Nuclear Weapons and Indian Strategic Culture*

RAJESH M. BASRUR

Centre for Global Studies, Mumbai

The persistence of restraint, stability and minimalism in India's nuclear policy is best explained with reference to its strategic culture. This constitutes an intermediate structure between the power-acquisition imperative of the structure of the international system and domestic choices on how power is actually constituted. Disaggregation of strategic culture into three analytically distinct components – the level of assumptions and beliefs, the operational level and the structural frame – facilitates identification of the precise areas of continuity and change in a dynamic structure. The disjunctures observed, whether at one level or between levels, can then be subjected to social action in the pursuit of peace and stability. An examination of Indian strategic culture with respect to nuclear weapons on the basis of official and non-official preference structures reveals (a) high levels of continuity in the form of restrained responses to external and domestic pressures for change, and in a positive disposition toward arms control; and (b) a significant shift from high to low tolerance of ambiguity resulting from the steady growth of an operational, as opposed to a political, conception of nuclear weapons. The last creates space for nuclear instability. The anomaly can be corrected by exposing the deficiencies in the operational conception of deterrence, thereby reinforcing strategic stability.

Introduction

The series of nuclear tests conducted by India in 1998 and its official adoption of a minimum deterrence doctrine have rekindled the longstanding debate on the hazards and virtues of nuclear proliferation, indeed of the weapons themselves (Feaver, 1995; Hagerty, 1998; Karl, 1996/97; Sagan & Waltz, 1995). Indians have argued passionately over the shift to overt nuclear status (Basrur, 1998). Proponents of the policy change claim it has strengthened India's security in an environment of growing nuclear threats (from China and Pakistan) and fostered strategic stability by opening up the possibility of bilateral arms control negotiation with nuclear adversaries. Critics counter that India has launched an unaffordable weapons programme that augurs unstable nuclear confrontations, especially with Pakistan. Both sets of arguments have been largely deductive, drawing from opposing assumptions about the essential properties of nuclear weapons and their respective logics.

Below, I address the issue of strategic stability and the thrust of the nuclear programme from a different perspective: that of the effects of strategic culture on nuclear posture. I show that Indian strategic culture accords a limited value to nuclear deterrence as a basis for national security and is hence consistently incremental in its responses to external and internal pressures for substantial policy change. At the theoretical level, I refine and test the concept of strategic culture by...
separating its constituent components and subjecting them to empirical analysis. Following a discussion of the concept of strategic culture, I outline a theoretical framework in which strategic culture may be usefully treated as an intermediate structure between system structure and domestic choice. I examine the evidence from the historical record of official preferences expressed through leaders' opinions and state behaviour, and from non-official expert opinion harvested from published works and interviews. I conclude by outlining the strengths and vulnerabilities of Indian strategic culture with respect to nuclear weapons. This will help show how the gradually shifting balance between its political and technical components can be corrected so as to enhance the prospects for stability and peace.

The Concept of Strategic Culture

The 1990s have witnessed a surge of theoretical work in strategic studies drawing upon various facets of the concept of culture: organizational, political, strategic and global (Desch, 1998). Scholars have attempted either to supplement or, more often, to supplant the realist approach by showing how culture governs the specifics of behaviour, for instance by determining differences in national preferences relating to the use of force. Strategic culture may be defined, in Colin Gray's words, as 'the socially constructed and transmitted assumptions, habits of mind, traditions, and preferred methods of operation - that is, behaviour - that are more or less specific to a particular geographically based security community' (1999: 28). This definition encompasses both habits of mind and habits of practice, with the former conditioning the latter. Viewed as a set of structured preferences, strategic culture at one level entails fundamental understandings about the nature of the strategic environment, the role of force in that environment, perceptions of threat and the framing of responses to perceived threats. At another level, it involves preferences relating to the organization of those responses in terms of the quality and quantity of military forces considered necessary in order to meet national objectives.

The concept of 'strategic culture' has evolved over three generations of theorizing (Johnston, 1995a, b). The first generation viewed strategic culture as the product of variations in macroenvironmental factors such as historical experience, geography, societal structures and military institutions. It developed concepts such as 'national character' and 'style' to explain putative differences in state behaviour, as between 'weak' democracies like the United States and 'tough' authoritarian regimes like the Soviet Union (Desch, 1998: 146–147). Such differences were also highlighted to stress the risks associated with misunderstanding the adversary (Booth, 1979). The second generation perceived strategic culture as a hegemonizing tool used by elites to draw support for declaratory strategies masking actual operational strategies. The third and newest generation regards strategic culture not as deeply rooted in distant social and political history, but as the product of recent historical military-strategic experience. This encompasses a variety of concepts and behaviours. For instance, 'national command philosophy' is a 'unified structure of beliefs' that establishes, among other things, the preferred attitude toward uncertainty and risk (Foster, 1992: 74). 'Military' or 'organisational culture' consists of 'the collectively held beliefs within a particular military organisation' in relation to its internal workings as well as its external environment (Kier, 1995). A nation's 'political culture', similarly, consists of orientations on a larger scale. In the realm of nuclear strategy, for example, English, French and German policymakers' decisions are said to display distrust of their own peoples and a desire to exercise political
leadership (Heuser, 1998: 260–268). In general, there is a stress on norm-driven behaviour, as opposed to the rational calculus emphasized by realists (Katzenstein, 1996). National proclivities continue to be highlighted, for instance the US preference for low casualty rates, reliance on technical and economic superiority and the belief that force should only be used if there is a clear and visible threat (Becker, 1994); or the Chinese preference for the use of force to resolve disputes (Johnston, 1995b).

