PROGRAM ON STRATEGIC STABILITY EVALUATION (POSSE)
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Revisiting Indo-Pak Strategic Stability: Contours of South Asian Nuclear Order

Happymon Jacob
Jawaharlal Nehru University, New Delhi

The paper seeks to examine some important drivers that determine the emerging South Asian Nuclear order. South Asia's nuclear order is easily the most dynamic one in the contemporary world. It is also widely considered to be the most dangerous and volatile nuclear order. India and Pakistan officially declared their nuclear status in 1998 although they are supposed to have crossed the nuclear threshold by developing what analyst has called recessed deterrents in the late 1980s. And yet, close to 25 or 14 years, depending upon the timeline one goes by, of 'nuclear existence' has not made the South Asian nuclear order a stable one. This is despite the fact that India and Pakistan arguably had their most successful peace process in this period. The current state of Indo-Pak relations also seem to be heading towards reconciliation and conflict resolution. Why is it that the political rapprochement between the two countries has not led to a stable nuclear order in the region? What explains the fact that despite the ups and downs in the India-Pakistan bilateral relations, the strategic dimension of their relationship remains consistently precarious?

In all, the paper seeks to make seven inter-related arguments: 1) While the political relations between India and Pakistan are showing signs of great improvement, the Indo-Pak nuclear balance remains unaddressed. This can lead to unintended consequences for the region's strategic stability; 2) While there seems to be a genuine political desire on both sides to not let the strategic - read nuclear - dimension get out of control, the technological advancements and the mutually exclusive development of science and strategy will complicate the south Asian nuclear deterrence; 3) While the trilateral aspect of nuclear deterrence in the South Asian region does hinder the region's progress towards stable deterrence, external partnerships (Pakistan-China and India-US) also have significant implications for strategic stability in the region; 4) The conceptual dissonance that exists between the Indian and Pakistani nuclear thinking is likely to have damaging impact on the region's strategic stability; 5) Indian and Pakistani nuclear weapons are more than just weapons: often they carry more symbolic and political value than deterrent value. Such symbolic, nationalist and political considerations can often complicate any thinking in terms of adequacy of warhead numbers, and also could lead to unintended strategic consequences; 6) The Indian and Pakistani nuclear arsenals are still in their 'infancy' and hence the reluctance to limit numbers, define postures, and decide the required technological sophistication; 7) India and Pakistan seem to be seeking to do away with the mutual vulnerability, a necessary precondition for MAD-induced nuclear deterrence to exist, that they face due to the presence of nuclear weapons in their arsenals. The efforts to do so could potentially lead to a debilitating arms race in the region.

Current state of India-Pakistan Relations

India-Pakistan relations have been on an upswing despite the recent ceasefire violations at the Line of Control. In the past two years, the two countries have organised multiple high-level visits to each other's states. The warm welcome the Indian (former) foreign Minister received in Islamabad, the cordial meetings he had with the leading members of the Pakistani government as well as some opposition leaders, the revival of the Indo-Pak Joint Commission and its subgroups to discuss various aspects of the bilateral relationship and the liberal regime agreed to by the two sides at the end of the foreign minister's visit show that Indo-Pak relations are indeed improving.

From the parlays between the home secretaries to the commerce and the foreign secretaries, there have been a number of Indo-Pak official engagements in the past year and these in a sense have managed to deepen the relationship and create a certain sense of purpose and vision, at least from an instrumental point of view.

It is interesting to note that while New Delhi and Islamabad have been making politically correct noises about the 'K' (Kashmir) word and the 'T' (Terrorism) word, the apparent lack of progress on these two items has not prompted either party to call off the dialogue process. While not talking about contentious issues is not the perfect way to resolve them, one has to be cognizant of carefully planning and timing the discussion on contentious issues. Sometimes diplomacy is all about timing.

The politics-strategy divide

As pointed out above, political relations between the two countries are on the upswing: there is a certain level of sincerity, a sense of propose, political willingness and the right atmospherics for the success of the ongoing Indo-Pak dialogue process. However, the nuclear dimension of the bilateral relationship, which, in a sense, is the most significant aspect, remains consistently unaddressed thereby hindering the stability of South Asia's nuclear deterrence.

