Nuclear Restraint, Nuclear Risk Reduction, and the Security–Insecurity Paradox in South Asia

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The reciprocal nuclear tests by India and Pakistan in May 1998 surprised the world, but were hardly unexpected, given their steady progress towards acquiring nuclear capabilities. These tests propelled New Delhi and Islamabad across a nuclear threshold and their subsequent claims to have become nuclear weapon states dramatically altered the South Asian security environment. Their urgent claim to nuclear status made clear that prestige weighed as heavily as security in motivating these nuclear tests. It could be generally observed that domestic and internal political issues have outweighed external security concerns in national security decision making on nuclear disarmament and non-proliferation questions in the last decade,\(^1\) and in the calculations of their “strategic enclaves.”\(^2\)

The nuclear tests also raised several troubling questions for the international community, such as the possible diffusion of nuclear technology to neighboring countries and regions. These anxieties were fuelled by the Kargil conflict in mid-1999, a year after the sequential Pokharan and Chagai tests. This crisis “made clear that the new status each [India and Pakistan] claimed did not remove the danger of war, but certainly increased the stakes if war occurred.”\(^3\)

This essay contends that the Kargil conflict revealed streaks of both rationality and irrationality by Indian and Pakistani leaders. Systemic factors ensure that this dispensation would

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\(^1\) George Perkovich, *India’s Nuclear Bomb: The Impact on Global Proliferation* (New Delhi: Oxford University Press, 1999), 446–55. Perkovich argues that India’s decision to pursue its military nuclear option was largely influenced by internal and political motivations. I would suggest that powerful domestic, indeed personal, factors were also observable in the American debate leading to rejection of the Comprehensive Test Ban Treaty’s ratification by the US Senate in 1999. Domestic political factors were similarly paramount in the Indian debate on rejecting entry into the CTBT. In these cases, the security implications of the decision became secondary factors.

\(^2\) An expression attributed to Itty Abraham. He describes it in “India’s ‘Strategic Enclave:’ Civilian Scientists and Military Technologies,” *Armed Forces and Society* Vol. 18, no. 2 (Winter 1992): 233 as “a subset of the Indian military-security complex–specifically, the set of research establishments and production facilities that are responsible for the development of these new programs.” More broadly perceived, the “strategic enclave” comprises an inchoate collection of retired civil and military officials, media persons belonging to the genre of defense correspondents, right-wing politicians, and scientists in the nuclear and defense establishments. What binds them together is a common faith in the pursuit of a militaristic approach to national security, a “realist” foreign policy, and the value of nuclear weapons. In truth, “strategic enclaves” can be found in all countries.

continue. Hence, it is by no means axiomatic that another conflict between the two countries is either unthinkable or would be terminated without escalating across the nuclear threshold. This is apparent from developments that occurred during the Kargil conflict, and thereafter in Kashmir and Pakistan. A case is then made for both countries observing nuclear restraint and not weaponizing and deploying nuclear devices on purely pragmatic considerations. I argue that pursuing the weaponization and deployment option would introduce great instability in bilateral relations. Finally, assuming that weaponization and deployment do take place, I discuss nuclear risk-reduction measures that could be emplaced.

THE KARGIL CONFLICT

The Kargil conflict undermined two widely held, *a priori* beliefs. First, that democracies do not conflict with each other. (The Nawaz Sharif government, then in power, was a civilian establishment, and was asserting itself against the military.) Second, that nuclear weapons states do not go to war against each other. (The only other exception being the Ussuri clashes between the Soviet Union and China that occurred in March 1969.)

Did the restraint shown by the Indian and Pakistani leadership by not escalating the Kargil conflict to the general war level exhibit their rationality? Should it be assumed that they are no less rational than their counterparts in the other nuclear weapon states? Both questions need to be debated.

It is arguable that nuclear deterrence established by their reciprocal nuclear tests prevented the Kargil conflict’s extension from the Kargil–Drass sector to other areas along the Line of Control in Kashmir and the international border. This occurred twice before during the wars in 1965 and 1971. Due to terrain factors, the Kargil conflict was limited to infantry operations, thus restricting weaponry to small arms and artillery. The Indian Air Force supported the infantry operations, but the Pakistan Air Force was not deployed, which could have escalated the conflict. The effectiveness of the Indian infantry and air operations, however, was greatly reduced by the political direction prohibiting the crossing of the Line of Control despite the several military disadvantages of this constraint, and the larger casualties that were suffered in consequence. For its part, Pakistan abandoned the intruders after the Indian counterattacks gained momentum, and reinforcing and re-supplying them became problematical.\footnote{Several books have been written in India on the Kargil conflict. Also see Maj. Gen Ashok Krishna and P.R. Chari eds., *Kargil: The Tables Turned* (New Delhi: Manohar, 2001) written by the staff of the Institute of Peace and Conflict Studies.}
Hence, it could be urged that the two leaderships acted with circumspection after the Kargil conflict erupted and terminated the hostilities in an orderly manner, although American pressure indubitably catalyzed this process. In fact, the belief remains in India that, “though nuclear weapons in Pakistan are under the control of the army…India has no reason to believe that the Pakistani Generals will act less responsibly than the political dispensation…when they know clearly that unleashing the nuclear genie will certainly lead to the end of Pakistan as a nation-state, regardless of the damage that India might sustain.”\(^5\) A survival instinct is thus assumed to inform Pakistan’s leadership to refrain from using nuclear weapons.

This thesis has two major flaws. First, the relegation of Pakistan’s civilian leadership to the background is out of sync with the *zeitgeist* that is distinguished by a democratization of national polities. Pakistan’s military has acted irrationally in the past, leading the country into disastrous enterprises in 1965 and in 1971, which led to the excision of its eastern wing and the creation of Bangladesh. Its Kargil adventure isolated Pakistan in the international system and has imbued the Line of Control with a new sanctity. Second, the conclusion that India would launch a devastating riposte to obliterate Pakistan should Pakistan launch a nuclear attack, irrespective of the ravages India might suffer, suggests a certain irrationality afflicting sections of the Indian military, i.e., it would derive satisfaction from completely destroying Pakistan irrespective of the consequences for India. Conveying a threat of this nature without wishing to implement it is obviously irrational.

