

India's Military Instrument: A Doctrine Stillborn

SHASHANK JOSHI

Department of Government, Harvard University, Cambridge, Massachusetts, USA

ABSTRACT For six years, India has sought to implement an army doctrine for limited war, 'Cold Start', intended to enable a Cold War era force optimised for massive offensives to operate under the nuclear threshold. This article asks whether that is presently feasible, and answers in the negative. Doctrinal change has floundered on five sets of obstacles, many of which are politically rooted and deep-seated, thereby leaving the Army unprepared to respond to challenges in the manner envisioned by the doctrine's architects.

KEY WORDS: India, South Asia, India-Pakistan, Indian Army, Cold Start, Limited War, Nuclear Weapons, Terrorism

South Asia remains one of the last holdouts of symmetric, conventional warfare.¹ The armoured formations that would dot the border in the event of major war are redolent of the Soviet columns once envisioned on the plains of Europe;² the Indians once seeking to reach the Indus River and the erstwhile Red Army thrusting toward the Rhine, both on a high-intensity, nuclear battlefield. This is neither an inapt parallel, given the Russian and American origins of older Indian and Pakistani weaponry,³ nor unduly speculative, since war has indeed broken out in the nuclear age (in 1999) and was waged for a full 20 weeks.⁴ Two decades ago, this juxtaposition may have flattered the Indian military. However, over the last decade,

¹Michael Carver, 'Conventional War in the Nuclear Age', in Gordon Alexander Craig, Felix Gilbert and Peter Paret (eds), *Makers of Modern Strategy: From Machiavelli to the Nuclear Age* (Princeton UP 1986), 798–803.

²Chris Smith, *India's Ad Hoc Arsenal: Direction or Drift in Defence Policy?* (Oxford: OUP 1994), 19–21.

³Amit Gupta, *Building an Arsenal: The Evolution of Regional Power Force Structures* (Westport, CT: Praeger 1997), 40–2, 53–5, 67; Richard F. Grimmett, *US Arms Sales to Pakistan* (Washington DC: Congressional Research Service 24 Aug. 2009).

⁴V.P. Malik, *Kargil from Surprise to Victory* (New Delhi: HarperCollins Publishers India, a joint venture with the India Today Group 2006).

India's sizeable conventional force has proved of limited utility, failing to deter major terrorist attacks by state-affiliated groups in 2001–02 and 2008, and failing to coerce Pakistan to meaningfully and verifiably alter its relationship to said groups then and earlier.

It was popularly reported in 2010 that the Indian Army chief was preparing his organisation for a four-day war on two fronts, against Pakistan and China. The principal irony was not that these reports were six years late in documenting India's doctrinal modernisation. Nor was it that they had gravely misunderstood the importance of the four-day time frame. (The period referred to *mobilisation* rather than war *termination*, a fact of whose oversight resulted in almost universally misleading headlines about the private speech.)⁵ Rather, it was that the establishment of a doctrine of rapid mobilisation and flexible response has been so slow as to render such a plan impossibly speculative today. According to Bharat Karnad, a hawkish co-drafter of India's first nuclear doctrine, the doctrine was intended as an 'automatic conventional military riposte to a major conventional or subconventional provocation'.⁶ Neither such a riposte (though Karnad seriously exaggerates its plausible automaticity) nor its operational prerequisites have materialized. Pakistan's subsequent attribution to India of 'hostile intent' and a 'hegemonic and jingoistic mindset' was, in this sense not only erroneous, but also premature.⁷

A better understanding of this process underscores the enduring vulnerabilities of India, a supposedly emerging pole of the international system, but also the difficulty of militarily countering terrorism prosecuted from behind the safety of a nuclear shield, with or without state sanction – a scenario that may come to Western prominence if Iran's nuclear programme yields a latent or actual weapon.⁸

⁵For Pakistani and Indian interpretations see, respectively, 'Indian military dream', *The Nation*, 1 Jan. 2010, <www.nation.com.pk/pakistan-news-newspaper-daily-english-online/Opinions/Editorials/01-Jan-2010/Indian-military-dream>; Rajat Pandit, 'Army reworks war doctrine for Pakistan, China', *Times of India*, 30 Dec. 2009, <<http://timesofindia.indiatimes.com/india/Army-reworks-war-doctrine-for-Pakistan-China/articleshow/5392683.cms>>.

⁶Bharat Karnad, *India's Nuclear Policy* (Westport, CT: Praeger Security International 2008), 95.

⁷Indian army chief's remarks show hostile intent: FO', *Dawn*, 31 Dec. 2009, <www.dawn.com.pk/wps/wcm/connect/dawn-content-library/dawn/news/pakistan/13+indian+army+chiefs+remarks+show+hostile+intent+fo-za-05>.

⁸S.P Kapur, 'India and Pakistan's Unstable Peace: Why Nuclear South Asia is Not Like Cold War Europe', *International Security* 30/2 (2005), 152; Shashank Joshi, 'Permanent Crisis: Iran's Nuclear Trajectory', Whitehall Paper No. 79 (London: Royal United Services Institute 2012), 29–35.

This study proceeds by first examining the motivations for and content of India's professed 'doctrinal renaissance',⁹ then recording the enduring problems that have stalled its implementation, and finally setting out some wider implications of this failure.

Origins

In December 2001, historically Pakistan-backed terrorists of the Lashkar-e-Taiba group assaulted the Indian parliament, inflicting considerable casualties and symbolic damage, and compounding tensions that had arisen from a prior attack. India responded with its largest military mobilisation since the 1971 war with Pakistan.¹⁰ In Operation 'Parakram', India mobilised half a million troops to the Indian border with the aim of coercing Pakistan into curbing its sponsorship of and presumed connivance with India-centric terrorists. The total manpower raised on both sides amounted to a million soldiers. Just under a year later, with 800 Indian soldiers dead¹¹ and \$2 billion expended,¹² India subsequently terminated 'arguably the most ill-conceived manoeuvre in [its] military history', securing only superficial and quickly reversed political concessions from Pakistan.¹³ Sumit Ganguly and Devin Hagerty concur: 'India had, in fact, failed to accomplish the stated goals of its dramatic military mobilization ... the Indian strategy of coercive diplomacy had failed'.¹⁴

A number of factors coalesced in 2001–02 to persuade the Indian leadership that it could not retaliate with a cross-border attack. Sumit Ganguly contests that the nuclear backdrop stayed India's hand: 'a highly jingoistic regime, which had defied international public opinion the previous year through a series of nuclear tests, chose to exercise restraint because of Pakistan's possession of nuclear weapons'.¹⁵ Vipin

⁹Walter C. Ladwig, 'The Challenge of Changing Indian Military Doctrine', *Seminar* (July 2009), <www.india-seminar.com/2009/599/599_walter_c_ladwig_iii.htm>.

¹⁰P.R. Chari, Pervaiz Iqbal Cheema and Stephen P. Cohen, *Four Crises and a Peace Process* (Washington DC: Brookings Institution Press 2007), 149–83; Sumit Ganguly and Michael R. Kraig, 'The 2001–2002 Indo-Pakistani Crisis: Exposing the Limits of Coercive Diplomacy', *Security Studies* 14/2 (2005), 290.

¹¹'Op Parakram claimed 798 soldiers', *The Times of India*, 31 July 2003, <<http://timesofindia.indiatimes.com/articleshow/104948.cms>>.

¹²Chari *et al.*, *Four Crises and a Peace Process*, 162.

¹³Praveen Swami, 'Beating the retreat', *Frontline*, 26 Nov. 2002, <www.thehindu.com/fline/fl1922/stories/20021108007101200.htm>.

¹⁴Sumit Ganguly and Devin T. Hagerty, *Fearful Symmetry: India-Pakistan Crises in the Shadow of Nuclear Weapons* (Univ. of Washington Press 2005), 168, 171.

¹⁵Sumit Ganguly, 'Nuclear Stability in South Asia', *International Security* 33/2 (1 Oct. 2008), 45.

Narang, by contrast, stresses that it is specifically Pakistan's 'asymmetric escalation nuclear posture' – threatening the first use of highly alerted nuclear weapons against even a conventional attack – that 'blunts India's conventional power and renders India's assured retaliation posture mostly irrelevant'.¹⁶ Still another perspective emphasises commercial and diplomatic pressure on India to abjure a strike.¹⁷

These debates notwithstanding, one factor deemed to be crucial in allowing for the accretion of that international pressure was the apparently inordinate delay in mobilisation. India's three strike corps took nearly one month to traverse the distance from central India to the border, supposedly by virtue of their ponderous size and considerable distance from the prospective theatre of war. Even once these corps had arrived and remained poised as would-be instruments of coercive diplomacy, the massed forces, trained to dismember Pakistan in the course of large-scale warfare,¹⁸ seemed unequipped to offer a response sufficiently finessed to avert nuclear retaliation.¹⁹ The organisational rejoinder to these perceived failings was a fresh Army doctrine, aimed at rectifying these defects in speed and suppleness.

Cold Start

In April 2004, the Indian Army (and not, as is sometimes suggested, the military as a whole) announced a new limited war doctrine, a portion of which became colloquially known as Cold Start.²⁰ Characterised as an explicitly offensive doctrine of 'blitzkrieg',²¹ and drawing on Israeli and Soviet concepts among others, it sought, according to Walter Ladwig, 'to establish the capacity to launch a retaliatory conventional strike against Pakistan that would inflict significant harm on the Pakistan

¹⁶Vipin Narang, 'Posturing for Peace? Pakistan's Nuclear Postures and South Asian Stability', *International Security* 34/3 (1 Jan. 2010), 76.

¹⁷S. Paul Kapur, 'Ten Years of Instability in a Nuclear South Asia', *International Security* 33/2 (1 Oct. 2008), 77–9; Chari *et al.*, *Four Crises and a Peace Process*, 170–2.

¹⁸Gupta, *Building an Arsenal*, 158.

¹⁹S. Kalyanaraman, 'Operation Parakram: An Indian Exercise in Coercive Diplomacy', *Strategic Analysis* 26/4 (2002), 478.

²⁰Tariq M. Ashraf, 'Doctrinal Reawakening of the Indian Armed Forces', *Military Review* 84/6 (Dec. 2004), 53–62; Gurmeet Kanwal, 'Cold Start and Battle Groups for Offensive Operations', *Strategic Trends* 4/18 (June 2006); Karnad, *India's Nuclear Policy*, 115–31; Walter C. Ladwig, 'A Cold Start for Hot Wars? The Indian Army's New Limited War Doctrine', *International Security* 32/3 (1 Jan. 2008), 158–90.

²¹For a discussion of blitzkrieg as a military strategy, see John J. Mearsheimer, *Conventional Deterrence*, Cornell Studies in Security Affairs (Ithaca, NY: Cornell UP 1983), 35–52.

