**Strategic Interactions**. A fundamental necessity is the **anticipated reaction of the opponents**. It involves explicit competitive interactions of different sides, akin to Game Theory. It is founded on departmentalization or decomposition of big problems into smaller manageable ones and decomposition back into coordinated policy. It provides the framework for coordinating individual parts into overall strategy. Military and civilian intelligence ends up functioning in departmental silos and may differ in varying of perceptions of opponents or trends. The integration of these departments with operational plans is facilitated. Moreover, lack of availability of key intelligence inputs to different departments may result in skewed analysis and premises of policy advise and formulation. Eg. Inadequate knowledge of shortcomings of Soviet bombers to RAND resulted in overestimation of their power, with inadvertent implications. Net assessment provides the overall framework of integrating opposing strategies to arrive at a net outcome by, subtraction of capabilities from gross capacities. It necessitated factoring an understanding of how the opponent sees the world and what metrics drive their behavior.

**Longer Time Span**. National security is impacted by either current event cycle eg terrorism in Kashmir, negotiations with North Korea or political administration eg. Right wing BJP dispensation with a nationalistic muscular approach or Trump administration. Short duration changes may not necessarily point to a certain deduction, which when viewed through a cumulative long term perspective changes the outcome dramatically. Net Assessment entails incorporation of a time span prism in arriving at strategic assessments eg. China in 2050. Moreover, the failure to visualize the growth of Japanese power pre-1941 could be the outcome of perceptions of power generated by elite-opinion makers, which lagged geo-political realities. Net assessment overcomes the pitfall of automatic assumptions as reality by studying the relationship of forces and perception of these forces. It is imperative that in the case of Pakistan, the dynamics of capability and considerations shaping choice of strategic nuclear posturing are assessed dispassionately. The automatic assumption that they possess Tactical Nuclear Weapons (TNW) and verbal rhetoric to use them, in case red lines of force destruction or geographical breach take place, needs a holistic assessment.

**Adequate Analysis**. Decision making may suffer from a lack of in-depth analysis as a result of failure of methodology or failure of imagination to ask the right questions, overlooking important aspects. Short-termism is often resultant of triangulation of immediate political and budgetary pressures and constraints, without seeking to establish the interrelationship between means and ends. The **critical question which must be sought to be resolved and guide assessment is “where will the current trends in my organization lead if nothing is done”.** In developing a response to Pakistan’s nuclear saber-rattling, this question begets fundamental reassessment. The fact is that nuclear blackmail has allowed Pakistan to succeed in constricting the threshold for conventional response, an Indian advantage, and allows continued resort to delinquent behavior and perpetuation of inflicting “a thousand cuts to bleed”, without fear of adequate retribution.

**Socio-Bureaucratic Behavior**. Net assessment differs from Operations Research and System Analysis (ORSA), in that it factors bureaucratic behavior and dynamics which shapes and guides policy. Allocation of budgetary resources are led by entities with political clout, rather than targeted outcomes to create capabilities which would nullify adversary strengths and exploit weaknesses. In India’s case the disproportionate clout of the Ordnance Factory Boards (OFBs), state controlled military industry, and bureaucracy over the procurement process has left critical shortfalls in defense preparedness. Governmental efforts to bridge the gaps are underway. Thankfully, the nuclear and missile development programme succeeded in overcoming inertia and have achieved substantial milestones providing India with a credible deterrence backed by sound doctrine. In dealing with Pakistan’s nuclear umbrella, a multitude of actors need to be factored creating a muddled bureaucratic framework, injecting the fear of irrationality. The behavior of the military establishment and the propensity to exploit it’s nexus with the jihadists, often results in arriving at doomsday scenarios and outcomes suggesting the failure of strategic stability of Mutually Assured Destruction (MAD). The difference of the strategic choices of India and Pakistan needs to be understood. India’s promulgated nuclear doctrine of ‘No First Use’ and ‘No Use Against Non-nuclear State’ attributes a deep sense of responsibility.

In “Pakistan’s Strategic Culture and Deterrence Stability on the Subcontinent,” Rasul Bakhsh Rais argues that Pakistan’s strategic culture has mixed characteristics of malleability and hardiness. He identifies the core elements of Pakistan’s strategic culture as countering Indian dominance, the primacy of national security, pride in Muslim sovereignty, and reliance on a proactive means of national defense.

Pakistan’s national security managers have decided that the risks involved with inducting short-range nuclear-capable systems are worth the benefits of deterring Indian ground forces.

Sarang Shidore’s essay, “India’s Strategic Culture and Deterrence Stability on the Subcontinent,” nuclear minimalism and strategic restraint — are increasingly under stress, and that modifications of these precepts are likely to increase deterrence instability. He concludes that the rise of realism in Indian national security policy will challenge India’s strategic restraint.

India’s no first use (NFU) doctrine and its declaratory posture of massive retaliation.

In “Pakistan’s Tactical Nuclear Weapons: Operational Myths and Realities,” Jeffrey D. McCausland compares Pakistan’s embrace of short-range nuclear-capable systems to that of NATO’s during the Cold War. He explores the enormous operational and practical challenges that US and NATO military planners faced — which were never resolved — and argues that Pakistani military planners will likely fare no better. McCausland concludes that the induction of short-range nuclear-capable delivery vehicles on the subcontinent — particularly if deployed at scale — is both dangerous and problematic.

Pakistan’s security managers are making headway to reclaim the writ of the state against violent extremists — but not against those who are dead-set against more normal ties with India.

