New Delhi's Nuclear Bomb: A Systemic Analysis

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In May 1998, India carried out five nuclear tests and formally declared itself a "nuclear weapon state" (NWS). This dramatic move stunned the world and immediately triggered a new round of the nuclear arms race in South Asia. India's archenemy, Pakistan, responded by setting off six announced nuclear tests just two weeks later. The nuclear crisis in South Asia was intensified by the Indian-Pakistani military conflict in Kashmir and almost brought the two countries into another major war in summer 1999. As the world's attention shifts to the Kashmir conflict, the challenge the Indian nuclear tests pose to the international nuclear order and the nonproliferation regime should not be overlooked.

As a nuclear weapon–threshold state, India's nuclear capability has long been known. New Delhi first demonstrated its nuclear weapon capability with its 1974 "peaceful nuclear explosion." Since then it had neither claimed to possess the bomb nor foregone the nuclear option. New Delhi was able to produce a significant amount of nuclear materials and equipment without international control. Nevertheless, the May 1998 tests did more than just confirm that India was a "virtual nuclear state." The testing decision was a calculated strategic move by New Delhi to make a forceful statement to the world. Frustrated by the nonproliferation regime and India's status in world politics, New Delhi simply blasted its way into the world nuclear club. The price for going nuclear is high. Besides social and economic costs, New Delhi is facing international isolation and sanctions. Its relations with major powers have deteriorated. While the rest of the world is engaged in reversing the nuclear arms race, why did New Delhi decide to move in the opposite direction? What are the strategic motivations behind the Indian bomb decision?

In explaining India's nuclear behavior, most observers emphasize domestic political factors, the Indo-Pakistani rivalry, national security threats, and the individual attributes of decision makers. In this article, however, I will focus on the system level of analysis to explain how systemic factors have changed India's threat perception and domestic politics on the nuclear issue. The systemic theory of international politics explains state behavior on the basis of the international system and argues that structural changes at the system level affect behavior at the unit level.[1] In the Indian case, the source of the nuclear policy shift was largely internal, and the rise of the Bharitya Janata Party (BJP) to office was a triggering event for the May 1998 tests. But domestic politics alone cannot account for the Indian bomb. International systemic changes and pressure from international society on India's nuclear policy have had a strong impact on India's nuclear debate. Over the years, the systemic factors precipitated an Indian nationalistic reaction to the nonproliferation regime. Thus, the nuclear tests decision should be explained, as Robert Putnam's "two-level games" model suggests, by looking at how the international game and the domestic game interact.[2]

The systemic compulsion of the Indian bomb comes mainly from India's perception of its position in world politics. Although India is not a major power in the international system, it is a major power in the making. For a long time India has been frustrated by its ascribed status in world politics. It is very aware of its place in the international pecking order compared with that of other nations. Like other emerging powers, it finds its way to move up blocked by existing powers in the international system. Since the nuclear bomb is the symbol of a powerful nation, New Delhi believes the bomb will provide a shortcut to obtaining

great-power status. India's normative attacks on the nonproliferation regime have often masked its real concerns of being marginalized in world politics. The rise of the Hindu-nationalist BJP signified India's strategic frustration with the international system and the eroding domestic support for Nehruvian foreign policy over the last two decades. Systemic compulsion constituted a powerful force behind India's resistence to the international nonproliferation regime and its decision to go nuclear. Although the BJP government used the "China threat" to justify its nuclear tests decision, the security threat from China was exaggerated. What India is really concerned about is not any prominent threat from China, but rather future power status vis-à-vis China in the international system. Therefore, India's nuclear tests must be examined within a larger context of the international system rather than a narrow framework of regional conflict.

INDIA'S NUCLEAR OPTION

The May 1998 tests marked a decisive step by New Delhi toward overt nuclear weaponization that will eventually lead to a full-blown arsenal. India did not follow the sequence of the five existing nuclear weapons states. Instead, it declared NWS status only after it had obtained substantial fissile material, second-generation nuclear bombs, and relatively advanced delivery systems. As Francois Heisbourg observes, "Both Indian and Pakistani authorities went out of their way to underline that their tests were the capstone to long-established weaponization and delivery-vehicle programs."[3]