First-generation approaches remain popular today. For example, nations are shown to have distinctive ‘negotiating styles’: the Chinese are subtle, Russians relatively aggressive, Japanese rigid, and so on (Binnendijk, 1987). Distinctive regional modes of international behaviour have been identified, such as an ‘Asian way’ and a ‘Pacific way’, which include a preference for uniquely local forms of conflict resolution without the involvement of external powers (Haas, 1990). It is evident from the foregoing that the concept is very broad, encompassing a wide range of preferences and behaviours. A central problem is the lack of theoretical rigour in demonstrating the linkage between identified cultural traits and actual behaviour. This is particularly true when societal characteristics are held to be the primary determinants of behaviour.

The latter failing is common in the few studies that have tried to apply the concept to the Indian context. For instance, George Tanham paints a crude portrait of the alleged effects of culture on Indian thinking:

The acceptance of life as a mystery and the inability to manipulate events impedes preparation for the future in all areas of life, including the strategic. The Indian belief in life cycles and repetitions, in particular, limits planning in the Western sense. (Tanham, 1992: 17)

Betraying gross ignorance of the material aspects of Indian history and culture, such assertions confuse rather than illuminate.

In like vein, Andrew Latham argues that Indian ‘security culture’ discourages the acceptance of confidence-building measures (CBMs) because ‘such measures operate on a premise that is directly contrary to the Kautilyan paradigm’ (1997: 120). This is incorrect: India has agreed on a wide range of CBMs with China and Pakistan (Krepon, 1998: 129–210). Besides, it is hard to see why a realist world-view should prevent arms control. It did not do so in the Soviet–US relationship. Jaswant Singh makes unsupported generalizations on India’s supposed religious pacifism and the resultant ‘emasculaton of state power’ (1999: 13), and on the alleged absence of ‘a territorial consciousness and a strategic sense about the protection of the territory of residence’ (1999: 16). Falling into the same methodological trap of oversimplification, Sandy Gordon claims, among other things, that ‘the hierarchical nature of caste naturally leads to a propensity towards compartmentalisation and exclusivity which ‘undermines seriously coordination and planning’ (1995: 7). Lacking methodological rigour, these assertions are easily refuted empirically.

The restricted definition of strategic culture employed here is much less prone to oversimplification. It applies to nuclear weapons alone and not to military strategy as a whole. It treats strategic culture as historically located within the time frame of the existence of nuclear weapons. It acknowledges that strategic culture is shaped by a specific congruence of factors: historical context, technological capability, the availability of economic resources and, above all, ethical norms relating to nuclear weapons. I do not attempt to identify Indian strategic culture in its entirety even in this limited context. Rather, I confine myself to a focus on particular facets of strategic culture relevant to the question of strategic stability. Cultural theories generally distinguish between two categories: beliefs and practices.
My formulation goes further. Here, strategic culture has three components: the ideational, the praxological and the structural frame.

The ideational component consists of two levels:

1. the level of basic assumptions and beliefs about the nature of interstate relations, threat perceptions and, in this setting, the role of nuclear weapons; and

2. the operational level relating to preferences about the state’s responses to threats in terms of the nature of nuclear deployment, the number and types of weapons considered adequate, targeting doctrine and some notion of conditions under which the use of nuclear weapons may be considered necessary.

The praxological component of strategic culture consists of repetitive patterns of action over time. It is in constant interaction with the ideational component and, in conditions of equilibrium, the two are mutually reinforcing. This is similar to the interaction in organization theory between the ‘substance’ of culture, or shared belief systems, and cultural ‘forms’, or observable expressions of culture (Hatch, 1997: 205). When ideational change occurs, whether as a result of external or domestic factors or both, the praxological component restrains change in strategic culture as a whole, i.e. it contributes to a preference for incremental over rapid change.

The structural frame is a conceptual innovation. It has three facets: responses to deterioration in the strategic environment (restraint/precipitateness), tolerance of ambiguity (high/low) and disposition toward arms control (positive/negative). It gives a distinctive quality to the dynamic content of strategic culture.

I define Indian strategic culture in relation to nuclear weapons as nuclear minimalism. Its chief characteristics are (a) a very limited acceptance of the utility of nuclear weapons as a source of national security; (b) a political rather than a technical understanding of nuclear weapons (nuclear weapons do deter, and yet are ‘non-useable’); and (c) restrained responses to pressures either to enhance or reduce national nuclear capabilities. Indian nuclear minimalism acknowledges that power (implicitly, nuclear power too) is a prerequisite for security in an anarchic international system. At the same time it considers nuclear weapons both morally unacceptable and detrimental to security because of the risks associated with them. This nuclear minimalism was established at the time of Indian independence (two years after Hiroshima) and crystallized over the next two decades. At the turn of the millennium, it is under some pressure, but its strength belies the warnings of those who stress the risks of arms racing, high spending and risk-proneness allegedly inherent in India’s recent decision to ‘go nuclear’.

Unlike most earlier formulations, I stress the dynamism of strategic culture. Culture is viewed as a ‘collective subjectivity’ (Lasuutari, 1995: 25) that is socially constructed and hence constantly subjected to change (Lapid, 1996: 7). In the normal course, strategic culture changes slowly, which gives it the characteristic of a stable structure analogous to language. Like language, it is at once restrictive in some respects and enabling in others. Thus, Indian strategic culture simultaneously constrains arms racing and facilitates arms control. Because it is dynamic, it is also vulnerable and needs monitoring for corrective social action.