**Deterrence Instability and Nuclear Weapons in South Asia**

**THE MYTH OF DETERRENCE STABILITY BETWEEN NUCLEAR-ARMED RIVALS Michael Krepon**

deterrence stability will be elusive unless Pakistan’s military leaders endorse normal relations with India. This would entail resolving or publicly setting aside the Kashmir dispute and opening up direct trade and investment. As long as a settlement or deferment of the Kashmir issue is unlikely, and as long as jihadi groups that can carry out sophisticated terrorist acts against India remain in place, the subcontinent will face conditions of significant deterrence instability

Windows for pursuing a resolution of the Kashmir issue or agreeing to set this issue aside have been rarely open, and soon closed, by explosions carried out by groups linked to Pakistan’s military and intelligence services and by domestic political pressures.

The 1999 Kargil War followed hot tests of nuclear devices. Dramatic acts of terrorism directed against iconic targets in major Indian cities added elements to the stability-instability paradox that were entirely unanticipated by Western deterrence strategists. Chastened by their inability to respond quickly to the incursion above Kargil and to dramatic acts of terrorism emanating from Pakistan, Indian military leaders took a hard look at force mobilization and structure. The Indian army proposed ways to mobilize more quickly; defense bureaucrats and political leaders balked; and the army, air force, and navy continued to go their own ways. But Pakistan’s military planners took seriously India’s aspirational goals for ground campaigns to punish Pakistan quickly after grievous acts of terrorism, before international crisis management could be employed. In order to offset Indian conventional power, Rawalpindi embraced short-range nuclear-capable systems.

The resulting Kargil War in 1999, followed by the 2001-2002 “Twin Peaks” crisis (sparked by a brazen attack against the Indian Parliament building by extremists based in Pakistan), shook the foundations of nuclear minimalism. These events clarified beyond doubt that the advent of nuclear weapons would not usher in a new era of deterrence stability. Instead, 30 The Myth of Deterrence Stability between Nuclear-Armed Rivals risk-taking by Pakistan lent credence to another construct of Western deterrence strategists — the stability-instability paradox.28 One of the first to anticipate the downside risks of offsetting nuclear deterrents was Glenn Snyder, who accurately predicted disconnects between nuclear deterrence and stability by observing that “a range of minor ventures” might be undertaken with impunity under the nuclear threshold.29 Likewise, Robert Jervis wrote, “To the extent that the military balance is stable at the level of all-out nuclear war, it will become less stable at lower levels of violence.”30

growing increments of nuclear capability were perceived to be associated with war-fighting plans, which exacerbated instabilities related to conventional force imbalances and deeply held grievances. The stability-instability paradox reappeared on the subcontinent with a new feature — subconventional warfare. Pakistan’s military and intelligence services heated up a proxy war across the Kashmir divide after helping to drive Soviet troops out of Afghanistan and when covert nuclear capabilities were in hand. The 1999 Kargil War followed hot tests of nuclear devices. Dramatic acts of terrorism directed against iconic targets in major Indian cities added elements to the stability-instability paradox that were entirely unanticipated by Western deterrence strategists. Chastened by their inability to respond quickly to the incursion above Kargil and to dramatic acts of terrorism emanating from Pakistan, Indian military leaders took a hard look at force mobilization and structure. The Indian army proposed ways to mobilize more quickly; defense bureaucrats and political leaders balked; and the army, air force, and navy continued to go their own ways. But Pakistan’s military planners took seriously India’s aspirational goals for ground campaigns to punish Pakistan quickly after grievous acts of terrorism, before international crisis management could be employed. In order to offset Indian conventional power, Rawalpindi embraced short-range nuclear-capable systems.

The IndiaPakistan nuclear competition is about religion, inheritance, geography, and regional security, as well as subconventional and limited conventional warfare. As hard as it was for the United States and the Soviet Union to stabilize their nuclear competition, it will be harder still for India and Pakistan — even though they are competing modestly in comparison to the nuclear superpowers.

The key condition for deterrence stability — the absence of something to fight about —

**THE CREDIBILITY OF INDIA’S NUCLEAR DETERRENT Manoj Joshi**

Another mass-casualty attack in India that can be traced back to Pakistan is more likely to force the government’s hand, especially a government led by a self-professed nationalist party. So far, the Indian responses have been army-centric, moving up the escalation ladder from a possible commando raid on a camp in Pakistan, a cross-LoC operation, or a full-scale attack on Pakistan. India does have other options, however, which include strikes by aircraft or cruise missiles. New systems, such as BrahMos supersonic cruise missiles or the KH-59 series of guided aerial bombs, can deliver aerial strikes on targets in Pakistan from Indian territory or from the high seas.

India’s internal security picture has also improved. It has neutralized the major Islamist terrorist group the Indian Mujahideen, through the arrest of key leaders in 2014. India has bought a cease-fire with most of the armed groups in the northeast, and has used its classical strategies of saam (suasion), daam (purchase), dand (punishment), and bhed (sow divisions) to neutralize many separatist insurgencies and movements. The Maoists remain a problem, but are confined to a forested and poor part of India, with little or no chance that a Maoist insurgency will spread to other parts of the country.

All this suggests that India’s ambivalent approach to nuclear weapons, rooted in its advocacy of nuclear disarmament and its embrace of minimum deterrence and NFU, may be shifting.

**AN EVOLVING INDIAN NUCLEAR DOCTRINE? Shashank Joshi**

Some opponents of NFU have gone further, and set out operational and strategic rationales for dropping NFU. For example, D. Suba Chandran, director of the Institute for Peace and Conflict Studies (IPCS), a prominent Indian think tank, advocated jettisoning NFU in a June 2010 essay, on the threefold basis that the pledge (1) prioritized survivability, and therefore necessitated a larger arsenal than was consistent with minimalism, and so increased the risk of arms-racing; (2) was disbelieved by Pakistan; and (3) being disbelieved, encouraged Pakistan to conduct subconventional and proxy warfare under India’s nuclear threshold.30

**PAKISTAN’S STRATEGIC CULTURE AND DETERRENCE STABILITY ON THE SUBCONTINENT Rasul Bakhsh Rais**

In Cohen’s view, three elements are central to Pakistan’s strategy: offensive defense, internationalizing disputes with India, and strategic defense or deterrence.20

s. India has remained at the center of Pakistani security narratives, and not just in military circles. This view has a wide ownership, including the major political parties, the media, and dominant intellectual elites.

