



Unveiling India's Nuclear Posture: A Perspective through Posture Optimization Theory

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Abstract

The academic literature on nuclear weapons and safety overwhelmingly revolved around the United States and the Soviet Union. Some scholars have referred to it as a type of Cold War hangover in academic research in International Relations. There are seven nuclear states in the world: The United States, Russia, China, France, the United Kingdom, India, Pakistan, Israel, and North Korea. Seven out of these nine states are regional powers. The international nuclear security system's center of gravity has shifted from the superpowers to regional nuclear powers and aspiring nuclear states. Yet, their nuclear journey has not received enough scholarly attention. Even less attention is paid to what they do once they acquire nuclear weapons. The lexicon of the rivalry between superpowers is inadequate to understand the nuclear doctrine and posture of regional nuclear powers.

This paper is an attempt to fill this gap by presenting a study of India's nuclear posture. India finds itself in a tough position with two of its rival neighbors also acquiring nuclear weapons. In a volatile international system, countries have to make tough choices and rely on themselves for their safety. Kenneth Waltz called it the 'military logic of self-help'. Similarly, many revered theorists like Mearsheimer, Kapur, Sagan and Robert Jervis also hold positive views of nuclear weapons. These scholars argue that nuclear weapons make states more secure, reduce the risks of misperception and false optimism, deter aggression, and thus reduce conflict. This theoretical outlook, along with other factors as discussed further, fueled India's nuclear journey.

Keywords: Posture Optimization Theory, India's Nuclearization, Foreign Policy, Regional Security

Introduction

Understanding Nuclear Posture

In this paper, I have used Vipin Narang's definition of nuclear posture and Nuclear optimization theory. Nuclear posture is not declaratory, but operational nuclear doctrine. States place more importance on what can be done with the nuclear arsenal of other states. He defines nuclear posture as the nuclear capabilities of a state, the conditions in which they would be considered for use, and their production and management. The suitable nuclear posture for any country depends on multiple factors. However, what is required of a state's nuclear posture is that it can deter adversaries and reaffirm allies at the same time. It should be able to deter conflict but be capable enough to retaliate if the need arises without causing unnecessary destruction in the event of a war. Ideal consequences are not likely in the event of actual geo-political tensions. However, a well defined nuclear posture aids in sticking to the attested nuclear aims of the state.

There are three types of defined nuclear posture:

1. **Catalytic:** States that adopt a catalytic nuclear posture typically possess a lesser number of nuclear weapons but intend to deter adversaries by threat. In other words, the mere existence of these weapons serves as a deterrent against aggression. Israel and South Africa have adopted this posture for the larger part of their nuclear history.
2. **Assured Retaliation:** This posture depends on the state's capacity to survive the first strike and deliver a devastating retaliatory response. India and China are known to adopt this posture.
3. **Asymmetric Retaliation:** This posture is primarily developed in cases where the state is looking for the first use of nuclear weapons in a conflict. Pakistan is known for this posture.

Posture Optimization Theory

Posture Optimization Theory comes from the neoclassical realist school in International Relations theory. This theory explains how and why regional powers select their nuclear posture depending on their security threats, environment, and nuclear capabilities. At the domestic level, the primary concerns are the relationship between civil society and the military. The state's relationship with its neighbors and powerful allies also determines its nuclear posture. The chosen posture depends on a sequential variable series from the unit level to the structural level. Broadly, the regional power has to keep in mind

- The third-party actors interested in intervening in times of crisis
- Costs of these interventions by these actors.

Narang's theory of posture optimization outlines the factors influencing a state's choice among three defined postures. According to this theory, four key variables concerning a nuclear-capable state allow observers to predict its nuclear stance. If the state perceives the presence of a reliable third-party guarantor for security against aggression, it tends to adopt a catalytic nuclear posture to reinforce this positive security assurance. In the absence of a powerful patron and facing a conventionally superior nearby offensive threat, Narang's theory

suggests that the state will opt for an asymmetric escalation nuclear posture. If the state lacks both a strong patron and a threatening neighbor with superior conventional capabilities, Narang anticipates that its nuclear posture will be influenced by its civil-military arrangements. These arrangements are classified into two types: "assertive," where civilian political authorities tightly control the military, and "delegative," where the military enjoys significant autonomy in defense policy decisions.

