INTRODUCTION

The question of the viability of deterrence strategies by non-nuclear states seems to suggest in itself that deterrence strategies involving nuclear weapons are more viable than those without. There is no doubt that one hydrogen bomb today can easily destroy an army of soldiers or, for that matter, an entire city. But powerful as they may be, nuclear weapons come with a lot of ramifications, from state alienation to a tradition of non-use, costs of acquisition and maintenance, security of storage and nuclear fallout. That said, nuclear weapons will continue to play an important role in deterrence strategies, so long as they still exist.

This essay argues that deterrence strategies by non-nuclear states are still viable while, conversely, deterrence strategies by nuclear states are not always effective. In order to determine the viability of deterrence strategies of non-nuclear states, it is necessary to first consider the roles that nuclear weapons play. Understanding the conditions under which nuclear weapons help or hinder aggression will aid in determining whether nuclear weapons improve or impair deterrence. The essay will highlight how nuclear acquisition can act as a nuclear counter-weight and an offset to conventional superiority, and also how deterrence can be achieved through non-nuclear means. To support generalisations made in the essay, various examples are drawn from the experiences of current nuclear powers as well as non-nuclear states facing nuclear and non-nuclear adversaries.

DEFINING DETERRENCE AND VIABILITY

For the purpose of this essay, we will adopt John Mearsheimer’s definition of deterrence as the ability to “dissuade an opponent from initiating an aggressive action because the costs and risks of doing so do not justify the perceived benefits.” The important point to note here is the comparison of costs and benefits, before an aggressor initiates an action.

Merriam-Webster defines the term ‘viable’ as “capable of working, functioning, or developing adequately.” Here, we must note that a ‘viable’ strategy is essentially one which is capable of working adequately, but not necessarily the best strategy. In other words, we can interpret that a deterrence strategy is viable so long as the state is able to dissuade an opponent from initiating a major offensive action to threaten her sovereignty.
At this point, we also introduce the theory of rational deterrence. The theory hinges on the fundamental assumption of rationality. Rational deterrence theorists posit that states will resort to war only when the expected net benefits of mounting a challenge to the status quo exceed the expected costs of overcoming the other state's defences. This theory further substantiates the point that rational states would not initiate an aggressive action, if the net benefits do not justify doing so. Therefore, to determine the costs of resorting to war, we must also take into account the effects of political and economic outcomes, not just military losses.

Based on the theory of Rational Deterrence, it is logical to exclude irrational actors when examining the deterrence factor of state actors. Irrational actors will include states which are ruled by psychopathic dictators or non-state actors such as terrorist groups. The motives of these actors to carry out acts of aggression are sometimes inexplicable and often for the purposes of fulfilling a personal vision, gaining attention or sympathy, showing dissatisfaction, or simply out of radicalism or individual heroism, their inclusion will skew the results of mainstream deterrence.

Based on these definitions, we will interpret the term ‘viability of deterrence strategies’ to mean deterrence strategies used by a state actor to adequately dissuade other rational state actors from carrying out acts of aggression to threaten her sovereignty after weighing the costs and benefits of doing so.

**NUCLEAR DETERRENCE**

Earlier, we determined that deterrence encompasses an element of cost-benefit analysis, the result of which helps a rational aggressor decide whether to act or not. Building on this understanding, we rationalise that the acquisition of nuclear weapons by a state actor is, therefore, to raise the cost of aggression to the highest level possible. If this level of cost is intolerable to the aggressor, then he will not act, and hence deterrence is achieved.

Interestingly, while the theory sounds perfectly logical, in practice, the deterrence created by the ‘absolute weapon’ has been, paradoxically, less than absolute. There are many reasons why nuclear deterrence has not worked as intended, amongst which some are aggression-related while others simply point to the disregard of nuclear deterrence. The acquisition of nuclear weapons by a state actor is, therefore, to raise the cost of aggression to the highest level possible. If this level of cost is intolerable to the aggressor, then he will not act, and hence deterrence is achieved.

In order to determine the viability of deterrence strategies by non-nuclear states, we must first analyse the role played by nuclear weapons in both deterrence...
and aggression, which are essentially two sides of the same coin.

“**The strong do what they will and the weak suffer what they must.**”

*Thucydides*

This familiar quote from Thucydides is essentially the mantra of those committed to *Realpolitik*, where politics is “based primarily on power and practical considerations, rather than ideological notions or moralistic premises.” By the same token, it is arguable that nuclear weapons are a modern manifestation of such coercive and amoral nature.