India began to develop nuclear weapons in the mid-1960s, partly in response to the shock of its humiliating defeat in the Sino-Indian border war in 1962 and China's first nuclear test in October 1964. The Chinese nuclear bomb created strong vibrations in New Delhi in 1964; in response, Prime Minister Atel Bahari Vajpayee, then a young parliamentarian, said: "[The] answer to an atom bomb is an atomic bomb, nothing else."[4] India startled the world in 1974 by detonating its first bomb, called a "peaceful nuclear device." The twelve-kiloton nuclear device, however, was not an operational design for nuclear weapons. It was large and could only be delivered using a transport aircraft.[5] Under tremendous international pressure and criticism of the test, New Delhi decided not to build a nuclear weapons arsenal but to keep its nuclear option open. Indian leaders, from Indira Gandhi to Deve Gowda, had followed a policy of making their nuclear posture ambiguous and open-ended unless India's security was gravely threatened. Based on this policy of nuclear ambivalence, India continued its research and development of nuclear weapons largely out of the public and international sight.[6]

The policy of nuclear ambivalence offered other countries both the lure of nuclear disarmament and the threat of nuclear armament. Refraining from nuclear tests avoided the adverse international penalties of going nuclear, but the ambiguous nuclear posture also helped to deflect international pressure while Indian scientists continued to work on the bomb. The self-reliance of nuclear technology is important for India's nuclear stance. By retaining an ambiguous nuclear posture, New Delhi had the benefits of "non-weaponized deterrence."[7] With a permissible level of nuclear weaponization and a mutual perception of nuclearization in South Asia, India and Pakistan created a low level of confidence in their strategic relationship. The strategic stability was enhanced by a time buffer in the escalation process that allowed both sides to assemble and deploy retaliatory nuclear forces at short notice.[8]

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The May 1998 tests showed India's bomb program was much more advanced than it was thought to be. Most people believed India could build only first-generation bombs and put them on delivery systems at short notice. But the details released after the tests indicated that India had already achieved a relatively high degree of technological sophistication and had acquired second- or third-generation nuclear weapons. The five tests in May 1998 included a wide spectrum of nuclear devices: a twelve-kiloton fission bomb, three low-yield explosions (0.2, 0.5, and 0.3 kilotons) for tactical nuclear weapons, and a forty-three-kiloton thermonuclear bomb. According to A. P. J. Abdul Kalam, head of the Defense Research and Development Organization (DRDO), India

has "critical data for the validation of our capability in the design of nuclear weapons of different yields for different applications and different delivery systems."[9] Indian scientists began to work on boosted-fission devices shortly after 1974. They constantly upgraded their knowledge in the areas of explosive ballistics, high-pressure physics, neutron kinetics, and physics of secondaries or thermonuclear explosions. During the 1980s, an inertial confinement fusion program was set up to study the high-density physics associated with the thermonuclear bomb. Around the mid-1990s, Indian scientists made a breakthrough in thermonuclear bomb design.[10]

Parallel to development of the bomb, in recent years India's Integrated Guided-Missile Development Program (IGMDP) and Indian Space Research Organization have made steady progress in developing ballistic missiles and space launchers. The May 1998 tests were jointly organized by the Atomic Energy Commission (responsible for the bomb) and the DRDO (in charge of IGMDP); they proved that India's nuclear weaponization had achieved a breakthrough in miniaturizing nuclear explosive devices to facilitate delivery systems. New Delhi is building a nuclear deterrent based on the strategic triad. The Indian air force acquired nuclear-capable SU-30s that can attack all of Pakistan and the southern part of China. Besides nuclear-capable field howitzers and cruise missiles, the Indian army has deployed Prithvi missiles with a 150-kilometer range. India has tested a medium-range missile, Agni, whose 2,500-kilometer range can reach strategic targets in China. The DRDO is extending Agni's range to five thousand kilometers in the near future, which will give India the capability to strike China's heartland. A submarine-based strategic force is also planned. The first ship carrying Prithvi or Agni will be in operation as early as 2010.[11]

New Delhi's policy of nuclear ambivalence had become increasingly problematic in recent years. As Ramesh Thakur observed, "India's ambiguous nuclear posture became a self-inflicted wound that will not heal so long as it neither acquires nor renounces nuclear weapons."[12] New Delhi found itself struggling to respond to dramatic changes in international security and world politics after the cold war. Developments in international arms control and nuclear nonproliferation have further squeezed India's room for maneuver, making New Delhi increasingly uncomfortable in maintaining the policy of nuclear ambivalence.