Muhammad Tehsin writes about two sources of Pakistan’s strategic culture. The first emanates fromIslamic identity and disposition of the elite, the society, and political actors in the society. This manifests in support for Islamic causes such as the liberation of Kashmir

These central elements might be characterized as countering Indian dominance; supporting the primacy of national security; taking pride in and harboring grievances regarding Muslim sovereignty; and relying on a proactive defense posture, most recently manifested in Pakistani nuclear posture

After independence, communal violence, the transmigration of millions of people from both sides on the basis of religion, and untellable atrocities committed during the exchange of populations sealed adversary images.26 The partition of British India drew “lines of fire and blood,”27 leaving deep wounds that have shaped the foreign and national security policies on both sides. Pakistan’s narrative of India is one of injustice over Kashmir, non-reconciliation with the idea of a sovereign Muslim state, and unending hostility because Pakistan separated itself from India.28 These ideas run deep in the society within which political leaders, army officers, and the bureaucrats are raised to assume Deterrence Instability and Nuclear Weapons in South Asia 101 important roles in decision-making.

Pakistan’s self-image as a proud, sovereign Muslim state reflects the confluence of three streams of thought. First, there is an idealistic stream — of standing up against injustice with a religious resolve and determination when it comes to supporting struggles against the occupation of Muslim lands. This takes expression most strongly in opposition to India’s annexation of parts of the old princely state of Jammu and Kashmir, which is regarded as unjust, unfair, and against the principle of self-determination of the peoples of that region.36

This key element of Pakistan’s strategic culture — adopting a proactive defense posture — has been manifested in conventional military plans and the utilization of nonstate actors. Pakistan’s approach to nuclear deterrence also reflects the imperative of not allowing a conventionally advantaged India to compel Pakistan to take unwanted actions or to defeat it in warfare.

, it incorporates tactical nuclear weapons with conventional capabilities. Pakistan’s conventional military posture of offensive defense consumes a large share of the country’s budgetary outlays.38 Subconventional warfare — such as insurgencies, low-intensity warfare through proxies and nonstate actors, armed struggles by ideological and social groups, and guerrilla warfare — are another means of offensive defense. Pakistan, like other states in the region and around the world, has incorporated low-intensity warfare doctrines to strain the military resources of an adversary. The struggle to evict the Soviet Union was premised on raising the cost of remaining in place to an unacceptable level. This strategy worked, but not without serious blowback effects on Pakistan and regional security. Pakistan’s security managers then replicated these tactics in Kashmir, taking advantage of post-Afghan jihadi culture to keep a significant number of Indian forces tied down in counterinsurgency operations.

The latter are declared to be for use against Indian conventional formations when they are employed offensively — even inside Pakistani territory, if necessary. Ambiguity about choices, capacity, and employment doctrine are maintained to keep the adversary guessing. Possession of nuclear weapons, tactical capability to deploy such weapons in battlefield situations, and maintaining the first-strike option are important ingredients of Pakistan’s strategic deterrence: These postulates reflect Pakistan’s reliance on offensive defense in the nuclear domain.

Pakistan’s nuclear posture of offensive defense poses serious problems of deterrence stability. The integration of tactical or short-range nuclear-capable delivery systems into a conventional defense of Pakistan adds serious problems of horizontal and vertical escalation.

Indian strategic culture seems to believe in bleeding Pakistan white; Pakistani strategic culture believes it can afford a strategic competition.

The rivalry of the subcontinent, as between the superpowers, has been played out in proxy wars. Nuclear capabilities provide the backdrop to subconventional conflicts.

The 1971 war had a profound impact on Pakistan’s strategic thinking — reinforcing India’s enemy image and prompting a search of security independence by means of nuclear weapons. The American-led war in Afghanistan has also had profound effects on Pakistan — first by the embrace of jihadi groups by national security managers to dislodge Soviet forces, then by their redirection to punish India,

**INDIA’S STRATEGIC CULTURE AND DETERRENCE STABILITY ON THE SUBCONTINENT Sarang Shidore**

The three ideational frameworks are realism, moralism, and liberal globalism, while the five operational strategic elements can be described as nuclear minimalism, firm civilian control over the military, preservation of the territorial status quo, strategic restraint, and strategic autonomy.

This essay takes Johnston’s definition of strategic culture as a basis for its arguments, but also incorporates constructivist insights with regard to processes of ideational change. Johnston defines strategic culture as follows. Strategic culture is an integrated system of symbols (i.e., argumentation structures, languages, analogies, metaphors, etc.) that acts to establish pervasive and long-lasting grand strategic preferences by formulating concepts of the role and efficacy of force in interstate political affairs, and by clothing these assumptions with such an aura of factuality that the strategic preferences seem uniquely realistic and efficacious.12

Johnston further divides strategic culture into two levels.13 The first consists of the central strategic paradigm, embodying core assumptions about the strategic environment along three axes — the role of war (inevitable or an aberration), the nature of an adversary and its threat (zero-sum or variable-sum), and the efficacy of the use of force. More than one central strategic paradigm can exist in a given state. The second level is the operational level, which embodies the choice of grand strategies to meet defined threats in the environment; in other words, high-level policy preferences, such as offense over defense, that drive a state’s behavior. The symbolic and linguistic element in strategic culture is key, as these are the means through which meaning and preferences are communicated across time and space and contribute to its persistence

The existence of two strategies in ancient Deterrence Instability and Nuclear Weapons in South Asia 123 India was noted: a realist one following the Kautilya, and a moralist one centered on the concept of dharma.

