Conceptualizing the Relationship Between Nuclear Learning and Doctrinal Thinking: Understanding the Pakistani Perspective and Assessing Deterrence Stability

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A doctrine is an embodiment of ideas—stated or unstated—meant to address, how, under what circumstances, and for what purposes a state would use—or consider using—its nuclear weapons. A doctrine addresses the use of nuclear weapons at two levels: the policy and operational level. At the policy level, a doctrine is meant to reflect upon the objectives that would invoke nuclear use. At the operational level, it is meant to explain how nuclear weapons would be used and thus involves elaborate thinking on issues of deployment patterns, targets, quantification of weapons, variety, ranges etc.

Since nuclear doctrines are critical for deterrence stability, they have long received enormous scholarly attention. Pakistan, however, presents a particularly challenging case in this regard. Given the ambiguity that shrouds Pakistan’s nuclear doctrine, its study is a pressing task. Yet, a reasonable number of attempts have been made to explore what Pakistani doctrinal thinking looks like, what motivations drive Pakistan’s nuclear policy, what possible political objectives Pakistan might try to achieve through its nuclear weapons, and what exactly would be the operational plan for using nuclear weapons.

There are very few areas where Pakistan has a stated position regarding its doctrinal thinking. The unstated nature of doctrine keeps most of the analysis interpretive and at times even speculative.

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3 Minimum credible deterrence again has been one such idea that has received enormous amount of attention both in policy positions as well as academic writings. Much, however, is left unsaid when it comes to explain what would constitute a “minimum deterrent.” See for instance, Sadia Tasleem, “Towards an Indo-Pak Nuclear Lexicon – II: Credible Minimum Deterrence,” IPCS, No.3330 (11 February, 2011) available at http://www.ipcs.org/article/pakistan/towards-an-indo-pak-nuclear-lexicon-ii-credible-minimum-deterrence-3330.html. Besides, Pakistani leadership has categorically stated that it would retain the right to use its nuclear weapons first, what exactly would be the red-lines is however, much a matter of speculation. On other issues like targeting policy, there is no clearly outlined plan.
Consequently, more recent developments in Pakistan’s nuclear weapons and missile capabilities have generated some debate as to how these developments will affect Pakistan’s doctrinal thinking. Are these developments an indicator of shifting trends in Pakistan’s doctrinal thinking? For instance, is Pakistan moving away from a minimum credible deterrence posture and to a nuclear war fighting one? It is hard to have a yes or no answer to this question due to the fluidity of the situation but more so because there is hardly any evidence available to testify that recent developments actually indicate a shift. It has yet to be proven that whatever was said and thought true in the past was actually accurate. There are serious gaps to be filled in this regard—gaps that would need archival evidence to set the record straight.

The purpose of this paper, however, is not to address any of the above mentioned questions. Neither does this paper make an attempt to elaborate on what exactly is Pakistan’s doctrinal thinking. Rather, it asserts that the existing discourse on Pakistan’s nuclear doctrine is either based on an assessment of Pakistan’s conventional and nuclear capabilities or a somewhat static understanding of Pakistan’s political objectives. Mostly the available discourse does not take into account the process of nuclear learning and its impact on doctrinal thinking.

This paper aims to focus on nuclear learning as a source that largely informs and influences a state’s doctrinal thinking. It claims that an effort to understand the relationship between nuclear learning and doctrinal thinking needs to take into account the following factors.

- Nuclear learning is neither linear nor irreversible,
- Learning occurs at the individual as well as organizational level,
- Nuclear doctrine operates at policy and military strategy levels. As a result, the doctrine may not always be as coherent as expected.

The interaction and intersection between the levels of learning and levels of doctrine present a challenging puzzle to solve. The idea here is to first revisit the existing works on nuclear learning with reference to Pakistan, then build a framework of analysis to explore the relationship between nuclear learning and doctrinal thinking, and later analyze Pakistan’s case in this light. In the end it aims to briefly discuss the impact of existing and emerging doctrinal trends on deterrence stability.

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5 It assumes that “state” per se does not learn. It is the key individuals, decision-makers or organizations that go through the process of learning. The word “state” would therefore be used interchangeably for decision-makers and organizations. It is also important to mention here that this is a preliminary attempt to develop basic ideas and offer food for thought for conducting further research on this subject. It therefore by no means claims to be a definitive work on the subject. It is however hoped that a study like this might help develop a framework that would be useful to conduct further study.