THE BOMB FROM A REGIONAL PERSPECTIVE

At first glance, the Indian nuclear tests were largely motivated by regional security concerns in South Asia. Nations go nuclear primarily to respond to perceived security threats, and the bomb is considered the best answer to adversaries with substantial military capabilities, especially nuclear weapons.[13] In his letter to President Bill Clinton after the tests, Prime Minister Atal Bihari Vajpayee states that "the deteriorating security environment, especially the nuclear environment" had compelled India to conduct nuclear tests. He argues that the Indian bomb was a response to the security threat from an overt nuclear weapon state (China) and a covert nuclear weapon state (Pakistan).[14] Along the same line of argument, some Pakistani strategists contend that the Indian bomb is Pakistan specific.[15]

Although India has security concerns in South Asia, the BJP government exaggerated the threat from Pakistan and China. It is true that Pakistan is India's everyday security concern; New Delhi's defense policy and operational plans are largely Pakistan specific. The dispute over Kashmir has dragged the two countries into three wars and could possibly trigger a fourth. India also has strong concerns over Pakistan's maturing nuclear and missile capability. Prime Minister Vajpayee was shocked and upset by Pakistan's Ghauri missile test on 6 April 1998.[16] This missile has a range of 1,500 kilometers and can reach most parts of India. But did Ghauri trigger the nuclear tests decision? What are the benefits when New Delhi opens up an overt nuclear arms race with Pakistan?

The balance of "virtual nuclear arsenals"[17] between India and Pakistan before the tests was actually in India's favor. By maintaining an edge over Pakistan in nuclear as well as conventional capability, New Delhi enjoys strategic superiority in South Asia. India had already tested a bomb in 1974 and Pakistan had not, which made India's nuclear capability more credible than Pakistan's. Given its national comprehensive strength, India is likely to outrace Islamabad in a long "virtual arms race." In Kashmir, India's conventional superiority allows a marginal advantage over Pakistan in low-intensity warfare. Therefore, it does not make much sense for India to start an open nuclear arms race with Pakistan at this time. As a consequence of the tests, Islamabad took the opportunity to demonstrate its nuclear capabil-

ity, deciding to test despite tremendous international pressure after the Indian tests.

India's security concern does not stop with Pakistan; for New Delhi, China is a more long-term and powerful enemy. In South Asia, India's security goal is to maintain superiority over Pakistan and negate its inferiority vis-à-vis China. Thus the Sino-Indian dynamic in South Asia and beyond, rather than the Indo-Pakistani conflict, is a key factor in India's strategic calculus.

However, the BJP's "China threat" talks before and after the tests were provocative and exaggerated. Before the May 1998 tests, India's defense minister, George Fernandes, made blunt attacks on China, claiming that "China is [India's] potential threat number one."[18] Some of Fernandes's provocative remarks coincided with General Fu Quanyou's visit to New Delhi in April 1998, the first official visit by a Chinese chief of general staff to India. As the Indian media reported, "Fernandes' saber-rattling on China has shifted the focus of India's security concerns."[19] But it is misleading to suggest that China poses a serious security threat to India at the present time. Sino-Indian relations have not deteriorated in recent years. Instead, the bilateral relationship has considerably improved since Rajiv Gandhi's icebreaking visit to China in 1988. Despite their border dispute, the two countries have signed two agreements to maintain peace and tranquility in the border area. As confidence-building gestures, Beijing withdrew its troops from some forward positions in the northeastern border areas, and in return, New Delhi pulled back its mountain divisions from the border areas close to China.

Although Chinese nuclear forces figure in India's strategic calculation, Beijing's nuclear posture is not India specific. China sees nuclear forces as largely irrelevant to any conflict along the Sino-Indian border. Beijing's 1995 decision to cancel the development of DF-25, an intermediate-range missile (1,700 kilometers) that can cover most Indian strategic targets, is one indication that China's nuclear deterrent is not driven by the Sino-Indian strategic competition.[20] Over the last thirty years, China has restricted its nuclear behavior to minimum deterrence and adopted the "no first use" doctrine. It has refrained from engaging in any form of nuclear coercion against neighboring countries, nuclear or non-nuclear. There has been no evidence the Indian government has dealt with the Chinese nuclear threat at an operational military level.

Whether China poses any prominent security threat or not, Chinese military power and nuclear capability must be considered in India's strategic planning. As one commentator puts it,

> China's continued military modernization, including the quest for blue water navy, expansion and upgrading of a nuclear arsenal, supply of hardware to India's immediate neighbors and its export of missile and nuclear technology, are some of the factors that would have to be borne in mind for India's security perspectives.[21]

New Delhi's bomb decision was motivated more by geostrategic rivalry with China than any prominent threat from Beijing. In the Sino-Indian balance of power, China has geostrategic as well as nuclear superiority. The main population centers of India are located in the north, whereas major Chinese cities are on the eastern coast, four thousand kilometers away from the Sino-Indian border. It is easier for Beijing to threaten India's heartland than for India to do so to China. Chinese nuclear forces could hold major Indian cities hostage, but New Delhi has yet to possess the capability to deliver payloads well into China's heartland, let alone deliver a credible second strike. For Chinese policymakers, India is not the priority. But New Delhi has to treat China as a major potential enemy.