Swarna Rajagopalan examined the influence of the great Hindu epics Ramayana and Mahabharata on Indian grand strategy, and observed echoes of the ancient concept of dharma, or right and proper conduct, in modern India’s propensity for framing itself in moral terms in international affairs.19

Kanti Bajpai’s work identified six major strands in India’s strategic thought, the more influential ones being Nehruvian, neoliberal, and hyperrealist.24 Nehruvians, according to Bajpai, are mainly distinguished by an emphasis on communication and contact as a means of transforming adversaries into allies, and a strong commitment to keeping great powers out of the affairs of the subcontinent. Neoliberals see trade and economic liberalization as a means to pragmatically improve conflictual relations with neighbors and welcome the role of one particular great power — the United States — as an Indian partner, aiding India’s rise on the global stage. Hyperrealists take the most nationalistic stance of the three, believing that force and balance of power have significant roles in Indian foreign policy, and that India should ultimately aim to become a great power itself through a conscious process of militarization and assertion of its national interests. Bajpai also contended that neoliberals had the upper hand in current Indian strategic practice.

Two recent studies, rather than theorizing the totality of Indian strategic culture, have instead focused on its specific facets. Vipin Narang and Paul Staniland examined the endurance of strategic autonomy in the discourse of Indian leaders since Nehru.28 The study argued that this principle was one way to guard against a historically validated risk of an alliance turning into domination, and retained a strong presence in Indian strategic culture. Sunil Dasgupta and Stephen Cohen argued that a deeply held doctrine of strategic restraint exists in Indian security policy, with its roots in the worldview of the Indian independence movement.29 They pointed to several pieces of evidence demonstrating strategic restraint — including the long delay between its first nuclear test and overt weaponization, and the lack of a military response after the 2008 Mumbai attacks. They concluded that India’s strategic restraint was likely to be preserved, in spite of continuing pressures from the fraught relationship with Pakistan.

Table 1: India’s Three Central Strategic Paradigms Moralism Realism Liberal Globalism Role of War Rare and only under extreme circumstances Common structural feature of international system Occasional and limited Nature of adversary Nonzero sum Zero sum Nonzero sum Efficacy of use of force Ineffective and counterproductive in most circumstances Often effective if means and ends are coherent Effective in some bounded circumstances as a deterrent Grand Strategy Emphasis Values Hard Power Economics Philosophical orientation Optimistic Pessimistic Utilitarian Modernday Norm Entrepreneurs Jawaharlal Nehru, Mahatma Gandhi Vallabhbhai Patel, Indira Gandhi P. V. Narasimha Rao, Manmohan Singh

Moralism is the foundational paradigm of the Indian state, rooted in its civilizational ethos and anti-colonial, nonviolent independence struggle.38 This worldview lays stress on principles rather than power politics, is reluctant to use force, and has historically tended to back causes that favor the Global South. Moralism as a strategic culture element has a long history in Indian discourse and action

The difference between offensive and defensive versions of realism can be found in the Indian debate.41 Offensive realism in India, focused on power maximization and dismissive of international institutions, emphasizes state sovereignty and decisional autonomy, and is generally opposed to the international nonproliferation regime.42 Defensive realism, however, adopts a more internationalist lens, and looks favorably toward the United States as a possible force-multiplier aiding India’s rise. Defensive realism argues that strategic autonomy ought to be replaced with the concept of responsibility in order for India to gain influence in the global order.43 It also embraces soft power, such as international aid programs, as a means for expanding Indian influence. Offensive realists are more inclined to respond punitively to any terrorist acts originating in Pakistan. Defensive realists, while not skittish about using military power, are more inclined toward reaching an accommodation with Pakistan through the use of economic tools, with their overarching strategic goal for India to emerge as a great power beyond the constraints of South Asia. In broadening its understanding of power to include economic power, defensive realism often finds common cause with liberal globalism.

India is fundamentally a territorially satisfied state. Although it has contested borders with Pakistan, it does not actively seek the annexation of new territory, and the preservation of the status quo on its borders has been a key element of its grand strategy.58 One marker of this is India’s attitude toward the Line of Control (LoC) that divides Kashmir. India has been largely unassertive in pursuing its claims on the Pakistani-administered portion of Kashmir (with a quarter of undivided Kashmir’s population). New Delhi has done very little to regain what it considers a part of its territory, as contrasted to Pakistan’s herculean efforts at regaining the Kashmir Valley from Indian control. A complete military victory in the 1971 war did not lead India to annex all or part of Pakistani-administered Kashmir. Another indicator is the Kargil crisis in 1999, when Pakistani troops intruded deep into Indian-held territory in northern Kashmir.59 The goal of the Indian military and political response was to restore the sanctity of the LoC. India did not attempt any incursions of its own into Pakistani territory. Once the status quo ante had been restored through a combination of military and diplomatic means, Indian forces ceased action. India’s focus on preserving the territorial status quo aids its military’s generally defensive posture. It discourages the pursuit of strategies of “offensive defense” and “offensive offense.”