**Theoretical Framework and Method**

The present analysis does not seek to supplant realism, but to supplement it. In neorealism, structure only induces broad outcomes, leaving room for variations in specific choices within a range of possibilities (Waltz, 1979: 74, 124). Thus, while structure
impels states toward maintaining armed forces for security, it does not dictate specific choices about the quantity and quality of forces. What explains choice? Here, we must turn from neorealism to liberal/neoliberal theories which stress the causal role of domestic politics and the specific configuration of variables relevant to each outcome (Doyle, 1995; Kapstein, 1995; Moravcsik, 1997; Morrow, 1988). These theories explain continuities in policy in terms of continuities in the configuration of variables. But what if there are policy continuities despite changes in the configuration of domestic variables? Liberal theories can point to international institutions as sources of continuity (Ikenberry, 1998/99), but they do not offer adequate explanation where international institutions do not exist, for instance where adversarial relations between states are unregulated.

The theoretical hiatus may be closed by positing strategic culture as an intermediate structure that moulds the responses of the state to both external and internal stimuli. Thus, while the neorealists’ system structure induces states to prepare for the possibility of war, strategic culture, a structure of beliefs and practices crystallized over time, narrows the range of choices and induces continuity even when there is a changing environment, whether external or domestic or both. Ideally, a study of strategic culture should engage in cross-national comparison over time to show variations in structured preferences. This study is restricted to comparisons of strategic preferences within a single state – India – over time and across objects of analysis. The objects of analysis are classified as follows:

1. Official: (a) preferences expressed by policymakers that relate to basic assumptions and beliefs; and (b) state behaviour expressed through policies and actions.
2. Non-official: (a) six sets of detailed analyses and recommendations, five by leading individual strategic analysts and one in the form of the Draft Nuclear Doctrine (DND) produced by an officially appointed body of nongovernment experts: the National Security Advisory Board (NSAB); and (b) detailed interviews with members of the strategic elite.

Non-official thinking has a significant bearing on Indian strategic culture because nuclear weapons in an operational sense are little understood within Indian officialdom, and because the Indian state is in the process of becoming decentralized and more open to non-official inputs (Panini & Kumar, 1998).

Aside from determining a structure of preferences, the analysis will test for the role of strategic culture in shaping outcomes by comparison with predictions based on realist analysis. It will also control for the effects of other domestic variables: leadership preferences, party preferences, bureaucratic politics, parliamentary inputs and public opinion.

Strategic Culture: The Level of Basic Assumptions and Beliefs

Official Beliefs and Practices

The Foundations of Indian Strategic Culture: From Nehru to Indira Gandhi

The basic contours of Indian strategic culture with respect to nuclear weapons crystallized during the long incumbency of India’s first prime minister, Jawaharlal Nehru (1947–64). Nehru’s attitude toward nuclear weapons reflected the ambivalent mix of realism and moral principle that permeated his foreign and defence policies (Bandyopadhyaya, 1979: 286–321). Even Mahatma Gandhi, his political mentor, reflected this uncertainty. On the one hand, Gandhi rejected nuclear weapons and deterrence outright as immoral and declared that non-violence was the only answer to the violence
of the atomic bomb. On the other, he could not abandon the idea of using force for national defence. Late in his life, when questioned by an army general about the efficacy of nonviolence vis-à-vis an enemy who has no use for it, he had no answer:

You have asked me to tell you in a tangible and concrete form how you can put over to the troops under your command the need for nonviolence.

I am still groping in the dark for an answer. I will find it and give it to you some day... (cited in Anand, 1998: 15–16)

As a policymaker, Nehru was faced with a sharper dilemma. His moral instincts recoiled from conceiving of nuclear weapons as usable instruments of state policy because 'we know that the use of these weapons amounts to genocide' (cited in Mullick, 1972: 161). From a practical standpoint, he acknowledged the value of deterrence in preventing war between the United States and the Soviet Union, but nevertheless worried that 'one accident, one irrational decision, or one wrong move might very well spell an end for everything living' (cited in Ghatate, 1998: 12). Thus, while continually advocating universal nuclear disarmament, Nehru kept the door open for the possible development of nuclear weapons and refused to countenance any agreement that might bring about its closure. Shortly before his death, on a memorandum written by the pro-bomb nuclear scientist, Homi Bhabha, Nehru wrote that nuclear technology offered the 'built-in advantage' of defence use should the need arise (Kapur, 1976: 193–194).

The ideational and praxological foundations of Indian nuclear minimalism were firmly laid during the Nehru era. For 17 years, consistent with Nehru’s beliefs, India’s strategic posture was characterized by a suspicion of nuclear weapons, strong advocacy of non-discriminatory arms control and disarmament, and a high tolerance of ambiguity in the form of reliance on an open-door policy to counter potential nuclear threats.

Nehru’s successor, Lal Bahadur Shastri (1965–66) responded guardedly to an enhanced threat perception from China, which tested its first nuclear device in 1964. In December 1965, the prime minister approved a secret research programme, the Subterranean Nuclear Explosion Project (SNEP), to take Indian nuclear capability to a level that would still be three months short of an actual test. Publicly, Shastri resisted strong pressure from within his own Congress Party to embark on a policy of building nuclear capability for military purposes (Subrahmanyam, 1998: 27). At the time, the non-proliferation regime had yet to acquire teeth in the form of the Non-Proliferation Treaty (NPT). The reluctance to go nuclear clearly came from within.