6 Sagan notes, “… nuclear doctrine in new nuclear states, such as India and Pakistan, is a moving target, as political and military leaders are seeking to develop plans and procedures in new and unfamiliar strategic conditions.” Sagan, “Evolution of Pakistani and Indian Nuclear Doctrine,” 227.
What We Know: Pakistani Doctrinal Thinking

Literature on Pakistan’s nuclear behavior is scant. Besides, what little has come out in the form of published work focuses only on crisis periods.\(^7\) The opinion of scholars on the question of learning therefore remains heavily divided. In addition, the ongoing debate either remains inconclusive or depends heavily on assumptions rather than empirical evidence and an elaborate conceptual framework. P.R. Chari, for instance, claims that the leadership in India and Pakistan has learnt nothing and forgotten nothing over the course of their rivalry.\(^8\) While Hasan Askari Rizvi highlights the possibility of learning by noting that “…Pakistani security institutions may be reevaluating their core strategic assumptions and calculations.”\(^9\) He, nonetheless, leaves the discussion on Post-Kargil learning inconclusive because of the lack of information. Another significant contribution to the literature on this subject is the work by Russell J. Leng, who attempts to analyze different crises between India and Pakistan including Kargil (1999) and the 2001-2002 military standoff. He devotes at least some part of the discussion to nuclear learning. He concludes that “the two sides have been learning, but they have been predisposed by their realpolitik beliefs to draw only certain types of lessons from their behavior. Each successive crisis raises the reputational stakes for both sides, and each success or failure is attributed to the state’s ability to demonstrate superior resolve. Coercive bargaining strategies and tactics have created a self-fulfilling prophecy.”\(^10\)

Leng’s study, however, relates to crisis periods rather lessons learned after crises. It also focuses on the operational strategy rather than broader strategic thinking. This paper makes an attempt to build a framework that could help understand the relationship between nuclear learning and doctrinal thinking both at policy and military strategy levels. Based on this framework, it aims to highlight an alternative way of looking at Pakistan’s case and helps make better sense of the Pakistani perspective.

Building a Framework of Nuclear Learning and Doctrinal Thinking

Nuclear learning is a process that either brings a change in existing beliefs and ideas or reinforces the old ones based on experience, sources of study, and analogies.\(^11\) It recognizes that learning occurs in many forms and at various levels, often simultaneously. Learning also occurs through a variety of sources including knowledge of history, events, and experiences and the tools of analysis used to interpret or analyze those events. On issues that exist purely in the domain of theory, dominant ideas

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9 Rizvi, “The Lessons of Kargil as Learned by Pakistan,” 351.
10 Leng, “Realpolitik and Learning in the India-Pakistan Rivalry,” 125.
11 Nuclear learning is treated as any inference rather than positive inference in this paper. Since positive and negative learning is often hard to determine with reference to contemporary analysis. For a detailed discussion on this aspect see, Jack S. Levy, ibid, pp. 291 – 294.
in the global discourse or the debates in the existing literature become the primary source of learning at least in cases where the indigenous discourse is under-developed.\textsuperscript{12}

It may also be noted here that a learner may draw different inferences from different sources that inform his or her learning over a single issue, which results in contradictions reflected in the learner’s behavior. Also, it is highly important to understand that learning may not always be a long-term, continuous, and linear phenomenon. The challenge emerges from the fact that learning heavily depends on leaders. Therefore, with a change in leadership, lessons may not always be retained and the question then remains as to how much institutional memory lives on.\textsuperscript{13} Policy changes made on the basis of learning by one leader might be less permanent than the operational changes.

**Nuclear Learning and Doctrinal Thinking**

A state’s conception of nuclear weapons lies at the heart of its doctrinal thinking. What is the purpose of acquiring a nuclear weapons capability? In Pakistan’s case, there was a need to offset the conventional balance and deter invasion. Over time objectives and purposes for these weapons become much more complex, which complicates the learning process. Since factual learning about nuclear weapons is a linear phenomenon, the knowledge about nuclear weapons may therefore increase over a period of time.\textsuperscript{14} Inferential learning, however, is a non-linear phenomenon and occurs at multiple levels simultaneously, sometimes even with contradictory lessons.\textsuperscript{15} And, it is largely the inferential learning at various levels that informs a state’s conception of the role of nuclear weapons and therefore clouds its doctrinal thinking.