In other words, the forward momentum in the Indo-Pak political dialogue process is in direct contrast with their dialogue on nuclear related strategic issues. The substantive aspects of the India-Pakistan nuclear dimension remain untouched by the negotiators in the two countries — both after their declared nuclear status in 1998 and earlier during their undeclared status. The 1999 Lahore Declaration was a progressive step that recognised the need to understand the role played by nuclear weapons. It was crafted with a view to "reducing the risk of [their] accidental or unauthorised use" as well as "elaborating measures for confidence building in the nuclear and conventional fields." India and Pakistan have also dutifully followed their 1988 agreement to annually exchange lists of their nuclear installations and facilities, in order to avoid attacks against them.

However, since 1999, all that the two countries have done at successive meetings is to reiterate the spirit of the Lahore Declaration, and review the existing nuclear and missile-related confidence-building measures except, of course, the 2007 agreement. In 12 years, nothing substantial has been achieved by them to bring about nuclear stability in the subcontinent. After the 1999 Lahore agreement which contained important declarations about India-Pakistan nuclear relations - many of which have remained unfulfilled - almost every meeting that has been held between the two

countries thereafter to discuss nuclear issues were either not result-oriented or have remained inconclusive. This despite the fact that a nuclear war between India and Pakistan is arguably more likely than it was between the U.S. and the USSR during the Cold War. One of the reasons is an alarming obscurity to India and Pakistan's nuclear relations, apart from their geographical proximity.

The bliss of nuclear ignorance, which the two countries seem to inhabit in, is characterised by a number of dangerous myths. The first myth is that nuclear deterrence between India and Pakistan will function automatically and there is no need to bother with it let alone creating mechanisms to prevent nuclear use. This argument is mythical because mere possession of nuclear weapons will not guarantee nuclear deterrence or their non-use against each other: there are other important variables that play a role in the nuclear use or non-use decision of a country. The second myth is that the decision makers are not stupid to use nuclear weapons against each other. Again this is not an argument borne out by history. There are enough examples from the Cold War history that suggest that the Cold War rivals had contemplated the use of nukes on a number of occasions. Yet another myth is that nuclear weapons are safe and if the west can manage their nukes why can't we do so!

The fact is that nuclear safety is an issue that needs more detailed consideration in South Asia. Japan, for instance, is one country that is extremely conscious about the safety standards of its nuclear industry and yet Fukushima catastrophe happened, so was Soviet Union and yet Chernobyl took place. Three Mile Island Accident in the US in 1979 is also a case in point. Hence to believe that there is no need to bother with nuclear safety and security at all is living in the fool's paradise. One also has to be circumspect about the claims made by both the governments on the robustness of their respective C3I systems that can prevent untoward nuclear accidents from taking place. In the absence of any established mechanisms or systems such as a Nuclear Risk Reduction Centre (NRRC), the potential for misunderstanding the nuclear-related activities on the other side increases drastically.

This political stability-strategic stability divide in Indo-Pak relations could prove to be disastrous for the strategic stability in the region. Why? First of all, even as the contemporary Indo-Pak relations are moving towards stability, it may be recalled that on many occasions in the past India-Pakistan dialogue processes, which were even called 'stable' and 'irreversible', were 'irreparably' ruptured by unforeseen factors. The peace process that was kicked off by India and Pakistan in 2004 ended abruptly in 2008 following the attack on Mumbai by Pakistan-based terror groups even though both New Delhi and Islamabad had even called the peace-process irreversible. If so, there is no guarantee that the ongoing dialogue process will be able to isolate itself from such imponderables. Hence in such a situation where the dialogue process between the two states breaks up due to reasons that could increase their hostility and if the nuclear aspects of their relationship have not been stabilized by the dialogue process in the first place, there is a possibility of misperceptions, miscommunication, misunderstandings and misgivings can occur and lead to undesirable nuclear scenarios between the two sides. When things go wring between states, what is likely to be focused on are the problem areas than the areas where things are normal.

Technology-strategy divide

Besides the politics-strategy divide in the India-Pakistan peace process, there is also a technology-strategy divide in the domestic sphere in India and Pakistan. Consider this: even as India and Pakistan are serious about achieving a certain level of political rapprochement in their relations and are seemingly making national security strategies along the lines of mutual accommodation, there seems to be a clear divide between the technological and or military constituencies and the politico-strategic communities in their respective countries. In other words, technological innovations, sophistication and intrusions in the strategic weapons field can potentially become an independent variable in Indo-Pak political relations. Differently put, are strategic thinking and political considerations preceding the adoption and introduction of new strategic technologies or is politico-strategic policy formation merely following technological advancements and determinism? And what are their implications?