**As a Nuclear Counter-weight**

The race towards nuclearisation was sparked off by the first atomic bombs used by the United States (US) on Japan in the Second World War (WWII). Fortunately or unfortunately, the world was introduced to a weapon which was more definitive and absolute than any other conventional weapon. Its use on Hiroshima and Nagasaki forced the Japanese to surrender almost immediately, ending years of conventional fighting in the Pacific. Precisely because of this finality, both the Soviet Union (USSR) and subsequently China were convinced that their opponents would continue to use or threaten to use nuclear weapons to force them to accede to their demands, so long as they did not possess the ability for nuclear retaliation.

The Cold War era saw the entry of the USSR and China into the nuclear club, along with the United Kingdom (UK) and France. Notably, the two biggest producers of nuclear weapons were the United States (US) and the USSR. Together, they accounted for 98 percent of the approximately 128,000 nuclear weapons produced in the past sixty years. What is interesting for us to note is that although the prowess of the hydrogen bomb has developed up to a thousand times more powerful than the original Hiroshima atomic bomb, no nuclear states had used it against an adversary since WWII.

To this end, we assert that nuclear weapons had induced ‘nuclear peace’ during the Cold War. Because both the US and the USSR possessed mutual second-strike retaliation capability, there could be no clear-cut nuclear victory for either side. Essentially, this is the balance brought about by nuclear parity. On the flip side, it is also the cause of fear for a nuclear holocaust. As described by the former US Secretary of State Madeleine Albright, the nuclear threat was like “each night we knew that within minutes, perhaps through a misunderstanding, our world could end and morning never come.”

**An Offset to Conventional Superiority**

Next, nuclear states can also use nuclear threats or attacks to offset the conventional superiority of an opponent. In situations where the military powers of two opposing states are too far apart, nuclear acquisition can make up for the lack of conventional deterrence from the militarily inferior state.

Conventional deterrence, however, has its limitations and need to be complemented by diplomacy, political alliances, and economic co-operations to be more effective in deterring an aggressor.

The conventional superiority of the US has been the target of offsetting nuclear deterrent threats. It is understood that Chinese nuclear weapons are intended to prevent US conventional power from being brought to bear in any conflict over the status of Taiwan. Similarly, the nuclear threat posed by Pyongyang “helps compensate for the inferiority of North Korean conventional forces vis-à-vis those of the US and South Korea (ROK)” and might “deter the alliance from trying to topple the Kim regime in the event of war.”
NON-NUCLEAR DETERRENCE

Earlier, we examined the roles played by nuclear weapons. We established that the purpose of nuclearisation has been to serve as a counterweight in the case of superpowers and as an offset to conventional superiority for some smaller states. However, thus far, we have not observed, by action or by threat, any rational state relying on the apocalyptic nature of nuclear weapons to further an expansionistic ambition.

In fact, precisely due to the apocalyptic nature of nuclear weapons, resorting to their use has become a decision of genocidal magnitude and not a matter of operational employment. Most, if not all, nuclear-armed states preach a non-use and/or no-first-use policy. This non-usability underscores Muthiah Alagappa’s assertion that “total war between nuclear weapon states can serve no conceivable political purpose,” as both parties would suffer “irreparable damage” which can take many years to recover, if possible at all.9

In the 2010 Nuclear Posture Review, President Obama also highlighted that the long term goal of the US is the “complete elimination of nuclear weapons.”10 With this as the backdrop, we see that even the world’s most highly nuclear-armed state is reversing its nuclear posture to reduce and eventually eliminate its nuclear arsenals. From a practical standpoint, even before this review, we already observed that conventional military forces were involved in most of the military conflicts in the past half-century, regardless of whether the opponents possessed nuclear capabilities or not.

Some notable examples where conventional military forces were used against a nuclear adversary were the Berlin Blockade and the Korean War. In the 1948 Berlin Blockade, the Russians blockaded the US and her allies out of Berlin at a time when the US had “absolute hegemony in nuclear weapons and the means to deliver them” to Russian targets.11 Similarly, in 1950, the North Koreans and Chinese attacked the American army in Korea when neither North Korea nor its allies had any nuclear retaliation capabilities.12 These examples all point to the tradition of non-use or ‘nuclear taboo’ as a result of the catastrophes of Hiroshima and Nagasaki, and the importance of a conventional military force.

In the context of non-nuclear deterrence, we observe that the geographically or numerically disadvantaged side tends to commit more efforts and devotes a larger budget to building up a credible deterrent force, as in the case of Singapore and South Korea. But relying on military might alone may not be sufficient to deter aggression and ensure the survival and sovereignty of these states. In the following sections, we will examine in greater detail how deterrence is obtained by these states.

Conventional (Military) Deterrence

Edward Rhodes posits in his study that “conventional deterrence is much less likely than nuclear deterrence to result in a robust, stable stalemate. Conventional deterrence efforts yield a fluid and competitive strategic interaction that buys time during which underlying disputes or antagonisms can be resolved.”14 This view highlights the usefulness of conventional forces while undermining that of nuclear weapons in ‘traditional’ conflicts.