Nehru’s daughter, Indira Gandhi (1967–77, 1980–84), was in many ways the quintessential realist. She engaged in a rapid conventional military buildup and, in 1971, intervened in the civil war in Pakistan to play midwife to the birth of Bangladesh. But despite the threat of nuclear China’s support for Pakistan, and despite the deep anxiety caused by the United States’ symbolic gesture of sending its nuclear-capable Seventh Fleet into the Bay of Bengal, Indira Gandhi’s response was restricted to the symbolic. In 1974, India crashed into the nuclear club with a single successful test, but refrained from following this up with a weaponization programme. Like her father, she continued to stress the primacy of economic development and the inutility of deterrence, which she publicly rejected as ‘untenable’ (Pande, 1989: 363). After a brief hiatus (1977–80), Indira Gandhi returned to power in 1980. In 1983, she launched the Integrated Missile Development Programme, but this was at best an expansion of the nuclear open door: no attempt was made to incorporate nuclear weapons even conceptually into the framework of national security policy.
Continuity till the 1990s Morarji Desai (1977–79), stubbornly opposed to nuclear weapons on moral grounds, began by publicly rejecting them, but later returned to the established policy line of nuclear ambiguity by claiming with bland ingenuousness that he was against nuclear ‘explosions’, but not ‘blasts’ (Subramanian, n.d.[1980]: 44). He also rejected as discriminatory the concept of a nuclear weapon-free zone, refused to consider signing the NPT and demanded the formulation of a time-bound programme for the elimination of all nuclear weapons. In spite of his antipathy toward nuclear weapons, he remained within the ambit of a long-established practice circumscribed by Indian strategic culture.

Rajiv Gandhi (1984–89) revealed a new inclination toward the exercise of national power in the South Asian region. He embarked on a programme of military modernization and naval expansion, compelled Nepal to be subservient by closing most of its access routes to the sea, forcefully intervened in Sri Lanka’s civil war by sending in an unwelcome peacekeeping force and raised fears of a war with Pakistan by conducting a massive military exercise – Operation Brasstacks – close to its western border. On the external front, growing evidence of Pakistan’s nuclearization with Chinese assistance created an unprecedented nuclear threat. Yet he did not alter nuclear policy significantly. On the contrary, there was remarkable continuity.

Gandhi’s realpolitik did not extend to nuclear weapons. According to V. S. Arunachalam, his scientific advisor, he was ‘genuinely against the bomb’, but ‘did not want India to be found wanting in a crisis either’ (cited in Chengappa, 2000: 304). Like his grandfather, Nehru, he pinned his hopes quite unrealistically on the possibility of ridding the world of nuclear weapons. At the United Nations General Assembly’s Third Special Session on Disarmament in 1988, he personally presented an ambitious grand design for universal and total nuclear disarmament. It was only the failure of this effort that led to Gandhi’s authorization of a weaponization programme (Subrahmanyam, 1998: 44). Even then, there remained a high degree of continuity in India’s nuclear posture. Despite the decision to weaponize, there was no move to incorporate deterrence doctrine into national security planning or to create the infrastructure for a nuclear force. On the contrary, Gandhi in early 1989 agreed with his Pakistani counterpart, Benazir Bhutto, that their countries would refrain from targeting each other’s nuclear facilities in the event of war. In striking contrast to other nuclear powers, India began negotiating arms control agreements well before going nuclear officially.

During the 1990s, the pattern set earlier was continued by successive prime ministers: the Janata Dal’s V. P. Singh (1989–90) and Chandra Shekhar (1990–91), the Congress Party’s P. V. Narasimha Rao (1991–96), and his United Front successors, H. D. Deve Gowda (1996–97) and I. K. Gujral (1997–98) did not effect any major changes. The Prithvi missile was inducted into the army, but not deployed. Despite rising concerns over Pakistan’s ongoing nuclearization (which finally prompted the USA to impose sanctions), fresh reports of Chinese nuclear and missile aid to Pakistan, the loss of the valuable ‘Soviet card’ and its increasing isolation amidst intensifying nonproliferation pressures, India’s nuclear posture continued to be characterized by restraint. The only significant changes were the go-ahead given by Rao for the resumption of testing for the Agni missile and the construction of railmobile missile platforms in 1996 (Chengappa, 1999: 56; 2000: 384–387). These developments represented a further opening of the nuclear door, an incremental response to the perception of growing external threats.
Vajpayee: Dramatic Shift or Marginal Change? The Bharatiya Janata Party (BJP) led a coalition to power in 1998 and almost immediately carried out a series of nuclear tests. Simultaneously, it enunciated a skeletal doctrine of 'credible minimum deterrence' that included an affirmation of no first use. On the face of it, this was a dramatic policy shift: nuclear deterrence was now officially adopted as a pillar of national security. In fact, the change was less substantial than it might first appear to have been. Its central import is that it was a new declaratory position. Weaponization had already been initiated by Rajiv Gandhi in 1989 (Chengappa, 2000: 332–333). Nor did the practice of deterrence change very much after the 1998 nuclear tests. Apart from conducting a single test of the Agni missile, an extension of an old programme, and setting the NSAB the task of recommending a doctrine, the Indian government did not introduce any change of consequence. Let alone a move to deploy nuclear weapons, there was not even any significant organizational initiative taken as a precursor to the incorporation of nuclear weapons into the defence forces. More than two years after the 'new' policy was adopted, the situation has not changed. On the other hand, initiative for arms control has not been lacking. In February 1999, Vajpayee rode a bus to Lahore in an attempt to break new ground with Pakistan. The Lahore Memorandum committed the two countries to advance notification of missile tests and to negotiation on numerous measures to reduce nuclear risks. The Kargil episode notwithstanding, the first provision continues to be observed. Talks with China were also begun at about the same time.