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New Delhi is tired of being locked into a regional framework of Indo-Pakistani conflict. Its scarce strategic resources are largely absorbed into its duel with Pakistan, which prevents India from joining the rank of major powers. Indian strategists want to move beyond the South Asian subsystem and its constraints on foreign policy and security strategy. A mutual deterrence between India and Pakistan based on the "balance of terror" would help to stabilize Indo-Pakistani rivalry. But to escape from the traditional strategic setup in South Asia and be a player in a larger arena of world politics, Indian leaders believe India must have nuclear weapons and achieve a rough nuclear parity with China. A full-fledged nuclear posture will be the means for India to reverse the power asymmetry between the two Asian countries.

SYSTEMIC PRESSURE OF NUCLEAR NONPROLIFERATION

The momentum in international arms control and nuclear nonproliferation after the cold war has created growing pressure on New Delhi's nuclear policy. Fundamental changes in international security and world politics have transformed the perception of the utility of nuclear weapons. As Robert Manning argues, "Nuclear weapons are de facto being devalued as the currency of power."[22] The nuclear bomb has become irrelevant to some potential nuclear states. South Africa, Brazil, and Argentina have reversed their nuclear policies and terminated nuclear weapons programs. Three former Soviet republics (Ukraine, Belarus, and Kazakhstan) agreed to denuclearize and acceded to the Nonproliferation Treaty (NPT). The two nuclear superpowers—the Soviet Union and the United States—began to reduce nuclear arsenals through a series of treaties, including the Intermediate-Range Nuclear Forces Treaty (INF), the Strategic Arms Reduction Treaty (START) I, and START II. On the nonproliferation front, the vigorous movement toward capability denial, led by the United States, has substantially tightened the control on the supply of nuclear materials, technology, and equipment. The nonproliferation regime was further strengthened by the permanent extension of the NPT in 1995. To prevent new nuclear tests, the Comprehensive Test Ban Treaty (CTBT) was successfully negotiated and adopted over India's strong objection. These developments in nuclear nonproliferation have further constricted the maneuvering room of Non-Proliferation Treaty holdouts, including India and Pakistan.

India has long opposed the nonproliferation regime and chosen to stay outside of any international safeguards control. From the Indian perspective, the NPT regime is discriminatory because it divides the world into nuclear "haves" and "have-nots." The NPT allows the five nuclear "haves" to retain nuclear weapons and does not require them to disarm within a specific time frame, while it prevents the rest of the world from having nuclear weapons. The NPT creates a "nuclear apartheid" by limiting the membership of the nuclear club to a small group of states, including China. Indian elites tend to think China has no more right than India to belong to this prestigious club, but Article IX of the NPT, which Indians feel is extremely unfair, "unreasonably" sets 1 January 1967 as the cutoff date for NWS status. India started its nuclear technology development in the early 1950s and built its first nuclear reactor in 1956, one year earlier than France and West Germany. But India did not develop nuclear weapons until the mid-1960s, and its chance to be accorded NWS status was thus denied. For New Delhi, the international society did not give due credit to its policy of nuclear ambiguity, which New Delhi argued was a self-imposed restraint on nuclear testing. New Delhi has felt that it is largely neglected by major powers, who tend to see India as a problem of nonproliferation and not a solution of it. Leaders in New Delhi have come to believe that "they are not going to get anywhere by being good boys."[23]

As a nuclear-threshold country, India's "virtual nuclear capability" had value only if India was able to retain the option of eventually deploying an effective nuclear deterrent without international constraints. If India's nuclear capability was to be taken seriously at home and abroad, it had to switch from its latent nuclear posture and demonstrate an overt capability through nuclear tests. But the CTBT, negotiated from 1994 to 1996, threatened to neutralize India's long-held policy. New Delhi did not initially base its acceptance of the Comprehensive Test Ban Treaty on whether the five permanent members of the UN Security Council committed to disarmament within a fixed time frame. The Indian delegation recognized that

> complete nuclear disarmament is a complex issue. Therefore, pending the elimination of nuclear weapons, it is for the nuclear weapons states to provide all security assurances to non-nuclear weapons states against the use or threat of use of nuclear weapons in an internationally and legally binding form.[24]

However, when the CTBT would create more constraints on India's nuclear tests, New Delhi changed its negotiation strategy.