India's Nuclear Posture

The Bill Clinton Government started the practice of publishing a Nuclear Posture Review (NPR) that details its nuclear choices, strategy, and vision. NPR becomes important for their administration and citizens to understand the state's capacity for nuclear deterrence and capabilities for a war. Unlike the US, India does not release a publicly available review of their nuclear posture. That is not to say that the Indian Nuclear journey has not been exciting for scholars to study. India's road towards nuclearisation has been complex and multifaceted, from the inception of Indian Atomic Energy by Homi Bhabha to its emergence as a regional nuclear power. Regional Nuclear Powers are known to choose identifiable nuclear postures

India's path to nuclearization began in the 1940s when it was still under British colonial rule. It was in light of America's devastating use of atom bombs in Japan that India's bright scientists, along with some visionary leaders, saw merit in strengthening India's nuclear arsenal. When Eminent physicist Homi J. Bhabha returned from Cambridge University to India in the 1930s, he set up the Tata Institute for Fundamental Research in 1945 with the support of the Tata family. After India's independence in 1947, Prime Minister Jawaharlal Nehru upheld his commitment to scientific thinking and supported Bhabha's vision of strengthening India's nuclear arsenal. The Department of Atomic Energy was created in 1954 and was headed by Bhabha under the Department of Scientific Research.

According to the optimisation theory discussed above, India has maintained a consistently assured retaliation posture. This posture has been specifically maintained against its nuclear adversaries China and Pakistan. This is because of three main factors

- The Non-Alignment Movement and the events that followed revealed that India does not have a reliable third-party state or a superpower to depend on.
- India did not feel the pressure to adopt a first-use posture against its adversaries despite China's nuclearization in 1964. India's conventional nuclear superiority over Pakistan and natural geographic factors buffering Chinese capabilities supported this rationale.
- The Indian civil society and military structures have been highly assertive. According to the posture optimization theory, India adopted an assured retaliation posture because it enables centralized control of its nuclear assets by deterring nuclear attacks.

Credible Minimum Deterrence in India's Nuclear Posture

The Cabinet Committee on Security (CCS) released a report titled 'Cabinet Committee on Security Reviews Progress in Operationalizing India's Nuclear Doctrine' in 2003. The first point of this report was 'Building and maintaining a credible minimum deterrence.' The term credible minimum deterrence is central to understanding India's nuclear doctrine. Credible Minimum Deterrence is a concept in nuclear strategy. Broadly, this indicates that a state needs to have a nuclear arsenal capable enough to deter adversaries. At the same time, the nuclear capacity should not exceed the required minimum threshold. It suggests that the nuclear arsenals will be minimal enough to provide credible deterrence against adversaries.

The rationale behind credible least deterrence is to find a balance between national security through prevention, deterrence, and proliferation. Countries which follow strive mainly for survivability, safety efficiency and reliability of their atomic stockpile rather than seeking numerical superiority or excessive expansionism in terms of capabilities associated with these weapons. Its implementation has always been viewed as a responsible approach towards the management of such devices so that they are never used again while ensuring international peace. India and Pakistan have both experienced shifts in their deterrence objectives due to their shared security concerns, as well as China's strategic modernization efforts.

The doctrine of CMD rests on two primary elements- minimalism and credibility. The minimum in this aspect can be understood as minimalism in approach towards capabilities, destruction, and political will. Minimum can be varying depending on the current need, size, posture etc.

India's Nuclear Journey

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Even though India confronted nuclear-equipped adversaries beginning around 1964, its leaders had the option to depend on nonmilitary measures (especially understood superpower support) to safeguard their country for the greater part of the Cold War, making the topic of getting the bomb less squeezing. Just when nonmilitary choices became nonviable toward the finish of the Cold War, India's leaders decided to put resources into a genuine military capacity.

