

Indian Nuclear Plans Since 1998 Orientation and Challenges

Research Scholar: **Ramaprasada Chigri**

Research Supervisor: **Dr. Sushma Rampal**

Chaudry Charan Singh University, Meerut, UP

ABSTRACT

The surprise's second element concerns the arsenal's ambitious scope, which is shaping into a triad with an extraregional strike capability. This article tackles the underlying assumptions that are baked into the dominant scholarly discourses on India's nuclear history, particularly discourses on nuclear symbolism, norms, strategic culture, and institutions. It critically analyzes these discourses to show that the prestige and symbolism discourse infers motives from evidence that is ambiguous. The claim that Indian leaders in the two decades prior to 1998 were normatively disinclined to favor nuclear weaponization is empirically incorrect. Likewise, the thesis that India's strategic culture disfavors operational nuclear forces is based on a selective and biased reading of the available evidence. Finally, scholars have overstated India's historic civil-military institutional dysfunction. Because the above discourses have dominated our understanding of India's nuclear politics, the subsequent developments appear unexpected and surprising.

Introduction

The second surprise concerns the arsenal's ambitious scope, which is shaping into a triad with an extraregional strike capability. Three, the relative speed and efficiency with which India is building and deploying its nuclear force compare favorably with the development of other domestic conventional weapon programs that in the past have lagged in development and performance.

The surprise is especially sharp because prior to 1998 India's nuclear fence sitting and indecision led many to infer that India would likely choose a recessed and symbolic nuclear force over a deployed operational one (Perkovich [Citation1993](#), [Citation1999](#)). Scholars argued that India cared for the symbolism and prestige associated with nuclear weapons, like a national flag or

airline (Markey Citation2000). Hence, the likelihood of India building a sophisticated, technologically expansive and operational arsenal was low. Some scholars insisted that India lacked a strategic culture period (Tanham Citation1996). Others argued that India's strategic culture disfavored operational nuclear forces (Basrur Citation2006). A third argument went that India's weapons program was led by scientists who disavowed the uncontrolled and wasteful model of nuclear competition that characterized the superpower rivalry during the Cold War (Perkovich Citation1999). This latter factor when combined with India's dysfunctional civil-military relations left scholars even more skeptical that India would reproduce the operational model of nuclear deterrence (Rosen Citation1996; Perkovich Citation1999) practiced by the five legally recognized nuclear weapon states.

Hence, underlying the surprise at the conventional arc of India's nuclear trajectory is the belated realization that the prestige, norms, culture, and institutional dysfunction arguments that underlay presumptions for India's imagined mellow post-1998 nuclear future were vastly overstated. If anything, as the sophistication and operability of India's arsenal grows, it is more evident now than ever that India's strategic culture is not an impediment to building an operational nuclear force. Even more significant, although scientist-bureaucrats retain a dominant say in the arsenal's development, yet civilian decision makers have or are in the process of resolving many of the institutional bottlenecks with the military to clear the way for an operational capability.

In this article, I examine the underlying assumptions that are baked into the dominant scholarly discourses on India's nuclear history, particularly discourses that concern nuclear symbolism, norms, strategic culture, and institutions. I critically analyze these discourses to show why they have lost some of their explanatory power. I argue that the prestige and symbolism discourses infer motives from evidence that underplays India's national security dilemmas. Further, the claim that Indian leaders in the two decades prior to 1998 were normatively disinclined to favor nuclear weapons or weaponization is vastly overstated. Likewise, the thesis that India's strategic culture disfavors operational nuclear forces is based on a selective reading of the available evidence. Finally, I argue that India's historic civil-military institutional dysfunction, at least in the nuclear realm, needs revisiting.

The Now and Then of India's Nuclear Weapons Program

Today India can be classified as a conventional nuclear weapons power. By conventional, I mean that India is following the pattern of nuclear arsenal development, command control, and use doctrines similar to those developed by the legally recognized nuclear weapon powers during the “first nuclear age”. Historically, the weapon system architectures and command control institutions developed by the first generation of nuclear powers reached maturity in the late 1960s and early 1970s and set the standard for how an advanced nuclear weapons power ought to model itself.

This model privileges the development of a triad nuclear force with capabilities divided between air, land and sea-based forces to ensure maximum survival and retaliatory capability. It favors operational capabilities deployed in the field, allowing a nuclear weapons power the ability to launch an attack against an adversary under a variety of scenarios ranging from warning of an impending nuclear strike, during the time when a nuclear strike is underway, or in the aftermath of absorbing a nuclear strike. Operational capability implies readiness, training, and well-honed procedures by military custodians of the nuclear force to move, deploy and fire the weapons under a variety of peacetime, crisis, and wartime conditions. Solid strategic connectivity for such operations also requires national command authorities to favor technical or “positive” controls over nuclear forces to enable a high degree of responsiveness as well as to prevent any unauthorized or accidental use of nuclear weapons.