India was the only country in the Conference on Disarmament that opposed the submission of the treaty to the United Nations General Assembly in July 1996. The Indian delegation vetoed the submission on the grounds that it is an "unequal treaty" and does not link the test ban with any measure toward universal nuclear disarmament.[25] The test ban, if it officially enters into force, would have a major effect on India's nuclear weapons program and its future policy freedom. Without testing, India would not be able to miniaturize its current bombs, develop more reliable and advanced nuclear bombs, or acquire advanced bombs such as thermonuclear warheads. Given its technological capability,

only relatively primitive thermonuclear bombs could be developed without actual testing. Strategically, that means New Delhi would lose the chance to catch up with other nuclear powers, especially its rival China. In the context of future Sino-Indian competition, India's ability to develop an effective nuclear deterrent against China would also be impaired.

Nonetheless, what bothered New Delhi the most was the CTBT's Entry into Force clause, which requires forty-four nuclear-capable states to ratify the treaty before it enters into force. This was clearly intended to make all eight nuclear-capable states (including India, Pakistan, Israel, and five NWS) sign and ratify the treaty. India suspected that nuclear weapons states wanted to apply pressure on India by possibly imposing international sanctions if New Delhi did not comply. If India signed, however, the treaty would take away India's sovereign right to keep the nuclear option, prevent India from testing advanced bomb designs, and fix India in the current rank of the international system. This systemic concern was best reflected in the Indian delegation's statement to the Conference on Disarmament on 20 June 1996: "India cannot accept any restraints on its capability if other countries remain unwilling to accept the obligation to eliminate their nuclear weapons."[26] Recognizing that the forthcoming test ban agreement could foreclose all future nuclear tests, New Delhi was poised to choose between testing or missing the chance to test forever. As the CTBT gets closer to entering into force, India finally decided to risk universal condemnation with a series of nuclear shots.

INDIA'S DIMINISHING ROLE IN WORLD POLITICS

India's nuclear bomb reflects New Delhi's frustration with its ascribed place in the international pecking order and its growing discomfort with changes in the international system after the cold war. As a large Third World country, India used to enjoy some systemic influence between the East and West during the cold war. In the Nehru years, India played a high-profile role in nuclear disarmament and world peace. Its reputation as the leader of the nonaligned movement was well established when Indian leaders actively promoted international peace and regional stability. After Nehru, India tried to play the big-power-politics game and formed a military alliance with the Soviet Union after India was defeated in the Sino-Indian border war. Regionally, New Delhi dismembered its archenemy Pakistan in the 1971 war and consolidated its hegemonic position in the South Asian subcontinent. Since India was a counterweight against China, the Soviet Union attached great importance to the Indo-Soviet alliance and supplied India with advanced weapons never given to non–Warsaw Pact states. However, the collapse of the Soviet Union and the fundamental changes of the international system after the cold war dramatically diminished India's importance in world politics. The nonaligned movement no longer represents a united political force in international politics. Russia no longer has a special relationship with New Delhi. Among countries in the developing world, the West began to pay more attention to China and East Asia. In contrast, India neither has economic influence nor is a source of instabilities in international politics. New Delhi found that few people outside the South Asian subcontinent really care about India.

India lacks systemic power in today's world affairs. A country's systemic power comes from its comprehensive national capability, its diplomacy, its resources of alliance, and its role in international organizations. Unlike China, India is not a permanent member of the UN Security Council. Historically, the rise and fall of great powers tends to be the result of war, and the current five permanent members were all winners of World War II. India was still under British colonial rule when the war ended. Although New Delhi has made a strong case for its permanent membership in the UN Security Council, its appeal is neither fully appreciated nor widely supported. India is not a member of any political or military alliance system since the demise of the Indo-Soviet special relationship. While China's power status is largely recognized among the big powers, India is ranked among middle powers such as Indonesia, Brazil, Nigeria, and Pakistan, though it is the second most populous country in the world. Compared with other middle-rank Third World states, India has much more advanced nuclear capability, space technology, and missile capability, relatively larger and more modern armed forces, and the potential to be a big power in the next century. But India, like other emerging Third World states, is never taken seriously by Western powers. Its moving up in rank is largely blocked by those countries with systemic power in the world.