Proceeding further, a streak of irrationality informed the Pakistani leadership to undertake the Kargil intrusions, without war-gaming possible Indian responses, for reasons that seem abstruse in retrospect.\(^6\) Pakistan’s leadership might have assessed that its nuclear deterrent would inhibit an Indian military response. This was feckless, but such beliefs have informed Pakistan’s conviction that its nuclear capability checkmated India in past crises. Some leading personalities in Pakistan have argued that the “value of nuclear capability was illustrated on at least three occasions.”\(^7\) These were in 1984 when India was purportedly contemplating an attack upon Pakistan’s nuclear facilities in Kahuta in collusion with Israel; during the Brasstacks Exercise (1986–87) when India was believed to be planning to convert this exercise into a cross-border


\(^6\) These include, according to press analyses and academic speculation, disrupting communications between Srinagar and Leh, internationalizing the Kashmir dispute, deflecting internal discontent with the economic and socio-political conditions in Pakistan, and “defreezing” the *status-quo* situation relating to the Line of Control in Kashmir that was acquiring permanence, etc.

operation; and during the April–May 1990 crisis in Kashmir when India was allegedly contemplating air raids on militant training camps in Azad Kashmir. This propensity to rely on Pakistan’s nuclear capabilities during India–Pakistan crises is hardly rational.

In the future, Pakistan’s limited resources would ensure that its conventional inferiority vis-à-vis India would keep widening. Indeed, there are voices in India urging that radical increases in its own defense budget and arms acquisitions would “force a matching response to beggar Pakistan” and hasten its oncoming bankruptcy. In this milieu, Pakistan would increase its dependence on nuclear weapons, since it believes that nuclear weapons compensate for conventional inferiority. Hence, “purely deterrent forces can be relatively modest, provided their survivability can be assured against a surprise attack.... Nor does a strategic arsenal have to match the adversary’s arsenal. For nuclear weapons are not meant for war fighting. Nuclear deterrence, unlike the conventional one, is not degraded by quantitative or qualitative disparity.” The implications of Pakistan’s growing conventional inferiority would be greater dependence on nuclear weapons, which is not very reassuring.

Further, the ending of the Kargil conflict in a politico-military disaster has not informed any moderation in Pakistan’s subsequent conduct. On the contrary, incidents of cross-border terrorism have increased to include fidayeen (suicide) attacks on Indian military and para-military forces, installations and administrative headquarters in Kashmir. The irrationality of this strategy arises from the reality that “allowing the practice of cross-border terrorism to dictate policy effectively legitimizes the behaviour, and Pakistan simply cannot afford to support a policy in Kashmir that if applied within Pakistan’s borders would threaten the integrity of the state.” Why then is Pakistan continuing with this profitless policy that further disrupts its economy, increases its diplomatic isolation, and exacerbates the socio-political crisis within the country?

One could argue that Pakistan is now hoist on its own petard. Calling off cross-border terrorism in Kashmir would ensure that militancy within Pakistan intensifies, while continuing to support cross-border terrorism would alienate international opinion and heighten its dependency on international financial institutions. It is possible that Pakistan’s military rulers, after harnessing the religious extremist groups to support its Kargil adventure, are now unable to restrain them. It is also possible that the Pakistani Army and the Inter-Services Intelligence (ISI) are using the supposed intransigence of the jihadists to continue an increasingly aimless Kashmir

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8 Vishal Thapar and Anita Kanungo, “What Should We Do With Pakistan,” Hindustan Times Overview, 10 July 1999. This article was based on a survey in which New Delhi’s strategic community was polled.

9 Ibid., 3.

policy, while hoping in a serendipitous fashion that international, especially US, support would somehow become available. The jury is out on this question, but I agree with the observation that “the ultimate outcome of a policy is not what determines its qualification as folly. All misgovernment is contrary to self-interest in the long run, but may actually strengthen a regime. It qualifies as folly when it is perverse persistence in a policy demonstrably unworkable or counter-productive.” Thus Pakistan’s post-Kargil persistence in its intransigent Kashmir policy against its self-interests is irrational but obviously appears rational to its military rulers.

Similarly, the belief that a limited conventional conflict to meet the cross-border terrorist threat in Kashmir is unavoidable informs important segments of the Indian political and military leadership. As articulated by India’s former Defense Minister, George Fernandes, “Pakistan did hold out a nuclear threat during the Kargil War last year. But it had not absorbed the real meaning of nuclearization; that it can deter only the use of nuclear weapons, but not all and any war…. [S]o the issue was not that war had been made obsolete by nuclear weapons, and that covert war by proxy was the only option, but that conventional war remained feasible though with definite limitations.”

Indian strategists have not been reticent in suggesting the countermeasures that India should undertake in Kashmir. These countermeasures include covert operations within Pakistan using special forces, launching attacks across the Line of Control (LoC), undertaking “hot pursuit” across the LoC, and degrading Pakistan’s military potential by a war of attrition. The unstated hope is that the nuclear threshold would not be crossed, despite the conviction among Indian bomb protagonists that “Pakistan is a ‘rogue state,’ its leaders are irrational and irresponsible and could not be trusted not to use nuclear weapons, for which India, therefore, had to be ‘prepared.’” These beliefs raise one of the greatest unresolved dilemmas of the nuclear age: How can conflict between two nuclear adversaries be graduated to ensure that it would not escalate and that nuclear weapons would not be used? There is no credible answer to this question. The thesis that limited conventional conflict in a nuclearized environment is feasible is irrational. In the future, however, Indian leaders might find the limited war option quite rational.