Let me explain this a bit further. In Pakistan, for instance, the civilian establishment is sincere in its efforts to avoid a nuclear confrontation with India. The Pakistani civilian establishment is clearly seeking strategic accommodation with India for a variety of political, domestic, strategic and reputational reasons. First of all, even though the launch authority of nuclear weapons is in the hands of the Pakistan president, given the civil-military relations that exist in Pakistan, there is no clarity as to whether the Pakistan army accepts civilian supremacy in matters nuclear. Secondly, the civilian political establishment almost never articulates Pakistan's nuclear policies and postures; it is almost always done by it military. Thirdly, given that Pakistan does not have a clearly articulated nuclear doctrine and due to the civil military friction, it is not possible for the Pakistani civilian leadership to give political directions for its nuclear programme. The civilian establishment in Pakistan also seemingly in favour of adopting a no first use of its nuclear weapons, but the Pakistani military establishment would object to that.[1] Indeed, President Zardari had made such a statement in 2008. The Pakistani nuclear doctrine has never been clearly articulated by its civilian establishment, unlike the Indian case where the military establishment has no say in the country's nuclear doctrine. However, Pakistan's nuclear doctrine has been articulated by many military officers including the head of the Strategic Plans Division (SPD).[2] This clearly tells us that the military/technocratic establishment in Pakistan thinks about the role of its nuclear doctrine, nuclear postures and technological innovations which may not necessarily be shared by its civilian establishment. If that is the case, the dialogue process with India that Pakistan's civilian establishment spearheads can be considered as completely divorced from the strategic thinking and technological advances in strategic weapon systems. This would mean that it is the strategizing by the Pakistan military and technological innovations/sophistication under their supervision that precede the Pakistani civilian government's political thinking and policy adoption and foreign policy postures. This is clearly damaging for Indo-Pak relations as well as the region's strategic stability.

In the Indian context, the thinking on Ballistic Missile Defense can cause such problems. In a report titled earlier this year as "Government baffled over DRDO chief's claim on missile shield", the India Today wrote: "The government of India has been baffled by DRDO chief V.K. Saraswat's repeated claims that a ballistic missile shield is ready for deployment, and that two locations, presumably New Delhi and Mumbai, will be the first recipients of the ballistic missile defence (BMD) system. Speaking on a TV programme in early May, Saraswat said that "this system is now ready for induction". Nearly two weeks later, the claim was repeated in an interview

to Press Trust of India where Saraswat was quoted as saying, "The ballistic missile defence shield is now mature… We are ready to put phase I in place."[3]

Saraswat also argued that "India is putting together building blocks of technology that could be used to neutralize enemy satellites. We are working to ensure space security and protect our satellites. At the same time we are also working on how to deny the enemy access to its space assets".[4]

It is interesting that even as there is a consistent effort underway in India to build Ballistic Missile Defence capability, none of the civilian political leaders has ever made any statement regarding this, nor has this been discussed in the Parliament despite the long term and dangerous implications that the introduction of BMD technology can have for Indo-Pak nuclear deterrence. While the defense technocrats of the country, such as Saraswat, gives out details regarding such strategic programmes from time to time, the civilian bureaucracy or the political class do not make such statements. While it is easy to argue that members of the civilian bureaucracy or the political class do not understand the technical details of this and hence they do not talk about it, the fundamental reason behind this 'technology-strategy' divide is the manner in which technological imperatives is driving India's strategic decision making. Indeed, this divide between the technological imperatives and the political declarations and posturing is not seen for the first time in the Indian strategic decision making scene. Itty Abraham's writings have focused on the role of the members of the civilian scientific establishment.[5] The role of the political class in decision making in the field of strategic technology weapon systems has always been very limited.[6]