Indian leaders feel that the power status of China and the other permanent Security Council members is largely associated with their nuclear capabilities, and that even if India is strong economically, it will not be taken seri-

ously unless it is backed by a strong military and nuclear capability.[27] The Western sanctions on India after the 1974 peaceful nuclear explosion were based on the assumption that Indian and Pakistani nuclear programs could be "rolled back." But any attempt to freeze or roll back actually increased Indian resolve to develop the bomb indigenously.

Although India is a big power in the making, it is still a poor Third World country. In comparison with China's growing economic capability, India's economic power is insignificant, and the gap is big. China has a population 25 percent larger than that of India, but its economy also has grown 25 percent faster than India's in the last two decades. China's gross domestic product (GDP) is twice that of India, and its per capita GDP (measured in purchasing power parity) is 50 percent larger than that of India. In foreign economic relations, China has received twenty times more foreign direct investment than India. The current Indian import level is equivalent to China's import level in the mid-1980s. China's economy began to take off in the 1980s after Deng Xiaoping initiated economic reforms and an open-door policy. In 1991 under the Rao government, India started a similar course of economic reforms and liberalization. The economic liberalization has opened up the Indian economy to international investment and created relatively high economic growth in recent years. As a 1995 RAND study suggests, if India can maintain a growth rate of 5.5 percent, its economy will rise from $1.2 trillion in 1994 to $3.7 trillion in 2015, measured in terms of purchasing power parity.[28] A World Bank study projects that China, the United States, Japan, and India will be the top four of the world's fifteen largest economies in 2020.[29] But before that happens, India still has a long way to go.

THE INTERNATIONAL-DOMESTIC LINKAGE

There is no doubt that the source of India's nuclear policy shift is primarily internal, and the BJP's rise to power was a triggering event for the May 1998 tests. The nuclear bomb, according to the domestic politics model of proliferation, is often used to advance parochial interests of political forces in a domestic power struggle.[30] But in the Indian case, domestic politics alone cannot account for the bomb decision. Although the BJP's policy platform and its election victory in March 1998 appeared to make nuclear tests inevitable, the BJP's decision must be examined within the broad domestic political environment. In the 1990s, India's attitude toward the bomb was largely shaped by the national debate on the NPT and CTBT, but international systemic factors have gradually changed India's national attitude toward nuclear weapons in recent years. Domestic politics changes were critical for the timing of the May 1998 tests. But as Putnam's two-level games model suggests, we must explain India's nuclear policy shift by examining both domestic and international factors, as well as the interaction between the international game and the domestic game.[31] Indian leaders were dealing with both international systemic pressure and the domestic pressure of party politics. As the international-level bargaining failed, the domestic discussion was doomed to produce strong resistence against the international nonproliferation regime. This defiant national sentiment paved the way for the BJP's nuclear decision.

The BJP, established in 1980, is a right-wing, Hindu fundamentalist party in the Indian political spectrum. Its political ideology is anti-Muslim and antisecular Hindu nationalism. The BJP and its earlier incarnation, the Jana Sangh, have made the development of an Indian nuclear deterrent one of its most important election issues. In 1984, the BJP obtained only two seats in the 543-member lower house of Parliament. But in the March 1998 election, it became the single largest party in the lower house, with 180 seats, and it headed an eighteen-party, politically heterogeneous coalition government. The BJP leadership believed the nuclear tests would consolidate its political power, since the tests would create dramatic political effects that could silence critics both inside and outside the coalition.[32]

The BJP's decision to conduct nuclear tests, though radical, actually received wide domestic political support. We should not overlook the general national sentiment toward the bomb nor the attitudes of other political parties toward the nuclear issue. The Congress Party and the United Front did not disapprove of the nuclear tests, although they failed to carry out nuclear tests when they were in office; they had different views on the timing of nuclear tests, but they both adopted positions on the NPT and the CTBT similar to those of the BJP. International pressure and India's nuclear dilemma affected the attitudes not only of party leaders toward the international nonproliferation regime, but of the general public as well. Support for an accommodating policy toward the nonproliferation regime was under-

mined, and international pressure heightened India's nationalistic reactions.[33]