After a major terrorist attack on the Indian Parliament in December 2001, India ordered Operation Parakram, mobilizing hundreds of thousands of troops on the Pakistani border, explicitly threatening war. India eventually stood down 10 months later, in spite of Pakistan not acceding to most of its demands. Though other factors such as nuclear deterrence, the slowness of the Indian buildup, and US intervention probably played a critical part in Indian decision-making, there is also evidence that India was prepared to initiate hostilities.69 Again, however, the Indian strategy of compellence through armed buildup stopped short of actual military action. Although some of India’s actions such as Parakram and Brasstacks represent a flirtation with the abandonment of strategic restraint toward Pakistan, they have not, as yet, led to any actual punitive military action that involves Indian troops crossing the LoC or the International Border. Indian strategic restraint at least partly explains the fact that Pakistan has had a consistent, well-funded policy of arming and training subconventional actors such as Lashkar-e-Taiba against a nuclear India, even as there is no evidence that India currently uses the same tactic against a nuclear Pakistan. India also has shown a consistent behavior of returning to negotiations after each crisis with Pakistan. In weighing all of the above evidence, the broad conclusion that can be drawn is that India has generally practiced strategic restraint on the subcontinent with respect to Pakistan.70 Moralism has traditionally been a prominent driver in India’s strategic restraint doctrine. Nehruvian ideas of resolution of conflict through communication influenced the defining of Indian restraint. However, in recent decades, liberal globalism is also a driver for the continued persistence of India’s strategic restraint policy even after multiple provocations such as the Mumbai attacks. The sustained high-growth phase of the Indian economy through enhanced foreign trade and investment, and the highest priority accorded across the political spectrum for maintaining this growth, has led to a view that a major conflict with Pakistan carries unacceptable risks to India’s prospects for development and security.

The slow but steady ascendancy of realist thought in India has also put considerable stress on the element of strategic restraint. Some strategists, observing the approach of a “defensive defense” as largely having failed to deter Pakistani be- Deterrence Instability and Nuclear Weapons in South Asia 141 havior, are advocating a greater offensive component in Indian security strategies.81 Although India has not carried out punitive action involving crossing the LoC or the International Border since 1971, the threat of war during Operation Parakram and the increased tendency of taking a more proactive stance toward Pakistani infiltration of militants across the border mark a process of weakening in strategic restraint. In the event of a major terrorist attack on Indian soil or an escalating border clash in Kashmir, this will increasingly facilitate direct punitive action by India against Pakistan.

**PAKISTAN’S TACTICAL NUCLEAR WEAPONS: OPERATIONAL MYTHS AND REALITIES Jeffrey D. McCausland**

 In April 2011 Pakistan conducted a test of a new nuclear-capable short-range missile, the Hatf-IX (also referred to as the Nasr). Pakistan’s Inter-Services Public Relations Directorate described the Nasr as a “quick response system”1 designed to support “full spectrum deterrence” by countering India’s growing conventional force advantages.

The essay also demonstrates that assumptions regarding the use of TNWs to compensate for perceived conventional shortcomings are misguided

In 2004, advocates within India made public references to a new military concept, which was labeled Cold Start or “proactive operations.”17

Pakistan’s perceived need for TNWs is rooted in these challenges, which are all magnified by growing Indian conventional capabilities.22 As one general explained to this author, “the wider the conventional asymmetry, the lower the nuclear threshold.”23 The perceived need for TNWs is rooted in a “deterrence gap” below the strategic threshold. Without TNWs, Pakistan faces the “grim option of either calling for a massive and suicidal nuclear attack against Indian cities in response to India’s limited conventional aggression or surrendering.”24 TNWs therefore offer the prospect of “throwing cold water on Cold Start.”25

In formulating a deterrence strategy that includes the possible use of TNWs, Pakistan has determined that, given growing Indian advantage in conventional forces, Islamabad cannot commit itself to a no first use policy for nuclear weapons.31 Instead, Pakistan has maintained doctrinal ambiguity to engender uncertainty in the minds of Indian decision-makers. General Khalid Kidwai, former director general of Pakistan’s Strategic Plans Division, came the closest to articulating an official nuclear-use doctrine for Pakistan when, in an interview with Italian researchers in 2002, he outlined the following as nuclear redlines in a conflict with India: • India attacks Pakistan and conquers a large part of its territory (space threshold). • India destroys a large part of either Pakistan’s land or air forces (military threshold). • India proceeds to the economic strangulation of Pakistan (economic threshold). • India pushes Pakistan in political destabilization or creates a large-scale internal subversion in Pakistan (domestic destabilization).”32

In summary, the doctrinal aspects of TNW use during the Cold War were plagued by a paradox that would also confront the Pakistani military today. US planning required the greatest degree of flexibility to belong to the corps commander because of the massive coordination effort necessary for effective use. But it also demanded maximum central control at the highest political level in order to control escalation and crisis management. This paradox results in three general problem areas that Pakistani military planners would have to resolve. First is the challenge of refining targets quickly, which would be extremely difficult, if not impossible. During the Cold War, an American expert argued that in fact the doctrine assumed two sine qua non conditions — the existence of a worthwhile target (i.e., a sufficiently large and concentrated formation to justify the use of a TNW); and a certain permanence of the target in order to permit its identification, its pinpointing, the transmitting of necessary data, and the final engagement.”62 Second, an implicit requirement existed to maintain three plans — one nuclear, one conventional, and one integrated — while the request-release process would be ongoing (making the prospects of success seem even more remote). Third, it demanded that all necessary coordination to Deterrence Instability and Nuclear Weapons in South Asia 163 employ TNWs be done in a manner consistent with conventional fire-planning and tactical maneuvers. This paradox and the resulting problem areas were endemic during the Cold War, and would also be true for any future doctrinal concept Pakistan might apply to the use of TNWs. Pakistan would be confronted not only with all of these problems, but also serious geographic challenges. The distance from Islamabad to the international border is less than 300 kilometers, and Lahore is 25 kilometers from the border between Pakistan and India. Consequently, Pakistani forces have little space to withdraw during the conventional phase of hostilities before deciding to escalate to the use of TNWs. This is further complicated by the relative short range of systems like the Nasr. As a result, it is very likely that any employment of TNWs by Pakistan would have to come either at the very onset of hostilities or would have a high probability of striking Pakistani territory. Pakistani military and political leaders will likely be faced with the classic dilemma of “using” its TNWs very early in order to stem an Indian conventional assault, or “losing” them as a result of their outright destruction or by detonating nuclear weapons on Pakistani soil.