India's arsenal development effort in the last two decades has aimed at matching this standard model. From short-range ballistic missile and combat aircraft, India has branched out into building long-range ballistic missiles that are rail and road mobile (Kampani [Citation2013](#), [Citation2018](#)). It has invested in cruise missile technologies to offset the range and penetrability limitations of short-legged combat aircraft (Clary and Narang [Citation2013](#)). More significant, India is pouring vast resources into building a nuclear ballistic missile submarine fleet, the true measure of an assured strike capability (Kampani [Citation2013](#), [Citation2018](#)). As the submarine arm of India's triad enters the operational trial phase, Indian leaders have signaled that they are willing to replace “negative” institutional methods of controlling the arsenal with “positive” technical ones

(Kampani [Citation2016](#)). In addition, India has created new organizations such as the Strategic Forces Command (SFC) and new institutions including the National Command Authority and its Strategic Planning Staff (SPS) to manage nuclear operations and guide the development of the nuclear force (Kampani [Citation2016](#)).

When knowledge of India's nuclear weapons program first percolated into the public in the early 1990s, many influential Western scholars maintained that India was unlikely to replicate the standard model of nuclear deterrence. At the time, "non-weaponized" and "recessed" deterrence were the presumed alternative models of choice (Frankel [Citation1991](#); Perkovich [Citation1993](#)). The "recessed" model allowed for tacit but no explicit acknowledgment of nuclear capability by the government. In this model, the explosive package would remain separated from delivery systems during peacetime. The fissile core itself would be removed from the non-fissile firing assembly of the weapon for additional safety and security purposes. Delivery systems would also be capped in numbers, quality and type. There would be no explicit declaration of a nuclear doctrine and the military's organizational routines to move weapons from the stockpile-to-target would remain constrained (Perkovich [Citation1993](#)).

Scholars proffered that this "non-weaponized" or "recessed" model would generate "existential" deterrence on the cheap. It would minimize any dangers of nuclear accidents or thefts (Joeck [Citation1990](#), 77–91). It also provided a potential pathway for accommodating new nuclear powers under the existing nuclear nonproliferation regime. But more significant, the "recessed" model comported with India's apparent domestic constraints: its decision-makers' normative predilections, their quest for prestige and symbolism over security, their wariness of operationalization and their apparent discomfort at the task of reforming civil-military institutions. India, the consensus view went, also faced enormous material, economic, and technological, challenges too (Perkovich [Citation1999](#)). At the end of the day, however, the resolution of material constraints first and foremost requires the allocation of political will to overcome them. And scholars maintained that India's political will was lacking due to domestic normative, cultural, and institutional reasons.

In retrospect, this received wisdom has turned out to be wrong. India's nuclear trajectory is following the standard model, not the "recessed" model. In the remainder of this paper, I

critically examine three discourses on prestige and symbolism, strategic culture, and civil–military dysfunction. I argue that these discourses overinterpreted the evidence in the 1990s and the early 2000s to argue that India would likely settle for a “recessed” model over its standard counterpart. I maintain that because these three discourses have dominated our understanding of India’s nuclear politics in the last two decades, the subsequent developments appear unexpected and surprising.

Why the Prestige and Symbolism Explanations are Limited

Prior to the nuclear tests in 1998 and immediately after, many scholars inferred from India’s two-decade long nuclear fence sitting, the Hindu-nationalist nature of the government that ordered the 1998 nuclear tests, and the rushed manner of the testing program itself, that India was invested in nuclear weapons overwhelmingly for prestige and not national security reasons.

The Classical Realist argument went something like this: India cared for “prestige rather than power” (Morgenthau Citation1985, 95) because prestige is the “everyday currency of international relations” (Gilpin Citation1981, 31). The sociological version of this argument stressed that some states cared for nuclear weapons as they might care for national flags and airlines. In these constructions, the value of nuclear weapons often has less to do with the weapons’ functional logic, which is their strategic deterrent function. Rather, it has more to do with their buying into a shared system of beliefs where nuclear weapons constitute the greatest symbols of power in the international system (Sagan Citation1996/1997, 73–76).^{Footnote¹} To qualify as a great power India had to have nuclear weapons. Karsten Frey summed up this view by saying that “in India’s nuclear policy formulation, status seeking became a national interest in its own right ... not by increasing the substance of state power ... but by displaying it” (Frey Citation2006, 197).

