid warfare capabilities may exploit their internal gaps; c) adopt comprehensive, progressive and inclusive inter-agency methodologies while building the network-centric capabilities necessary to understand existing gaps to counter hybrid threats; d) human resource bases, and the implementation of software and hardware solutions are paramount; e) focus on civil preparedness as civil organizations and capabilities can be exposed to disruption and attack; f) manage, pre-empt or mitigate the probable consequences, rather than attempting to prevent attacks in the first place which is not conceivable. This means, strengthening the ability to absorb, adopt and recover from shocks by taking certain initiatives such as building physical, cognitive and legal resilience within societies to overcome vulnerabilities across political, economic and social spectrum – allowing media a proactive and responsible role in order to swill down distorted narratives through the range of electronic and social media campaigns.

2. Build correlation between resilience and deterrence.

The first approach in this context is deterrence by denial (Davis, 2014 – not counter-attack but defense). In this approach states make it physically hard for an adversary to achieve the desired objective. A prerequisite for establishing conventional deterrence is to advance greater precision capability to comprehend an adversary's intentions and actions that need to be dissuaded and assess under what scenarios military threats should be released. Deterrence by denial depends on fear, it aims at making adversary's aggression unprofitable by rendering the target harder to achieve. To make it credible, the defender has to procure smarter adequate lethal capabilities (not in counter-attack but in defense) in or near the likely site of aggression. Deterrence by denial strategy has been favored by small states, but it can also be used in an extended form by a great powers.

In parallel, for deterrence by punishment to work, the defender's threat has to be credible. States have to possess sufficient lethal smarter capabilities to carry through the threat. The defender's weapons have to be known to be capable of engaging the targets, evading or overcoming defenses, and either defeating an adversary's forces, devastating the population, or both. It also has to be clear that the defender is deeply attached to the object they are defending and what forms of behavior will prompt retaliation. Deterrence by punishment effort should be directed against the most severe hybrid threats while transmitting message to the adversary that such acts are beyond 'red lines' and will met with a punishment response. This will prepare for any contingency and respond appropriately to whatever actions an adversary takes in the conventional domain, adopting innovative ways and means that focus on minimizing damage thereby making war less costly.

Measures to Reduce Risks in Cross-domain

Bilateral measures are typically successful when the two states act rationally, or both adversaries aim at averting war and maximizing peace to further their socio-economic growth. Peace is always achieved through investments in non-military domains such as strength of negotiations, bilateral trust building, promoting trade and tourism (Placek, 2012). Deterrence is stabilized through arms control mechanisms, risks reduction measures, and the settlement of bilateral disputes through mediation or legal means. The US and the Soviet Union reduced risks through opening up communication channels, promoting negotiations, crafting arms control arrangements at the peak of the Cold War. Currently, both the US and China are behaving under anarchy as defensive realism suggests, without aiming at harming each other. It is due to this that 'China, is increasingly working within, rather than outside of, the Western order' (Ikenberry, 2008) and the US has no option but to accommodate China. 'In the age of nuclear deterrence, great-power war is, thankfully, no longer a mechanism of historical change. War-driven change has been abolished as a historical process' (Ikenberry, 2008). Although, the US-China relationship has evolved into one of the most

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complex and consequential relationships, they are moderating the security dilemma as both are working together on range of regional and global issues. For example, both jointly work on North Korean and Iranian nuclear ambitions, non-proliferation, climate change and global economic governance and mitigation of global financial crisis. Both regularly communicate, share thoughts on global governance, promote military to military relations in an effort to mitigate mistrust and misconceptions.

On the other hand, the suspension of communication between India and Pakistan, and a lack of arms restraint arrangements, makes it more difficult for periphery states to moderate the security dilemma. This is because the likelihood and number of conflict scenarios have increased while avenues for cooperation have decreased between the two states after India revoked its constitutional article 370 and 35A on Kashmir (Yasir Suhasini and Gettleman 2019). India has formally revoked the disputed state of Jammu and Kashmir's constitutional autonomy and split it into two federal territories in an attempt to integrate it fully into India. The Kashmir issue has become the most complicated conflict (amid evolving hybrid warfare trends), which may trigger any kind of aggression, and routine border skirmishes may convert into a future limited war leading to the possibility of a nuclear exchange in the near future (Kugelman, 2019). Thus the on-going developments in Kashmir in the wake of revocation of the Indian constitutional articles should not hinder the progress and effectiveness of the existing agreements or future confidence building measures (CBMs) between the two rival states. Trust building and bilateral discussions on controlling cross-border terrorism will create a space to discuss Kashmir.