The Pakistani military will be confronted with similar operational issues as it seeks to prepare the necessary plans for implementation of tactical nuclear use. It must take into account that command and control systems will be subject to degradation due to EMP effects following any employment of nuclear weapons. In addition, Indian forces are likely to employ both electronic warfare and cyberattacks to undermine Pakistan’s command and control networks. Finally, the actual tactical nuclear forces as well as command and control facilities should expect assaults by Indian special operations units during a crisis or the initial phase of hostilities between the two countries.

This essay has analyzed operational issues relating to TNWs during the Cold War, and applied these insights to contemporary South Asia. If US and Soviet Cold War experience is any indication, Pakistani military planners and frontline soldiers will find battlefield nuclear weapons to be a logistical nightmare. Indeed, the unanticipated challenges that arise with the forward deployment and use of TNWs — incorporating nuclear fire-planning with conventional maneuver operations, maintaining a clear chain of command in crisis scenarios where nuclear weapons are being used, and hardening communications against EMP blasts, among other dilemmas — offset the deterrent value these systems are purported to provide. Pakistani military authorities appear inclined to make many of the same miscalculations as US and Soviet ground forces did during the Cold War. There is a widespread assumption in Pakistan that the development and deployment of TNWs is a cost-effective way to make up for its growing conventional inferiority to India. Those who have studied Cold War nuclear doctrine for TNWs would disagree. Alain Enthoven and Wayne Smith observed in their celebrated 1971 book, How Much Is Enough?, that TNWs were not a replacement for conventional forces, and would not have guaranteed success against a massed Soviet attack.90 Enthoven, who served as US assistant secretary of defense for systems analysis, once wrote that “TNWs cannot defend Western Europe; they can only destroy it. ... There is no such thing as tactical nuclear war in the sense of sustained, purposive military operations.”91 The nuclear-capable short-range Nasr raises all of the dilemmas discussed above. An even more destabilizing approach would be for Pakistan to develop artillery-fired atomic projectiles (AFAPs) for its force of 155 mm and 203 mm howitzers, or to consider the development of such things as atomic demolition munitions. The United States employed some of these platforms for the potential delivery of AFAPs, as did the Soviet Union for its 152 mm and 203 mm howitzers. This would appear to be technologically feasible if Pakistan could miniaturize

the nuclear components for AFAPs.92 Cost consequences would be reduced as platforms already exist, and there are well-trained crews for the operation of the howitzers. AFAPs would provide lower-yield weapons unless Pakistani scientists are able to master enhanced radiation warheads, as the United States attempted to produce and deploy to Europe in the 1980s. Such weapons would be delivered by dual-capable (conventional and nuclear) units, which would enhance their survivability. They would, however, have substantially shorter ranges (probably less than 30 km), and this would limit their effectiveness to interdict follow-on Indian conventional forces. Pakistani leaders appear to believe that the “signals” conveyed by their actions during a confrontation with India with respect to their tactical nuclear forces (i.e., movement of the stockpile from storage and movement of delivery vehicles in the field) would be interpreted clearly by Washington and New Delhi, and that risks for escalation would be manageable. It would be wise for Pakistani leaders to carefully consider how any actions in a crisis would influence the leadership in New Delhi, what assumptions they might make, and whether New Delhi would read these messages as intended — that is, as signaling deterrence rather than war preparations. Pakistani military leaders might assume that India will not seek to blunt the deterrence value of developing and advertising TNW capabilities by responding in kind. So far, New Delhi has not expressed interest in developing such weapons, as Indian force developers are focused on improved conventional capabilities, a seabased deterrent, and a family of cruise missiles. India could employ longer-range systems against targets near the FLOT, use conventional air power, or employ short-range missiles such as the 60-km-range Prahaar. While Indian defense scientists have publicly noted that the Prahaar could carry “different types of warheads,”93 Pakistani officials claim the Nasr is a response to the Prahaar. Currently, there is no clear evidence that New Delhi is interested in developing TNWs. The belief held by some Pakistani military leaders that the development, production, and induction of TNWs would cancel out Indian conventional advantages while facilitating “subconventional” warfare is both dangerous and problematic. It assumes that, even after the Mumbai attacks, Indian leaders would continue to show restraint in the event of a large-scale terrorist attack in Indian territory. This may turn out to be true, but it seems less likely following the election of Prime Minister Narendra Modi, who has called for a more muscular approach to India’s

national security policies. With reference to the 2008 Mumbai attacks, he pointedly criticized the previous government led by Manmohan Singh by observing that “Indians died and they did nothing. … Talk to Pakistan in Pakistan’s language because it won’t learn lessons until then.”94 170 Pakistan’s Tactical Nuclear Weapons: Operational Myths and Realities The development and production of TNWs is not simply a continuation of existing nuclear trends in Pakistan. Instead, TNWs pose new and more severe dilemmas. The presence of TNWs will naturally result in increased pressure on both India and Pakistan to escalate during any future crisis. Pakistan and India would do well to consider measures to reduce nuclear risks and create channels for crisis management. Pakistan might also reconsider the practical and operational risks and challenges regarding TNWs, particularly the difference in risk profiles between a small number of systems and widespread numbers readied for deployment. Perhaps the most important takeaway from a historical analysis of the Cold War is that the challenges faced by US and Soviet planners and frontline operators grew exponentially, rather than linearly, as TNWs were deployed at scale. Communication, coordination, planning, and incorporation into conventional units became manifestly more difficult as arsenals of TNWs grew. This unsettling conclusion might give pause to Pakistani military planners as they consider what portion of their ever-increasing stockpile of fissile material they can afford to dedicate to a class of nuclear weapons that may present more problems than solutions.