Because the international systemic pressure has had strong bearings on the Indian national attitude toward the bomb, political parties have all attempted to take advantage of the nuclear issue. Increasingly frustrated with the discriminatory nonproliferation regime, politicians and elites have turned nationalistic on the nuclear option. It has become the driving force behind the profound changes in Indian politics and foreign policy over last twenty years. Realpolitik thinking, instead of Nehruvian idealism, has prevailed in foreign policymaking. The moralist direction of postindependence foreign policy has gradually disappeared, and India's current foreign strategy is more and more circumscribed by political realism. On the nuclear issue, India's "naive" attitude toward nuclear disarmament was replaced by skepticism and cynicism. India's boycott of the nonproliferation regime and the "deaf ears" the Western powers turned to New Delhi's requests made radical nationalist forces such as the BJP more appealing among the Indian public. The rise of Hindu nationalism has changed the discourse of Indian politics and even transformed the character of Indian society. Hindu nationalism is transfiguring the elite's perceptions of India's position in the world, promoting the idea that India's "cultural essence" and "national greatness" should set the country's future direction. For the BJP, nuclear weapons are an article of faith, part of the essential identity of a powerful, militarist "Hindu India."[34] This nationalistic trend leads to a belief that the nuclear bomb would be a shortcut to establish India's greatness in the world.

Politicians and elites have tried to create a nuclear myth to popularize the idea of the national bomb.[35] When the nation debated on the NPT extension and CTBT, most people accepted that the NPT regime and CTBT would tie India's hands while not reversing the commitments of the NWS to their nuclear arsenals. One of the unexpected results of the debate was that the value of the nuclear bomb was inflated and the importance of economic growth for national security was downplayed.[36] That is why the nuclear debate and the nuclear myth created a political bomb, rather than a nuclear bomb.[37]

The decision to go nuclear was driven not only by cold calculations about national security but also by the belief that the bomb would create national prestige and identity in international society.[38] Therefore, the interplay between international factors and domestic politics made Indian leaders increasingly determined to find a way out of the nuclear paradox. On one hand, the increasing systemic pressure drove up the domestic political resistance to the nonproliferation regime, and the resistance in turn increased the psychological dependence on the bomb; on the other hand, India's bargaining power vis-à-vis the international nonproliferation regime was declining. This paradox had become a policy trap: the longer India waited, the less utility its nuclear weaponization would have in international politics.

IMPLICATIONS FOR THE INTERNATIONAL NUCLEAR ORDER

India's nuclear tests have shown its fury toward Pakistan, China, major Western powers, the nonproliferation regime, and norms of the current international nuclear system created and maintained by major powers. Therefore, the fallout of the Indian bomb is not limited to the South Asian subcontinent. We must examine the implications of the Indian tests from the international systemic perspective, especially its challenge to the international nuclear order.

First, India's nuclear behavior poses a severe challenge to the normative foundation of the international nuclear order and to the integrity of the nonproliferation regime. With the NPT and related international conventions, the nonproliferation regime commits participating nations not to acquire or spread nuclear materials, technology, and equipment that can lead to the manufacturing of nuclear weapons. Although India did not sign the Nonproliferation Treaty, the treaty's fundamental principles are more than an international contract to control nuclear weapons. They constitute the international law that composes the foundation of international peace and security in the nuclear age.

In the 1960s it was widely predicted that there would be twenty-five to thirty declared nuclear weapon states by the end of the 1970s. To avoid such a dangerous development, the international community agreed that the spread of the bomb must be put to a stop by freezing the number of nuclear weapons states. It should be emphasized that five states are identified as nuclear weapons states due to the fact that they already possessed declared nuclear weapon capability before the NPT. The Nonproliferation Treaty itself does not indefinitely legitimize the nuclear arsenals of the NWS; it simply acknowledges that when it was negotiated, nuclear proliferation had occurred in five countries. Therefore, there are five NWS as a matter of historical cir-

cumstance, not special privilege.[39] Since the NPT came into force in 1970, it has successfully prevented the worst scenario from occurring. As more and more nations have abolished their nuclear weapon programs, India's tests are sending a wrong signal to non-nuclear weapon states: that nation-states can use national interests to override the international nonproliferation norm. This message is a serious challenge to the nonproliferation regime.

Second, will India and Pakistan's nuclear tests cause a chain reaction? Although that is difficult to predict, the "demonstration effect" of the South Asian nuclear tests to other nuclear prospects is obvious. Going nuclear is a vital national security decision, and whether nations will follow suit depends on many factors. Each state has to address it on its own terms. The Indian and Pakistani bombs will pose threats to each other and China; although they will not directly threaten states in other regions, the chain reaction could be established in an indirect way. The demonstration effect has already sent a message to potential nuclear states such as Iran, North Korea, Libya, and Syria, declaring that they can enhance national security and prestige by imitating India and Pakistan. The tests tarnished the credibility of the nonproliferation regime and weakened the moral support for enforcing nonproliferation on potential nuclear states. This will make the battle for nuclear nonproliferation more difficult.