The observations of the prestige theorists are not entirely incorrect. But they do not accurately capture the complexity and totality of India’s nuclear politics. Without doubt, the post-independent Indian state and its elites have consistently deployed modern science and large technology projects (aviation, defense, heavy industry, hydroelectric and nuclear power, space) as scripts and props to infuse the country’s post-colonial project of modernity with grandiosity, purpose and legitimacy (Khilnani Citation1998). In the minds of India’s power elites, the

actualization of these projects justifies the rejection of colonialism and closes the epistemic gap, albeit symbolically, between India and the more developed states in the international system, allowing India peer status regardless of large qualitative gaps in its development metrics. Nonetheless, the secrecy surrounding India's nuclear weaponization project in the decade prior to its public reveal in 1998 alongside the program's current scale and complexity, testify to more complex national security rationales, something that prestige theorists do not adequately address.

The prestige theorists have generated a lot of prima facie evidence to support their claims. But they ignore something fundamental and basic, which is that prestige often depends on public knowledge of the possession of a value or material object held in esteem because of its relative scarcity (O'Neil [Citation2002](#)). In cases involving India's large technology projects including atomic energy, defense and space, for example, publicity, performative displays and mythologizing are closely imbricated into the developmental metrics of those projects. This is also true for the nuclear weapons project, but to a far lesser extent. Consider, for example, that from 1981–82 when India began planning nuclear weaponization until the first phase of the project's completion in the late-1990s, Indian political leaders across three political coalitions (centrist, left and the right) chose not to disclose any aspect of the weaponization program in public. The prestige theorists, therefore, do not account for the fact that the pursuit of nuclear weapons in secret undercuts one of the basic operating principles of prestige, which is open public knowledge and publicity.

In India's case, the prestige theorists sometimes collapse the intrinsic and instrumental goals of prestige. At other times they parse them. In the intrinsic version of the prestige argument, nuclear weapons are associated with the postcolonial Indian state's foundational notions of legitimacy and modern identity. Consider, for example, Itty Abraham ([Abraham Citation1998](#)) and Sankaran Krishna's ([Krishna Citation2009](#)) casting of nuclear weapons as artifacts of modernity that satisfy the primordial nationalist urges of the subaltern post-colonial Indian state. Their approach superbly unpacks the cultural meanings and symbolisms associated with the nuclear sector in the collective consciousness of Indian publics and elites. But it is impossible to tease out the symbolic associations from the more tangible national security drivers behind policies. Abraham and Krishna's arguments are also embedded in a "soft" epistemology, which even when insightful renders the task of measurement difficult.

By comparison, instrumental prestige arguments, both domestically and externally oriented ones, are more measurable. In the early 2000s, Daniel Markey (Markey [Citation2000](#)) and Kanti Bajpai (Bajpai [Citation2009](#), 49–57) advanced the domestic version of this argument. They alleged that India's decision to conduct nuclear tests in 1998 and claim nuclear power status was causally linked to the rise of Hindu nationalism and the Hindu-nationalist Bharatiya Janata Party's (BJP) quest for electoral dividends. Nonetheless, both ignored the historical counterfactual that six prime ministers at the head of four centrist and left-of-the-center coalitions had supported weaponization for a decade prior to the 1998 tests. In fact, the tests would have been impossible without their support. Three prime ministers verged on tests: in 1982–83, in 1995, and in 1996 (Perkovich [Citation1999](#), 242–43, 364–71, 374–76) before finally ordering them in 1998. Likewise, in the post-1998 era as well, India's nuclear weaponization program has enjoyed strong support from all governments that have ruled the country.

Alongside these instrumental arguments, Karsten Frey advanced the claim that nuclear weapons were the petard with which India had sought entry into the exclusive club of nuclear great powers. To establish this claim, Frey used the elite discourse analysis method. His evidence consisted of a random sample of 705 nuclear-related editorials and opinions culled from four Indian newspapers between 1986–2005. This sample showed that the Indian elite discourse focused on security threats during the 1980s, shifted to the nonproliferation regime and identity-related status issues in the 1990s, reverted back to security issues in the wake of 1998 tests, and thereafter once again became fixated with status and identity issues (Frey [Citation2006](#), 28–46). In Frey's view, for over 20 years, concerns of self, identity and prestige outweighed national security concerns in India's public discourse, which can be treated as a proxy for the revealed preferences of its decision-makers (Frey [Citation2006](#), 44–46).