The role of nuclear weapons at different levels may vary. Two broad categories can be identified; these include policy and military strategy. If the state’s policy and its military strategy correspond to each other, doctrinal development becomes a simpler process. If, however, there is a mismatch between policy and military strategy, which happens at different levels of analysis, the resulting doctrine would be complex and subject to contradictions.\textsuperscript{16} If a state looks at nuclear weapons purely as a political instrument with a limited deterrent role, its military force posture should match as

\begin{itemize}
  \item \textsuperscript{12} Toby Dalton and Sadia Tasleem, “Reading Brody in Islamabad: Pakistan’s Nuclear Thinking and the Future of Deterrence Stability in South Asia,” (Unpublished Manuscript).
  \item \textsuperscript{14} Key sources of learning include events, experiences, belief systems, realpolitik considerations, analogies, global strategic culture, etc. For details see, Leng, “Realpolitik and Learning in the India-Pakistan Rivalry”; Sagan, “Evolution of Pakistani and Indian Nuclear Doctrine.” Types of learning include factual learning, diagnostic learning, inferential/causal learning, simple learning, and complex learning. For typology, see Knopf, “The Concept of Nuclear Learning”; Levy, “Learning and Foreign Policy.”
  \item \textsuperscript{15} Inferential learning involves “broader inferences that are drawn from fundamental facts.” Ibid.
  \item \textsuperscript{16} Paul Nitze, “Atoms, Strategy and Policy,” *Foreign Affairs*, 34 (January 1956), 190-91. The argument made by Nitze highlights the possibility of a gap between policy and strategy and suggests that the gap should be reduced as much as possible.
\end{itemize}
discussed by P.M.S. Blackett. One example could be the case of China where it employed a minimum deterrent doctrine.

If a state looks at nuclear weapons as instruments capable of helping a state achieve a variety of foreign policy objectives, its military strategy would be complex. Likewise, if a state understands that nuclear weapons have serious limitations except for their deterrent role and yet understands that deterrence itself involves a heavy reliance on nuclear weapons, the state’s doctrinal thinking would reflect contradictions. When a state relies more on nuclear weapons in its national security strategy, the number and sophistication of its nuclear weapons would increase.

In the case of complex and simple learning with reference to doctrinal thinking, two different sets of actors might be working at the policy and military strategy levels, which can mean the system lacks unity of command: decisions might not always be flowing in a linear direction. Learning at the policy level might actually result in a re-orientation of policy. The sources informing decisions at the policy level might be different from those informing decisions at the operational level. Therefore, an effort should be made to develop tools that evaluate the status of learning on both levels.

Complex learning results in paradigmatic shifts at the policy level. Consequently, the leadership of a nuclear armed state might learn to change its goals by reducing dependence on nuclear weapons and employing alternative means to achieve those objectives. In such a situation, a reorientation of policy would be genuine nuclear learning. To facilitate comprehension, a graphical representation of the ideas discussed is provided below:

RELATIONSHIP BETWEEN NUCLEAR LEARNING & DOCTRINAL THINKING

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An Alternative Approach to Understand Pakistani Doctrine

Some of the key roles attributed to Pakistan’s thinking about nuclear weapons include the following:19

- Last-Resort weapons to prevent military defeat or loss of territory20
- Deterrent to conventional military attack21
- Facilitator of low-intensity conflict22
- Tools meant to internationalize the Kashmir conflict and escalate a conflict to draw international attention23
- Potentially enable an extended deterrence policy24

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19 The role conception has been selectively picked up from the dominant discourse only focusing on foreign policy and deterrence. Others include nuclear weapons and nation building, symbols of self-reliance and defiance, commercial use of Pakistan’s nuclear weapons, tools for domestic political and civil – military competition, etc. For reference see Lavoy, “Pakistan’s Nuclear Doctrine,” 289-98.


24 This is a question that has received considerable attention in conferences and seminars over the last few years. Some of the scholars in West assume that Pakistan might consider extending deterrence to its Arab friends, particularly Saudi Arabia. It may be noted here that extended deterrence is an extremely expansive idea and its technical requirements are usually highly sophisticated as well as administratively cumbersome. See Bruce Riedel,
While Pakistan undisputedly claims to use nuclear weapons as a deterrent against conventional as well as nuclear attacks, the debate on these weapons’ other roles remains highly controversial. The question of whether nuclear weapons served as a catalyst in the Kargil crisis remains disputed. Does Pakistan still believe in using a nuclear overhang to facilitate low intensity conflict or for that matter using nuclear weapons as a tool to internationalize the Kashmir conflict? Many analysts assume that given the quantitative and qualitative developments in Pakistan’s nuclear inventory, Pakistan is increasing its dependence on nuclear weapons, but is that the only empirical evidence available?