Quite clearly, there is a high degree of continuity and stability in India's nuclear posture. Neither enhanced threat perception nor change in domestic preference, whether in favour of nuclear weapons (e.g. Vajpayee) or against (e.g. Desai), has brought significant policy change. The strategic culture of nuclear minimalism, established in the initial years after Independence and reinforced by recursive practice, has restrained the response to changes in the internal and external environments of nuclear policy. Change, when it has occurred, has been incremental and cautious. Throughout, the need to deter has been acknowledged within a range from retaining an open door without developing military capability to the adoption of nuclear deterrence without deployment. In short, strategic culture has circumscribed India's nuclear posture in a way that has supplemented and not supplanted realism.

Testing the Conclusion Realism stresses the preference for self-help in an anarchic international system. It leads us to expect that, in the event of enhanced threat perceptions, India should have accelerated its nuclear programme significantly. On crucial occasions, it did not:

- Following China's nuclearization in 1964, given the backdrop of defeat in the 1962 war, India should have made a serious effort to go nuclear, particularly since the constraints imposed by the non-proliferation regime were yet to become potent. But Lal Bahadur Shastri sanctioned only limited theoretical research (Chengappa, 2000: 98). In 1967, Indira Gandhi revived the stalled weapons-oriented programme only after failing to obtain nuclear guarantees from the USA, the Soviet Union and Britain (Chengappa, 2000: 107–108, 112). This goes against realism's expectations of responses to threat in a self-help system.
- In the early 1980s, India's strategic position was distinctly uncomfortable (Ganguly, 1999: 162–163). There was growing evidence of a Pakistani bomb
programme aided by China and overlooked by the USA. India's strategic autonomy was compromised by its dependence on the Soviet Union. Responding to calls for nuclearization, Indira Gandhi sanctioned another round of testing in 1982, but changed her mind. When asked why, she told V. S. Arunachalam, 'I am basically against weapons of mass destruction' (Chengappa, 2000: 260).

- In the mid-1980s, India was convinced of a Pakistani bomb programme and a Sino-Pakistani nuclear and missile nexus. Yet Rajiv Gandhi sanctioned the actual building of weapons only in 1989, after his plan for universal disarmament had been ignored by the nuclear-weapon states (Chengappa, 2000: 329–332).

- From the beginning, till the time of writing (August 2000), there has been no serious effort to institutionalize nuclear weapons by incorporating them into the armed forces through the development of doctrine and military organization. Only an elementary command and control system exists. George Perkovich believes that Indian politicians' and bureaucrats' deep-seated fear of the armed forces accounts for this (1999: 450–451). In fact, the armed forces have been periodically associated with whatever rudimentary nuclear planning has occurred, even though they may not have got what they wanted (Chengappa, 2000: 253–255, 260, 294–295, 297–298, 301). The absence of adequate infrastructure development is better explained by the lack of a serious commitment to nuclear weapons on the part of a leadership constrained by strategic culture.

The significance of strategic culture is evident from a consideration of other variables:

**Leadership** (Nehru, Shastri, Indira Gandhi) was crucial in the creation of Indian strategic culture in the context of nuclear weapons. Nuclear minimalism was well established by the 1970s. Subsequently, however, shifts in leadership preferences, ranging from an explicit belief in nuclear deterrence (Vajpayee) to a strong antipathy for all things nuclear (Desai), did not bring appreciable discontinuity. Actual policy remained within a fairly narrow range, providing for some measure of deterrence without deployment.

**Party policy** has also had no effect. At one extreme, the BJP has long been a strident advocate of nuclearization, and one would have expected the party to push through a programme of deployment. At the other, the Congress in its early years was staunchly opposed to a clearcut nuclear programme, though some elements within the party favoured it. Actual policy, as already noted, has fallen within a much more restricted spectrum. By and large, neither party has engaged in serious thinking (say, by means of a detailed committee report) over nuclear weapons.

**Parliamentary inputs** have been insignificant. Though broad political issues relating to nuclear weapons, especially in relation to disarmament, have been extensively discussed, the level of interest in, and knowledge about, the nitty gritty of nuclear weapons and deterrence has been very low (Paranjpe, 1997). In effect, Parliament has not contributed meaningfully to nuclear policy.

**Bureaucratic inputs** might be expected to have been substantial because the bureaucracy, particularly the atomic energy establishment, has been a major part of the small circle with access to nuclear policy. Some analysts have argued that a 'strategic enclave' consisting mainly of atomic energy technocrats played a pivotal role in India's nuclearization (Abraham, 1998; Perkovich, 1999). But careful investigation shows that they never

Public opinion has not had a decisive impact either. Various studies have shown that public opinion is either not seriously opposed to nuclear weapons (Nandy, 1972: 1535) or is broadly supportive of it (Cortright & Mattoo, 1996: 117). In general, the nuclear issue has been very low on people’s lists of priorities in comparison to questions of domestic economic and political stability (Cortright & Mattoo, 1996: 118). Thus, there is little reason to regard public opinion as a significant variable in determining nuclear policy other than possibly in a broad way by reinforcing decisionmakers’ awareness of the need to curb excessive spending.

Technological weakness and poverty might be considered the primary reasons for the moderate pace of Indian nuclearization.¹ In one sense, this is true: resource constraints were always a serious problem. But it is only when such a programme is normatively questioned that the weight of technological weakness and poverty overrides security considerations. In contrast, Chinese leaders, faced with similar conditions, chose to spend more on building nuclear capability.

Non-Official Assumptions and Beliefs
Here, I examine the preferences of only those who believe in the need for deterrence. Arguably, a strategic culture need not contain a coherent set of beliefs. The pushes and pulls of contradictory beliefs (e.g. between pro-deterrence thinking and abolitionist thinking) might shape policy (Heuser, 1998). In the Indian context, though, absolute opposition to deterrence has been too insignificant to affect nuclear policy.