Frey, however, did not consider that any political discourse takes its cues and has an interactive relationship with historical events. In India's case, for example, as evidence of Pakistan's nuclear advances grew in the 1980s, national security primarily colored the nuclear debate. As the push to permanently ban nuclear testing and fissile material production as well as to permanently extend the NPT gained momentum in the 1990s, status and identity gained salience alongside national security issues in India. Post-1998, after India conducted nuclear tests, formally claimed the status of a nuclear weapons power, and reopened the debate about its nuclear future, national

security once again leapt to the fore in editorials and commentaries. Subsequently thereafter, as the Indian government set out to negotiate its nuclear status with the US and the other legally recognized nuclear weapon states, national security once again blended with identity and prestige discourses. What this tells us is that the mantle of public discourse rests on an inner fluid core of shifting events. The discourse invariably shapes itself to reflect on those events. But that shift in and by itself does not determine the predominance or lack thereof of identity and prestige over national security.

Frey also proposed without any supporting evidence that because the Indian state lacked an institutionalized national security apparatus prior to the early 2000s, the strategic elite outside government was “able to monopolize the security discourse and thus “hold an element of power”, which in a Habermasian definition, comprised both ‘communicative power’ and ‘administrative power’ associated with the functions and institutions of the state” (Frey Citation2006, 30). This latter assumption vastly overestimates Indian civil society’s capacity to influence the state and underestimates the zealotry with which the Indian political executive has historically guarded its prerogative over nuclear decision-making.

Hence in pronouncing India’s nuclear quest as symbolic and prestige driven, the prestige theorists overstate their case on three counts. First, they ignore the reality that prestige associated with nuclear weapons has been a constant in Indian politics since the 1974 nuclear test. All prime ministers from 1981 onward had the option to test. Two prime ministers, Indira Gandhi and Narasimha Rao, both from the centrist Congress party, came close to ordering tests in 1982–83 and 1995–96, well before the Hindu-nationalist BJP’s decision to test in 1998. Second, prestige depends on publicity. Yet, seven Indian governments between 1989 and 1998, drawn from political parties across the political spectrum, elected against making India’s nuclear capability public. Third, nuclear issues have ceased to be an electoral issue in Indian politics. But for the technical milestones such as platform acquisitions and missile tests that are visible to the general public’s eye and celebrated on occasion, the more substantive organizational and institutional features of nuclear force development have receded into the background. Finally, the surmise that India has sought nuclear weapons for symbolic reasons is contradicted by the steady development of India’s nuclear force capabilities in the last decade even after being accepted by the international community as a de facto nuclear weapons power.

What about Cultural Biases against Nuclear Weapons and Operational Nuclear Forces?

In India's case, scholars and policy practitioners also pointed to two contradistinctive trends, which they believed made it highly likely that India would opt for a recessed nuclear posture. Primarily, they maintained, India's power elites obsessed about the power halo that nuclear weapons conferred on states in the international system. However, consensus on the issue of the positive power associated with nuclear weapons was fractured and influential members of the elite also pronounced the weapons as nihilistic and wasteful. The collision of these opposite cultural beliefs, many reasonably inferred, would produce a national compromise, where India would likely keep nuclear weapons without building a deployed operational nuclear force.

An oft-repeated theme among influential Western scholars prior to 1998 was that Indian political leaders were generally averse to the idea of a large, sophisticated and operational nuclear force for normative reasons. India after all was the land of non-violence and Mahatma Gandhi. The majority of prime ministers through much of independent India's history – Jawaharlal Nehru, Lal Bahadur Shastri, Morarji Desai and Rajiv Gandhi – all favored global nuclear disarmament and held in high disregard the wasteful and dangerous nuclear competition between the United States and the Soviet Union during the Cold War. Indian leaders, the argument went, were determined to position themselves as a moral exemplar, and India as the country that stood above the conventional security maximizing states in the international system (Perkovich [Citation1999](#), 448–49).

But this narrative is true only in part. In fact, the evidence is far more muddied than what most normatively addled scholars of India's nuclear history acknowledge. By the early 1980s, India had definitively made the switch to a Janus-faced strategy, which coupled moralism to an insurance strategy of allowing work on the nuclear weapons program to proceed simultaneously. In retrospect, it is evident that Rajiv Gandhi was the last of India's prime ministers who harbored doubts on the legitimacy of nuclear weapons in India's security matrix (Chengappa [Citation2000](#), 303–05). The six prime ministers who followed him in the 1990s do not appear to have harbored any similar moral compunction. At least three among them (V. P. Singh, Narasimha Rao, Deve Gowda), representing a broad swath of India's political spectrum to

the left and center of the Hindu-right BJP, cited economic, not moral constraints for refraining from conducting nuclear tests prior to 1998 (Chengappa [Citation2000](#), 353–61).

But even as India's nuclear weapons program silently proceeded in the 1980s and 1990s, prime ministerial incumbents publicly stuck to the script of normative restraint, arms control, and global disarmament. Hence, the historical evidence shows variation between Indian decision-makers' public statements and private actions. The literal acceptance of such public scripts by scholars is often the reason for surprise at India's post-1998 nuclear course. However, just because public actors formally abide by normative scripts does not mean that they actually believe in them or enact them in private.