The example of India's decision to develop nuclear weapons is illustrative in this context. The Indian political class has, ever since the onset of the nuclear programme soon after independence, always been ambivalent about whether or not to develop nuclear weapons. Hence after India tested its first nuclear device in 1974, the country, being in denial, called it a 'peaceful nuclear explosion' and, according to some accounts, even regretted the decision to go nuclear.[7] If anything, it is ambivalence that strikes us when we examine how the Indian political leadership and strategic elite viewed the issue of nuclear weaponisation over the decades. However, the Indian scientific community closely associated with nuclear matters has always been steadfastly developing the necessary technological capability for weapon purposes. While Prime Minister Nehru kept his options open even as pursuing global nuclear disarmament, the father of the Indian nuclear programme, Homi Bhabha, was keen on developing nuclear weapons. To quote Indian writer M. V. Ramanna: "Balancing this concern of Nehru's in nuclear disarmament was Bhabha's interest in and awareness of weapons technology. As early as 1959, he told the Parliamentary Consultative Committee on Atomic Energy that India's atomic energy programme had progressed to the point where it could make atomic weapons without external aid if called upon to do so."[8] He also argues that the Indian scientific community, to some extent, sought power through claims of scientific knowledge and expertise. In short, for a long time the Indian political class was against a nuclear weapon programme and the civilian strategists did not factor nuclear weapons in their strategic thinking even as the nuclear scientific community in the country was working towards a weapons programme especially after the death of Nehru.

This clear divide in the political and scientific thinking processes, in a sense, underlines the development of the BMD technology in the country today. The political leadership of the country or the strategic community in general do not seem to be thinking along the lines of a BMD system but there are clear indications that the scientific community is going in that direction.

Whether or not India actually develops the BMD system eventually, the civilian-scientist divide and the high levels of ambiguity with regard to the BMD system in India can lead Pakistan to adopting a variety of countermeasures. Pakistan is already, in response to India's BMD plans, carrying out a number of tests of its nuclear-capable cruise missile, Nasir, as it believes that it has the capability to frustrate the BMD capability that India is building. Pakistani scholar Mansoor Ahmed explains the potential Pakistani countermeasures against the Indian BMD:

> Countermeasures could range from Maneuverable Re-entry Vehicles (MRVs) to maneuverable warheads deployed on single warhead systems such as the road-mobile Shaheen-I & II. These missiles can be launched on relatively short notice and are capable of striking targets deep inside India. Pakistan may already have developed MRVs for its Shaheen series of missiles, which would make it difficult for Indian BMD's to shoot them down. However, the development and deployment of Multiple Independently Targetable Re-entry Vehicles (MIRVs) seems to be the logical next step for Pakistan as a response to India's BMD. But MIRVs require mastery in developing miniaturized, efficient, lightweight, powerful warheads whose yield may vary from kilotons to megatons. If the official claim of having built a nuclear-capable tactical/battlefield ballistic missile NASR is credible, then Pakistan appears to have succeeded in acquiring the capability to miniaturize nuclear warheads to the extent that these can be launched from tactical, MIRVs and cruise missiles.
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> With MIRV and miniaturized warhead capability in place, Pakistan is likely to proceed with the deployment of compact and sophisticated plutonium-based boosted-fission and/or thermonuclear warheads on a variety of launch platforms, such as aircraft, land-based mobile or silo-launched ballistic missile sites, and most importantly submarines.[9]

The above discussion points towards the strategic arms race that is underway in the Indian subcontinent. This is despite the dialogue process that the two civilian political establishments are conducting.

External partnerships and strategic stability

Another factor that is clearly undermining strategic stability in the region is the attempt by India and Pakistan to enter into external nuclear partnerships with USA and China respectively. The Indo-US nuclear agreement is a clear case in point. Even as the Indians insist that it is a "civilian" nuclear agreement with the United States, the Pakistani side firmly believes that it can give India undue advantage in the South Asian nuclear balance. They argue that the Indo-US deal can lead to quantitative and qualitative improvement in Indian Nuclear arsenal.

While the trilateral aspect of nuclear deterrence in the South Asian region does hinder the region's progress towards stable deterrence, external partnerships (Pakistan-China and India-US) also have significant implications for strategic stability in the region.

On the potential of the Indo-US nuclear deal, the Pakistan Foreign office spokesperson said in 2007: "Pakistan's position on the US-India nuclear agreement is well known. First, we share the concerns of security analysts that the agreement would help bolster India's nuclear weapons capability. We will continue to watch the situation closely".[10] According to the Dawn newspaper Pakistan's NCA also argued that the Indo-US nuclear deal could ignite an arms race in the region.[11] Well-known international scholars like George Perkovich also argue along these lines.[12]

Indeed one of the major reasons why Pakistan is blocking the start of negotiations for a Fissile Material Cut-off Treaty (FMCT) is because it believes that India will be able to have huge amounts of fissile material in future due to the Indo-US nuclear treaty and hence, comparatively, Pakistan will have much less. This sense of inferiority in future fissile material stockpile made Islamabad to block negotiations on FMCT.