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Most importantly, the nuclearized environment in South Asia has not informed the leaderships in both countries to observe restraint in making provocative and inflammatory public declarations. During the Kargil conflict Pakistan’s Foreign Secretary warned that Islamabad could use “any weapon” in its arsenal to defend the country’s territorial integrity.\(^{14}\) Indian leaders did not hold out threats during the conflict, but were not averse to issuing them freely in the past.\(^{15}\) This strengthens convictions in the international community that Indian and Pakistani leaders seem unable to comprehend that nuclear weapons establish an entirely new context where the need for reassurance and accommodation of the adversary is as significant for the stability of their relations as the establishment of deterrence. The breakdown of contacts between the two leaderships during the Kargil conflict, and the fact that no dialogue has been revived between them up to the time of this writing, must add to anxieties regarding the stability of South Asia.

**Implications for Regional Stability**

The Kargil conflict truly exemplifies what is recognized as the “stability-instability” paradox. This holds that “lowering the probability that a conventional war will escalate to a nuclear war—along preemptive and other lines—reduces the danger of starting a conventional war; thus, this low likelihood of escalation—referred to here as ‘stability’—makes conventional war less dangerous, and possibly, as a result, more likely.”\(^{16}\) Indeed, nuclear weapons provided the backdrop for the several Cold War confrontations between the superpowers that occurred through their proxies in various theaters like Vietnam and Afghanistan. “The trick,” as Paul Bracken noted, “was to put the burden of escalation on the other side…. [I]ronically, having nuclear weapons probably encouraged these low-level torments, precisely by ensuring that Americans and Russians would stop just short of shooting at each other.”\(^{17}\)

\(^{14}\) “Any Weapon Will Be Used, Threatens Pak.,” *The Hindu*, 1 June 1999.

\(^{15}\) For example, Home Minister Advani, immediately after India’s nuclear tests, declared that this “decisive step to become a nuclear weapon state has brought a qualitatively new stage in Indo–Pak relations, particularly in finding a lasting solution to the Kashmir problem.” *The Hindu*, 19 May 1998.


Hence, the tit-for-tat nuclear tests conducted by India and Pakistan in May 1998 probably succeeded in making the Kargil conflict possible. This was surely an unintended consequence of the tests, which were meant to heighten Indian and Pakistani security by deterring nuclear and conventional aggression. The availability of the nuclear deterrent to Pakistan encouraged its undertaking the Kargil intrusions, while increasing its cross-border terrorism and proxy war in Kashmir. In fact, the presence of the nuclear deterrent now seems to inform Pakistan’s chimerical policy to incorporate Kashmir into its body politic.

Indeed, the Kargil Review Committee Report notes:

What Pakistan attempted at Kargil was a typical case of salami slicing. Government Security Deletion. Since India did not cross the LOC and reacted strictly within its own territory, the effort to conjure up escalation of a kind that could lead to nuclear war did not succeed. Despite its best efforts Pakistan was unable to link its Kargil caper with a nuclear flashpoint, though some foreign observers believe it was a near thing.  

The belief in India that Pakistan deliberately introduced a nuclear element into the Kargil conflict should be a cause for disquiet, but the nuclear threat indubitably informed the restrained counter-measures adopted by India. According to one account:

India then [during the Kargil conflict] activated all its three types of nuclear delivery vehicles and kept them at what is known as Readiness State 3—meaning that some nuclear bombs would be ready to be mated with the delivery vehicle at short notice. The air force was asked to keep its Mirage fighters on stand by. Defence Research and Development Organization scientists headed to where the Prithvi missiles were deployed and at least four of them were readied for a possible nuclear strike. Even an Agni missile capable of launching a nuclear warhead was moved to a western Indian state and kept in a state of readiness.... Pakistan too is learnt to have its nuclear weapons in an advanced state of readiness.  

The authenticity of this account can be questioned, but the absence of any official disclaimer leads to ambiguity, which could be intentional, but is hardly reassuring.

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18 Kargil Review Committee Report, (Mimeographed Version), 15 December 1999, para 13.57. The Committee, though not constituted under the Commissions of Inquiry Act, “was given the widest possible access to all relevant documents, including those with the highest classification and to officials of the Union and Jammu and Kashmir Governments.”

19 Raj Chengappa, Weapons of Peace: The Secret Story of India’s Quest to be a Nuclear Power (New Delhi: Harper Collins Publishers India, 2000), 437. The author informs that that he “had conducted close to two hundred interviews with a range of the key people involved that included former prime ministers, presidents, ministers, generals, secretaries to government, diplomats, strategists and the scores of scientists both known and unknown.”
It seems prudent to believe, nevertheless, that India may not forever tolerate with equanimity the low-intensity conflict being encouraged by Pakistan. It would be feckless to assume that both countries could engage in this low intensity conflict for years altogether without a larger conflict being precipitated. Raising the rationality issue to the conceptual level, a mismatch arises between India’s repeated no-first-use declarations, implying a reticence to rely on nuclear weapons, and Pakistan’s readiness to use them, should circumstances so require. Besides, as eloquently argued by Amartya Sen:

Since the effectiveness of these weapons depends ultimately on the willingness to use them in some situations, there is an issue of coherence of thought that has to be addressed here. Implicitly or explicitly an eventuality of actual use has to be a part of the possible alternative scenarios that must be contemplated, if some benefit is to be obtained from the possession and deployment of nuclear weapons. To hold the belief that nuclear weapons are useful but must never be used lacks cogency.  

The balance of evidence and logic therefore suggests that faith in the rationality of Indian and Pakistani leaders in the matter of nuclear weapons is somewhat naïve. The stakes involved in the failure of deterrence are so enormous that they demand greater attention on stabilizing the nuclear standoff between India and Pakistan. A case for negotiating nuclear restraint and risk-reduction measures is attempted below.