Sociological Institutionalism informs us that actors generally follow two types of actions, the first "obligatory" and the second "consequential". In playbooks involving "obligatory" actions, actors ritually comply with scripts that are deemed socially appropriate. In "consequential" actions on the other hand, actors consciously employ their agency to implement identified goals (Hall and Taylor [Citation1996](#), 946–50). The evidence from India is clear. Prime ministerial incumbents in the 1990s were complying with "obligatory" not "consequential" scripts.

This brings to the third problem with the normative argument, which is that it conflates the values ostensibly espoused by prime ministers with those of India's "deep state". This approach effectively black boxes the state. However, if we peer inside the black box, we discover considerable support for the nuclear weapons program from scientist-bureaucrats and military leaders who viewed Pakistan's nuclear advances in the 1980s and 1990s with consternation and pushed for a hard Realist course of action (Chengappa [Citation2000](#)). Had India's "deep state" harbored a deep normative aversion to nuclear weapons, three decision makers at the helm of a right-wing government in 1998 would have found it extraordinarily difficult to revolutionize the course of India's nuclear policy. That they did not should serve as our canary in the coal mine of nuclear abstinence norms.

During the decade of the 1990s as Indian decision-makers hesitated from formally claiming nuclear status even as evidence of India's basement arsenal grew, it became fashionable to explain away their hesitancy as stemming from the India's lack of a "strategic culture". The version of the cultural argument that gained greater acceptability was the one advanced by

Rajesh Basrur who argued that India's normatively freighted strategic culture would ensure nuclear minimalism and act as a restraint on nuclear operationalization. It was this restrained strategic culture, the "habits of mind, traditions, and preferred methods of operation", argued Basrur, which explained the slow institutional changes in India's nuclear responses to external pressures in the past and very likely in its post-1998 future (Basrur Citation2006, 60–65).

Ironically, Basrur's methodology unearthed evidence entirely at odds with his argument. It showed that the Indian strategic elite's post-1998 nuclear beliefs and preferences were dichotomized along two lines: between the political decision-makers on the one hand who regarded nuclear weapons as political weapons and the strategic experts and military leaders on the other who favored a robust and operational nuclear force (Basrur Citation2006, 67–73). In essence, Basrur's methodology revealed the existence of two competing sub-cultures within the Indian state that uneasily cohabited a common political space.

A decade after Basrur published his thesis, the nuclear sub-culture that has gained ascendancy in India is not the one allegedly espoused by the political decision-makers, but the one favored by the "deep state". Nonetheless, it was the near total acceptance in the 1990s and early 2000s of the received wisdom from proponents of normative and strategic cultural arguments that causes such disbelief at India's new nuclear normal.

The Civil–Military Dysfunction that Failed to Prevent Operationalization

But normative and cultural reasons aside, some scholars maintained, there was an even bigger and immediate hurdle that stood in the path of nuclear conventionality for India, its civil-military institutional dysfunction (Rosen Citation1996, 251–53). The argument went that barring a radical transformation in civil–military relations where the military acquired a substantive say in nuclear policy, it was unlikely that India would succeed in deploying an operational nuclear force.

Scholars maintained that civilian distrust of the military in India was normal for a young democracy wet behind its ears, especially after the examples of the "man on the horseback" and coups in post-colonial states in Asia, Africa and Latin America. India's civilian leadership also seemed determined to ensure that foreign policy did not become overly militarized. To be sure, civilian scientist-bureaucrats in India favored nuclear weapons, but not the US and Soviet models

where the operational drivers of military organizations had caused the arsenals to propagate irresponsibly. Normative and institutional constraints, the argument went, would, therefore, constrain any Indian propensity to replicate the operational logics of the legally recognized nuclear weapon states (Perkovich [Citation1999](#), 450).

During the 1990s, the presumption, therefore, was that new emerging nuclear powers, India and Pakistan among them, would likely institutionalize alternative models of nuclear deterrence such as its “recessed” form. Scholars applied themselves to explaining how this recessed model would function just as robustly as the overt model of deterrence. It would also be more crisis stable (Hagerty [Citation1995/1996](#), 79–114). Also given that the NPT could not be grandfathered to accommodate new nuclear weapon powers, the recessed deterrence models might even offer an institutional fix to accommodating new nuclear wannabe states under the existing nuclear nonproliferation regime.