In response to the Indo-US nuclear deal the Pakistani government sought a nuclear deal from China. After initial reluctance, the Chinese government agreed to a deal to supply two nuclear reactors to Pakistan without the approval of the Nuclear Suppliers Group (NSG) of which China became a member in 2004. These rectors will be based at the Chashma nuclear complex. Interestingly, China is already constructing two other reactors from an earlier nuclear deal with Pakistan. According to Mark Hibbs "Chinese officials said last month that export of the reactors to Pakistan would be justified in consideration of political developments in South Asia, including the entry into force of the U.S.–India deal and the NSG exemption for India."[13] It is necessary to recall here that China has a long history of providing nuclear and missile related help to the Pakistani state.[14]

The conclusion we can draw from the above discussion is that the external partnerships that India and Pakistan have with US and China, respectively, both of who have clear strategic interests in the South Asian region, have indeed, and will continue to, push the region towards arms races and strategic instability.

The question of conceptual dissonance

The conceptual dissonance that exists between the India and Pakistani nuclear thinking is likely to have damaging impact on the region's strategic stability. Indian and Pakistani thinking on the role of nuclear weapons in their respective national security strategies are completely divergent: while India considers its nuclear weapons as a deterrent against an attack on itself with nuclear weapons, Pakistan has lowered the nuclear redline considerably arguing that any attack, including economic 'strangulation', can invite nuclear response from Pakistan. Pakistan does not have a no-first-use policy of nuclear weapons which simply means that in Pakistan's strategic thinking nuclear deterrence is an extension of conventional deterrence. These divergent rationalities in understanding the role of nuclear weapons as well as regarding nuclear deterrence could potentially frustrate the region's strategic stability.

Doctrinal dilemmas

Doctrinal and conceptual clarity on nuclear strategy is fundamental to the existence of stable deterrence in a nuclearised geopolitical context. This is recognised by the Lahore Declaration, which states "[t]he two sides shall engage in bilateral consultations on security concepts, and nuclear doctrines".[15] The agreement has remained a mere promise. Although the strategic elites in both countries have pondered over their nuclear doctrines *ad nauseam*, they seem to have overlooked the ways in which credible cooperation may occur in order to achieve feasible nuclear risk reduction measures and nuclear stability. Such deficient thinking has led to a unilateral offensive strategising and the formulation of military doctrines such as India's 'Cold Start', and the adoption of an asymmetric escalation posture by Pakistan.

Problems of ambiguity

The introduction of nuclear weapons in the Indo-Pak balance of power has not been to India's advantage. It has given the country diminishing returns from its conventional superiority and created a troublingly unpredictable nuclear escalation ladder. Moreover, Pakistan's ambiguous nuclear doctrine has plunged India into a deep dilemma on how to respond to the proxy wars that it believes Pakistan has unleashed upon it. India was forced to redeploy its forces after massing them on the border during the 2001-2002 military standoff in the wake of the attack on Indian Parliament, precisely due to this uncertainty.

Pakistan has apparently kept its nuclear doctrine ambiguous to continue to perplex Indian strategists. It has dismissed the credibility of India's declared no-first-use (NFU) doctrine and but has not elucidated the conditions under which it would be prompted to use its nuclear weapons. Apart from outlining some painfully general conditions of potential nuclear use, Pakistan has deliberately kept its 'threshold levels' or the 'red lines' unclear, contending that this is its only possible option to prevent an Indian attack. It is an argument that stems straight from the classical deterrence theory.

This ambiguity in the India-Pakistan conflict dyad has led to deterrence instability in the region, rather than deterrence stability. In a conflict dyad, theoretically speaking, when both parties clarify their nuclear postures, there will be relative stability. However, when both maintain doctrinal ambiguity there is likely to be increased stability; paradoxically, under such conditions deterrence has the maximum advantage. On the other hand, when one party maintains doctrinal clarity and the other maintains doctrinal ambiguity, there is likely to be instability rather than stability. This happens because the party that chooses to keep its doctrine ambiguous is also assumed to keep its various options open — 'flexible responses'— including the tactical use of nuclear weapons. This generates a dilemma for its opponent, which is denied the option of similar flexible responses due to its pre-declared postures and resultant concerns about public opinion.