THE CASE FOR NUCLEAR RESTRAINT

The nuclear capabilities established by India after its Pokharan tests require some discussion to assess progress towards weaponization and deployment. Officially it was stated that:

The three tests conducted on May 11, 1998 were with a fission device with a yield of about 12 [kilotons (kt)], a thermonuclear device with a yield of about 43 kt and a sub-Kilotonne device. All three devices were detonated simultaneously. On May 13, 1998 two more sub-Kilotonne tests were carried out. These devices were also detonated simultaneously. The yield of the sub-Kilotonne devices were in the range of 0.2 to 0.6 kt.

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It was further claimed that, “these tests have significantly enhanced our capability in computer simulation of new designs and taken us to the stage of sub-critical experiments in the future, if considered necessary.”

This opaque language raises two questions about the need for more tests to weaponize and deploy its nuclear arsenal.

First, was a thermonuclear capability truly demonstrated, or was a boosted fission device exploded? One claim is that the fusion process did not proceed to completion, hence the thermonuclear test failed. Since the radiochemical analysis of the fission-fusion products from the test site has not been disclosed this matter remains unresolved. Whether a thermonuclear device was successfully tested is critical for establishing a triad of nuclear forces—as envisaged in India’s draft nuclear doctrine—which has special relevance to establishing a deterrent capability vis-à-vis China. A thermonuclear deterrent is attractive to India’s bomb advocates because thermonuclear weapons use less fissile materials, are compact in size, and have improved safety features. Moreover, in view of their immense destructive power, missile inaccuracies become less relevant.

Second, the claim that three sub-kiloton tests have “taken us to the stage of sub-critical experiments” is also questionable. Three tests are too few to provide data for developing new designs. Thus, “while a capability for computer simulation of basic workable weapon designs is not inconceivable after these five tests, the claim of being able to carry out [sub-critical tests] would seem to be an overstatement….” More nuclear tests would definitely be required to design new weapons or manufacture more efficient weapons based on proven designs.

It could be concluded that, apart from the 12 kt fission device tested in Pokharan, the other devices tested are weaponizable configurations. But India is still some distance away from weaponizing and deploying its sub-kiloton and thermonuclear weapons. Indubitably, there are accounts that India has already weaponized its fission devices in air-deliverable and missile modes:

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22 Ibid.


Indian officials informed that by the summer of 1994, “designs for air- and missile-deliverable fission weapons had been completed and their various components extensively tested. In all probability India also had the capability to assemble boosted-fission weapons.”

According to another account, in May 1994, a Mirage-2000 aircraft was used to flight-test and explode “the core assembly [of a gravity fission bomb] with a dummy warhead.”

Further, the delivery of a warhead by a missile was successfully achieved in April 1999 when the Agni-II missile was flight-tested. Apparently, “the bomb team had secretly mounted on its warhead a nuclear weapon assembly system minus the plutonium core to test whether all the systems including the safety LoCks would work,” and the assembly worked as planned.

Again, there is no official confirmation or denial of these accounts. If accurate, they would suggest that India has the ability to weaponize and deploy nuclear weapons of relevance to deter Pakistan. But, in the absence of longer-range missiles, India’s present capabilities are insufficient to deter China. An “enhanced version” of the Agni-II missile was test-fired recently over a 1250-mile range, and it was officially stated that, “the flight test results have indicated that the mission objectives were met satisfactorily.” However, the Agni-II would need more flight-testing before the missile could be deployed. (It bears recollection that the short-range Prithvi missile underwent some sixteen development and field trials before full confidence could be gained in its reliability.) The Agni-II missile would cover the whole of Pakistan, but not reach lucrative targets in China. Basing Agni-II missiles on the Sino–Indian border would increase their vulnerability to attack, but basing them deeper within India would reduce their range against Chinese targets. Ideally, a 5000–6000 km range missile is required to deter China, which cannot be deployed without extensive flight-testing. More warhead testing would be unavoidable if India wishes to deploy the nuclear triad visualized in its draft nuclear doctrine. Clearly, a submarine force, essential for deriving an assured survivable deterrent capability, cannot be deployed without extensive sub-surface testing of warheads and missiles.

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26 George Perkovich, *The Indian Bomb*, 23, based on interviews.


28 Ibid., 436.

The above argues that, on purely technological considerations, further progress on India’s nuclear warhead and missile capabilities is unavoidable to establish nuclear forces that could deter China, apart from Pakistan. This raises the issue of conducting more nuclear and missile tests to derive nuclear weapons capable of deterring China despite international opposition, prejudicing Indo–US relations and risking a re-imposition of the sanctions regime.

NON-WEAPONIZATION AND NON-DEPLOYMENT

The nuclear tests in May 1998 make it abundantly clear that India and Pakistan are unlikely to roll back or eliminate their nuclear capabilities. No doubt, it is arguable that proceeding in this fashion like Brazil and Argentina would mitigate the nuclear danger to themselves. It would also halt an incipient three-cornered nuclear arms race in which India would establish a credible deterrent against China, which would cause disquiet in Pakistan and lead to nuclear arsenals being added to and made more sophisticated all around.

But, is it politically likely that India or Pakistan would roll back and eliminate their nuclear capabilities? India’s search for nuclear status is traceable to the 1960s after China exploded its first nuclear device in 1964. Pakistan’s quest for nuclear weapons goes back to 1972 and its traumatic defeat by India in the war of 1971, which led to the excision of Pakistan’s eastern wing and the creation of Bangladesh. Both countries have crept along over the intervening years to derive nuclear capabilities, which has enlarged constituencies in favor of weaponization and deployment. It is highly improbable that Indian and Pakistani leaders would retreat from the nuclear plateau they have reached. The Clinton administration had, in fact, abandoned its “cap, rollback, and eventually eliminate” nuclear policy towards South Asia in favor of the more modest goal of capping these capabilities.