The very fact that President Musharraf made a peace overture to the Indian Prime Minister in January 2002 and later in 2004, which was followed by a composite dialogue as well as back-channel diplomacy, indicates that regardless of Musharraf’s oft quoted and sometimes misquoted statements on boosting the “role of nukes,” he possibly learned that these weapons had serious limitations and that a nuclear environment forces certain responsibilities on nuclear weapon capable states. A careful analysis of the policy changes Musharraf made vis-à-vis India imply that he learnt some lessons about the limits of nuclear weapons as a policy instrument. Indian leadership also recognized the extra length he went to in order to resolve the Kashmir dispute. It is also important to mention here that during his long tenure, it was his learning along with some of his closest aides that really mattered as far as serious policy issues were concerned. Therefore, any serious research over the question of complex learning would involve a careful and in-depth study of what former President Pervez Musharraf thought about these issues and how he looked at the Pakistani experience in Kargil, the 2001-02 military standoff, and subsequent peace process with India.


26 Given the classified nature of Pakistan’s nuclear policy, it is important to highlight here that most of the debate on Pakistan’s conception of role of nuclear weapons is substantiated by political statements of Pakistani decision makers. Speech act (regardless of its contextual limitations) as oppose to concrete policy steps therefore often get the most of analysis. Scott Sagan makes the same observation in his work. See Sagan, “Evolution of Pakistani and Indian Nuclear Doctrine,” 226-27.

27 Many steps taken to ensure Pakistan’s responsible behavior as a nuclear armed state. Some of these steps clearly indicate individual or organizational learning. Pakistan’s establishment of an elaborate and efficient command and control system is a reflection of growth in terms of factual learning. The establishment of a proper institutional framework in the form of National Command Authority with organs like Strategic Plans Division helped create the possibility to preserve historical memory at the institutional level that could lay the foundations for organizational learning. Pakistan’s gradual openness in terms of international engagement is yet another indicator of nuclear learning. Besides, high degree of verbal restraint on the part of political and military leadership regarding nuclear weapons also reflect learning to behave as a nuclear armed nation.


29 Musharraf’s book, In the Line of Fire provides very limited information on President Musharraf’s perspective on the issues mentioned above, except of course Kargil Crisis, that received considerable attention for obvious reasons. Research on this question would therefore require his detailed interviews and if available records of his personal writings like notes and diaries. Besides, it is important to know who were the other people directly involved in the process of discussing and articulating Pakistan’s key foreign policy decisions during that time period.
Regardless of whether the presence of nuclear weapons did or did not contribute to Kargil or the 2002 standoff, it is important to note that a few lessons were probably too obvious to be ignored on the Pakistani side—at least at the policy level. For instance, escalation is no more favorable to Pakistan, at least not for the sake of seeking international attention. Regardless of what President Musharraf wrote about the assumed strategic gains from Kargil, the involvement of the United States in the crisis did not bring a favorable end for Pakistan—Musharraf’s remarks were only most likely meant to save face and pacify criticism and opposition. Rather, Pakistan was made to withdraw its troops without any gain on its part.

Secondly, while the significance of deterrence was reinforced after Kargil as well as during the 2002 military standoff, it appears that the limitations of nuclear weapons were exposed because India was not deterred from limited operations (Kargil) and full mobilization (2002 standoff). This process of learning then explains the parallel quantitative and qualitative nuclear developments in Pakistan’s arsenal. Two important questions are whether Pakistani nuclear weapons are meant to facilitate escalation dominance or enable Pakistan to involve major powers in a crisis?

The role of nuclear weapons in Pakistani strategy is still evolving, which means there are constant fluctuations at the policy and operational level. In the case of post-Kargil Pakistan, for at least a decade, policy issues were dealt with by President Musharraf and his close associates, whereas operational issues were dealt with by the new institutional framework he set up in the form of a National Command Authority (NCA) with specialized branches focusing on technical and operational issues. There is a gap in Pakistani understanding of the role of nuclear weapons at the policy and operational levels may help explain why trends toward doctrinal shifts at the operational level may not be a reflection of increased dependence on nuclear weapons to achieve foreign policy objectives. This dichotomy could, however, be explained further by understanding whose learning matters at both levels.