But India’s civil-military institutions were not as calcified by distrust and dysfunction as their purveyors made them out to be. What observers overlooked was that civilian leaders in India allowed the military near complete operational autonomy during the country’s conventional wars, with one exception (Raghavan [Citation2012](#), 116–33). Furthermore, the civilians made the military full partners in quelling domestic rebellions and insurgencies. In the twentieth century, for example, 12 of the 17 military campaigns waged by India’s military were domestic in nature (Joshi [Citation2012](#)). Such extensive military aid to civilian authorities does not signal distrust. Starting in the 1980s, military leaders including Generals Rao and Sundarji played lead roles in lobbying prime ministers to exercise the nuclear option and in thinking through the rationale for India’s nuclear arsenal, its architecture and use doctrine (Chengappa [Citation2000](#)).

Once India began the process of weaponization in 1989, the government sought to compartmentalize this information as far as possible. At an institutional level, the military chiefs of staff were not made privy to the program’s details. However, information was shared with air force’s leadership because the first nuclear delivery vehicles were combat aircraft. Since the army and navy at the time did not possess delivery systems that could be folded into the arsenal, the government did not think it prudent to share details with them. Its reasons for this exclusion had less to do with distrust of the military as much as the need to ensure the greatest secrecy

because of US opposition to India's nuclearization program and the threat of economic sanctions during the 1990s (Kampani [Citation2014](#), 79–114). Nonetheless, scholars interpreted this process of exclusion as evidence of civil-military distrust.

Post-1998 however, once Indian leaders decided to build an operational nuclear force, they showed little hesitation in institutionalizing the military's role in nuclear planning and operations. This change has occurred without any revolutionary rewriting of the DNA of India's civil–military relations (Kampani [Citation2016](#)). Although efforts to reform civil–military relations in the conventional sphere have proceeded slowly and at times sputtered (Mukherjee [Citation2011](#), 9–22) India's civilian principals have moved relatively quickly to establish robust civil-military institutions to manage the nuclear arsenal.

Pursuant to the recommendation of the Arun Singh-led Task Force on Management of Defense, the Indian government created the Integrated Defense Staff (IDS) in 2001 to establish joint planning and coordination in the armed services (Prakash [Citation2007](#), 13–31). In May 2002, the government also followed up by instituting a tri-service SFC within the IDS to manage India's nuclear forces. Although attempts to institute a Chief of Defense Staff to oversee the IDS fell victim to intra-services and civil-military institutional rivalries (Prakash [Citation2007](#), 13–31), yet in the last two decades, the SFC's organizational presence within India's nuclear planning operations has expanded.

With organizational expansion the SFC now has departments that cover logistics, a works department for building infrastructure, a technical section that has representation from the three military services, and a department of land, air and sea vectors responsible for generating standard operating procedures for the various stages of operational readiness, in both peacetime and war. The SFC also has an electronics department that focuses on general release codes for nuclear weapons, as well as an independent intelligence analysis group that processes raw data from various government agencies (Shankar [Citation2010](#)).

Following the establishment of the IDS and the SFC, in January 2003 the Indian government also acknowledged the existence of a National Command Authority (NCA) that oversees India's nuclear force. The NCA has two tiers. The first tier comprises the Political Council (PC), which is chaired by the prime minister and very likely includes members of the Cabinet Committee on

Security (ministers of defense, external affairs, home and finance). The PC is the “sole body which can authorize the use of nuclear weapons” (Government of India press release [Citation2003](#)). The second tier of the NCA consists of an Executive Council (EC), tasked with the execution of political decisions related to nuclear weapons reached by the PC (Government of India [Citation2003](#)). India’s National Security Advisor (NSA) oversees the EC, whose members very likely consist of the chiefs of the Atomic Energy Commission, the Defense Research and Development Organization, the intelligence agencies, foreign ministry and the tri-service SFC (Kampani [Citation2013](#), 109).

The operationalization of the arsenal has also forced the NCA to grapple with principal-agent dilemmas, especially in the context of long-term force planning, technical issues related to reliability of the weapon systems, as well as operations. Prior to 1998, the prime minister’s office (PMO) served as India’s de facto NCA. Nonetheless, until the early 2000s, the PMO lacked independent institutional capacities to oversee the scientific and military agencies tasked with the development and management of India’s fledging nuclear force.

But gradually over the last decade, political and bureaucratic principals in the PMO have asserted authority over their scientific and military agents by creating institutions to manage long-term planning and decision-making. The best exhibit of this practice is the creation of the Strategic Planning Staff (SPS), which performs some of the long-term planning functions for the SFC (Kampani [Citation2016](#)). By establishing institutions including the NCA, the IDS, the SFC and SPS, India’s civilian decision-makers have made the military a co-participant with the scientific agencies, which had earlier dominated nuclear planning.