I examine two sets of sources. The first consists of six detailed expositions by strategic experts on desirable nuclear strategy. Five are individual sources: Vijai K. Nair (1996), Raja Menon (2000), Jasjit Singh (1998), K. Subrahmanyam (1994) and K. Sundarji (1992/93). The sixth is the National Security Advisory Board (1999), which I classify as non-official because it consists largely of individuals working outside the government. The second category consists of extensive interviews, many confidential, with members of the strategic elite. These are serving and retired individuals, civilian and military, official and non-official. The interviews include questions designed to ascertain their basic assumptions and beliefs in relation to nuclear weapons.

In both categories, I have tried to obtain preferences about three basic issues:

1. **The nature of world politics: Is it primarily characterized by interstate conflict, interstate cooperation or exploitation and inequality?** Four of the individual analysts and the NSAB’s Draft Nuclear Doctrine (DND) offer no direct opinion on the fundamental nature of world politics. But, reading between the lines, it is clear they are all realists who believe in the primacy of conflict. Only Menon in passing expresses a realist world-view (2000: 298) In contrast, the great majority of those interviewed believe that the primary characteristic of world politics is exploitation and inequality.

2. **The fundamental role of nuclear weapons in world politics: Are they sources of risk,
sources of security or sources of national prestige? All the detailed studies reflect a clear understanding that nuclear weapons are primarily sources of security. Among those interviewed, about two-thirds felt the same. Most of the remaining thought nuclear weapons to be associated with a greater element of risk than of security.

(3) The implications for India if it possesses nuclear weapons: Will they bring greater security, less security or increased bargaining power? All the detailed studies hold the opinion that the possession of nuclear weapons will, above all, enhance India's security. Surprisingly, less than half of those interviewed echoed this view. A greater number were of the opinion that nuclear weapons are sources of bargaining power.

Analysis It is clear that there are significant areas of consensus in the assumptions and beliefs of the two sets of opinions, but also marked areas of divergence. On the nature of world politics, the realist understanding that world politics is primarily characterized by interstate conflict does not enjoy strong support. The detailed studies do reveal a realist bias, but none gives thought to alternative world-views. Those interviewed were specifically asked about the relative importance of welfare issues, and the majority do not see conflict at the top of a hierarchy of issues in the way that realists do. This accords with the constant refrain in the historical literature that economic preferences set limits to the application of deterrence.

All six of the detailed expositions reviewed agree that nuclear weapons are generally providers of security and, specifically, will augment India's security. In contrast, those interviewed are not unanimous that nuclear weapons are sources of security. They also tend to view nuclear weapons as sources of greater bargaining power rather than greater security. Official policy reflects a slow shift over half a century from the Nehruvian perception that nuclear weapons are primarily sources of insecurity to the current opinion that they are central to national security. The significance of this shift is that it has brought the official view closer to that of the experts, on whom the government leans far more than before for policy perspectives on nuclear issues. A restraining effect may be imposed by the more qualified views of the wider strategic elite whose broad expertise is less enmeshed in the technicalities of doctrine.

The overall picture that emerges is that nuclear weapons are viewed with less doubt and suspicion than in the past, though their limitations are acknowledged. They are certainly not privileged as the principal providers of the nation's security, which is widely seen in economic and social terms.

Operational Preferences

At this level, I try to gauge preferences with regard to the operational character of nuclear weapons and deterrence. The issues examined are deployment, numbers and types of weapons, targeting and conditions necessitating the possible use of nuclear weapons.

Official Preferences Official preferences are unavailable because of secrecy and because, till recently, the operational requirements of deterrence were not given serious consideration by the government. Deployment, for instance, was not considered a necessity even as delivery capability was steadily upgraded from nuclear-capable aircraft to surface-to-surface missiles. Though conclusive evidence is not as yet forthcoming, it appears the preferred form of deterrence even after weaponization was through possession of a 'virtual arsenal' of undeployed weapons in assembled or nearly assembled condition, kept concealed and not 'mated' with delivery vehicles. The number of
'weapons' available is unknown, but could not have exceeded a few dozen even if all the fissile material India possessed had been utilized for the making of weapons. The range of weapons platforms conceived of was nevertheless wide. Long-range missiles and nuclear-powered submarines were the subject of feasibility studies as early as 1970 (Chengappa, 2000: 129). Restricted to nuclear-capable aircraft during the 1970s, India commenced research and development of the short-range Prithvi and the intermediate-range Agni missiles in the early 1980s. The former has been inducted into the armed forces, while the latter is still under development. In 1985, the Indian Navy acquired on lease from the Soviet Union a nuclear-powered submarine, rechristened INS Chakra, for which the only rationale could have been the desire to gain experience on a vessel with nuclear-weapon potential. An indigenous nuclear sea-launched cruise missile – 'Sagarika' – and a nuclear-powered submarine are under development.

With successive governments doing little to move from the acquisition of capability to operationalization, it is not surprising that there has been no development of doctrine which would express preferences relating to targeting and the conditions under which nuclear weapons might be used. It can only be said in general that nuclear weapons have been viewed as 'countervalue' weapons capable of cataclysmic destruction and hence not usable in any meaningful sense. Yet the very fact that the tests conducted in 1998 were of various types leaves open the possibility that 'counterforce' doctrine will be incorporated into India's nuclear posture.

Non-Official Preferences Strategic experts have, by the very nature of their professional work, developed clearcut preferences on the operational aspects of nuclear weapons. The views of the strategic experts and of the members of the strategic elite interviewed may be summarized as follows.