Rhodes further argues that “threats to deny potential adversary its objectives are more likely to be effective than threats to punish or retaliate.”15 This supports the proposition for deterrence by denial over deterrence by punishment or retaliation (including using nuclear means). In order to convince the enemy that his aggression will be denied, the use of conventional military forces is necessary to obtain that deterrent effect. Singapore is a case in point.

Singapore devotes around 6% of her annual Gross Domestic Product (GDP) to build and maintain a credible Singapore Armed Forces (SAF).16 Singapore’s defence policy centres on diplomacy and deterrence, and is aimed at protecting her sovereignty and
teritorial integrity.\textsuperscript{17} To achieve deterrence, Singapore makes known clearly its defence spending, equipment procurement, and intention to defend her interests by force, if necessary. We can establish, at least empirically, that in the past half-century since her independence in 1965, no major acts of aggression had been mounted on the city-state.

Similarly, in the case of the South Korea, (ROK), their military is ready to “exact swift, immediate punishment against the North for any provocative act it may seek to perpetrate.”\textsuperscript{18} While the ROK military seems credible, some may argue that it is her close alliance with US that has kept North Korea at bay. Although the US may assist with nuclear retaliation, it is posited that the next Korean War, if any, would still be fought by conventional forces, judging from the devotion of both sides to conventional military build-up. In the same vein, we question if North Korea would have taken bolder offensive actions in the past 60 years if not for a strong conventional military force to protect the interests of South Korea. Conventional deterrence, however, has its limitations and need to be complemented by diplomacy, political alliances, and economic co-operations to be more effective in deterring an aggressor.

**Politics and Diplomacy**

War is not an end in itself. War, as defined by Clausewitz, is “an act of force to compel our enemy to do our will” and it is “merely the continuation of politics by other means.”\textsuperscript{19} By the same token, if differences can be settled through politics, it would not be necessary to go to war. Hence, politicians play a key role in averting military actions by practising diplomacy and forging political alliances in peacetime.

Diplomacy emerges when polities with distinct identities need to establish regular exchange relations while keeping their own identities. Therefore, diplomacy mediates and reflects a particular combination of universalism and particularism.\textsuperscript{20} Essentially, this is what Singapore is trying to achieve for diplomacy.

Through close allies, non-nuclear states can also obtain some form of nuclear retaliation capability by seeking the protection of a nuclear-armed state.

Forums such as ASEAN Defence Ministers Meeting (ADMM), as well as ADMM-Plus and its Expert Working Group (EWGS) the ASEAN Regional Forum (ARF), the International Institute of Strategic Studies (IISS) Asia Security Forum (also known as the Shangri-La Dialogue), the ASEAN Chief of Armies Multilateral Meeting (ACAMM), and ASEAN Air Chiefs Conference (AACC) allow Singapore to discuss key issues and challenges on defence and security with its regional and extra-regional counterparts. Taking the lead in driving these forums also allows Singapore to exert its soft power to build diplomacy and foster practical security cooperation with the participants.

In addition, the SAF actively practises defence diplomacy with her neighbouring armies through frequent bilateral and multilateral exercises, personnel exchanges, contributions to regional Peace Keeping Operations (PKO) and Humanitarian Assistance and Disaster Reliefs (HADR) operations, such as PKO in East Timor and HADR mission to assist Indonesia in the aftermath of the 2004 Boxing Day Tsunami.

Through close allies, non-nuclear states can also obtain some form of nuclear retaliation capability by seeking the protection of a nuclear-armed state. Known as a nuclear guarantee, it is a commitment by one state to carry out nuclear retaliation on behalf of another. The US, for example, extends her nuclear deterrence to Japan, essential for the latter’s commitment to and efforts for global nuclear disarmament and not start its independent nuclear weapons programme.\textsuperscript{21}

**Economic Co-operations**

Political and economic motives are often closely intertwined. While the more outward aspect is nearly always political, the fundamental and more important cause of conflict is economic.\textsuperscript{22} In the past, a country
may wage war to acquire a rich contiguous territory or distant colony for the purpose of economic or natural resources. In modern times, however, this is less likely as the economic systems of countries are built not only on tangible resources but also non-tangible industries, such as service, finance, and knowledge-related industries. Hence, economic co-operations usually occur more at the policy level, where free trade agreements, tariff policies, and restrictions on foreign direct investments are negotiated. Essentially, it is fair to assert that the more the economic co-operations in a dyad, the more dependent they are on each other in terms of economic survival and attracting foreign investments and the less likely one would be disposed to attack the other.