The transformation of India’s nuclear force from a formerly dormant into an operational force is also changing the operational readiness and command control procedural arrangements between civilian and military agencies. Prior to 1998 and even in the early 2000s, command control of India’s nuclear forces was divided between civilian scientific agencies and the military services. The civilian agencies controlled fissile material cores and warhead assemblies, while the services retained control over nuclear delivery systems including aircraft and ballistic missiles (Kampani [Citation2016](#)). Since then and after multiple military crises with Pakistan, India has

updated its nuclear alerting protocols and streamlined the number of procedural steps necessary to deploy the arsenal.

Under these new protocols that went into effect between 2004–08, the first stage of nuclear alerting begins simultaneously with any conventional mobilization. The assembly of nuclear weapons begins during this stage. Weapon dispersal follows in the second alerting stage. The third stage involves the mating of weapons to their delivery systems. The role of the scientific agencies ends at the conclusion of the third stage and control of the integrated weapon system devolves to the military during the fourth and final stage (Karnad [Citation2008](#), 95–96).

No doubt, India's nuclear arsenal remains de-mated in peacetime. However, small procedural changes have begun to erode some of the earlier civilian reticence concerning greater institutional participation and control by the military. For example, some types of nuclear ordnance are now co-located with delivery systems on air and naval bases. More significant, with the development of nuclear ballistic missile submarines, civilian decision-makers have concluded that maintaining a de- mated posture on submarines is impossible. The arsenal will not only remain integrated at sea but also that greater delegation of institutional control to the military is necessary (Kampani [Citation2016](#)).

Conclusion

If anything, India's nuclear pathway in the last two decades showcases the conventionality of its nuclear model. Far from embracing an unconventional political model of nuclear deterrence that rests on uncertainty generated from the absolute nature of the ultimate weapon, India has accepted a military model based on numbers, technology and organizational routines that essentially underline the limited nature of nuclear deterrence. This latter is the constitutive principle behind the deterrence models that all the legally recognized nuclear weapon powers have embraced, including China that for a while sought a more minimalist approach.

If the conventionality of India's nuclear approach comes as a surprise, it is only because of the dominance of the normative, cultural and institutional dysfunction narratives. These narratives constructed an alternative albeit partial reality, which were proven overstated when the country's leadership finally revealed its preferences. But given every other model that India has embraced

as a nation-state since its independence, from political governance, industrialization, development, education, health and security, the embrace of such conventionality should not come as a great surprise. Social isomorphism is the characteristic of modern nation-states in the international system. And India after its independence was always Nehru's India, which sought conventionality with a few alterations, and not Gandhi's whose vision was truly unconventional.

The argument that India sought nuclear weapons for external prestige rationales was only partially credible to begin with. Had that been the case, it might have been easier for India to gain some symbolic concessions from the international community, recognition of its technological achievement in exchange for acquiescing to the Nuclear Nonproliferation Treaty as early as 1974, immediately after its first nuclear test. That it did not do so and sat on the nuclear fence for a quarter century before making up its mind, rode out technology denials to its civil nuclear power sector and critical conventional and dual-use defense programs in the process, and put up with the persistent threat of economic sanctions, is evidence of the national security stakes involved.

Had prestige and international recognition been critical drivers, India could have cashed the prestige check on the cheap after its second round of nuclear tests in 1998. It would not have felt it necessary to invest billions into actually building a diversified and sophisticated triad force. It would not have had to reform its domestic institutional order of business to accommodate the military's demands for operational readiness. Further, being a nuclear weapons power does not win a state entrée into the world's power institutions. In India's case, being a nuclear weapons power has not changed its standing in either the United Nations or the Bretton Woods institutions, which still reflect the immediate post-World War II world pecking order. On the other hand, India's acceptance into the G 20 and other institutions such as the Asian Infrastructure Investment Bank, all showcase its economic and not strategic-military success.

India's strategic culture has also proven flexible in accommodating the demands of nuclear operability. The argument that Indian political and scientific leaders are averse to nuclear operations has turned out farfetched. The takeaway point from India's nuclear history is that nuclear arsenals have a disciplining logic of their own. Once states decide in favor of operationalization, deterrence becomes a game of numbers, procedures and organizational

routines. To be sure, political and strategic philosophies matter. But no nuclear weapons power in the long term has succeeded in superimposing a political over the military logic of nuclear weapons.

That apart, new institutions in India to manage nuclear operations and command control have leapfrogged over those designed for conventional warfare. Ironically, because reform of conventional war management in India still remains mired in debate, new organizations for nuclear command control and war management including the SFC and the SPS, for example, have gained access to the political leadership in a manner unprecedented in post-independent India's history. This is sobering evidence that undercuts theses of civil–military distrust and institutional calcification.