Army before the international community could intercede, and at the same time, pursue narrow enough aims to deny Islamabad a justification to escalate the clash to the nuclear level'.²²

This had pedigree within the institution even before the 2001–02 crisis. Stephen P. Cohen has argued that 'the dramatic improvement in India's military performance in 1971 led the army to a new plateau of strategic thought, away from purely defensive strategies, to a more offensive approach ... really a euphemism for preventive war'. This would have comprised 'a short, sharp war with the element of surprise, rapid movement, an envelopment of the enemy [which] is the dream of modern armies, and the more adventurous elements of Indian military leadership'.²³ Cold Start, in this vein, entailed four types of changes: transformation of force structure, an emphasis on speed, a limitation of objectives, and a focus on combined arms.²⁴

First, army units would be reorganised, from three unwieldy 'strike corps', into eight forward deployed, division sized 'integrated battle groups' (IBGs). Each new battle group, encompassing armour, artillery, infantry, and air support, would be equipped to operate autonomously on the battlefield.

Second, India's operational concept would lay stress on speed, both in mobilisation and in manoeuvre. The battle groups would attack at different and unpredictable points to retain operational surprise – though modern surveillance and the fixed areas of operation render this doubtful without unrealistically large amounts of airlift. The doctrine itself recognizes a 'marked shift towards the manoeuvre style of warfare', away from the defensive and attritional style historically favoured by the Army.²⁵

²²Ladwig, 'A Cold Start for Hot Wars?', 164.

²³Stephen P. Cohen, *The Indian Army: Its Contribution to the Development of a Nation*, Revised ed. (Delhi: OUP 2001), 207.

²⁴The following four paragraphs rely heavily on Ladwig, 'A Cold Start for Hot Wars?'; Kanwal, 'Cold Start and Battle Groups for Offensive Operations'; Ashraf, 'Doctrinal Reawakening of the Indian Armed Forces'; Ladwig, 'The Challenge of Changing Indian Military Doctrine'; A. Vinod Kumar, 'A Cold Start: India's Response to Pakistan-Aided Low-Intensity Conflict', *Strategic Analysis* 33/3 (2009), 324; Subhash Kapila, *India's New 'Cold Start' War Doctrine Strategically Reviewed* (South Asia Analysis Group, 4 May 2004), <www.southasiaanalysis.org/papers10/paper991.html>; Subhash Kapila, *Indian Army's New 'Cold Start' Doctrine Strategically Reviewed – Part II (Additional Imperatives)* (South Asia Analysis Group, 1 June 2004), <www.southasiaanalysis.org/papers11/paper1013.html>; Subhash Kapila, *Indian Army Validates its Cold Start Doctrine* (South Asia Analysis Group, 7 June 2005), <www.southasiaanalysis.org/papers15/paper1408.html>.

²⁵'Indian Army Doctrine' (Headquarters Army Training Command, Oct. 2004), Foreword, <http://ids.nic.in/Indian%20Army%20Doctrine/indianarmydoctrine_1.doc>.

In mobilising quickly, the Army would furnish the political leadership with the option to pre-empt international pressure on the Indian polity. In operating quickly, with some IBGs ideally entering Pakistan within 72 to 96 hours, it has been suggested that they would more easily surmount the institutionalised civilian risk aversion against which the tightly circumscribed Indian military has historically chafed (though the extent of automaticity and 'momentum' emphasised by the Army is likely to be inversely related to political acceptability).²⁶

Third, in contrast to the previous war plan's 'armoured formations slicing towards the Indus', the newly constituted battle groups would reportedly penetrate 30 to 40 miles into Pakistani territory.²⁷ This is still a greater distance than has been attained on average in Indo-Pakistan wars to date.²⁸ It is almost certainly exaggerated and/or speculative. But it represents an effort to explicitly *signal* a reduction in territorial objectives, intended to allow the Indian Army to target Pakistani forces, particularly disrupting command and control networks while avoiding locations thought more likely to trigger nuclear retaliation, such as population centres.

This is problematic, as Pakistan's key population centres are in close proximity to the border, and interior lines of communication could be severed easily.²⁹ The Pakistani province of Sindh, for instance, contains the only north-south road and rail link; it is located approximately 40 kilometres from the international border.³⁰ Cold Start nonetheless represents a radical change from the ambitious Sundarji Doctrine that preceded it.³¹

²⁶Bharat Karnad writes that 'the Indian military is heartily sick of not being allowed to carry out its operations to the planned objective, which falls short of sundering Pakistan, instead of having to engage in periodic and truncated conflicts which, time and again, have ended up, as the Indian military sees it, putting the game back on the same start-line', *India's Nuclear Policy*, 123; for evidence of the military's anger at not being allowed to prosecute an offensive, see V.K. Sood and Pravin Sawhney, *Operation Parakram: The War Unfinished* (New Delhi: Sage Publications 2003).

²⁷Y.I. Patel, 'Dig Vijay to Divya Astra – a Paradigm Shift in the Indian Army's Doctrine', *Bharat Rakshak Monitor* 6/6 (July 2004), <www.bharat-rakshak.com/MONITOR/ISSUE6-6/patel.html>.

²⁸Karnad, *India's Nuclear Policy*, 117, 121.

²⁹Narang, 'Posturing for Peace?', 59, 67; Mujtaba Razvi, *The Frontiers of Pakistan; a Study of Frontier Problems in Pakistan's Foreign Policy* (Karachi: National Pub. House 1971), 7.

³⁰Ganguly and Hagerty, *Fearful Symmetry: India-Pakistan Crises in the Shadow of Nuclear Weapons*, 96.

³¹See Gupta, *Building an Arsenal*, 58–60.

Fourth, the doctrine would exploit combined arms, recruiting the Indian Air Force (IAF) and Indian Navy (IN) to support the Army by the provision of close air support (such as ground attack)³² and the attainment of air superiority over the advancing battle groups. The intended result would be a concentration of force with a smaller volume of manpower. The Indian Army has a historically unexceptional record of concentrating its forces in a theatre of war.³³ This stems from the adverse terrain in which India's forces have been employed, poor infrastructure, and the country's hugely stretched interior lines of communication.³⁴

In short, Cold Start represents a form of flexible response, a serious effort at thinking through the prerequisites of limited war under the nuclear shadow.

Cold Start pivots on a particular diagnosis of Indian deterrence failure over the last decade.³⁵ That diagnosis sought to isolate and alter the conditions that precluded the use of force. It also 'discounted the risk of a major conventional war that might lead to the crossing of the nuclear threshold while at the same time threatening its possibility' (for some definition of 'major').³⁶

Concurrently, the Indian populace, displeased by the government's apparent inaction in the aftermath of multiple terrorist attacks of Pakistani provenance, arguably generated considerable audience costs for the prevailing strategy of containment. These may be multiplicative in their effects over time.³⁷ India's former representative to the UN demanded after the Mumbai attacks that, upon a repeat, 'we [India] should go in and bomb the living daylights out of them'. A prominent MP, Arun Shourie, demanded 'not an eye for an eye', but 'for an eye, both eyes', advocating an expansion of covert operations.³⁸ Gurmeet

³²For a discussion of close air support in the Indian context, see J. A. Khan, *Air Power and Challenges to IAF* (APH Publishing 2004), 155–67.

³³Chandar S. Sundaram and Daniel P. Marston (eds), *A Military History of India and South Asia: From the East India Company to the Nuclear Era* (Bloomington: Indiana UP 2008), chap. 10–11; Sukhwant Singh, *India's Wars Since Independence* (New Delhi: Vikas 1980), pt. 3.

³⁴Robert D. Cox, *India and the Operational Art of War* (Fort Leavenworth, KS: School of Advanced Military Studies, US Army Command and General Staff College 1991).

³⁵Chari *et al.*, *Four Crises and a Peace Process*, 198.

³⁶Rajesh M. Basrur, 'Kargil, Terrorism, and India's Strategic Shift', *India Review* 1/4 (2002), 40.

³⁷On audience costs, see James D. Fearon, 'Domestic Political Audiences and the Escalation of International Disputes', *American Political Science Review* 88/3 (Sept. 1994), 577–92. There is little written on the subject of path dependent audience costs.

³⁸Ahmad Faruqui, 'Beyond Mumbai: Prospects for Indo-Pakistani relations', *RUSI.org*, 2009, <www.rusi.org/analysis/commentary/ref:C496A403CE6D75/>.

Kanwal, director of the Centre for Land Warfare Studies in India, writes that 'the only sensible option for India would be to call Pakistan's nuclear bluff'.³⁹ At the beginning of 2013, a bilateral dispute over mutual ceasefire violations and the alleged mutilation of Indian troops demonstrated how easily such audience costs can be generated.

That India displayed restraint in prior crises is due in part to the cautious personal judgement of prime ministers in consecutive governments, Atal Behari Vajpayee and Manmohan Singh, as well as the historic risk-aversion of its decision-makers.⁴⁰ Cohen and Dasgupta reflect the consensus when they argue that 'reticence in the use of force as an instrument of state policy has been the dominant political condition for Indian thinking on the military'.⁴¹ To the extent that this is true, such reticence is not immutable. Over time, bureaucrats and politicians could respond to public opinion – particularly if the degree of army modernisation is overestimated with respect to its ability to wage limited war, and the fact and degree of Pakistani state complicity in a future attack established more quickly.⁴² Former US defence secretary Robert Gates noted that it was 'not unreasonable to assume Indian patience would be limited were there to be further attacks'.⁴³

³⁹Gurmeet Kanwal, *Indian Army, Vision 2020* (New Delhi: HarperCollins Publishers and the India Today Group 2008), 81.

⁴⁰George Tanham, in one of the only substantive descriptions of Indian strategic thought, judges that 'India has developed a predominantly defensive strategic orientation' with its armed forces largely 'defensive and protective', *Indian Strategic Thought: An Interpretive Essay* (Santa Monica, CA: RAND Corp. 1992), vii. Stephen P. Cohen has referred to 'India's ... cautious strategic style' and its 'essentially conservative foreign policy', Stephen P. Cohen, *India: Emerging Power* (Washington DC: Brookings Institution Press 2001), 127, 301. See also Srinath Raghavan, *War and Peace in Modern India: a Strategic History of the Nehru Years* (New Delhi: Permanent Black 2010), 318–20; George K. Tanham, *Securing India: Strategic Thought and Practice*, Kanti P. Bajpai and Amitabh Mattoo (eds) (New Delhi: Manohar 1996).

⁴¹Stephen P. Cohen and Sunil Dasgupta, *Arming without Aiming: India's Military Modernization* (Washington DC: Brookings Institution 2010), 1.

⁴²The Indian response to the Mumbai attacks was more restrained than in 2001–02. This may indicate either that Indian strategic culture is more durable than suggested here; or that in the face of an enduring lack of retaliatory options, India decided that another failed mobilisation would carry excessive costs; or something else entirely.

⁴³Elisabeth Bumiller, 'Gates warns of militant threat in South Asia' *New York Times*, 21 Jan. 2010, sec. International/Asia Pacific, <www.nytimes.com/2010/01/21/world/asia/21gates.html>.