Empirical evidence suggests that the early years of a nuclear adversarial relationship are prone to nuclear crisis. In the case of the United States and the Soviet Union, these crises included Berlin (1948), Korea (1952), Vietnam (1954), Taiwan (1956), Berlin (1961) and the Cuban Missile Crisis in 1962. Indeed, they “were all serious enough for American field commanders to ask the White House for permission to ready atomic weapons.”\(^\text{30}\) The Ussuri clashes occurred between the Soviet Union and China in early 1969, during which a nuclear threat was brandished by the Soviets. The Kargil conflict provides another example of this phenomenon, and it is not certain that Kargil will be the last crisis between India and Pakistan. The need, therefore, for nuclear restraint in weaponizing and deploying their nuclear devices, and for nuclear risk-reduction measures if that fails, cannot be overemphasized.

\(^{30}\) Paul Bracken, *Fire in the East*, 100.
The logic of weaponizing and deploying India’s nuclear arsenal should be noted before the counterarguments are presented. Some definitions are needed here. “...[W]eaponization can be thought of as the process of developing, testing, and integrating warhead components into a militarily usable weapon system. Deployment can be defined as the process of transferring bombs and/or warheads to military units for storage and rapid mating with delivery systems at military bases.”

Further, a nuclear deterrent force must meet several requirements including: the ability to survive a first strike, delivery systems capable of reaching their targets after penetrating adversary defenses, a low risk of physical accidents, safeguards against theft or unauthorized use, a low risk of mistaken use by authorized persons, command authorities that survive a first strike, a variety of response options, and affordability.

The crucial parameter for weaponization is the availability of a “militarily usable weapon system” which, as argued earlier, may be developing in India and Pakistan with relevance to each other, but not for India vis-à-vis China. Besides, apart from the transference of such “militarily usable weapon systems” to military depots, the South Asian tradition requires their incorporation into tactical doctrine and inclusion in training schedules. Above all, there is a need for the establishment of a credible command and control system. These steps have not been taken. It could be urged that deterrence requires both transparency and opacity, hence creating some uncertainty regarding command and control establishes a form of deterrence. But this is an altogether unsatisfactory basis for premising the last resort option.

The arguments for proceeding to weaponize and deploy nuclear weapons can now be rehearsed. This would pursue the logic of the nuclear tests and lend credence to the deterrent. Further, assuming that nuclear weapons also serve political objectives, their value lies in deploying them, rather than assembling them during crises.

Three other factors support a weaponized and deployed posture. The arguments for and against them can be marshaled. To begin with, weaponization and deployment of nuclear devices and proceeding further to acquire assured second strike capabilities would stabilize India–Pakistan relations. Conversely, non-weaponization and non-deployment would be destabilizing due to its uncertainties. The theory of non-weaponized or recessed deterrence has been criticized because it “does not differentiate between first and second strike, between vulnerable and invulnerable arsenals, and between maintaining the stability of the status quo and the


disadvantages of disturbing it. It could be argued that the non-weaponized nuclear deterrent posture adopted by India and Pakistan in the 1980s, as noted earlier, at least helped to prevent three major bilateral crises from escalating. This deterrent posture was strengthened after the nuclear tests, as evident from the mutual restraint exhibited by the two countries in the Kargil conflict. Neither country enlarged the dimensions of that conflict by opening other fronts and utilizing more destructive weapons like armor, fighter-bombers, or naval vessels. In this situation, it is arguable that weaponizing and deploying nuclear capabilities will not achieve any greater deterrence.

On the contrary, proceeding to an overt deployed status would exacerbate the dilemmas arising from India’s declared no-first-use policy and its desire to establish a minimum nuclear deterrent force. It would also be destabilizing for five reasons lying partly in the systemic factors distinguishing South Asia and partly in factors that are inherent in the nuclear situation.

First, having identified the need for a triad to establish survivable nuclear forces, India’s ultimate objective would be the acquisition of nuclear missile-armed nuclear submarines, regardless of the time and cost considerations involved. Declarations that only a minimum deterrent force would be deployed would not carry any weight with constituencies like the defense scientists and armed forces that have an interest in qualitatively sophisticated weapon systems being developed and deployed. Inter-service rivalries would also propel the arms race onwards, as has occurred in the other nuclear weapon powers.

Second, once deployment starts, the adherence to minimum quantitative force levels would also be forgotten, as past experience indicates. Considerations of sufficiency would dictate the size of nuclear arsenals, since the bilateral India–Pakistan nuclear standoff would convert into a three-party China–India–Pakistan asymmetry. A decision by one party to increase its nuclear forces would cause anxieties in the others, leading to a three-way arms race. Routine statements would, of course, be made that such actions are purely defensive or meant to replace obsolete weapon systems rather than being influenced by inimical motives.

Third, the smaller the minimum deterrent force, the greater the problem of ensuring its survivability from external attack and internal sabotage. Locating them in one or two storage

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34 These and other policy formulations may be found in the [Indian] Prime Minister’s Statement in Parliament on 15 December 1998 entitled “Bilateral Talks with the United States,” *IPCS Newsletter*, February 1999, 10–11.
centers would increase the difficulty of ensuring their survival. But dispersing them over several sites and separating the warheads from their delivery vehicles would greatly compound the problems of failsafe communications, especially in a nuclear conflict scenario where electromagnetic pulse effects would disrupt communications. The dual requirements of survivability and dispersal skew the argument in favor of larger nuclear forces than are strictly warranted by a minimum deterrent posture.