**Strategic Asymmetries**. Competitors may fundamentally differ from one other with diametrically opposing strategic cultures. Recognizing the strategic asymmetries is inherent in net assessment, as a first step. This essential element allows identification of opportunities and vulnerabilities of an opponent. In the case of Pakistan, the strategic culture arising out of ani-India is ingrained in it’s DNA. The diametrically opposing concepts of nationhood with Pakistan having an Islamic identity and India with a pluralistic, multi-cultural, multi-linguistic and multi-ethnic are irreconcilable. The traumatic events of Partition and attendant violence has left a deep sense of mistrust even after seven decades of parting ways. Kashmir being the unfinished agenda of partition, remains at the core of strategic behavior to the extent of self-harm. The deep sense of aggrievement has been amplified after it’s loss in the Indo-Pak War of 1971 and the resultant breakup with the liberation and creation of Bangladesh. The pre-emptive occupation of the Soltoro Ridge (Siachen Glacier) in 1984, by India, when the Pakistan Army was planning to militarily seize the unoccupied heights has left yet another humiliating scar etched on the psyche of the military establishment. Inability of Pakistan in militarily resolving the unfinished agenda of partition to consolidate Kashmir within it’s fold has resulted in continuously embarking on numerous military misadventures. The need to change the status quo on Kashmir runs across the width and depth of the nation without exception and is not limited to only the political or military establishment and bureaucracy. This is a reality which Indian decision making has to contend with. However, the last three decades saw a fundamental injection of the non-state actor into the calculus of crating an asymmetric strategy. The shaping event for the resort to the jihadist elements has roots in the success of the ISI-CIA backed Mujahideen in acting as a proxy to defeat a nuclear superpower, the USSR, and force it’s withdrawal from Afghanistan. Pakistan’s military dictator in the 1980s, General Zia-ul-Haq, evolved the Mujahideen inspired ‘Operation TOPAC’ to galvanize terrorism for liberating Jammu and Kashmir in 1989, which has since then been the cause of widespread violence and bloodshed within the state and also terrorist activities within the borders of India. The shaping events in the Middle East with the rise of the Hezbollah in the 1980s and it’s ability to resist the US-Israel combine is likely to have provided greater source of inspiration. Pakistan has since then made a unifocal attempt at internationalization of the conflict, in a bid to force third party mediation to it’s advantage. The nuclear capabilities acquired by India in 1974 and subsequently reconfirmed in 1998, with Pakistan also crossing nuclear threshold, has resulted in creating a nuclear umbrella, making the threat of conflict escalation to a nuclear exchange a centerpiece of strategy. The possibility of TNWs being used has been actively propagated as legitimate self-defense, a necessity for guarding itself from Indian conventional superiority. In the bargain, however, it has characterized itself with a level of irrationality capable of resorting to it’s actual use. The 1999 misadventure in Kargil sought to play on the fear of the reality of a nuclear exchange in the Indian subcontinent, thereby limiting the conflict to the areas of intrusion and not allowing it to escalate. The importance of socio-bureaucratic behavior is of utmost importance in the unfolding events. The misadventure was unfolding and underway, ostensibly with the civilian leadership being kept in the dark of the military actions. This reflects a **deep state** which exists in Pakistan. The military-civil relationship is often described as the **Pakistan Army having a State as opposed to a democratic state an with army.** What is even more remarkable is that the intrusions were underway while the Indian Prime Minister, Atal Bihari Vajpayee, had extended a *hand of friendship* and undertaken the famous Amritsar-Lahore bus journey to move forward on the peace process. The Pakistan strategy rested on creating a militarily untenable position along the heights overlooking the strategic highway connecting Ladakh and the Siachen Glacier, and exploiting the fear of nuclear war to force international intervention with a cessation of hostilities providing Pakistan control over strategically important territory and impose a mediated settlement of the Kashmir issue. It was quite evident that tactical and operational brilliance had seriously miscalculated Indian resolve in retaking the areas of intrusions. The resultant Pakistani humiliating eviction and forced withdrawal from the heights of Kargil resulted in strategic loss. However, the resultant restrictive conflict under a nuclear overhang obviously encouraged further delinquent behavior with Pakistan backed terrorist attacks on the Indian Parliament on 13 December 2001 and the subsequent mobilization ‘Operation PARAKRAM’ bringing the two nuclear powered states within a hair’s breadth of war. The Indian ‘cold start’ strategy, which manifested in the operational doctrine post ‘Op PARAKRAM’ has also sought to be blunted with a combination of conventional defensive measures like forward posturing of forces combined with early resort to nuclear weapons on the battlefield. The safety shield of an irrational nuclear behavior has only succeeded in encouraging continuation of proxy war. The geostrategic advantage which Pakistan enjoys vis-à-vis Afghanistan and American reliance on Pakistan for it’s campaign in Afghanistan has been exploited to the hilt by a shrewd ‘bureaucracy’. However, the US needs to realize that the leverage which the Americans have over Pakistan ie. financial and military aid may soon be blunted with the exponential growth of China’s ambitious One Belt One Road (OBOR) or Belt Road Initiative (BRI). The China-Pakistan Economic Corridor (CPEC) cements Pak-China strategic relationship even further and provides alternate funding and aid, besides interlinking of strategic interests and thereby reduces reliance on the US. The recent attempts at leveraging aid by announcing cuts and denial of bailout by the IMF has been partially nullified by Chinese and Saudi Arabian assistance. Thus, Pakistan may get further emboldened towards detrimental behavior. The Indian strategic culture steeped in Gandhian-Nehruvian pacifism is likely to have been one of the reasons for embodiment for risky behavior, indulging in repeated strikes on Indian soil (Indian Parliament, Mumbai, Pathankot etc). The strategic interaction of opposing behavior is likely to have led Pakistan to come to an assessment of weak Indian will and resolve in crossing a conventional threshold and axiomatically limited will in a nuclear eventuality. The experiences of 1999 Kargil intrusions and 2001 post parliament attack mobilization have likely contributed to evidencing this understanding. Therefore, the surgical strikes across the borders across the entire front of Jammu and Kashmir is likely to have signaled a change of intent and will and calling the nuclear bluff. The open acceptance of the strikes, alongwith the scale of the operations, are likely to be seen as strategic signalling and display of intent. Pakistan has successfully employed a strategy which employs a large scale readily available radicalised manpower willing to sacrifice itself for the jihadi cause in liberating Kashmir. India, on the other hand, has a competing strategy with an attritionalist approach of neutralizing infiltration and terrorists. The extent of the strategy’s comprehensive nature is in it’s multipronged approach of minimizing cross border infiltration and effective counter terrorist operations within the hinterland, with minimum collateral damage, alongwith measures to win the hearts and mind of the population and thereby create an environment on the ground conducive for the political process to take shape. While this strategy has been reasonably successful in keeping levels of terrorism within manageable limits, alternating with cycles of downturns and relative peace, the military component needs to widen it’s scope. Pakistan’s strategy has allowed an extremely low-cost option to achieve disproportionate results, as it can continue to push terrorists into India without fear of retribution. The nuclear overhang of Pakistan’s projected propensity to resort to TNWs on conventional forces has restrained India’s conventional superiority being exploited in inflicting a heavy cost. Thus, nuclear deterrence has partially succeeded in nullifying conventional superiority. India’s attritional superiority of a highly successful anti-infiltration obstacle system coupled with a comprehensive anti-terrorist grid has not succeeded in overcoming the existence of terrorists. Operations have been successful but the operational approach necessitated targeting the will and ability of the enemy to sustain. Treating terrorism emanating from Pakistani soil needed to be attributed to the State of Pakistan, beyond the rhetoric. The national level strategy encompassing the politico-economic-diplomatic tools in isolating the State of Pakistan needed the military component to assume an operational maneuver in targeting the true center of gravity, the will of the establishment within Pakistan. This entailed targeting the mind of the tactical level in immediate vicinity of the borders and that of the commanders. The ‘surgical strikes’ of September 2016 in response to the terrorist attack on the military camp at Uri in August 2016 needs to be seen in that context. At one level it served to inject an element of caution on the tactical level commanders due to the cost being exacted from the hithertofore insulated military. The military operation however, had an operational effect as it can be seen as a signal of willingness to escalate and calling the nuclear bluff, thereby achieved expanding the threshold. The difference from earlier cross border strikes is in the context, which were having a tactical signature and invariably an outcome of escalating military actions along the Line of Control. The instant case, despite being executed in the tactical depth, had two unique elements. Firstly, it was in response to a terrorist strike in the hinterland and the second it’s execution was openly owned. It can be argued that the announcement was an outcome of domestic political compulsion to mitigate harsh criticism facing the government’s failure on the security front. However, moving beyond the rhetoric the strategic signaling must not be lost sight of. The military action involved achieving an operational and strategic effect signaling a departure from restraint and willingness to call the nuclear bluff. Subsequent options of expanding the depth and choice of targeting provides the necessary escalation mechanism in blunting the nuclear blackmail being indulged in. Operational art does not absolve attrition. Instead it necessitates intense attrition at the point of contact. The key lies in the selection of the point t of contact. Pakistan’s strength lies in the proxy machine of jihadists it has successfully nurtured. Direct confrontation, though necessary will not yield results. It needs to be battled but should not be the main effort, which needs to be focused on attacking the will of the support ie. the Pakistan military. Operational art entails carefully calibrated military action which is cognizant of the nuclear overhang, but is not unduly constrained.