A Doctrine Stillborn

Scholars frequently assert that Pakistan's acquisition of an overt nuclear deterrent and assertive nuclear posture have emboldened its own foreign policy sufficiently to induce a unilateral invasion of the Kargil sector of Kashmir in 1999, the first conventional war between two open nuclear powers, and intensified the state's direct support for and passive tolerance of a panoply of insurgent and terrorist groups.⁴⁴

Consequently, some in India believe that developments which reduce the shield-value of Pakistan's deterrent hold out the possibility of changing its rulers' calculus at the margin.⁴⁵ Were Pakistan to perceive that its indirect adventurism would meet with a military response, goes this argument, it may alter its relationship to non-state actors as per Indian demands. The former head of counterterrorism for India's foreign intelligence service, in a defence of covert action, has argued that 'when terrorism is used by a state as a low-cost weapon to achieve its strategic objective, what works against it is the ability and the determination of the victim state to hurt the interests of the state-sponsor in order to make it a high-cost weapon for the wielder'.⁴⁶

Moreover, India's failure to fashion a suitable counter-deterrent threatens to presage both a blunter, less refined military response in case of future attacks, and the subsequent perpetuation or even intensification of the Pakistani military-militant interface. This is not to suggest that third parties will be sanguine at the prospect of an Indian military strike, or that Cold Start will necessarily serve the ends intended, but it is of obviously Western interest whether India succeeds or not in this enterprise.

Yet it will not have escaped attention that these putative battle groups were nowhere to be found when Lashkar-e-Taiba struck once more in November 2008, wreaking havoc in Mumbai for three days, an attack unambiguously originating in Pakistan.⁴⁷ One defence analyst went as

⁴⁴Kapur, 'Ten Years of Instability in a Nuclear South Asia'; S. Paul Kapur, 'Revisionist Ambitions, Conventional Capabilities, and Nuclear Instability: Why Nuclear South Asia is Not Like Cold War Europe', in Scott Douglas Sagan (ed.), *Inside Nuclear South Asia* (Stanford Security Studies 2009).

⁴⁵For a dissenting view, one which places greater emphasis on the strategic culture of Pakistan's military than on nuclear factors, see Feroz Hassan Khan, Peter R. Lavoy and Christopher Clary, 'Pakistan's Motivations and Calculations for the Kargil Conflict', in Peter R. Lavoy (ed.), *Asymmetric Warfare in South Asia: The Causes and Consequences of the Kargil Conflict* (Cambridge: CUP 2009), 89–90, *passim*.

⁴⁶B. Raman, *Hit, But Stealthily* (South Asia Analysis Group, 23 Feb. 2010), <www.southasiaanalysis.org/%5Cpapers37%5Cpaper3687.html>.

⁴⁷Lydia Polgreen and Souad Mekhennet, 'Militant network is intact long after Mumbai siege', *New York Times*, 30 Sept. 2009, sec. International/Asia Pacific, <www.nytimes.com/2009/09/30/world/asia/30mumbai.html?_r=1&ref=lashkaretaiba>.

far as to suggest that the 'Cold Start strategy has been perfected over the past half decade'. The then Army Chief similarly hailed the 'successful firming up' of the strategy, a development that he judged to be a 'major leap in our approach to the conduct of operations'.⁴⁸ Both assessments are questionable.

Walter Ladwig, in what remains the most comprehensive and insightful assessment of India's doctrinal change, details that 'Cold Start remains within the experimental stage of development', insofar as it has 'moved beyond theoretical discussions in professional military journals' but 'not yet produced the widespread organizational changes required for full implementation'. Ladwig's measured conclusion is that 'Cold Start remains more of a concept than a reality'.⁴⁹ Anit Mukherjee concludes along the same lines, judging that the doctrine 'is a non-starter for a number of political, diplomatic, logistical and tactical reasons'.⁵⁰ Finally, a leaked US assessment of the doctrine by the US Embassy in New Delhi described it as 'a mixture of myth and reality'.⁵¹ This scepticism is fitting, but a closer examination suggests that India faces *structural*, and therefore not easily surmountable, obstacles to transforming its doctrine and, therefore its wider approach to the problem of terrorism.

Below, I outline five sets of such obstacles. These comprise (1) the persistence of nuclear constraints; (2) the escalatory potential of limited war doctrines and the consequent civilian resistance to their adoption; (3) inter-service rivalry; (4) general unreadiness; (5) and the burden of new military tasks.

First, no quantity of doctrinal change will wash away the persistence of the nuclear shadow.⁵² For reasons including Pakistan's specific nuclear posture, as well as India's own politics and strategic culture, it may be the case that no Indian government will ever countenance military operations either on non-disputed Pakistani soil or in response to attacks only weakly attributed to the Pakistani state.

As Vipin Narang has persuasively argued, Pakistan's posture is 'geared for the rapid (and asymmetric) first use of nuclear forces against conventional attacks to deter their outbreak, operationalizing nuclear weapons as usable warfighting instruments'. Narang shows that Pakistan's 1998 tests

⁴⁸Ali Ahmed, 'Ongoing Revision of Indian Army Doctrine', Institute for Defence Studies and Analyses, 6 Jan. 2010, <www.idsa.in/idsacomments/OngoingRevisionofIndianArmyDoctrine_aahmed_060110>.

⁴⁹Ladwig, 'A Cold Start for Hot Wars?', 176, 190.

⁵⁰Anit Mukherjee, 'The Absent Dialogue,' *Seminar* (July 2009), <www.india-seminar.com/2009/599/599_anit_mukherjee.htm>.

⁵¹Khan *et al.*, 'Pakistan's Motivations and Calculations for the Kargil Conflict.'

⁵²Ganguly and Kraig, 'The 2001–2002 Indo-Pakistani Crisis'; Robert Jervis, *The Meaning of the Nuclear Revolution: Statecraft and the Prospect of Armageddon*, Cornell Studies in Security Affairs (Ithaca, NY: Cornell UP 1989).

allowed it 'to credibly threaten the first use of lower-yield nuclear weapons in a tactical environment'. It bolstered that credibility through the clear signalling of a low threshold for nuclear use, and, according to Timothy Hoyt, command and control mechanisms that 'probably include both devolution and possibly pre-delegation [to field commanders] in order to ensure the use of weapons'.⁵³ Moreover, the rise in Pakistan's actual and possible warhead numbers means, according to Christopher Clary, that 'particularly on the Pakistani side, as they're trying to deal with Cold Start, they're going to have more options available to them in terms of an escalation ladder than they've had in the past', when limited numbers of usable weapons compelled faster escalation.⁵⁴ Narang concludes that 'major conventional war – even in retaliation – is no longer a viable option for India'.⁵⁵

Moreover, Pakistan remains able to flexibly respond by lowering its own red lines, at least semi-credibly threatening to launch a nuclear attack upon even the shallowest of incursions.⁵⁶ India has no viable response to this, despite the commitment of the revised nuclear doctrine in 2003 to respond to attacks 'on Indian forces anywhere', a transparent reference to an offensive into Pakistan.⁵⁷ India's stance lacks credibility because its own arsenal is physically configured for a counter-value strike on Pakistani population centres. There would be 'little justification for a disproportionate nuclear strike ... because Pakistan would not have targeted India's cities'.⁵⁸ Lieber and Press invoke a similar logic when they argue that 'an arsenal comprised solely of high-yield weapons would leave US leaders with terrible retaliatory options. Destroying Pyongyang or Tehran in response to a limited strike

⁵³Narang, 'Posturing for Peace?', 44, 56–7; Timothy D. Hoyt, 'Pakistani Nuclear Doctrine and the Dangers of Strategic Myopia', *Asian Survey* 41/6 (2001), 966; Scott Douglas Sagan, 'The Evolution of Pakistani and Indian Nuclear Doctrine', in Scott Douglas Sagan (ed.), *Inside Nuclear South Asia* (Stanford Security Studies 2009), 235; David O. Smith, 'The US Experience with Tactical Nuclear Weapons: Lessons for South Asia', Stimson Center, 4 March 2013, 2–3, 31–40.

⁵⁴Christopher Clary, 'Presentation: India's Military Modernization (Nuclear trends)' (presented at the Shifting the Balance in Asia: Indian Military Modernization, American Enterprise Institute, Washington DC, 8 June 2010), <www.aei.org/event/100250>.

⁵⁵Narang, 'Posturing for Peace?', 64.

⁵⁶Gurmeet Kanwal, 'Pakistan's Nuclear Threshold and India's Options', *Air Power: Journal of Air Power and Space Studies* 1/1 (2004), 111; Ladwig, 'A Cold Start for Hot Wars?', 169. For the clearest statement of Pakistan's red-lines, by Lieutenant General Khalid Kidwai, see Sagan, 'The Evolution of Pakistani and Indian Nuclear Doctrine', 234.

⁵⁷*Ibid.*, 250.

⁵⁸Narang, 'Posturing for Peace?', 74–5; Kanwal, *Indian Army, Vision 2020*, 74–6; Chari *et al.*, *Four Crises and a Peace Process*, 202–3.

would be vastly disproportionate, [hence] a deterrent posture based on such a dubious threat would lack credibility.⁵⁹

Stephen P. Cohen observes that 'besides air or ground bursts on military formations, either side could deploy nuclear land mines, or use enhanced radiation weapons', astutely noting that 'such weapons blur the distinction between 'tactical' and 'strategic', and if deployed on one's own territory – or territory claimed as one's own – they blur the distinction between using a weapon offensively and defensively'.⁶⁰ In nuclear strategy, focal points matter.⁶¹

As many have argued, India has been unwilling to cultivate a tactical arsenal of its own – something that would be difficult without properly testing low-yield weapons and allowing the military to acquire a greater role in command and control, both moves that would likely present a range of prohibitive political costs.⁶²

Some have nonetheless suggested that a tactical response is India's likeliest response. Karnad argues, 'however loudly the doctrine of massive retaliation is proclaimed, it is possible that when faced with going maximal in response to, say, Pakistan's nuclear tactical bombing of an Indian tank squadron inside its territory where the loss of life is perceived to be small, the Indian Prime Minister will, to start with, only approve a tit-for-tat strike on Pakistani forces'.⁶³

This argument is problematic, because India's posture is not configured to such a tit-for-tat strike.⁶⁴ Though it may have conducted a low-yield test, this 'could have been undertaken for numerous reasons other than the need for tactical weapons' for example 'as part of weapon

⁵⁹Kier A. Lieber and Daryl G. Press, 'The Nukes We Need: Preserving the American Deterrent', *Foreign Affairs* (Dec. 2009), 40.

⁶⁰Cohen, *India*, 187.

⁶¹E.g. 'there is a legalistic or diplomatic, perhaps a casuistic, propensity to keep things connected, to keep the threat and the demand [or provocation] in the same currency, to do what seems reasonable', Thomas C. Schelling, *Arms and Influence* (New Haven, CT: Yale UP 1966), 87, cf. also 56–9.

⁶²Shashank Joshi, 'New year, new problem? Pakistan's tactical nukes', *The Diplomat*, 2 January 2013, <<http://thediplomat.com/2013/01/02/pakistans-new-nuclear-problem/>>; George Perkovich, *India's Nuclear Bomb* (Los Angeles: Univ. of California Press 2002), 483.

⁶³*India's Nuclear Policy*, 123.