Cold Start

Cold Start, the Indian military's 'undeclared' doctrine, is assumed to be a response to this dilemma India faces from Pakistan's doctrinal ambiguity. Indian strategists believe that if India were to use its Cold Start doctrine, it would have a flexible response option that may counter the open-ended Pakistani nuclear strategy. Cold Start imagines enabling the Indian military to carry out quick, offensive operations against Pakistan without crossing the latter's nuclear red lines in order to dismantle

the terrorist infrastructure on the Pakistani side. Critics have argued that the doctrine is nothing but 'hot air' as it has neither New Delhi's political backing nor is it considered a serious war-fighting strategy by the Indian army. While such scepticism may or may not be well-founded, the fact is even if some sections of the Pakistani war planners believe India is somewhat serious about Cold Start, it could lead to counter-strategising.

The existence of such doctrinal ambiguities, security dilemma and deep mistrust of each other — combined with the lack of a clear civilian control of nuclear weapons in Pakistan — means nothing short of a recipe for disaster for the region.

Dangers of nuclear nationalism

Indian and Pakistani nuclear weapons are more than just weapons: often, they carry more symbolic and political value than deterrent value. Such symbolic, nationalist and political considerations can often complicate any thinking in terms of adequacy of numbers, and also could lead to unintended strategic consequences.

On Pakistan's display of nuclear nationalism on the first anniversary of its nuclear tests in 1998, Zia Mian writes in the following words: "The narratives and displays that made up the first May 28 celebration (first anniversary of Pakistan's nuclear tests), in 1999, are revealing. The plans for what the government called a celebration of "self-reliance", and of an "impregnable defence" included "a competition of ten best Milli songs, seminars, fairs, festive public gatherings, candle processions, sports competitions, bicycle races, flag hoiting cerimonies etc. People will offer Namaz-e-Shukrana as well. Apart from this special programmes for children will be arranged. Debates will be held among school children".[16]

On the issue of nuclear nationalism in India, Shankaran Krishna writes:

> This perceived Western indifference, if not contempt, toward India is one of the most consistent themes underlying middle-class support for the tests, and for India's nuclear program in general. The feeling was that this would awaken the West to In- dia's development, her successes and accomplishments, and her real status as a world power—and counter a media obsession with rail accidents, natural disasters, poverty, dowry deaths, and the caste system. Achievement of "great power status," membership in the UN Security Council, recognition as a "global player"—these are repeatedly touted as the desired outcome of, and reason for, the tests of 1998.8 The bomb has a polyvalent quality in such discourses—what Appadurai calls "semiotic virtuosity"— wherein it stands for a number of things simultaneously. It is regarded as a sign of India's advancement and equality with the Western developed countries, a negation of stereotypes about the effeminacy and historical weakness of the nation, and an argument against the mimetic and derivative nature of its science and technology.[17]

While the Pakistani nuclear bomb is widely referred to as the "Islamic Bomb", the social and religious imageries of the Indian bomb are not widely understood. Zulfikar Ali Bhutto famously argued that "the Christian, Jewish and Hindu civilisations have this capability. The Communist powers also possess it. Only the Islamic civilisation is without it." Raminder Kaur looks at the "effects of the 1998 nuclear tests in

Mumbai's popular culture among… its political society". To do so, Kaur analyses the spectacles and audiotaped narratives that accompanied Ganapati festival displays (Mumbai's major annual festival). She notes in her article that "discourses evident in many of these sites of popular culture neither follow governmental ideology nor provide a space of outright resistance to state decisions. Rather, they present a space for critique and reflection in culturally inflected and imaginative ways that draws upon state/elite and activist discourse but is not hemmed in by them."[18] She further argues that "nuclear issues are embedded in cultural and religious narratives, along with the resurrection of Gandhian notions involving nonviolence, Nehruvian ideas of state-led development, and the rhetoric of self-reliance and independence."[19]

Nuclear weapons are politicized weapons in India and Pakistan with religions, cultures, middle class ambitions, and identity concerns having a role to play in their popular conception and imagination. While it is not irrelevant to make the argument that the nuclear decision makers are a rational lot and they are unlikely to be persuaded by these non-rational factors, it is also necessary to consider that in times of conflict, wars, emergences and other extra-ordinary circumstances, non-rational reasons could play a role in deciding the course of conflicts and wars. The argument is not that religion and cultural aspects have a definitive role to play in the nuclear decision making, but that these factors could influence the discourses surrounding nuclear issues and these discourse could have potential, indirect though, impact upon nuclear decision makers, conception of the role f nuclear weapons in national strategy and the social legitimacy surrounding the use and rhetoric of nuclear weapons.