Again, using Singapore for example, she is an active member of the Association of Southeast Asian Nations (ASEAN) and ASEAN Economic Community (AEC). To ensure that her success is not posing a threat to the neighbouring countries, Singapore leverages on ASEAN as a platform to promote bilateral and multilateral relations. AEC allows the members to anchor on one another’s strengths and widen the network and reach to regional and global markets. Leaders of member states would frequently hold talks to take stock of their co-operations and propose new ideas to deepen and broaden the co-operations. Such co-operations would deliver important trade and economic benefits to all member states while reinforcing bilateral and multilateral trades and investment linkages, resulting in closer integration of the economies of these states in the long run. Through this approach, Singapore develops and maintains friendly ties with her neighbours while continuing her success without inflaming a sense of resentment.

The case of Singapore illustrates the ability of a non-nuclear state to leverage on economic co-operations to turn her potential, aggressors into partnering members of a ‘regional company’, thereby deterring them from destroying their own ‘money spinner’. In addition, such forums also allow for diplomacy building, settlement of differences or disputes by a peaceful manner and even renunciation of the threat or use of force.

CONCLUSION

Nuclear weapons and deterrence strategies have been inextricably linked from the start of the nuclear era. But that does not imply that deterrence can only be achieved through the acquisition of nuclear weapons. In many instances, we have witnessed how non-nuclear states deterred aggression against nuclear as well as non-nuclear adversaries. It is therefore observed that conventional military forces still have a role to play in the nuclear age. At the same time, we also observed that deterrence strategies are most effective when they include other non-military aspects, such as political alliances, diplomacy, and economic co-operations.

While we acknowledge the role of nuclear weapons in deterrence, we also recognise that the effect of nuclear acquisition depends largely on who is acquiring the weapons, for what reason, and within what strategic context. Using examples of nuclear states, I have highlighted how nuclear acquisition can act as a counter-weight to a superpower and an offset to conventional superiority. On the other hand, I also used some examples of non-nuclear states to illustrate how deterrence can be achieved without resorting to nuclear weapons.

To reiterate, it is theorised in deterrence literature that a rational aggressor will only act if the benefits of resorting to war outweighs the costs of doing so. While it is true that the highest level of military deterrence is probably obtained by the possession of nuclear weapons, we argued that the costs of waging war should not be limited to military losses alone, but also to consider the losses of political alliances and economic co-operations. These considerations together form the deterrence ‘package’ offered by non-nuclear states.

In conclusion, this essay has argued that deterrence strategies by non-nuclear states are still viable while, conversely, deterrence strategies by nuclear states are not always effective. Non-nuclear states can rely on conventional deterrence, political
alliances and diplomacy, and economic co-operations to bolster the deterrence effect. The limited nature of modern wars, the tradition of non-use of nuclear weapons, and the fear of nuclear retaliation from nuclear guarantors can result in the failure of nuclear states to deter non-nuclear adversaries from mounting conventional wars on them. Under such circumstances, conventional forces and nuclear weapons will continue to find their own space to assert their roles in the military, without negating the viability of either in terms of deterrence.

ENDNOTES


8. Ibid.


12. Ibid.


15. Ibid. 223.


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The viability of the deterrence is created by an adversary’s fear of uncontrolled nuclear escalation. The second school of thought is known as complex nuclear deterrence. This recognizes that nuclear deterrence can be more complicated, requiring an understanding of the adversary and various scenarios that could play out, he said. This strategy also pays close attention to the nuclear balance and places a premium on ensuring the survivability of nuclear forces that can threaten the adversary. The complex nuclear deterrence approach has been the basis of U.S. nuclear policy since about the 1960s. Non-nuclear deterrence based on primarily forward-based advanced weapons systems and military equipment that are in heightened, if not constant, combat readiness is extremely expensive. At the same time, nuclear weapons have, to some degree, become a “weapon of the poor.” The strategy of “instilling fear” has worked for 75 years, mainly because of its psychological underpinnings, playing on people’s fear of a nuclear holocaust and the fact that there is a strong “nuclear taboo” in society. Together, these factors have given nuclear weapons a truly sacred status. This is why the non-nuclear deterrence of the United States and NATO is only possible on the level of deterring armed conflicts and local wars initiation. Deterring a Superior Adversary. It examines the influence of the tradition on the behavior of nuclear and non-nuclear states in crises and wars, and explores the tradition’s implications for nuclear non-proliferation regimes, deterrence theory, and policy. And it concludes by discussing the future of the tradition in the current global security environment. This article deals with the concept of indirect coercion as a distinct type of coercive strategy involving three actors. We introduce a taxonomy of triangular strategies commonly employed in international politics: hostage-taking™, patron-client™ and composite™ strategies.