⁶⁴For a discussion of India's postural constraints in this regard, see Narang, 'Posturing for Peace?', 46–7, 63, 75–5; Sagan, 'The Evolution of Pakistani and Indian Nuclear Doctrine', 250; Rajesh M. Basur, 'India's Nuclear Policy', in Chandar S. Sundaram and Daniel P. Marston (eds), *A Military History of India and South Asia: From the East India Company to the Nuclear Era* (Bloomington: Indiana UP 2008), 190; Gurmeet Kanwal, 'Does India Need Tactical Nuclear Weapons?', *Strategic Analysis* 24/2 (2000), 247; Kanwal, *Indian Army, Vision 2020*, 78.

development experiments, tests of specific components or materials, or tests for system safety'.⁶⁵

Tellis, like Perkovich, is largely sceptical about the likelihood of India being able, willing, or desirous of deploying tactical nuclear weapons. In the period preceding Pokhran-II, the scientific adviser to the prime minister admitted that 'the Indian military would not be and has not now been told how many nuclear weapons India might have, nor was it told in peacetime how nuclear weapons would be used in war'.⁶⁶ Although the military has been accommodated to a far greater extent over the last decade, civil-military concerns have not dramatically receded.⁶⁷ In other words, a declaratory posture of tit-for-tat strikes is not supported by its operational prerequisites, thus strengthening the 'shield' effect of the Pakistani arsenal.

The effect of Pakistan's hair-trigger posture is compounded by India's own strategic culture. India's political establishment is slow to take risks and reticent in employing force.⁶⁸ The civilian leadership and purely civilian defence bureaucracy blunt the offensive preferences of the military.⁶⁹

Second, military doctrines that emphasise speed and mobility have the potential to enmesh their politics in complex ways.⁷⁰ A.J.P. Taylor's famous observation that war in 1914 was 'imposed on the statesmen of Europe by railway timetables' is exaggerated.⁷¹ But for India, the issue is less militarism than civilian reticence.

⁶⁵Ashley J. Tellis, *India's Emerging Nuclear Posture: Between Recessed Deterrent and Ready Arsenal* (Santa Monica, CA: Rand 2001), 501–6. For a more up-to-date version of these arguments from a former practitioner, see Verghese Koithara, *Managing India's Nuclear Forces* (Washington DC: Brookings Institution Press 2012), 105.

⁶⁶Stephen Peter Rosen, *Societies and Military Power: India and its Armies*, Cornell Studies in Security Affairs (Ithaca, NY: Cornell UP 1996), 251–2.

⁶⁷Karnad, *India's Nuclear Policy*, 92–105. Karnad does suggest, without adequate evidence, that India's posture after 2002 has been 'modified nuclear de-mated' under pressure from the military. But he also emphasises the extent to which the armed forces are excluded in planning and operational terms. See also Cohen, *The Indian Army*, 219, 233.

⁶⁸See footnote 40.

⁶⁹Rosen, *Societies and Military Power*, 249, 251–2, 262; Srinath Raghavan, 'Civil-Military Relations in India: The China Crisis and After', *Journal of Strategic Studies* 32/1 (Feb. 2009): 149; Harsh V. Pant, 'India's Nuclear Doctrine and Command Structure: Implications for Civil-Military Relations in India', *Armed Forces & Society* 33/2 (1 Jan. 2007), 238–64.

⁷⁰Stephen Van Evera, 'The Cult of the Offensive and the Origins of the First World War', in Steven E. Miller, Sean M. Lynn-Jones and Stephen Van Evera (eds), *Military Strategy and the Origins of the First World War*, Revised and expanded edition (Princeton: Princeton UP 1991), 59–109.

⁷¹A.J.P. Taylor, *The First World War: An Illustrated History* (Harmondsworth, UK: Penguin Books 1963), 20.

One group of American, Indian and Pakistani scholars argue that 'an unstated consequence of the new military doctrine ... could be to make it difficult for the leadership to reconsider such orders once issued [meaning] future crises could be more vulnerable to escalation pressures'.⁷² Cognizant of these pressures, and aware of the variable 'personality and predilections of the Indian army chief' who may oversee future crises, the civilians will be naturally reticent in accepting an *ex ante* circumscription of their options.⁷³ In his leaked assessment for the US government, Ambassador Tim Roemer noted that 'several very high level [Indian] officials [including the former National Security Adviser] have firmly stated, when asked directly about their support for Cold Start, that they have never endorsed, supported, or advocated for this doctrine'.⁷⁴

The backdrop to this civil-military disconnect is 'the absence of a conversation between politicians, bureaucrats and military officers', stemming from 'deep sociological, organizational and institutional divides between the political, bureaucratic and military classes in India'.⁷⁵ This underdeveloped interface between these three groups lowers the likelihood that a doctrine developed endogenously to the military can enduringly take hold and gain acceptance.

The ambiguous status of its military doctrine may be no bad thing for India, if the end result is what Thomas Schelling described as 'the threat that leaves something to chance',⁷⁶ but, as Delhi has discovered, issuing even embryonic threats can be counterproductive. Cohen and Dasgupta observe that 'Cold Start has been a boon for the Pakistan establishment', in that 'its diplomats and generals can contend on the international stage that India is in fact an aggressive country'.⁷⁷ And far from leaving something to chance, the prevailing arrangements are widely accepted as aspirational at best.

Third, inter-service rivalry has crippled a number of modernisation efforts in the past, and doctrine appears to be no exception. India's wars have historically been disjointed affairs. In the humiliating defeat by China in 1962, airpower was glaringly absent.⁷⁸ Three years later, the Indian Air Force (IAF) preferred strategic bombing to close air support.⁷⁹

⁷²Chari *et al.*, *Four Crises and a Peace Process*, 175.

⁷³Ibid., 177.

⁷⁴Khan *et al.*, 'Pakistan's motivations and calculations for the Kargil conflict'.

⁷⁵Mukherjee, 'The Absent Dialogue'.

⁷⁶Thomas C. Schelling, *The Strategy of Conflict* (Cambridge, MA: Harvard UP 1960), 187.

⁷⁷Cohen and Dasgupta, *Arming without Aiming*, 66.

⁷⁸R. Sukumaran, 'The 1962 India-China War and Kargil 1999: Restrictions on the Use of Air Power', *Strategic Analysis* 27/3 (2003), 341.

⁷⁹The limited amount of close air support furnished by the IAF was disastrous. It was characterised by 'dismal conduct', including the infliction of casualties on Indian

And although it played important roles in subsequent conflicts, it resists being co-opted for the Army's purposes. The Indian Navy (IN) has similarly carved out an independent role for itself in recent years, following minimal involvement in India's wars.⁸⁰ Its doctrine 'presents war-fighting as one of four equally important roles, with the other three – diplomatic, constabulary, and soft power functions – being broader in geographic scope and less dependent on combat power'.⁸¹

The IAF and IN have abiding fears of being marginalised and subordinated by an overweening Army. This has ensured that Indian Chief of Defence Staff (CDS) or Chairman of Joint Chiefs of Staff (CJCS) positions have never materialised, despite the coordination benefits of such an office, whose existence was mooted as early as 1949 and the case for which has been made recurrently since.⁸² India is not unique in this regard. Industrialised democracies often face inter-service wrangling.⁸³ In Britain, anticipated austerity has prompted each service chief to vigorously defend the relevance of his force structure, with an emphasis on costly platforms.⁸⁴ Such debates over force structure, such as the analogous questions over the utility of the F-22 in an age of irregular warfare, everywhere affect posture.⁸⁵ However, the Indian context is characterised by particularly rigid service identities and a deficiency of overarching political orchestration.

Cold Start threatens the organisational essence of the IAF.⁸⁶ This is unsurprising: as a doctrine for conventional limited war, it characterises airpower as ancillary to the movement of ground forces. Insofar as Cold Start is a strategic package rather than one operational manoeuvre

personnel. See Pradeep Barua, *The State at War in South Asia*, Studies in War, Society, and the Military (Lincoln: Univ. of Nebraska Press 2005), 193.

⁸⁰James R. Holmes, Andrew C. Winner and Toshi Yoshihara, *Indian Naval Strategy in the Twenty-First Century* (London: Routledge 2009), 6–36, 61–79, 170–7.

⁸¹*Ibid.*, 63.

⁸²Cohen, *The Indian Army*, 220.

⁸³Morton H. Halperin, *Bureaucratic Politics and Foreign Policy*, 2nd ed. (Washington DC: Brookings Institution Press 2006), 28–57; Ian Horwood, *Interservice Rivalry and Airpower in the Vietnam War* (Fort Leavenworth, KS: Combat Studies Institute Press 2006), chap. 1.

⁸⁴Alex Barker, Sylvia Pfeiffer and Jeremy Lemer, 'Forces battle for dwindling resources', *Financial Times*, 2 Feb. 2010, <www.ft.com/cms/s/0/140a6adc-1040-11df-841f-00144feab49a,dwp_uuid=bc5ebec8-713c-11de-877c-00144feabdc0.html>.

⁸⁵For an argument that relates force structure to military effectiveness, see Jason Lyall and Isaiah Wilson, 'Rage Against the Machines: Explaining Outcomes in Counterinsurgency Wars', *International Organization* 63/1 (2009), 67–106.

⁸⁶'Organisational essence' refers to the views held by dominant groups within an organisation as to what its core mission ought to be, and what kinds of people should be members. See Halperin, *Bureaucratic Politics and Foreign Policy*, 28.

among many, it underplays strategic bombing. This is inherent in any limited war doctrine, where both horizontal and vertical escalation is tightly constrained. The doctrine also, as Ladwig observes, ties down air force units to the territorially fixed operational areas of battle groups, rather than allowing them to exploit their larger numbers against the Pakistan Air Force.⁸⁷

The IAF has historically been sensitive to circumscription of its role. Mukherjee notes that it 'opposed the creation of the Army Aviation wing, and still opposes the induction of attack helicopters ... on turf considerations' and that 'the issue of close air support (CAS) has turned into political football and has historically divided army and air force planners'.⁸⁸ One former senior air force officer at the official Centre for Air Power Studies in India frankly acknowledges that 'there is no question of the Air Force fitting itself into a doctrine propounded by the Army', adding that this was 'a concept dead at inception'.⁸⁹

This is not an impediment that India can easily surmount. Better coordination between the arms of the military is a prerequisite to Cold Start, but the Army will struggle to bring on board the IAF and IN at a time when the latter are capturing rising shares of capital expenditure and the most salient platforms.⁹⁰ Nor is politically imposed coordination likely. The defence bureaucracy in New Delhi is civilian-dominated, in part a legacy of the early republic's fear of military subversion of democratic institutions, a Praetorian danger amply highlighted across the border.

Consequently the 'lack of bureaucratic expertise in defence affairs, a problem inherited from the colonial era, with its emphasis on a generalist cadre instead of a specialist one [means that] in the absence of in-depth knowledge and hindered by information asymmetries, most bureaucrats, predictably, have focused on the process of decision-making instead of the outcome. Further, lacking the expertise to challenge the military on its logic makes it difficult to arbitrate between competing parochial [service] interests'.⁹¹ Hoyt notes that 'the Congress Party did not trust the military after independence, and deliberately

⁸⁷Ladwig, 'A Cold Start for Hot Wars?', 186.