What President Musharraf thought about the resolution over Kashmir may or may not be the same as his successors, for the process of learning can reverse with a change in leadership. President Musharraf’s reconciliatory approach vis-à-vis India appears to indicate a shift in goals and policy priorities. Regarding the maintenance of escalation, it would seem this is a reflection of how deterrence is conceptualized and therefore becomes part of operational strategy not policy.

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32 One may argue that peace process was a continuation of a trend that has repeatedly occurred during the periods of peace followed by a crisis. If that is so how could one suggest that peace process was a consequence of nuclear learning? It is difficult to answer this question. There are many factors that might have contributed to the peace process including, economic pressures, and involvement of the United States in the region, etc.
**Doctrinal Thinking and Deterrence Stability**

This author believes that the role of nuclear weapons in Pakistan’s policy is more ambiguous today than ever before. The flexibility shown by President Musharraf’s government over Kashmir was a clear indicator of complex learning; this lesson apparently did not trickle down to the new leadership or be absorbed into institutional memory. The stabilizing impact of this complex learning was unraveled after the Mumbai incident.

Pakistan’s nuclear inventory appears to be expanding, driven by a perceived need to reinforcing deterrence. This drive, however, generates classical security dilemma. Capabilities-based planning is always prone to result in a reactionary buildup on the weaker side and a higher likelihood of a spiral. This process can lead the relatively weaker side to internalize a greater sense of insecurity and vulnerability. In the case of India and Pakistan, owing to a number of reasons including resource constraints and global trends, weapons development may not result in an arms race comparable to those witnessed during the Cold War. Nevertheless, a moderate arms buildup might appear difficult to avoid if the approach towards threat management remains grounded in capabilities-based planning. Also, this criterion of judgment may not be able to satisfy Pakistan’s quest for security in the wake of a continuously growing gap in economic potential between the two sides, which affects their ability to invest in military developments.

Besides, an arms buildup on both sides could generate misperceptions, create doubts about the other’s intentions, and aggravate collective fears, which could initiate a destabilizing trend.

The likelihood of using escalation as a policy measure to seek international attention may not be a viable option for Pakistan anymore. However, given the growing emphasis on deterrence and increased dependence on nuclear weapons in Pakistan’s operational doctrine, the possibility of inadvertent escalation should not be ruled-out. The introduction of short-range ballistic missiles (SRBMs) into the battlefield could induce instability by raising the risk of escalation. The proponents of battlefield nuclear weapons have long argued that using these weapons against limited strikes reduces the disproportionality of escalation. This type of use would not lead to a threat of all-out nuclear war and therefore enhances the credibility of deterrence. They further argue that the presence of such weapons raise the nuclear threshold by providing sufficient time for leaders to explore all possible options, which increases stability. Both arguments are debatable. The presence of tactical missiles might encourage the adversary to seriously contemplate not attacking lest it lead to an all-out war. However, the adversary’s judgment is the key here. Would India accept the limited use of tactical nuclear weapons? If not, will India respond tit-for-tat or with massive retaliation? Another intervening variable on Indian and Pakistani doctrinal learning is the complication that

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35 Dalton and Tasleem, “Reading Brody in Islamabad.”
China provides for South Asian strategic stability. India has long expressed fear of a two-front war on its borders by Pakistan and China. Nonetheless, the fluidity and uncertainty characterizing the current direction of Sino-Indian relations causes a significant level of doubt. Thus, it is hard to determine the impact of triangular relations on doctrinal trends and eventually deterrence stability.

Conclusion

The relationship between nuclear learning and doctrinal thinking is a slow and challenging process. A state’s doctrinal thinking is largely determined by leadership’s role-conception of nuclear weapons. Doctrinal thinking operates at two levels, policy and military strategy, learning at both levels matters; however, learning at these levels may or may not be consistent with each other. This chapter concludes that there is a higher likelihood that Pakistan’s experiences in the post-1998 timeframe, particularly including the Kargil crisis and 2001-02 military standoff, brought some hard lessons home. Pakistan’s learning trajectory has followed a series of crises and failed attempts to structure peace and security in the region. The peace process between India and Pakistan as well as the back channel diplomacy during Musharraf’s era could be seen as evidence testifying to a realization that nuclear weapons have limitations. However, it is also clear that the same experiences reinforced the value of a deterrent role for nuclear weapons in Pakistan’s strategic thinking, which consequently increases demands to strengthen deterrence. This lesson possibly resulted in a revision of operational needs, which therefore stipulated changes in doctrinal thinking at the operational level.