Fourth, the need would arise to decide whether a countercity or counterforce strategy should be pursued. A targeting policy that consciously focuses on cities would be morally repugnant since it shades over the differences between combatants and non-combatants. It also contradicts India’s earlier offer to Pakistan of extending the agreement on non-attack of nuclear installations and facilities to cities and large economic centers. \(^{35}\) Pursuing a counterforce strategy, on the other hand, requires the deployment of tactical nuclear weapons and a war-fighting strategy; this has its consequential dangers of uncontrollable escalation to general nuclear war. It would also require resolution as to whether a launch-on-warning or launch-under-attack posture would be viable, given the extremely short flight-times for aircraft and missiles between India and Pakistan. Given its greater vulnerabilities, it is likely that Pakistan would opt for a hair-trigger, launch-on-warning nuclear posture, which would add quantum measures to the danger of accidental conflict. These are dilemmas that lie at the heart of the nuclear condition, and have never been resolved.

Fifth, South Asia remains a well-recognized accident-prone region. Accidents involving fires and explosions in arms depots, including missile-manufacturing units, are not uncommon. For that matter, India’s nuclear program has also witnessed several accidents. \(^{36}\) To suggest that its nuclear weapons sites can be accident-free would be fatuous, with horrendous possible consequences. Indeed, the draft nuclear doctrine envisages the need for disaster control, which is not exactly reassuring, \(^{37}\) and points to the risks attendant upon weaponization and deployment. This is quite apart from the dangers of misperception, miscalculation, leadership irrationality, unauthorized or inadvertent use, etc., inherent in a deployed nuclear posture.

\(^{35}\) This proposal was contained in an exchange of ‘non-papers’ between India and Pakistan that occurred in early 1994. For a factual account of this process see USIS Official Text, Third Report to Congress: Update on Progress Toward Regional Non-Proliferation in South Asia, 19 April 1994, 8–10.

\(^{36}\) These accidents have included “collapse during construction of a containment dome at Kaiga, a serious fire at Narora, exposure of 350 workers at Tarapur to radiation exceeding five rems (current limit two rems), leaks from pipes in waste-storage facilities, exposure to plutonium at Trombay, and to ultra-toxic tritium at Rajasthan….“ Cf. Praful Bidwai, “Nuclear Meltdown: Fuelling fears over Foreign Entry,” The Times of India, 28 February 1997.

\(^{37}\) Section 6.3 states, “Disaster Control: India shall develop an appropriate disaster control system capable of handling the unique requirements of potential incidents involving nuclear weapons and materials.” Text of the draft Nuclear Doctrine, 17 August 1999, Internet: http://www.meadev.gov.in/govt/indnucld.htm.
In these circumstances, a decision by India and Pakistan to weaponize and deploy nuclear weapons would be counterproductive for symmetrical reasons. Additionally, a decision by India to deploy only against Pakistan but not against China would be illogical. It would only ensure that China would target India without the latter being able to do the same. Thus, India could obtain some domestic political gains, but no commensurate strategic advantage against China by deploying its nuclear weapons.

In addition, it could be urged that the deployment of mobile missiles would be stabilizing since their detection is very difficult, which ensures their survivability and availability in a second strike. Mobile missiles are comparable in deterrent value to nuclear missile armed nuclear submarines that are virtually undetectable. There are two arguments, however, against deploying mobile missiles in the context of weaponization and deployment of nuclear weapons.

First, a road- or rail-mobile system would be expensive and would require a large unpopulated area of the country, which may not be easy to locate. Besides, given the condition of the roads in South Asia and the accident record of the railways, the likelihood of mobile missiles becoming a menace to the country deploying them cannot be ruled out. There is also the problem of their location being compromised after some years due to “repetitive surveillance, human intelligence, and the disclosure of underground shelters in peacetime alerting exercises.”

Second, mobile missiles compound the problems of command and control. Communicating with mobile missile batteries on the move would be no less difficult than with submerged nuclear missile armed submarines. Furthermore, in the interests of keeping their location secret, all communications would need to be reduced to the absolute minimum, which suggests more delegation of release authority to the battery commanders. The dangers of accident, misperception and unauthorized use increase exponentially with such a dispensation, especially in the absence of credible early warning systems and adequate command and control mechanisms. Thus, deploying mobile missiles would add quantum measures to instability between India and Pakistan rather than stability.

Lastly, how could non-weaponization and non-deployment be credibly verified? This is a challenging question, and it must be readily conceded that no foolproof system exists to meet doubts that weaponization has not taken place surreptitiously. Much depends, naturally, on the faith of a country in the efficacy of its nuclear devices and its conviction that they would function as intended. Within limits, the deployment of weaponized devices could be verified if weapon systems are located in storage depots or transferred to operational sites or utilized in training exercises. But separation of bombs and warheads from their delivery systems would greatly

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complicate verification. The only certain modality for verifying that weaponization and deployment has not occurred would be by intrusive means such as placing surveillance equipment in relevant establishments along the lines of the safeguards arrangements made by the International Atomic Energy Agency (IAEA) to monitor nuclear facilities and installations. This requires a level of trust between India and Pakistan that does not exist and may not exist in the future. Lest this provide cold comfort, it would be instructive to recollect that estimates of warhead numbers and delivery systems, such as cruise missiles and tactical nuclear weapons, have never been wholly reassuring. It would be feckless to assume consequently that the verification of a non-weaponized and non-deployed nuclear posture is possible without a modicum of trust between the two countries. Still, the dilemma does arise whether it would be preferable to adopt a non-weaponized posture that is not fully verifiable, or to weaponize and deploy nuclear weapons with their attendant problems and dangers.

The arguments in this regard can now be summarized. The need for nuclear stability in South Asia is paramount, particularly in an atmosphere where no communication exists between the two leaderships. The deployment of nuclear weapons could destabilize this fragile bilateral situation, especially in the absence of early warning and command and control systems. Besides, the precise involvement of the Indian armed forces in nuclear decision-making is not clear, although the belief exists that “the nuclear devices remain in the possession of the scientists, suggesting that their mating with delivery vehicles would only be effected when deemed essential. Whether this is desirable in peacetime or feasible in an emergency or during an actual conflict is an aspect of the weaponization and deployment option that has never been seriously addressed.”