⁸⁸Mukherjee, 'The Absent Dialogue'.

⁸⁹Pinaki Bhattacharya, 'Army and IAF face off over new war plan', *India Today*, 14 Dec. 2009, <<http://indiatoday.intoday.in/site/Story/74898/India/Army+and+IAF+face+off+over+new+war+plan.html>>.

⁹⁰Shashank Joshi, 'Defence Transformation in India', *RUSI Newsbrief* 30/2 (17 March 2010), <www.rusi.org/publications/newsbrief/ref:A4BA0C7C9B0A51>; Brian Kenneth Hedrick, *India's Strategic Defense Transformation: Expanding Global Relationships* (Carlisle, PA: Strategic Studies Institute, US Army War College 2009), <www.strategic-studiesinstitute.army.mil/pdffiles/PUB950.pdf>.

⁹¹Mukherjee, 'The Absent Dialogue'.

undermined its authority, stature, and prestige', indicating the historical deep-rootedness of these arrangements.⁹² A joint doctrine for the armed forces, released in 2006, papers over these cracks.⁹³ Stephen Cohen and Sunil Dasgupta are therefore correct to see Cold Start as 'a parochial effort without the benefit of strong political direction'.⁹⁴

Fourth, India's army is unready. Given the ambitiousness of transforming doctrine – the fundamental way in which an army expects to fight – this might be understandable, but India's problems are unusually severe. An acute sensitivity to corruption, as well as inefficiency, has bequeathed the armed forces with a chronically lethargic procurement system.⁹⁵ A government audit in 2007 documented 'shocking details as to the Army's unreadiness that had built up' over previous years.

From 1992–2007, only 5 per cent of the planned armour was acquired, and in the five years thereafter, only 10 per cent. This can hardly fail to cripple a doctrine whose fulcrum is comprised of armoured units. Even between 2002 and 2007, a period in which the need for a new doctrine crystallised, only a third of necessary tanks were obtained, with existing ones becoming desperately obsolete. In that same period, the infantry obtained less than half of their targeted needs. Artillery remains an open sore for the Army since a colossal procurement scandal in 1986.⁹⁶

Ammunition holdings remain well below the necessary levels, much existing ordnance is defective, and only just over a third of the army 'is equipped to move about India'.⁹⁷ According to one report, the 'poor state of the armoury' was invoked in official deliberations after the Mumbai attacks as a binding constraint on military action.⁹⁸ Karnad argues that 'there is combat hardware and spares sufficiency to equip and operate only one strike corps at full tilt at any given time – the showpiece II Corps', and 'even at full strength, its attacking mass cannot take this Corps very far'.⁹⁹

⁹²Timothy D. Hoyt, *Military Industry and Regional Defence Policy: India, Iraq, and Israel*, Cass Military Studies (New York: Routledge 2006), 23.

⁹³Ladwig, 'A Cold Start for Hot Wars?', 183.

⁹⁴Cohen and Dasgupta, *Arming without Aiming*, 53.

⁹⁵Anit Mukherjee, *Failing to Deliver: Post-crises Defence Reforms in India, 1998–2010*, IDSA Occasional Paper (New Delhi: Institute for Defence Studies and Analysis (IDSA) March 2011).

⁹⁶The figures in this paragraph are obtained from Manoj Joshi, 'We lack the military that can deter terrorism', *Mail Today*, 26 Nov. 2009, <<http://mjoshi.blogspot.com/2009/12/we-lack-military-that-can-deter.html>>.

⁹⁷Ladwig, 'A Cold Start for Hot Wars?', 187–9.

⁹⁸Siddharth Srivastava, 'Indian army "backed out" of Pakistan attack', *Asia Times*, 21 Jan. 2009, <www.atimes.com/atimes/South_Asia/KA21Df02.html>.

⁹⁹Karnad, *India's Nuclear Policy*, 120.

There also remains an 11,500-strong shortage of the officers necessary to operationalise a plan that, typical of mobile warfare, relies on a high quality of leadership – officers ‘who possess the initiative and flexibility to react to changing circumstances’.¹⁰⁰ Reiter and Meek note that ‘manoeuvre strategies are ... demanding on individual soldiers. They call for commanders and troops to seize the initiative on the battlefield, to improvise and innovate without necessarily relying on the assistance of the high command, and to fight for extended periods behind enemy lines, perhaps while cut off from the rest of the army’.¹⁰¹ Moreover, Stephen P. Cohen notes that the status of the military officer has declined over the past decades, partly as a result of greater middle-class (rather than upper-class) recruitment and the rise in technical demands placed upon that group by modern military technology. Fewer qualified officers have joined technically demanding branches such as artillery and infantry, and less than a tenth of officers’ sons join the army. These underlying patterns of recruitment signify a structural rather than transient obstacle to doctrinal change. Similarly, the logistical infrastructure to sustain forward-deployed units is still missing.¹⁰²

The cost of this unreadiness became apparent when, in the aftermath of Mumbai, the Army was compelled to admit to the government that ‘it would take them several weeks before it could prudently commence operations’. The Army’s inertia also precluded a naval or air strike, since there was no guarantee of the ability to contain a Pakistani land-based response.¹⁰³ This was apparently a repeat of the predicament of 2001–02, when inadequate night vision equipment raised the perceived costs of an unpredictable Pakistani response.

Fifth, and finally, concomitant to this doctrinal pirouette, the army finds itself reconfiguring its tasks. The most important of these is preparedness vis-à-vis China, with whom India fought in 1962 and faces an ongoing territorial dispute. Since the Bush administration conferred on India a civil nuclear deal in 2005 that exempted the latter’s arsenal from portions of the non-proliferation regime, the Sino-Indian relationship has deteriorated.

¹⁰⁰Ladwig, ‘A Cold Start for Hot Wars?’, 189; Saurabh Joshi, ‘Army’s officer intake hits new low’, *StratPost*, 16 Feb. 2010, <www.stratpost.com/armys-officer-intake-hits-new-low>.

¹⁰¹Ajai Shukla, ‘Soldier, heal thyself,’ *Business Standard*, 6 April 2010, <www.business-standard.com/india/news/ajai-shukla-soldier-heal-thyself/390930/>.

¹⁰²Ladwig, ‘A Cold Start for Hot Wars?’, 185, 187–8.

¹⁰³Manoj Joshi, ‘Was the Indian Army ready for war?’, *Mail Today*, 17 Jan. 2009, <<http://mjoshi.blogspot.com/2009/01/was-indian-army-ready-for-war.html>>.

The border dispute was reinvigorated by China in 2006. Some have discerned a trend of rising incursions.¹⁰⁴ In March 2009, China sought to block a \$2.9 billion loan to India that was partially destined for the India province of Arunachal Pradesh, which China claims in entirety as 'South Tibet' and which contains the town of Tawang through which the Dalai Lama fled to India in 1959.¹⁰⁵ India's influential former National Security Adviser, Brajesh Mishra, noted before his death in 2012 that 'the Chinese claims ... have acquired a stridency that was never there before'.¹⁰⁶ China's infrastructure in Tibet has developed in strides over recent years, highlighting the comparatively poor supply lines and facilities on the Indian side, already disadvantaged by the terrain.¹⁰⁷ These events and perceptions overlay both a pre-existing asymmetrical security dilemma, in which India perceives a greater threat from China than vice versa, and residual resentment from India's military defeat in 1962.¹⁰⁸

Nine Indian divisions remain committed to addressing that perceived threat (this figure partially explains why the conventional balance between Pakistan and India is not as great as appears when one takes the aggregate correlation of forces). When the Army met in 2009 to review the progress that had been made in establishing Cold Start, it undertook what was called a 'reconfiguration of threat perceptions and security challenges'. The Army Chief stressed that there was 'a proportionate focus towards the western and north-eastern fronts' – Pakistan and China.¹⁰⁹

¹⁰⁴John W. Garver, 'Sino-Indian Security Relations', in Sumit Ganguly, Andrew Scobell and Joseph Chinyong Liow (eds), *The Routledge Handbook of Asian Security Studies*, (London: Routledge 2010), 127; Harsh Pant, 'China tightens the screws on India', *Far Eastern Economic Review*, Sept. 2009.

¹⁰⁵Chen Jian, 'The Tibetan Rebellion of 1959 and China's Changing Relations with India and the Soviet Union', *Journal of Cold War Studies* 8/3 (1 July 2006), 54–101.

¹⁰⁶Ravi Velloor, 'India feels chill wind from China', *The Straits Times*, 7 Nov. 2009, <www.asianewsnet.net/news.php?sec = 2&id=8563>.

¹⁰⁷Jonathan Holslag, 'The Persistent Military Security Dilemma between China and India', *Journal of Strategic Studies* 32/6 (Dec. 2009), 811.

¹⁰⁸John W. Garver, 'Asymmetrical Indian and Chinese threat perceptions', *Journal of Strategic Studies* 25/4 (Dec. 2002), 109; Jonathan Holslag, 'Progress, Perceptions and Peace in the Sino-Indian Relationship', *East Asia* 26/1 (1 March 2009), 41–56; Holslag, 'The Persistent Military Security Dilemma between China and India'; on the latter point of mistrust, see Manjari Chatterjee Miller, 'Re-collecting Empire: "Victimhood" and the 1962 Sino-Indian War', *Asian Security* 5/3 (2009) 216.

¹⁰⁹Rajat Pandit, 'Army reworks war doctrine for Pakistan, China', *The Times of India*, 30 Dec. 2009, <http://articles.timesofindia.indiatimes.com/2009-12-30/india/28104699_1_war-doctrine-new-doctrine-entire-western-front>.

A reputable think tank affiliated with India's defence ministry, the Institute for Defence Studies and Analysis (IDSA), suggested that 'logically' a two-front war plan 'comprises first knocking Pakistan down by a blow from a Cold Start and then transferring the centre of gravity to the relatively slower paced, but more portentous conflict in the eastern Himalaya'.¹¹⁰ This overtly sequential approach is redolent, of course, of the Schlieffen Plan. Like the German strategy in 1914, it risks, in extremis, unnecessarily widening any isolated conflict by assuming two adversaries. It also encourages Pakistan and China to pre-empt any such real or perceived rationale.¹¹¹ This is a strategic problem of which there has been almost no public discussion.

More important than this, however, are the resource demands of any such plan. In 1987, during the so-called 'Brasstacks' Crisis resulting from a major Indian military exercise near the Indo-Pakistan border, India's presumptive conventional advantage over Pakistan was blunted precisely because 'many of its best army divisions were pinned down on the Himalayan frontier, where Indian forces had skirmished with China's in 1986'.¹¹²

Internal security is a further constraint. As early as 1999, the Kargil Review Committee Report cautioned that 'the heavy involvement of the Army in counter-insurgency operations cannot but affect its preparedness for its primary role, which is to defend the country against external aggression'.¹¹³ That year, the Naxalite-Maoist insurgency resulted in 156 deaths. In 2009, the equivalent figure was 1,134, a rise of over 600 per cent, with steady annual increases.¹¹⁴ In 2005, nearly a quarter of a million troops were involved in the Kashmir counter-insurgency operation, making it 'the largest of its kind in post-independence history', but by no means the only such operation.¹¹⁵ In 2001 Stephen Cohen, in

¹¹⁰Ahmed, 'Ongoing Revision of Indian Army Doctrine'.