The disappearing Soviet responsibility in the last part of the 1980s, combined with the disappointment of Rajiv Gandhi's conciliatory drives, prompted the formation of India's accepted atomic arms stockpile. Following the Cold War's end, India decided to foster a more clear capacity, not just because the BJP came to control, but additionally because it at this point was not delighted in outer support and because its endeavors to work on its security through strategy demonstrated were fruitless. India's eagerness to depend on understood help from the US and the Soviet Association for a significant part of the Cold War is a striking finding. It is conceivable that these implied responsibilities were believable to Indian pioneers, regardless of their ambiguities, because the superpowers were a lot more remarkable than China, especially in the atomic circle, and thus somewhat safe to counter from Beijing. Despite this, there is more to this story. Indian pioneers were likewise consoled by the discernment that the superpowers had solid interests in discouraging a Chinese atomic assault on India.

As L.K. Jha contended in 1967, neither Washington nor Moscow could bear to "hold on and watch" while China oppressed India. Indira Gandhi maintained her optimism that the Soviets would continue to view India's security as important despite the decline in American support. Further discussion is also required regarding India's recurrent efforts to enhance its security through international organizations. As verified over, India's disappointment in the NPT talks was a serious misfortune for New Delhi, one that left Indian pioneers on edge and more skeptical about demilitarization. Yet again twenty years after the fact, be that as it may, Rajiv Gandhi would seek after atomic demilitarization with serious interest. While Rajiv's energy immediately blurred, at any rate, a few Indian authorities were captivated by the chance of an atomic test boycott deal in the mid-1990s. One could credit this tenacious premium in atomic diplomacy to the financial requirements that India confronted, which made putting resources into atomic deadly implement unappealing, or to India's conventional administration in this field. Another key component, notwithstanding, was without a doubt Indian pioneers' view of superpower inclinations toward the finish of the Cold War. The signs of progress in superpower arms control and Rajiv Gandhi's meetings with Mikhail Gorbachev at the end of 1986 were important factors in the development of his action plan. A couple of years after the fact, J.N. Dixit's advantage in the CTBT was energized by connections with American authorities, who were anxious to close a test boycott to work with NPT restoration. Eventually, these political raids finished in disillusionment.

The 1998 Nuclear Tests

The 1998 Nuclear Tests conducted by India changed the course of the trajectory of India's nuclear journey. India successfully conducted three nuclear tests on May 11, 1998 in Pokhara, Rajasthan. Two other tests were conducted just two days later on May 13, 1998. These included a 45 kt thermonuclear device, a 15 kt fission device and a 0.2 kt sub-kiloton (i.e. less than 1 kiloton) device. The two nuclear devices detonated simultaneously on 13 May were also in the sub-kiloton range – 0.5 and 0.3 kt . It was code-named Operation Shakti, which is the Hindi word for strength. The most significant consequence of this test was that it rejected the nuclear hegemony of the existing nuclear powers. The existing nuclear weapon states, China, France, Russia, the United Kingdom, and the United States, which also happened to be the permanent five members

of the United Nations Security Council India's official stance towards nuclearisation went from hesitant and ambiguous to unapologetic and reassured.

Analysis

The tests reflect India's attempt to meet its unrequited goals for prestige and status in the international system. The exponents of this view hold that India has long sought and failed to find adequate recognition of its status in global affairs. Indian decision-makers, according to this logic, feel slighted by the most powerful states in the international community despite India's size, economic potential, and civilizational heritage. The tests, it is contended, were designed to confer on India's great power status. As Indians themselves have argued, it is no accident that the five permanent members of the UN Security Council possess nuclear weapons. But this argument fails to explain why previous regimes had not taken the same decision. If India's ebbing prestige had so concerned its elites, the tests should have come much earlier, especially in the waning days of the Cold War, when the country found itself adrift in the international sphere.