Further, the emergence of new technologies and weapons systems, such as Ballistic Missiles Defense (BMD) systems and multiple independent re-entry vehicles (MIRVs), sea-based systems, and short-range missiles, have made deterrence stability in South Asia increasingly fragile. These technologies seem to be costly and less relevant in the future environment. Thus, a bilateral restraint regime mechanism needs to be institutionalized to constrain arms race problems between the two states as states and focus more on civil preparedness instead.

Comprehensive confidence building measures are important steps that lead to pushing the rival states in the direction to reach a compromise on the settlement of their disputes. Rival states pursue a strategic dialogue towards policies of nuclear restraint and mitigating asymmetries by adopting budgetary constraints. The following steps should be undertaken by the rival states in South Asia in order to achieve deterrent stability and avoid risks of accidental wars: One, demilitarizing their borders, thereby reducing the frequent ceasefire violations; two, promote shared identities through the flow of cross-border trade and economic cooperation to mitigate mistrust through trade and religious harmony; three, Cyber norms and laws need to be deployed at a bilateral level to regulate states' behavior; four, revival of the bilateral hotlines to make military-to-military communication effective; five, strike agreements on non-deployment of nuclear-capable ballistic missile systems and missile defense systems, thereby reducing the risks of nuclear escalation; six, conclude agreements on the non-deployment of weapon systems in outer space, sea and land; seven, promote restraints on increased readiness of arsenals and avoid measures that increase crisis instability; eight, enhance transparency in nuclear doctrines and postures; finally, within this, the US should play a lead role in initiating an official bilateral dialogue process between the regional nuclear rivals such as in South Asia to manage their conflicts, mitigate the nuclear risks and preserve global peace and stability.

The preconditions under which the United States can play a role of mediator to achieve the above goals is through a negotiated settlement of Jammu and Kashmir conducting impartial plebiscite under the auspices of the United Nations. The US's historic role has been significant as it enjoyed a degree of leverage and influence over both India and Pakistan. The role of the US through the implementation of the UN resolutions on Kashmir can help define a lasting solution on the Kashmir conflict thereby making regional nuclear rivals to manage their conflicts, mitigate the nuclear risks and preserve global peace and stability. Although South Asia is in the periphery of China, arguably, China may have greater influence over Islamabad but not over New Delhi as any crisis management proposal that China may propose will be bogged down by India due to its hedging policy against China (Abbasi and Khan). Therefore, China is unlikely to play a traditional crisis management role. But China can cooperate with the US on crisis prevention or de-escalation by using its leverage over Pakistan.

The above incremental approaches may construct a surface for realization of deterrence stability thereby offering states space to focus more on civil preparedness to deal with future threats.

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Conclusion

The international security environment has become immensely challenging, thereby transforming the character of warfare and nature of peace. The current international security environment has exposed states to the grey zones of war and peace where the adversary usually is not visible and threat perception has become a more challenging task. The emergence of hybrid threats and hybrid war has altered the nature of the battlefield thereby transforming the relevance of nuclear deterrence. Thus, this article suggests that synchronized strategies are needed to deal with today's threats thereby building correlation between deterrence and evolving threats that are non-military in nature. Therefore, it is argued that states should focus on a resilience approach thereby investing more efforts and resources on civil preparedness to absorb hybrid shocks. In parallel, a focus on building correlate with deterrence by denial and punishment strategies to achieve national goals is needed. A lot of competing technologies are likely to be less relevant in the future environment. Thus smarter conventional technologies seem to be changing the character of nuclear weapons in the contemporary war theater. For this reason, a bilateral restraint regime mechanism needs to be institutionalized to constrain costly arms race problems between states. Comprehensive confidence building measures are important steps that lead to encourage rival states to build trust, secure peace and mitigate differences in order to stabilize deterrence and minimize effects of hybrid threats.

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Rizwana Abbasi received her PhD from University of Leicester, UK specializing in International Security and Nuclear Non-proliferation. Presently she is a fellow of East West Institute, USA and Associate Professor in the Department of International relations at National University of Modern Languages, Islamabad. Previously Rizwana was associate professor in the School of Humanities and Social Sciences at Bahria University, Islamabad. Formerly she was placed as associate professors in the Department of International Relations at National Defense University, Islamabad. She was a Stimson Centre visiting fellow earlier. Rizwana was a post-doctoral research fellow and has been teaching at the University of Leicester. She was also a research fellow at the University of Leeds. She is a graduate of the Daniel K. Inouye Asia-Pacific Center for Security Studies (DKI APCSS), Hawaii, and USA. Her latest book is *Nuclear Deterrence in South Asia: New Technologies and Challenges to Sustainable Peace* (Oxford: Routledge, 2019). She has also authored: *Pakistan and the New Nuclear Taboo: Regional Deterrence and the International Arms Control Regime* (Oxford: Peter Lang, 2012).