¹¹¹Jack L. Snyder, 'Civil-Military Relations and the Cult of the Offensive,' in Steven E. Miller, Sean M. Lynn-Jones, and Stephen Van Evera (eds), *Military Strategy and the Origins of the First World War*, Revised and expanded edition (Princeton UP 1991), 27–30; Van Evera, 'The Cult of the Offensive and the Origins of the First World War', 91.

¹¹²Ganguly and Hagerty, *Fearful Symmetry: India-Pakistan Crises in the Shadow of Nuclear Weapons*, 190.

¹¹³*From Surprise to Reckoning: The Kargil Review Committee Report* (New Delhi: Sage Publications 2000), 244.

¹¹⁴'Armed Conflicts Report: India – Maoist Insurgency', *Ploughshares*, Jan. 2009, <www.ploughshares.ca/libraries/ACRText/ACR-IndiaAP.html>; Amit Gupta, 'The Reformist State: The Indian Security Dilemma', in Amit Gupta (ed.), *Strategic Stability in Asia* (Aldershot, UK: Ashgate 2008), 110–14.

¹¹⁵Ganguly and Hagerty, *Fearful Symmetry: India-Pakistan Crises in the Shadow of Nuclear Weapons*, 147.

an authoritative study of the Indian Army, documented ‘the enormous expansion of what used to be termed ‘aid to the civil’ ... more than one half of the army is engaged in internal security activities [and] has been turned into a paramilitary force’.¹¹⁶

As accustomed as the Army may be to the demands of counter-insurgency, it does not have manpower and materiel to spare (UN deployments notwithstanding).¹¹⁷ Less important for India than raising fresh divisions and sketching out hypothetical deployments is ensuring that articulated intentions (and implicit threats) are buttressed with adequate force. It was the failure to do this in 1962 that doomed the ‘forward policy’ to failure and condemned dispersed and poorly supplied Indian forces to defeat.¹¹⁸

These five obstacles are far from the only blocks to Cold Start. Manoj Joshi writes that ‘even if the Indian Army gets political approval’ – far from certain – ‘it will be two decades before it can be effectively used’. He adds that there is ‘no indication that the political class has applied its mind to the kind of political instructions that will be needed to ensure we do have a doctrine that can deter Pakistan’s use of proxies to carry out attacks such as on Mumbai [but] does not trip the nuclear trigger’.¹¹⁹ The basic problem in 2002 was deemed to be a political-military disconnect: India’s military instrument was too slow and too blunt to advance India’s political ends, which were to impose some form of punishment on Pakistan to dissuade the latter from its proxy war. Whatever its accuracy, the diagnosis was military, and a new doctrine was intended to address both the pace and finesse of India’s coercive options.

But the analysis here suggests that the disconnect may be rooted as much in the *political* as the *military* side of that interface. Not only are military failures frequently of political provenance (such as procurement inefficiencies), but India’s political culture and institutions also constrain the military posture that the Army can realistically fashion. Other problems, such as the inter-service wrangles that impede joint warfare, are rooted within the military. In either case, these problems are less amenable to resolution than optimists have hitherto assumed. This is true whether or not one accepts that the problem of terrorism is best addressed with military levers.

¹¹⁶Cohen, *The Indian Army*, xii-xiv; see also Sumit Ganguly, ‘From the Defense of the Nation to Aid to the Civil: The Army in Contemporary India’, *Journal of Asian and African Studies* 26/1-2 (Jan. 1991), 11–26.

¹¹⁷Sumit Ganguly and David P. Fidler (eds), *India and Counterinsurgency: Lessons Learned* (London: Routledge 2009), 12.

¹¹⁸Raghavan, *War and Peace in Modern India*, 269–71, 292–6.

¹¹⁹Joshi, ‘Who is afraid of Cold Start?’

Wider Implications

As India's interests in Afghanistan continue to be attacked through proxy groups, and Pakistan campaigns against Indian involvement in a country Islamabad sees as critical to achieving 'strategic depth', some within India have called for a deployment of troops. While this remains highly unlikely for a host of reasons, it is illustrative of the mismatch between emerging Indian ambitions and practical capabilities. With a declining American presence and fewer incentives for Pakistan to refrain from its policy of backing Afghanistan-centric insurgents and India-centric terrorists, one possibility is that the frequency and scale of attacks on India could rise, prompting a greater demand for retaliation and a more urgently perceived need to wield a military instrument befitting the nuclear context. As S. Paul Kapur writes:

Mumbai was a symptom of a larger, strategic problem plaguing Indian security policy: How to discourage terrorists and their backers from even trying to attack India. This is the critical strategic issue that Mumbai brings to the fore. If India is unable to address it, the country will remain unsafe regardless of intelligence, policing, and defence improvements.¹²⁰

If this is correct, then what is likely is that New Delhi would not indefinitely abjure a forceful response, even under circumstances where that might exact a substantial tactical and diplomatic price.¹²¹ Yet even options that appear less escalatory – such as air strikes on non-urban targets – have forced policy-makers to consider the possibility of retaliation and, therefore, limited war waged under the nuclear threshold. Moreover, even if the Army was tasked primarily with strategic defence, for instance in the aftermath of an Indian air strike, this does not preclude the need to be able to execute the *operational* offensive within tight parameters.¹²²

Since the emergence of a nuclear South Asia, Pakistan's security establishment – the de facto locus of political power within the country – has sought to spotlight a major conventional and existential threat from India, while concurrently trying to preclude conventional war

¹²⁰S. Paul Kapur, 'Deterrence and Asymmetric Warfare', *Seminar* (July 2009), <www.india-seminar.com/2009/599/599_s_paul_kapur.htm>.

¹²¹Daniel Seth Markey, *Terrorism and Indo-Pakistani Escalation*, CPA Contingency Planning Memorandum (New York: Council on Foreign Relations Jan. 2010), <www.cfr.org/publication/21042/terrorist_attack_sparks_indopakistani_crisis.html?breadcrumb=/bios/10682/daniel_markey>.

¹²²Stephen D. Biddle, *Military Power: Explaining Victory and Defeat in Modern Battle* (Princeton UP 2004), 49.

altogether. Instead, it has sought to cultivate proxies – first insurgents and then terrorists – to exact a substantial cumulative cost from India.¹²³ Ashley Tellis, a former senior US official, told a Congressional hearing in 2010, with some exaggeration, that ‘all the Islamist terrorist groups operating within the region are, far from being anarchic free agents, actually instruments of [Pakistani] state authority’.¹²⁴

What Richard Betts calls the ‘nuclear-as-offset-for-conventional-inferiority’ incentive¹²⁵ has long been noted in the South Asian context, and Vipin Narang specifically describes Pakistan’s ‘explicit invocation of a deterrence posture modelled on NATO’s’.¹²⁶ In 1986, the former NATO Supreme Allied Commander Europe stated that ‘if attacked conventionally today, NATO would be forced fairly quickly to decide whether it should escalate to the non-strategic [i.e. tactical] nuclear level’.¹²⁷ This is typical of a conventionally inferior power. The conventionally superior power typically responds that its ladder of escalation possesses just one rung, and so its adversary should think twice before initiating a nuclear war.¹²⁸ The former aims to blunt the other’s conventional forces; the latter attempts to bring them back into play by emphasising the credibility of its deterrent threat.¹²⁹ And Pakistan, like Western Europe, has little ability to rely on defence in depth – the exchange of space for time – owing to its limited size.¹³⁰

¹²³ Ashley J. Tellis, ‘Cruel Illusions’, *Outlook India*, 16 March 2010, <www.outlookindia.com/article.aspx?264716>; Fair, *The US Strategy in Afghanistan: Impacts upon US Interests in Pakistan*; Mark Mazzetti and Eric Schmitt, ‘CIA outlines Pakistan links with militants’, *New York Times*, 30 July 2008, sec. International/Asia Pacific, <www.nytimes.com/2008/07/30/world/asia/30pstan.html>.

¹²⁴ Ashley J. Tellis, *Bad Company – Lashkar e-Tayyiba and the Growing Ambition of Islamist Militancy in Pakistan*, 2010, 8, <www.carnegieendowment.org/publications/index.cfm?fa=view&id=40330>.

¹²⁵ Richard K. Betts, ‘Incentives for Nuclear Weapons: India, Pakistan, Iran’, *Asian Survey* 19/11 (Nov. 1979), 1071.

¹²⁶ Narang, ‘Posturing for Peace?’ 59.

¹²⁷ Eliot A. Cohen, ‘Toward Better Net Assessment: Rethinking the European Conventional Balance’, *International Security* 13/1 (Summer 1988), 50.

¹²⁸ Reshmi Kazi, *Pakistan’s Nuclear Doctrine and Strategy* (New Delhi: Institute of Peace and Conflict Studies 23 August 2007), <www.ipcs.org/article_details.php?articleNo=2361&cID=12>.

¹²⁹ Jervis, *The Meaning of the Nuclear Revolution*, 20–1, 239; Glenn Herald Snyder, *Deterrence and Defense; Toward a Theory of National Security* (Princeton UP 1961), 226.

¹³⁰ Biddle, *Military Power*, 49; Walter Pintner, ‘Russian Military Thought: the Western Model and the Shadow of Suvorov’, in Peter Paret (ed.), *Makers of Modern Strategy: From Machiavelli to the Nuclear Age* (Princeton UP 1986), 371.

But whereas US strategy was to stress the usability of nuclear weapons to forestall a Soviet invasion, Pakistan stresses likewise to *enable* asymmetric proxy warfare. More importantly, the Soviet Union possessed tactical nuclear weapons such that it could proportionally respond to a tactical strike by NATO. India lacks such an operational capability, and, as argued above, shows little sign of orienting its arsenal towards nuclear warfighting of any kind. Thus, as Paul Kapur has argued, 'the danger of nuclear escalation enables Pakistan to engage in low-level violence while insulated from Indian retaliation; it also attracts outside attention'.¹³¹ The degree of that insulation hinges on a large number of factors, but non-implementation and hence non-credibility of India's conventional retaliatory capacity may contribute to the perpetuation of this condition.

All this is familiar from established debates about nuclear South Asia. But proportionality of response cuts both ways – whereas massive Indian retaliation may be disproportionate and hence non-credible, so too would a Pakistani nuclear response to a strictly limited war by India. Yet successfully limiting any such war is difficult for reasons – outlined above – that go beyond nuclear strategy. The causes of doctrinal stasis – including the five explored in this analysis – will largely persist into the medium-term barring 'exogenous' shocks (such as a clear political effort to coordinate inter-service activities). India will, therefore, continue to struggle to adapt to the twilight of conventional warfare.

Acknowledgements

I am grateful to anonymous reviewers for comments.