(1) Deployment: Nair is the only advocate of deployment. The DND, by distinguishing between 'peacetime deployment' and 'full employment' during a crisis, implies some form of pre-deployed posture during normal times. Both Singh and Subrahmanyam prefer that weapons be kept in unassembled condition. Sundarji, in the work analysed here, appears to favour deployment, but in a later recommendation allows that unassembled weapons will do, so long as they can be deployed within 24 hours (Giles & Doyle, 1996: 143). Of the interviewees, a little over half favoured deployment, while the rest preferred deterrence without deployment.

(2) Numbers: How many are enough? If numbers are categorized into three ranges – less than 25, between 25 and 100 and over 100 – Singh, Subrahmanyam and Sundarji fall in the middle category, Menon and Nair in the third; the DND is non-committal, though a close reading rules out the first option. It is worth noting that all those in the middle category are widely labelled 'hawks', as is Brahma Chellaney, who avers that less than 100 is enough (1998–99: 107). Members of the strategic elite were evenly divided across the three categories.

(3) Platforms: From among the three options – air-based, land-based and sea-based – which are desirable? Nair, Singh and Sundarji want a triad, Subrahmanyam is not sure about the need for a sea-based deterrent, and Menon envisages a single sea-based leg. The great majority of those interviewed favoured a triad.

(4) Targeting: Only Menon favours a counterforce arsenal. While the DND is not
explicit, and Sundarji does dwell briefly on counterforce targeting, it would be fair to say the rest of the experts basically view nuclear weapons as countervalue weapons. Among those interviewed, about half said targets need not be specified, implying that the question is not relevant. Very few favour counterforce (only one from among several military officers).

(5) **Conditions under which nuclear weapons may be used:** Without exception, all the experts believe nuclear weapons should only be used for a second strike. Of those interviewed, only one favoured a nuclear response to major losses in a conventional war (I specified the loss of Kashmir as an example). While almost all felt a nuclear strike should only be a second strike, nearly half the respondents did not favour a nuclear response even to a minor nuclear attack.

**Analysis** A comparison of the official and non-official preference structures at the operational level shows some significant patterns. While the official position eschews deployment, two of the six expert analyses recommend it, while the wider strategic elite is more inclined toward deployment. The growing support for deployment may pull the government from a primarily political understanding of nuclear weapons, as essentially non-usable devices of horrific character, toward a more operational one in which there is a greater sense of these weapons being concrete, usable instruments of state power (Basrur, 2000).

However, the strength of support for relatively small numbers of weapons (in the below 25 and 25–100 ranges) establishes a restraint on this latter conception, since it indicates an awareness of the immense destructive power of these weapons. There is no sentiment in favour of catching up in numbers or even in quality with China. This indicates a notable predisposition against arms racing. On the other hand, the strong preference for a triad is inconsistent with small numbers, since an element of redundancy in each leg of a triad is considered essential to minimize vulnerability. Thus, notwithstanding the lack of interest in competitive arms racing, the possibility of expanding numbers on the ground of vulnerability remains open.

Nuclear weapons are generally regarded as countervalue weapons. There is a widely held understanding that the distinction between counterforce and countervalue targeting is not particularly useful since it is impossible to conceive of a clear threshold between the two. What is truly startling is that nearly half the members of the strategic elite interviewed did not consider nuclear retaliation necessary even in response to a minor nuclear attack. This presents a remarkable picture of restraint in the face of grave provocation.

**The Structural Frame of Indian Strategic Culture**

The term 'structural frame' is devised to stress the characteristics that set the basic parameters shaping a strategic culture’s response to the environment. In the present formulation, it has three components:

(1) **Responses to Changes in the Strategic Environment (Restraint/Precipitateness)**

Clearly, there is a strong preference for nuclear restraint. Notwithstanding the periodic emergence of enhanced threat perceptions, shifts in nuclear policy have been incremental rather than sudden. The new Chinese threat in the 1960s and the dual Chinese and Pakistani threats in the 1980s and the 1990s did not result in dramatic departures. As I have shown, the BJP-led government’s break with the past was not radical. All the BJP did was to make overt and supplement through testing a nuclearization process set in motion much earlier. The slowness of the shift is explained by
the embeddedness of restraint in both the ideational and praxological components of strategic culture over several decades. The most recent and clearest evidence of restraint comes from India's reaction to the Pakistan-backed incursion of Kashmiri militants into the Kargil sector of Indian-held Kashmir in mid-1999. Despite being caught on the wrong foot and losing control over considerable territory, despite much anger at Pakistan's 'betrayal' following the bonhomie generated by Prime Minister Vajpayee's February 1999 visit to Lahore, and in spite of the armed forces' demand for permission to open a new front and cross the Line of Control (LOC), the government showed enormous restraint. Strict orders were given not to cross the LOC lest a low-intensity conflict be transformed into a conventional—and potentially a nuclear—war. The BJP's restrained response belied its long-standing tendency to adopt an aggressive posture toward external threats. In the reverse direction, when Morarji Desai became Prime Minister in 1977, intimations of a dramatic departure in nuclear policy by means of the closing of the nuclear option were not realized. In every case, notwithstanding marked changes in the external and internal environments, nuclear policy was characterized by limited departures from the established posture.