There are intimations that a Chief of Defence Staff would be appointed who would exercise operational control over the Indian nuclear forces. But it remains unclear what his relation will be with the three service chiefs, or the Prime Minister who would exercise release authority, and which custodial agency will have physical possession of the nuclear arsenal.

In view of these several uncertainties, India could pause at this stage and refrain from weaponizing and deploying its nuclear devices, which would only degrade, rather than enhance, its national security. Because Pakistan would assuredly follow suit, linkages between China and Pakistan would further encrust, and China would target India with its nuclear missiles. More importantly, India would find itself isolated afresh in the international system. Currently, the rigors of the sanctions imposed upon it after the nuclear tests are being eased with the prospect of their review by the new Republican administration in the United States.

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The United States has concluded that neither India nor Pakistan is “going to give up their nuclear weapons,” although greater sanguinity obtains that both countries are not “on the brink of nuclear war over the Kashmir issue,” despite “concern about their nuclear missile production.”

For its part, India has maintained its unilateral moratorium on further nuclear testing, adhered scrupulously by its export control regulations, sought a national consensus on signing the Comprehensive Test Ban Treaty while awaiting its ratification by prominent holdouts, and agreed to participate in the Fissile Material Cut-off Treaty (FMCT) negotiations at the Conference on Disarmament in Geneva. An area of dispute with the United States is emerging, however, due to the strenuous efforts by both India and Pakistan to improve their missile capabilities through periodical flight-testing, which exacerbates bilateral tensions and instabilities.

Clearly, India and Pakistan now face the invidious choice of whether to proceed further with the logic of their nuclear tests to weaponize and deploy their nuclear weapons or observe nuclear restraint after having reached a new plateau in their nuclear capabilities. Proceeding further would prejudice their security and isolate them in the international community. Not doing so would leave India especially with an imperfect deterrent and no credible nuclear capabilities against China. Should a decision, nevertheless, be taken to weaponize and deploy their nuclear weapons, several risk-reduction measures could be contemplated. They are discussed below.

**RISK-REDUCTION MEASURES**

A margin of both nuclear restraint and risk reduction is available to India and Pakistan if their nuclear warheads are not mated with their delivery systems, but kept in different Locations. Apart from the operational problems noticed above in pursuing this modality, there would be difficulty in verifying whether this deployment pattern is developing. Intrusive inspection would be anathema, hence it would be naïve to suggest this verification procedure. Could mechanical or electronic means be used for verification? This requires a level of mutual trust and confidence obtaining between India and Pakistan, which, realistically, does not exist and may not exist in the foreseeable future.

India and Pakistan could unilaterally pursue other risk-reduction measures at this stage when their nuclear capabilities have not matured, despite the absence of a dialogue. Some are

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40 Assistant Secretary of State Karl Inderfurth cited in “India, Pak Urged to Exercise Restraint,” *The Hindu*, 4 November 2000.

included in the Memorandum of Understanding (MOU) that accompanied the ill-fated Lahore Declaration. The MOU enjoined the two countries “to provide each other with advance notification in respect of ballistic missile flight tests,” “abide by their respective unilateral moratorium on conducting further nuclear test explosions,” “undertake a review of the existing communication links…with a view to upgrading and improving these links and to provide for fail-safe and secure communications,” and to “undertake national measures to [sic] reducing the risks of accidental or unauthorized use of nuclear weapons under their respective control.”

Should the dialogue process between the two countries be revived, other measures listed in the MOU could be pursued. They envisage concluding “an agreement on prevention of incidents at sea,” setting up “appropriate consultative mechanisms to monitor and ensure effective implementation of these [negotiated] CBMs,” and engaging in “bilateral consultations on security, disarmament and non-proliferation issues.” In my view, the most urgent item on the agenda is their engagement in “bilateral consultations on security, disarmament and non-proliferation issues” to negotiate confidence-building measures aimed at avoiding conflict. The sub-items in this agenda could be:

- Agreement on how their nuclear capabilities would be designed for deterrent purposes, but not war-fighting. War-fighting requires tactical nuclear weapons which would be very destabilizing in the sub-continental scenario.
- “The need for a common language to understand each other’s signaling, such as sounding different states of alert in an emergency, is of supreme importance to defuse future crises and avoid conflict.”
- There is also the question of some agreement on what impermissible action(s) would invoke a nuclear response. Apparently, in Pakistan, “the assumption has been that if the enemy launches a general war and undertakes a piercing attack threatening to occupy large territory or communication functions, the ‘weapon of last resort’ would have to be invoked.” India has not clarified what it considers impermissible actions. A degree of opacity no doubt strengthens the deterrent, but the complete lack of transparency could lead to serious misperceptions and miscalculations.
- Most importantly, the need for appreciating the reality of nuclear asymmetry would have to be accepted to avoid nuclear arms racing. Pakistan would need to accept the fact that

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India’s nuclear capability has to be designed against Pakistan and China, just as India would have to accept that China’s nuclear capability must configure to the United States and Russia. Strict parity would be unrealistic in the light of differing security perceptions, and seeking this goal could lead to an unrestrained arms race.