Note on Contributor

Shashank Joshi is a PhD Candidate at the Department of Government, Harvard University and a Research Fellow of the Royal United Services Institute, London. Email: joshi@fas.harvard.edu.

Bibliography

- Ahmed, Ali, 'Ongoing Revision of Indian Army Doctrine', Institute for Defence Studies and Analyses, 6 Jan. 2010, <www.idsa.in/idsacomments/OngoingRevisionofIndianArmyDoctrine_aahmed_060110>.
- 'Armed Conflicts Report: India – Maoist Insurgency', *Ploughshares*, Jan. 2009, <www.ploughshares.ca/libraries/ACRText/ACR-IndiaAP.html>.

¹³¹Kapur, 'India and Pakistan's Unstable Peace', 142.

- Ashraf, Tariq M., 'Doctrinal Reawakening of the Indian Armed Forces', *Military Review* 84/6 (Dec. 2004), 53–62.
- Barker, Alex, Sylvia Pfeiffer and Jeremy Lemer, 'Forces battle for dwindling resources', *Financial Times*, 2 Feb. 2010, <www.ft.com/cms/s/0/140a6adc-1040-11df-841f-00144feab49a,dwp_uuid=bc5ebee8-713c-11de-877c-00144feabdc0.html>.
- Barua, Pradeep, *The State at War in South Asia*, Studies in War, Society, and the Military (Lincoln: Univ. of Nebraska Press 2005).
- Basrur, Rajesh M., 'Kargil, Terrorism, and India's Strategic Shift', *India Review* 1/4 (2002), 39–40.
- Basrur, Rajesh M., 'India's Nuclear Policy', in Chandar S. Sundaram and Daniel P. Marston (eds), *A Military History of India and South Asia: From the East India Company to the Nuclear Era*, (Bloomington: Indiana UP 2008) 186–197.
- Betts, Richard K., 'Incentives for Nuclear Weapons: India, Pakistan, Iran', *Asian Survey* 19/11 (Nov. 1979), 1071.
- Bhattacharya, Pinaki, 'Army and IAF face off over new war plan', *India Today*, 14 Dec. 2009, <<http://indiatoday.intoday.in/site/Story/74898/India/Army+and+IAF+face+off+over+new+war+plan.html>>.
- Biddle, Stephen D., *Military Power: Explaining Victory and Defeat in Modern Battle* (Princeton UP 2004).
- Bumiller, Elisabeth, 'Gates warns of militant threat in South Asia', *New York Times*, 21 Jan. 2010, sec. International/Asia Pacific, <www.nytimes.com/2010/01/21/world/asia/21gates.html>.
- Carver, Michael, 'Conventional War in the Nuclear Age,' in Gordon Alexander Craig, Felix Gilbert and Peter Paret (eds), *Makers of Modern Strategy: From Machiavelli to the Nuclear Age* (Princeton UP 1986), 779–815.
- Chari, P.R, Pervaiz Iqbal Cheema and Stephen P. Cohen, *Four Crises and a Peace Process* (Washington, DC: Brookings Institution Press 2007).
- Clary, Christopher, 'Presentation: India's Military Modernization (Nuclear Trends)', presented at the Shifting the Balance in Asia: Indian Military Modernization, American Enterprise Institute, Washington DC, 8 June 2010, <www.aei.org/event/100250>.
- Cohen, Eliot A., 'Toward Better Net Assessment: Rethinking the European Conventional Balance', *International Security* 13/1 (Summer 1988), 50–89.
- Cohen, Stephen P., *India: Emerging Power* (Washington DC: Brookings Institution Press 2001).
- Cohen, Stephen P., *The Indian Army: Its Contribution to the Development of a Nation*, Revised ed. (Delhi: OUP 2001).
- Cohen, Stephen P. and Sunil Dasgupta, *Arming Without Aiming: India's Military Modernization* (Washington DC: Brookings Institution 2010).
- Cox, Robert D., *India and the Operational Art of War* (Fort Leavenworth, KS: School of Advanced Military Studies, US Army Command and General Staff College 1991).
- Evera, Stephen Van, 'The Cult of the Offensive and the Origins of the First World War', in Steven E. Miller, Sean M. Lynn-Jones and Stephen Van Evera (eds), *Military Strategy and the Origins of the First World War*, Revised and expanded ed. (Princeton UP 1991), 59–109.
- Fair, C. Christine, *The U.S. Strategy in Afghanistan: Impacts Upon U.S. Interests in Pakistan* (Washington DC 2009).
- Faruqui, Ahmad, 'Beyond Mumbai: Prospects for Indo-Pakistani Relations', *RUSI.org*, 2009, <www.rusi.org/analysis/commentary/ref:C496A403CE6D75/>.
- Fearon, James D., 'Domestic Political Audiences and the Escalation of International Disputes', *American Political Science Review* 88/3 (Sept. 1994), 577–92.
- From Surprise to Reckoning: The Kargil Review Committee Report* (New Delhi: Sage Publications 2000).
- Ganguly, Sumit, 'From the Defense of the Nation to Aid to the Civil: The Army in Contemporary India' *Journal of Asian and African Studies* 26/1–2 (Jan. 1991), 11–26.
- Ganguly, Sumit, 'Nuclear Stability in South Asia', *International Security* 33/2 (1 Oct. 2008), 45–70.

- Ganguly, Sumit and Devin T. Hagerty, *Fearful Symmetry: India-Pakistan Crises in the Shadow of Nuclear Weapons* (Univ. of Washington Press 2005).
- Ganguly, Sumit and Michael R. Kraig, 'The 2001–2002 Indo-Pakistani Crisis: Exposing the Limits of Coercive Diplomacy', *Security Studies* 14/2 (2005), 290.
- Ganguly, Sumit and David P. Fidler (eds), *India and Counterinsurgency: Lessons Learned* (London: Routledge 2009).
- Garver, John W., 'Asymmetrical Indian and Chinese Threat Perceptions', *Journal of Strategic Studies* 25/4 (Dec. 2002), 109.
- Garver, John W., 'Sino-Indian Security Relations', in Sumit Ganguly, Andrew Scobell and Joseph Chinyong Liow (eds), *The Routledge Handbook of Asian Security Studies* (London: Routledge 2010), 126–39.
- Grimmett, Richard F., *US Arms Sales to Pakistan* (Washington DC: Congressional Research Service 24 Aug. 2009).
- Gupta, Amit, *Building an Arsenal: The Evolution of Regional Power Force Structures* (Westport, CT: Praeger 1997).
- Gupta, Amit, 'The Reformist State: the Indian Security Dilemma', in Amit Gupta (ed.), *Strategic Stability in Asia* (Aldershot, UK: Ashgate 2008).
- Halperin, Morton H., *Bureaucratic Politics and Foreign Policy*, 2nd ed. (Washington DC: Brookings Institution Press 2006).
- Hedrick, Brian Kenneth, *India's Strategic Defense Transformation: Expanding Global Relationships* (Carlisle, PA: Strategic Studies Institute, US Army War College 2009), <www.strategicstudiesinstitute.army.mil/pdffiles/PUB950.pdf>.
- Holmes, James R, Andrew C. Winner and Toshi Yoshihara, *Indian Naval Strategy in the Twenty-First Century* (London: Routledge 2009).
- Holslag, Jonathan, 'Progress, Perceptions and Peace in the Sino-Indian Relationship', *East Asia* 26/1 (1 March 2009), 41–56.
- Holslag, Jonathan, 'The Persistent Military Security Dilemma Between China and India', *Journal of Strategic Studies* 32/6 (Dec. 2009), 811.
- Horwood, Ian, *Interservice Rivalry and Airpower in the Vietnam War* (Fort Leavenworth, KS: Combat Studies Institute Press 2006).
- Hoyt, Timothy D., 'Pakistani Nuclear Doctrine and the Dangers of Strategic Myopia', *Asian Survey* 41/6 (2001), 956–77.
- Hoyt, Timothy D., *Military Industry and Regional Defence Policy: India, Iraq, and Israel*, Cass Military Studies (New York: Routledge 2006).
- 'Indian Army Chief's Remarks Show Hostile Intent: FO', *Dawn*, 31 Dec. 2009, <www.dawn.com.pk/wps/wcm/connect/dawn-content-library/dawn/news/pakistan/13+indian+army+chiefs+remarks+show+hostile+intent+fo-za-05>.
- 'Indian Army Doctrine', Headquarters Army Training Command, Oct. 2004, <http://ids.nic.in/Indian%20Army%20Doctrine/indianarmydoctrine_1.doc>.
- 'Indian Military Dream', *The Nation*, 1 Jan. 2010, <www.nation.com.pk/pakistan-news-news-paper-daily-english-online/Opinions/Editorials/01-Jan-2010/Indian-military-dream>.
- Jervis, Robert, *The Meaning of the Nuclear Revolution: Statecraft and the Prospect of Armageddon*, Cornell Studies in Security Affairs (Ithaca, NY: Cornell UP 1989).
- Jian, Chen, 'The Tibetan Rebellion of 1959 and China's Changing Relations with India and the Soviet Union', *Journal of Cold War Studies* 8/3 (1 July 2006), 54–101.
- Joshi, Manoj, 'Was the Indian Army ready for war?' *Mail Today*, 17 Jan. 2009, <<http://mjoshi.blogspot.com/2009/01/was-indian-army-ready-for-war.html>>.
- Joshi, Manoj, 'We lack the military that can deter terrorism.', *Mail Today*, 26 Nov. 2009. <<http://mjoshi.blogspot.com/2009/12/we-lack-military-that-can-deter.html>>.
- Joshi, Manoj, 'Who is afraid of Cold Start? Certainly not Pakistan.' *Mail Today*, 17 Feb. 2010, <<http://mjoshi.blogspot.com.uk/2010/02/who-is-afraid-of-cold-start-certainly.html>>.