(2) Tolerance of Ambiguity (High/Low) Nuclear policy has displayed consistently high tolerance of ambiguity. The very fact that nuclear ambivalence (the open door, with no deployment) has been persisted with attests to this. But a change is becoming apparent. Here, it is pertinent to reiterate the distinction between the coexisting political and operational components of deterrence. The first tends to view deterrence as existential and nuclear weapons as essentially unusable. The second tends to conceive of nuclear weapons in usable terms, with characteristics (speed, accuracy, range, reliability, command and control, etc.) akin to those pertaining to conventional weapons. The first tendency is not concerned with numbers and technological sophistication, the second is. In effect, the first is immune to arms racing and nuclear expansionism, the second is not. From the evidence above, it would seem fair to warn of a gradual but unmistakable shift in the structural frame of Indian strategic culture from a strongly political to a more operational character, from one highly tolerant of ambiguity to one with declining tolerance of ambiguity. This reflects, I believe, both the technical imperative of weapons (they stimulate 'practical' thinking) and the pressures of external circumstance (which induced the building of an arsenal). The transformation has been remarkably slow, from the first incremental steps of the 1960s to the beginnings of a bare-bones infrastructure three decades later, but it is unquestionably there. While the risks of instability are reduced by a strong tradition of restraint in thought and practice, it is nevertheless true that the drift toward operationalization carries with it the possibility of diminished restraint as experts become more concerned with numbers, technological sophistication and questions of credibility, vulnerability and reliability. It is noteworthy that these issues occupy a prominent place in the most recent indicator of quasi-official opinion, the DND.

(3) Disposition toward Arms Control (Positive/Negative) Here, there is a reassuring continuity in Indian strategic culture. In the initial years, the entire focus was on global disarmament. By the late 1980s, with the steady transition from latent to actual capabilities in both India and Pakistan, a new area was opened up in the form of nuclear-related arms control: the 1989 Indo-Pakistani agreement not to attack each other's nuclear facilities. This was the natural consequence of a predisposition against large-scale destruction in war, a bias evident from the restrained conduct of all three wars between the two
countries (Bhimaya, 1994: 644–645). The Lahore Memorandum signed by the foreign secretaries of the two countries in February 1999 confirms this preference. The thrust of the document is on ways and means to minimize nuclear risk. Moves to cultivate strategic stability between India and China were also initiated simultaneously. All of this contrasts sharply with US–Soviet arms control, which took off only after prolonged tension and repeated crises, including an eyeball-to-eyeball nuclear confrontation over Cuba. In the light of this record, there is every reason to expect that Indian strategic culture will retain its propensity for negotiated solutions to adversarial nuclear-strategic relationships. At the same time, the longstanding preference for universal non-discriminatory disarmament remains integral to this strategic culture. Though often derided by critics as unrealistic or even self-serving, India’s consistent advocacy of global solutions is consistent with its original open-door policy on nuclear weapons: unless everyone closes the nuclear door, it is not in India’s interests to do so. The readiness to negotiate equitable arms control both bilaterally and multilaterally gives to Indian strategic culture a positive feature. In contrast to the constraining effects observed above, we find here an enabling effect: strategic culture facilitates arms control and hence the building of stable strategic relationships.

Conclusions

The foregoing study shows a high degree of stability in India’s nuclear posture. Critics have pointed to recent signs of instability in India–Pakistan relations in the form of an action–reaction process in nuclear and missile testing and the Kargil conflict. In fact, the tit-for-tat testing was preceded by observance of the terms of the Lahore Memorandum, which requires each to inform the other in advance of impending missile tests. The Kargil conflict, as noted earlier, is a classic case of restrained low-intensity conflict between nuclear adversaries.

Nevertheless, Indian strategic culture has not been static. Notwithstanding the strength it has derived from continuities in belief and practice, it has undergone slow but substantive change in one important respect. Over time, there has been a shift in the balance between the political and the operational aspects of deterrence that make up the basic assumptions and beliefs of Indian strategic culture. The once predominantly political understanding of nuclear weapons has slowly given way to a more operational conception of those weapons. A space has opened up between the practice of deterrence, which remains restricted to broad declarations on doctrine and the development of limited capabilities, and the ideational realm, which has moved some distance toward operational questions about the quantity and quality of weapons and the infrastructure surrounding them.

The scope for remedial action lies in the closing of this space in such a way that the political aspect of deterrence is once again privileged. This can be done by showing how a minimalist conception of deterrence is at once a safer and cheaper source of security. In practical terms, this would involve reinforcing the restraint that inheres in the practice of nuclear policy by exposing the risks associated with the ideational shift. This would help repair the cracks in the structural frame of strategic culture with respect to the tolerance of ambiguity, and thereby generate greater restraint.

At the theoretical level, the concept of strategic culture has been refined by analytically disaggregating it. While the distinction between idea and practice has been made earlier, it is a useful refinement to further divide the former into three: the level of assumptions and beliefs, the operational level and the structural frame. This facilitates a
more precise location of the strengths and weaknesses of a dynamic structure and permits more effective engagement with that structure in order to propel it in a direction that engenders stability and peace. The present study is confined to a single state. If extended and applied to adversarial dyads in a comparative framework, it can help in the identification of convergences and divergences between strategic cultures. This in turn will facilitate the stabilization of strategic relationships through efforts to consolidate the former and reduce the latter.

The study also provides a theoretical basis for explaining a pattern of continuity and incremental change at the state level of analysis in international politics. Strategic culture, viewed as a dynamic structure that explains consistency of choice over time, need not be regarded as an alternative explanatory framework that displaces neorealist structural analysis. Throughout its history, Indian nuclear strategy (and strategic culture) has retained elements of deterrence – from Nehru’s minimal open door to Vajpayee’s pronouncements on credible minimum deterrence – and thereby stayed within the neorealist framework that emphasizes states’ need to ensure security through the possession of military capability in an anarchic self-help system. In this sense, strategic culture as intermediate structure supplements rather than undermines the neorealist concept of system structure.

References


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