Whilst conceding the incomparability of the American–Soviet case and the India–China–Pakistan triangular relationship, Michael Krepon believes that the superpower experience is of value for South Asia. This experience included:

- A formal agreement not to change the status quo, e.g., the Helsinki Accord (1975). The Simla Agreement and the Lahore Declaration provide similar models that need to be operationalized with greater seriousness.
- A tacit agreement to avoid brinkmanship. Kargil embodied the efforts by Pakistan to use its deterrent to achieve its geo-strategic objectives in a territorial dispute. Negative statements by Indian and Pakistani leaders also escalate bilateral crises and constitute a form of verbal brinkmanship. Such statements are designed for domestic audiences, but should be avoided.
- A formal agreement to minimize or avoid dangerous military exercises. An agreement exists in the India–Pakistan context prohibiting military aircraft from flying within specified distances of the border, which is generally being observed. An agreement to prevent incidents at sea involving naval vessels is envisaged in the MOU that accompanied the Lahore Declaration.
- The prior notification of missile launches. This was also catered for in the MOU, and the agreement was envisaged to be converted into a treaty.
- Trust in the faithful implementation of treaty obligations and confidence-building measures. The key element of trust is missing in the India–Pakistan situation. One example would be the use of hotlines to convey misleading information or their disuse in crisis situations.
- Reliance on one’s own monitoring capabilities largely premised on “national technical means.” This is currently beyond the capabilities of India and Pakistan, but could soon become available to India within its ambitious space research program.
- Establishing reliable and redundant command and control arrangements. This, too, was included in the MOU. Little is known in the public domain about what arrangements are available or are being contemplated by the two countries. Except for some discussion on having a secure National Command Authority and National Command Post and

identifying the authority to take ultimate decisions on nuclear war and peace issues, there is little visibility about present or future command, control, communication, and intelligence arrangements.

- Upgrade and strengthen existing risk-reduction measures in quiet times and after crises. This is unexceptional advice for all adversarial countries.

Several other risk-reduction measures could be adopted. They include the establishment of risk-reduction centers manned by mixed groups of officials from both sides to defuse crises before they erupt, exchanging information on national steps to ensure safety and security of nuclear stockpiles, establishing hotlines between the two Air Forces and nuclear establishments, etc.

Undoubtedly, the most significant measure of risk reduction would be the resolution of the Kashmir dispute, which hangs over India–Pakistan relations like the proverbial cloud. Pakistan considers Kashmir to be the “core issue” and the “principle” in contention. However, there is also the belief that, “the threat is not Kashmir alone. The threat goes a little beyond and that there is [sic] domination of Pakistan as desired by India…to dominate its economy and its foreign policy.” The significance of Kashmir for India also arises from a “principle” that it vindicates its secular foundations. India has expended too much blood and treasure for half a century over Kashmir to concede its independence or incorporation into Pakistan. The tragedy is that while India and Pakistan quarrel, it is the Kashmiri population which suffers. Apart from the loss of life and property, Kashmiris have acquired a permanent sense of insecurity. With the rigid positions adopted by both sides, and peace initiatives like the ceasefire being pursued for largely cosmetic purposes, it would be unrealistic to imagine that the Kashmir dispute would yield to either an easy or early solution. It would thus remain the epicenter of the adversarial relationship with the potential to trigger future India–Pakistan conflicts.

CONCLUSIONS

The above pages have argued that the greatest measure of nuclear restraint by India and Pakistan would be not to weaponize and deploy their nuclear devices. India cannot weaponize or deploy nuclear weapons against China without further warhead and missile testing. The space, therefore, exists for pausing on the nuclear path. A realistic assessment of their national security threats would reveal, moreover, that their problems lie in the internal sphere. These internal

problems include the proxy war in Kashmir; ethno-nationalist insurgencies in Northeast India; the chaos in Karachi; unbridled drug and arms trafficking in Pakistan; socio-economic, socio-religious, sectarian, and caste conflict in several parts of the two countries; and, most particularly, the crisis of governance and the criminalization of politics that is hollowing out Indian and Pakistani polities from within. Nuclear weapons provide no real answer to this range of security threats, yet this lesson remains unlearnt. Nor has the wisdom accrued that nuclear weapons serve the limited purpose of deterring nuclear weapons, nothing more.

Greater reflection would also reveal the latent dangers of nuclear weapons that arise from accidents, misperceptions, or miscalculations. It would be naïve to believe that the leaders in India and Pakistan are gifted with some special qualities to act wisely in crisis situations, when the “fog of war” creates grave uncertainties for the decision-making apparatus. The history of the nuclear age provides several examples of leadership irrationality in adversarial dyadic situations, as existed between the United States and the Soviet Union and between the Soviet Union and China. These bilateral interactions had an element of simplicity compared to the triadic relationship that has evolved between India, Pakistan, and China. No precedents or past experiences exist to guide mutual relations in a triadic situation. The learning process would need to proceed with nuclear weapons providing the backdrop. These are further reasons for India and Pakistan to pause and not proceed further with their weaponization and deployment plans.

The issue of weaponizing and deploying India’s nuclear capabilities currently lies recessed in the Indian consciousness and there is no great pressure for proceeding further in this direction. There is little to suggest that the situation is different in Pakistan. Both nations are aware of the international implications and repercussions of taking these steps and the sanctions regimes they would encounter. It is therefore likely that they would maintain their nuclear posture of not rolling back, but improve their nuclear capabilities by computer simulation and laboratory testing without resorting to field-testing their warheads. However, occasional flight tests of missiles would probably continue.

It is conceivable, however, that they would, in the fullness of time, overtly weaponize and deploy their nuclear devices. The precipitating events could be a credible nuclear threat during an external crisis, the supervening imperatives of domestic politics, or developments in the international system like the deployment of a National Missile Defense system by the United States heightening a permissive proliferation ethos. Should that happen, China would augment its nuclear forces to counter the American missile shield and assure itself of a second-strike capability. This would have a catalytic effect on India, which might feel compelled to weaponize and deploy its nuclear weapons, forcing Pakistan to do the same.
The need for risk reduction and confidence-building would then become undeniable. Existing confidence-building measures would need consolidation to avoid conventional conflict, since both non-nuclear and nuclear conflict lie along a continuum. Indeed, the most likely scenario for a nuclear exchange arises from a conventional conflict getting out of hand, rather than a bolt-from-the-blue nuclear attack. In the India–Pakistan context, the lack of mutual trust lies at the heart of their difficulties to enter and sustain confidence-building measures. The entrance of the nuclear genie into South Asia should persuade the two leaderships to establish a modicum of trust to stabilize their adversarial relations, and not propel the two countries across the nuclear abyss.