Problems of nuclear infancy

The Indian and Pakistani nuclear arsenals are still in this 'infancy' and hence the reluctance to limit numbers, define postures, and decide the required technological sophistication. Cold War literature on nuclear strategy suggests that paranoia and existential fears can dominate the minds of the decision makers of a state if its still in the early stages of building a credible, second-strike capable, survivable nuclear deterrent. The reason for such fears is that it is during those early periods of a state's development of nuclear arsenal that its adversary will try and take out its nuclear assets without fearing a retaliatory strike on itself for waiting for the country to develop a full-fledged nuclear capability would be disadvantageous. This fear instills a need to try for maximalist approach to warheads numbers, high-pitched nuclear rhetoric and hair-trigger alert states.

Given the secrecy surrounding the Indian and Pakistani nuclear programmes one is not fully sure of the status of their deterrent capability. India does not exhibit signs of a pre-emptive counter-force nuclear strike by Pakistan for many reasons: 1) it has a fairly well developed nuclear arsenal (warheads, delivery mechanism and two legs of the planned three triads are already in place); 2) its strategic depth lends it the ability to disparately locate the arsenal; 3) it has a well-developed command and control system; and 4) it believes that since it maintains a policy of no-first use of its nuclear weapons, Pakistan will be less tempted to attack. India has also declared a voluntary moratorium on further testing of nuclear devices. That said, the Indian government is unwilling to sign any treaties that would require it to legally undertake not to test any more devices nor has India clarified a certain limit on the number of warheads it would like to maintain. This is perhaps due to: 1) it is unsure of Pakistani intentions, 2) its thermonuclear test of 1998 may have been a dud, as many involved with the

tests have claimed now, 3) its nuclear triad is still not in position; 4) it is unsure whether 90-110 warheads are good enough to counter the ever-increasing Pakistani arsenal.

On the Pakistani side the fear seems to be more. 1) Pakistan fears that India might actually attack Pakistan as a response to terrorist strikes against India originating from the Pakistani soil. By building a huge nuclear arsenal, including tactical nuclear weapons, Pakistan believes that it will be able to psychologically dissuade India from doing that; 2) Pakistan does not have adequate strategic depth; 3) its nuclear triad lags behind that of India; 4) it fears that the USA will try and take out or take control of its nuclear assets; and 5) Pakistan does see nuclear weapons as usable weapons across, both at the tactical and strategic levels.

What this means is that the India-Pakistan 'nuclear race' is unlikely to come to an end anytime soon. Hence there will be no mutual agreement on nuclear arms control, or even serious nuclear CBMs. There is also a race for technological sophistication and conventional arms build-up. Such situations are patently characterized by strategic uncertainty and breed misperceptions, misunderstandings and miscommunication. Surely a recipe for danger it is.

Surpassing vulnerability

India and Pakistan want to do away with the mutual vulnerability, a necessary precondition for MAD-induced nuclear deterrence to exist, that they have due to the presence of nuclear weapons in their arsenals. The efforts to do so could potentially lead to a debilitating arms race in the region.

For the Indian side, the desire to do away with vulnerability comes form the thinking that being vulnerable to a failing state is foolhardy. Moreover, given the fact that Pakistan has diluted the MAD principle by lowering its nuclear threshold has clearly compelled India to look for ways to do away with its vulnerability vis-à-vis Pakistan. In other words, when there is no distinction between nuclear threats and conventional threats that a country poses against another, the deterrer is not persuaded to think that ensuring mutual vulnerability can deter the deteree from attacking it.

For Pakistan, the desire to do away with vulnerability comes from two quarters. One, Pakistani strategists think that India's conventional superiority can harm Pakistan especially when India has been considering flexible conventional options in the form of 'Cold Start' etc. If Pakistan wants to deter India from conventionally hurting the former, it needs to keep open its nuclear option against India's conventional strategy. Secondly, India accuses Pakistan of using terrorist attacks against India which it wants to deter by having the 'Cold Start' doctrine. Pakistani stand is that terrorists attacking India may be based in Pakistan but are not under its control. And the Indian retaliation to a supposed Pakistani aggression needs to be deterred by nuclear threats.
In order to make its nuclear response to India's conventional threat, Pakistan has reportedly been developing tactical nuclear weapons. This Pakistani reasoning and strategies, in effect, rule Pakistan's strategic vulnerability out of the Indo-Pak nuclear equation.