**Strategic Choices – Identify the Problem**. The key to the strategy will lie in defining the problem. In response to the question of utilisation of one hour to crating a solution, Einstein’s response of utilising 59 minutes in defining the problem is indicative of the overwhelming importance of identifying the nature of the problem. Strategy formulation necessitates understanding the threat and tailor making a solution. The tendency is to suit the threat perception as per the tools available - if you have a hammer then everything looks like a nail. The choice of strategy must be based on sound understanding of rationality and resolve.

**Strategy**. Interaction between two strategic players who are promoting their interests. It would be the optimal correlation between ends, ways and means while considering the moves of the opposite side. A **strategic interaction** involves a dynamic interaction with an adversary who purses an opposing strategy. **Strategic thinking,** in this context, therefore, involves considering choices in light of the adversaries ends, ways and means. Prioritisation of alternatives are carried out according to the **cost benefit analysis,** based on **rationality.** The ultimate goal of strategy in military affairs is founded in the Clauswitzian adage of *war is continuation of policy by other means.* It is done for rational strategic reasons and ensures a division of labour between the statesman and the military. The **levels** of strategy span from **grand strategy, strategy, operational to tactical.** The corelated **geographical arena** of application encompasses the **war zone to theatre of operations to the individual battlefield** and the **echelons of authority** rests with the **political class in the grand strategic and strategic levels** and **military leaders at the tactical level**, while the **operational realm** necessitates an **overlap of both political and military** leadership. **Strategy** is about **translating military effects** into **higher order political** results. It’s etymology is Greek *strata (level, army) Agy (I lead, leader).* The ancient Greeks had ten strategists who prepared the nation state for battle and chose the battlefield and time to go to war. **Tactics** is based on rhythm and music with the dance attached to the musical rhythm, an ornament or arrangement. It is the **method of arrangement on the battlefield** and effects the behaviour at the lowest level. Social, technological and logistical changes necessitated the **operational level** during the Napoleonic era with extremely **complex warfighting from the complex structures necessitated** the operational level. A single victory would not achieve the goal of enforcing the will. A **complex inter-related behaviour with intersectoral interaction of resources** needed an **operational art,** which **translated conceptual level and goals** to be achieved into **implementable actions**.