- Joshi, Saurabh, 'Army's officer intake hits new low', *StratPost*, 16 Feb. 2010, <www.stratpost.com/armys-officer-intake-hits-new-low>.
- Joshi, Shashank, 'Defence Transformation in India', *RUSI Newsbrief* 30/2 (17 March 2010), <www.rusi.org/publications/newsbrief/ref:A4BA0C7C9B0A51/>.
- Joshi, Shashank, 'Permanent Crisis: Iran's Nuclear Trajectory', Whitehall Paper No. 79 (London: Royal United Services Institute 2012), 29–35.
- Joshi, Shashank, 'New year, new problem? Pakistan's tactical nukes', *The Diplomat*, 2 January 2013, <<http://thediplomat.com/2013/01/02/pakistans-new-nuclear-problem/>>.
- Kalyanaraman, S., 'Operation Parakram: An Indian Exercise in Coercive Diplomacy', *Strategic Analysis* 26/4 (2002), 478.
- Kanwal, Gurmeet, 'Does India Need Tactical Nuclear Weapons?', *Strategic Analysis* 24/2 (2000), 247.
- Kanwal, Gurmeet, 'Pakistan's Nuclear Threshold and India's Options', *Air Power: Journal of Air Power and Space Studies* 1/1 (2004), 109–24.
- Kanwal, Gurmeet, 'Cold Start and Battle Groups for Offensive Operations', *Strategic Trends* 4/18 (June 2006).
- Kanwal, Gurmeet, *Indian Army, Vision 2020* (New Delhi: HarperCollins and India Today Group 2008).
- Kapila, Subhash, *India's New 'Cold Start' War Doctrine Strategically Reviewed*, South Asia Analysis Group, 4 May 2004, <www.southasiaanalysis.org/%5Cpapers10%5Cpaper991.html>.
- Kapila, Subhash, *Indian Army's New 'Cold Start' Doctrine Strategically Reviewed – Part II (Additional Imperatives)*, South Asia Analysis Group, 1 June 2004, <www.southasiaanalysis.org/papers11/paper1013.html>.
- Kapila, Subhash, *Indian Army Validates Its Cold Start Doctrine*, South Asia Analysis Group, 7 June 2005, <www.southasiaanalysis.org/%5Cpapers15%5Cpaper1408.html>.
- Kapur, S.P., 'India and Pakistan's Unstable Peace: Why Nuclear South Asia is Not Like Cold War Europe', *International Security* 30/2 (2005), 127–52.
- Kapur, S. Paul, 'Ten Years of Instability in a Nuclear South Asia', *International Security* 33/2 (1 Oct. 2008), 71–94.
- Kapur, S. Paul, 'Deterrence and Asymmetric Warfare', *Seminar* (July 2009), <www.india-seminar.com/2009/599/599_s_paul_kapur.htm>.
- Kapur, S. Paul, 'Revisionist Ambitions, Conventional Capabilities, and Nuclear Instability: Why Nuclear South Asia is Not Like Cold War Europe', in Scott Douglas Sagan (ed.), *Inside Nuclear South Asia* (Stanford Security Studies 2009).
- Karnad, Bharat, *India's Nuclear Policy* (Westport, CT: Praeger Security International 2008).
- Kazi, Reshmi, *Pakistan's Nuclear Doctrine and Strategy* (New Delhi: Institute of Peace and Conflict Studies 23 Aug. 2007), <www.ipcs.org/article_details.php?articleNo=2361&cID=12>.
- Khan, Feroz Hassan, Peter R. Lavoy and Christopher Clary, 'Pakistan's Motivations and Calculations for the Kargil Conflict', in Peter R. Lavoy (ed.), *Asymmetric Warfare in South Asia: the Causes and Consequences of the Kargil Conflict*, (Cambridge: CUP 2009).
- Khan, J.A., *Air Power and Challenges to IAF* (APH Publishing 2004).
- Koithara, Verghese, *Managing India's Nuclear Forces* (Washington DC: Brookings Institution Press 2012).
- Ladwig, Walter C., 'A Cold Start for Hot Wars? The Indian Army's New Limited War Doctrine', *International Security* 32/3 (1 Jan. 2008), 158–90.
- Ladwig, Walter C. 'The Challenge of Changing Indian Military Doctrine', *Seminar* (July 2009), <www.india-seminar.com/2009/599/599_walter_c_ladwig_iii.htm>
- Lieber, Kier A. and Daryl G. Press, 'The Nukes We Need: Preserving the American Deterrent', *Foreign Affairs* (Dec. 2009), 40.
- Lyall, Jason, and Isaiah Wilson, 'Rage Against the Machines: Explaining Outcomes in Counterinsurgency Wars', *International Organization* 63/1 (2009), 67–106.

- Malik, V.P., *Kargil from Surprise to Victory* (New Delhi: HarperCollins Publishers India, a joint venture with the India Today Group 2006).
- Markey, Daniel Seth, *Terrorism and Indo-Pakistani Escalation*, CPA Contingency Planning Memorandum (New York: Council on Foreign Relations Jan. 2010), <www.cfr.org/publication/21042/terrorist_attack_sparks_indopakistani_crisis.html?breadcrumb=/bios/10682/daniel_markey>.
- Mazzetti, Mark and Eric Schmitt, 'CIA outlines Pakistan links with militants', *New York Times*, 30 July 2008, sec. International/Asia Pacific, <www.nytimes.com/2008/07/30/world/asia/30pstan.html>.
- Mearsheimer, John J., *Conventional Deterrence*, Cornell Studies in Security Affairs (Ithaca, NY: Cornell UP 1983).
- Miller, Manjari Chatterjee, 'Re-collecting Empire: 'Victimhood' and the 1962 Sino-Indian War', *Asian Security* 5/3 (2009), 216.
- Mukherjee, Anit, *Failing to Deliver: Post-crisis Defence Reforms in India, 1998–2010*, IDSA Occasional Paper (New Delhi: Institute for Defence Studies and Analysis (IDSA) March 2011).
- Mukherjee, Anit, 'The Absent Dialogue', *Seminar* (July 2009), <www.india-seminar.com/2009/599/599_anit_mukherjee.htm>.
- Narang, Vipin, 'Posturing for Peace? Pakistan's Nuclear Postures and South Asian Stability', *International Security* 34/3 (1 Jan. 2010), 38–78.
- 'Op Parakram claimed 798 soldiers', *The Times of India*, 31 July 2003, <<http://timesofindia.indiatimes.com/articleshow/104948.cms>>.
- Pandit, Rajat, 'Army reworks war doctrine for Pakistan, China', *Times of India*, 30 Dec. 2009, <http://articles.timesofindia.indiatimes.com/2009-12-30/india/28104699_1_war-doctrine-new-doctrine-entire-western-front>.
- Pant, Harsh V., 'India's Nuclear Doctrine and Command Structure: Implications for Civil-Military Relations in India', *Armed Forces & Society* 33/2 (1 Jan. 2007), 238–64.
- Pant, Harsh V., 'China Tightens the Screws on India', *Far Eastern Economic Review*, Sept. 2009.
- Patel, Y.I., 'Dig Vijay to Divya Astra – a Paradigm Shift in the Indian Army's Doctrine', *Bharat Rakshak Monitor* 6/6 (July 2004), <www.bharat-rakshak.com/MONITOR/ISSUE6-6/patel.html>.
- Perkovich, George, *India's Nuclear Bomb* (Los Angeles: Univ. of California Press 2002).
- Pintner, Walter, 'Russian Military Thought: The Western Model and the Shadow of Suvorov', in Peter Paret (ed.), *Makers of Modern Strategy: From Machiavelli to the Nuclear Age* (Princeton UP 1986), 354–76.
- Polgreen, Lydia and Souad Mekhennet, 'Militant network is intact long after Mumbai siege', *New York Times*, 30 Sept. 2009, sec. International/Asia Pacific, <www.nytimes.com/2009/09/30/world/asia/30mumbai.html?_r=1&ref=laskaretaiba>.
- Raghavan, Srinath, 'Civil–Military Relations in India: The China Crisis and After', *Journal of Strategic Studies* 32/1 (Feb. 2009), 149.
- Raghavan, Srinath, *War and Peace in Modern India: a Strategic History of the Nehru Years* (New Delhi: Permanent Black 2010).
- Raman, B., *Hit, But Stealthily*, South Asia Analysis Group, 23 Feb. 2010, <www.southasiaanalysis.org/%5Cpapers37%5Cpaper3687.html>.
- Razvi, Mujtaba, *The Frontiers of Pakistan: a Study of Frontier Problems in Pakistan's Foreign Policy* (Karachi: National Pub. House 1971).
- Rosen, Stephen Peter, *Societies and Military Power: India and Its Armies*, Cornell Studies in Security Affairs (Ithaca, NY: Cornell UP 1996).
- Sagan, Scott Douglas, 'The Evolution of Pakistani and Indian Nuclear Doctrine', in Scott Douglas Sagan (ed.), *Inside Nuclear South Asia* (Stanford Security Studies 2009).
- Schelling, Thomas C., *Arms and Influence* (New Haven, CT: Yale UP 1966).
- Schelling, Thomas C., *The Strategy of Conflict* (Cambridge, MA: Harvard UP 1960).

- Shukla, Ajai, 'Soldier, Heal Thyself', *Business Standard*, 6 April 2010, <www.business-standard.com/india/news/ajai-shukla-soldier-heal-thyself/390930/>.
- Smith, Chris, *India's Ad Hoc Arsenal: Direction or Drift in Defence Policy?* (Oxford: OUP 1994).
- Smith, David O., 'The US Experience with Tactical Nuclear Weapons: Lessons for South Asia', Stimson Center, 4 March 2013, 2–3, 31–40.
- Snyder, Glenn H., *Deterrence and Defense: Toward a Theory of National Security* (Princeton UP 1961).
- Snyder, Jack L., 'Civil-Military Relations and the Cult of the Offensive', in Steven E. Miller, Sean M. Lynn-Jones and Stephen Van Evera (eds), *Military Strategy and the Origins of the First World War*, Revised and expanded ed. (Princeton UP 1991), 20–59.
- Sood, V.K. and Pravin Sawhney, *Operation Parakram: The War Unfinished* (New Delhi: Sage Publications 2003).
- Srivastava, Siddharth, 'Indian army "backed out" of Pakistan attack', *Asia Times*, 21 Jan. 2009, <www.atimes.com/atimes/South_Asia/KA21Df02.html>.
- Sukhwant, Singh, *India's Wars Since Independence*, 3 vols. (New Delhi: Vikas 1980).
- Sukumaran, R., 'The 1962 India-China War and Kargil 1999: Restrictions on the Use of Air Power', *Strategic Analysis* 27/3 (2003), 332.
- Sundaram, Chandar S. and Daniel P. Marston (eds), *A Military History of India and South Asia: From the East India Company to the Nuclear Era* (Bloomington: Indiana UP 2008).
- Swami, Praveen, 'Beating the Retreat', *Frontline*, 26 Nov. 2002, <www.thehindu.com/fline/fl1922/stories/20021108007101200.htm>.
- Tanham, George, *Indian Strategic Thought: An Interpretive Essay* (Santa Monica, CA: RAND Corp. 1992).
- Tanham, George K., *Securing India: Strategic Thought and Practice*, Kanti P. Bajpai and Amitabh Mattoo (eds) (New Delhi: Manohar 1996).
- Taylor, A.J.P., *The First World War: An Illustrated History* (Harmondsworth, UK: Penguin Books 1963).
- Tellis, Ashley J., *India's Emerging Nuclear Posture: Between Recessed Deterrent and Ready Arsenal* (Santa Monica, CA: RAND 2001).
- Tellis, Ashley J., *Bad Company – Lashkar e-Tayyiba and the Growing Ambition of Islamist Militancy in Pakistan*, 2010, <www.carnegieendowment.org/publications/index.cfm?fa=view&cid=40330>.
- Tellis, Ashley J., 'Cruel Illusions', *Outlook India*, 16 March 2010, <www.outlookindia.com/article.aspx?264716>.
- Velloor, Ravi, 'India feels chill wind from China', *The Straits Times*, 7 Nov. 2009, <www.asia-newsnet.net/news.php?sec=2&cid=8563>.
- Vinod Kumar, A., 'A Cold Start: India's Response to Pakistan-Aided Low-Intensity Conflict', *Strategic Analysis* 33/3 (2009), 324.