Another argument suggests that the decision to carry out the tests can be directly attributed to the rise of the BJP to dominance in India's government in March 1998. The argument holds that the BJP leaders, many of whom are virulently anti-Pakistani, wish to craft a strong, virile India to dominate the subcontinent. The demonstration of India's nuclear capability would send a message of India's enormous military power and prowess to its long-term adversary and recalcitrant neighbor and, in turn, would instill a degree of Pakistani restraint on the nettlesome Kashmir dispute. This argument has some merit but is nevertheless inadequate. Segments of the BJP leadership do have a profoundly chauvinistic bent and are indeed enamored of India's nuclear status. Moreover, the BJP election manifesto explicitly states that one of the party's intentions upon assuming power was to "induct nuclear weapons" into India's arsenal. Yet this argument ignores two critical pieces of evidence. First, the BJP government was heir to the huge scientific-military nuclear infrastructure that previous regimes of vastly divergent political persuasions had forged. The BJP-led government could not have carried out the May tests in the absence of this well-established nuclear program. Second, this argument ignores India's perceived security threats from growing Chinese military capabilities and arms transfers to Pakistan. The most immediate provocation, of course, was Pakistan's launch in March 1998 of the Chinese-assisted Ghauri missile.

At that point, however, Indian pioneers had purposes behind trusting that they could not. Following the CTBT discussions, India has zeroed in on the advancement of its own atomic weapons capacities. It has additionally gained significant headway in winning global acknowledgement of its atomic weapons program, particularly with the finish of the milestone "atomic arrangement" with the US in 2008. However, it would be inappropriate to presume that India has deserted nonmilitary ways to deal with nuclear security. India is probably not going to be keen on shielding under one more state's atomic umbrella in the years ahead, regardless of whether such assurance was advertised. Such a plan would involve key accommodation on India's part, and New Delhi has as of now borne the majority of the expenses of procuring an obvious atomic weapons store regardless. Under

the right circumstances, notwithstanding, India appears to put resources into new establishments in the atomic circle. To be sure, India currently stresses nuclear-equipped states, yet in addition to atomic psychological oppression, India's atomic munitions stockpile offers little security against this danger. Subsequently, while India stays careful about the CTBT, inspired by new foundations could diminish the probability of atomic material falling into psychological militant hands, like the Fissile Material End Arrangement. To put it simply, despite India's rise as an atomic power, India's nuclear odyssey remains a creating story, one in which nonmilitary ways to security might in any case assume a significant part.

India's refusal to be a party to the International Atomic Energy Association was one of the earliest official decisions reflecting India's interest in nuclearization. The IAEA had provisions that prohibited India's growth of its nuclear arsenal. Combined with the Baruch plan, which was the United States government's proposal to the United Nations Atomic Energy Commission, signaled that the superpowers were restricting the nuclear autonomy of the Non Nuclear Weapon States. The Baruch plan offered that if all other countries agreed to not produce atomic weapons, the US would decommission its nuclear technology. This plan was not received by other countries, including India, because of its unfair conditions.

Instead, two alternative steps were suggested by India.

1. Careful inspection and control of different plants, and the chemical separation plants in which special fissionable material was produced, coupled with the strict accounting of this material
2. Agreement among the states to regard production, testing, possession and the use of atomic weapons as a military act which would automatically attract previously agreed punitive measures.

Conclusion

In the limited time that India's nuclear posture was deeply studied, it has undergone a consistent change. Orthodox understanding of nuclear posture and capabilities do not necessarily hold true in the current International system. Understanding India's posture in its journey is crucial to understand its security behavior. The posture optimization theory offers a strong explanation of this evolution and its developments. This is not to claim that assured retaliation posture explains every feature and development in Indian Nuclear journey. However, it remains relevant for scholars of Nuclear strategy. India's security landscape and strained civil-military relations, which have solidified since independence, provide a more compelling rationale for the enduring nature of India's assured retaliation stance and the particular approach to managing its nuclear capabilities.

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