The absence of vulnerability, as pointed out above, leads to the erosion of deterrence based on MAD and gives rise to a felt-need by both the states to look for better ways

of ensuring their security. India's search for BMD capability, to offset Pakistan's unwillingness to abide by MAD, is an example in this regard. Pakistan is likely to respond to Indian BMD plans by sharply increasing their arsenal, developing a number of tactical weapons, adding the necessary tactical delivery vehicles and thereby entering into an aggressive arms race. While only mutual vulnerability can ensure deterrence in a nuclearized conflict it is this very vulnerability that the two countries are desperately trying to surpass due to structural reasons such as power asymmetry and the presence of terror groups.

Have the two sides learned anything from the missed disasters?
I would say that the two sides, the wider publics especially, are yet to learn about the disastrous implications of a nuclear confrontation between them, something Nye argues that the USSR and USA did learn. There has also not been much mutual learning about the C&C systems of each other and the incumbent dangers of escalation. Most importantly, the two sides have also not learned jointly about the "volatility of the arms race", to quote Nye.[20]

There are however other examples which show a lack of joint learning by the two countries. One primary reason for this is that the two countries do not have a useful nuclear dialogue going on between them.

The prevalence of competitive testing of missiles by the two sides shows that nuclear weapons and the related accessories are also used for symbolic purposes by the two countries to cater to the domestic audiences. Moreover, the two sides also engage in declarations aimed at each other at the time of these tests leading to further arms race. In other words, arms race stability is something that the South Asian nuclear dyad has to learn. Not only have these symbolic reasons been increasing the arms race in the region but also the material considerations of the two countries: India would like to put in place partial ballistic missile interception capabilities and have the nuclear triad in place; Pakistan would like to bolster its nuclear capability by increasing arsenal and offensive capability including for tactical scenarios.

Areas where joint learning can/should take place
The two areas where there has to be lot more mutual/joint learning in the nuclear field is CBMs and doctrinal understandings. It is not enough for the track-two participants to discuss the possibility of the doctrinal ambiguities and how to resolve them, the officials on both sides have to do that in order to understand the assumptions, redlines and options better. What is promising in all this, however, is that the compliance record of nuclear CBMs between India and Pakistan is commendable and this is an indication that what is needed to be done is to put together more nuclear CBMs.

Negative lessons
Various Indo-Pak crises have taught each other not to trust the other side. If for Pakistan the lesson came from India's Siachen encroachment, for India the lessons of Kashmir, Kargil, attacks on the Parliament and Mumbai were good lessons. This lack of trust is seen in the nuclear field as well. Pakistan has no faith in the Indian 'No First Use' declaration. India knows too well that Pakistan will make use of the nuclear umbrella for it's under-the –radar anti-India activities.

While India's conventional superiority has led Pakistan to seek sub-conventional warfare to achieve its objectives, the nuclear overhang that prevents New Delhi from responding to Pakistan's sub-conventional tactics has led it to look for flexible responses (*a la* Cold Start, trusted by some actors to have uses): both are examples of negative learning. Yet another example of negative learning is the belief that seems to be prevalent in New Delhi, perhaps also in Islamabad, that when things spiral out of control, the United States will intervene and cool things down. That is a negative lesson because it is dangerous to get on to an escalatory ladder (which could potentially lead up to nuclear levels) assuming that a third country would most certainly not let it happen. What if the sequence of events turns out to be too quick for US diplomacy to handle especially given the fact that US-Pakistan relations may not retain the same warmth forever?

Conclusion

The primary argument that this paper has made is that the South Asian nuclear deterrence is far from being stable despite the rapprochement in the political relations of the India and Pakistan. The precarious nature of the South Asian nuclear order arises from a variety of reasons that this paper has outlined in some depth. There is therefore an urgent need to isolate the India-Pakistan nuclear relationship from the ups and downs ('weather-fluctuations') of Indo-Pak bilateral relations. Nuclear dimension should not be considered as just another item on the agenda of Indo-Pak dialogue, but as a separate and high-priority track in the dialogue process between the two sides.

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