We are only surprised at these developments because some of the key academic narratives have framed our reality differently. For the most part, these narratives are plausible and sophisticated. But we ought to keep in mind that narratives always comprise two elements: data and the interpretation of that data. Data may appear neutral. However, the interpretation of data is nearly always a biased exercise, which makes any narrative a constructed act. Narratives, once constructed and published, gain wide acceptability. They become reality bending and ultimately create echo chambers that reflect their own make-belief worlds. Current nuclear developments in India are a testimony and warning of this effect.

References

1. Abraham, I. 1998. *The Making of the Indian Atomic Bomb: Science, Secrecy and the Postcolonial State*. New York: Zed Books.
2. Bajpai, K. 2009. *Inside Nuclear South Asia*, edited by S. D. Sagan., 25–67. Stanford, CA: Stanford Security Series.
3. Basrur, R. M. 2006. *Minimum Deterrence and India's Nuclear Security*. Stanford: Stanford University Press.
4. Chengappa, R. 2000. *Weapons of Peace: The Secret Story of India's Quest to Be a Nuclear Power*. New Delhi: HarperCollins Publishers India.
5. Clary, C., and V. Narang. 2013. "Doctrine, Capabilities and (In)Stability in South Asia." *In Deterrence Stability and Escalation Control in South Asia*, edited by M.

- Krepon, 101–102. Washington, DC: Stimson Center. [https://www.stimson.org/sites/default/files/file-attachments/Deterrence Stability Dec 2013 web 1.pdf](https://www.stimson.org/sites/default/files/file-attachments/Deterrence%20Stability%20Dec%202013%20web%201.pdf)
6. Frankel, B. 1991. *Opaque Nuclear Proliferation: Methodological and Policy Implications*. Abingdon: Frank Cass & Company.
 7. Frey, K. 2006. *India's Nuclear Bomb and National Security*. New York: Routledge.
 8. [Google Scholar](#)
 9. Gilpin, R. 1981. *War and Change in World Politics*. Cambridge: Cambridge University Press.
 10. Government of India. January 4, 2003. *Cabinet Committee on Security Reviews Progress in Operationalizing India's Nuclear Doctrine*. New Delhi: Government of India.
 11. Hagerty, D. T. 1995/1996. "Nuclear Deterrence in South Asia: The 1990 Indo-Pakistani Nuclear Crisis." *International Security* 20 (3, Winter): 79–114. doi:10.2307/2539140.
 12. Hall, P. A., and R. C. R. Taylor. 1996. "Political Science and the Three New Institutionalisms." *Political Studies* XLIV: 936–957. doi:10.1111/j.1467-9248.1996.tb00343.x.
 13. Joeck, N. 1990. "Tacit Bargaining and Stable Proliferation in South Asia." *Journal of Strategic Studies* 13 (3): 77–91. doi:10.1080/01402399008437420.
 14. Joshi, S. 2012. "The Indian Mutiny That Wasn't." *Foreign Policy*, April. http://www.foreignpolicy.com/articles/2012/04/05/the_indian_mutiny_that_wasn_t?page=full
 15. Kampani, G. 2013. "India: The Challenges of Nuclear Operationalization and Strategic Stability." In *Strategic Asia 2013–14: Asia in the Second Nuclear Age*, edited by A. Tellis, A. M. Denmark, and T. Tanner, 99–128. Seattle, WA: National Bureau of Asian Research.
 16. Kampani, G. 2014. "India's Long Nuclear Journey: How Secrecy and Institutional Roadblocks Delayed India's Weaponization." *International Security* 38 (4): 79–114. doi:10.1162/ISEC_a_00158.
 17. Kampani, G. 2016. "India's Evolving Civil-Military Institutions in an Operational Nuclear Context." *Carnegie Endowment for International*

Peace. <http://carnegieendowment.org/2016/06/30/india-s-evolving-civil-military-institutions-in-operational-nuclear-context-pub-63910>

18. Kampani, G. 2018. “India’s Nuclear Trajectory: New Directions Amid Enduring Myths.” In *Oxford Handbook of India’s National Security*, edited by S. Ganguly, N. Blarel, and M. S. Pardesi, 149–164. New York: Oxford University Press.
19. Karnad, B. 2008. *India’s Nuclear Policy*. New Delhi: Praeger.
20. Khilnani, Sunil. 1998. *The Idea of India*. New York: Farrar, Straus & Giroux.
21. Krishna, S. 2009. “The Social Life of the Bomb: India and the Ontology of an ‘Overpopulated’ Society.” In *South Asian Cultures of the Bomb: Atomic Publics and the State in India and Pakistan*, edited by I. Abraham, 68–88. Bloomington, IN: Indiana University Press