Given the growing proliferation concerns in North Korea and the Middle East, direct or indirect links between the South Asian proliferation and nuclear situations in other regions cannot be totally dismissed. In their bomb programs, both India and Pakistan have received help from outside countries. Pakistan reportedly obtained crucial nuclear and missile technology from China. India used Canadian-supplied reactors to produce plutonium for its bomb and acquired technological information from Russia and the United States. In a sense, the roles played by outside states in South Asian proliferation and concurrent nuclear developments in other regions are closely connected. China began to distance itself from Pakistan's program in the mid-1990s, especially after Beijing joined the Zangger Committee—the Nonproliferation Treaty Exporters Committee—in 1997. Islamabad then turned to North Korea for technological cooperation. It is reported that Pakistan's Ghauri missile was developed from North Korean Nodong technology.[40] Growing cooperation between the two countries, according to Wade Huntley, may eventually involve North Korea's acquisition of nuclear technology from Pakistan and, in exchange, Pakistan's acquisition of ballistic missile technology from North Korea.[41] The North Korea–South Asia link is just one example of the mutual reinforcement among proliferation prospects.

Third, the shock of India's nuclear tests has highlighted a key weakness of the nonproliferation regime: the lack of deterrence and enforcement capability. On 5 June 1998, the UN Security Council declared the Indian and Pakistani tests a threat to international peace and security. But besides offering strong condemnation and not granting them NWS status, what the UN Security Council could do is far short of authorizing collective security measures to stop proliferation. Economic sanctions, such as those imposed by Washington, can increase costs but are unlikely to roll back nuclear programs. The current nonproliferation strategy relies largely on controlling nuclear materials and technology. We must understand that capability denial can win only time for diplomacy, not the final victory over proliferation. Given the diffusion of nuclear technology and the increasingly sophisticated industrial bases in nuclear-potential states, we must not only strengthen supply-side control, but make more efforts to address demand-side causes of proliferation. To close the door for future nuclear tests, the international community (especially major powers) should expedite the CTBT ratification process, and the multilateral talks on the Fissile Materials Cutoff Treaty should be started as soon as possible.

The international society also faces the problem of how to bring India and Pakistan into the system. On one hand, we cannot let them just "get away with it." But on the other hand, we need to be realistic in dealing with the South Asian nuclear issue. The credibility and integrity of the nonproliferation regime must be restored, and damages caused by the tests should be minimized. It is a fait accompli, however, that both India and Pakistan have become nuclear weapon states even though their NWS status is not recognized. If India and Pakistan agree to accede to the NPT and CTBT and behave rationally, there is no reason why they should not be *treated* as nuclear weapon states. The international community should find ways to bring India and Pakistan back to the nonproliferation mechanism. Nevertheless, under the current circumstances, we should avoid changing the official definition of NWS as set out in Article IX of the Non-Proliferation Treaty. Re-

definition would open up a major debate about the basis and structure of the nonproliferation regime's cornerstone accord, and this is something we do not want to see.

Fourth, although it is difficult to establish the causal relation between horizontal proliferation and the size of the nuclear forces of the standing members of the UN Security Council, it is time for the nuclear weapons states to seriously consider the pace and magnitude of their future nuclear disarmament measures. As the Indian challenge partially indicates, the behavior of the NWS must be more accountable and the international nonproliferation regime must continue its deliberation on universal nuclear disarmament. Nonetheless, the global nuclear disarmament process is complicated, not assisted by India's nuclear bomb. As William Walker suggests, global nuclear arms control and disarmament face a highly complex situation in which eight nuclear states (five NWS plus India, Pakistan, and Israel) have quite different capabilities and objectives.[42] The asymmetry in the quantity, quality, and deployment of nuclear weapons makes it extremely difficult, if not impossible, to find common arms control and disarmament measures agreed to by all. According to their capabilities, these states belong in several different categories in nuclear arms control and disarmament exercises. Their objectives in retaining nuclear weapons differ substantially, as well. Some, such as Britain, France, China, India, Pakistan, and Israel, mainly ascribe special political and strategic value to their nuclear weapons. But India, Pakistan, and Israel have fewer and less sophisticated nuclear weapons than the first three. Given the small number of bombs they now possess, they are the states that are the least prepared to accept any restraint on their bombs. Unless the international society finds a universal solution for nuclear disarmament, multilateral nuclear arms control and disarmament exercises will prove to be a difficult enterprise.

CONCLUSION

The Indian nuclear tests were prompted by domestic political changes. But the sentiment and motivation behind the nuclear decision are deeply rooted in the international system. Rising Hindu nationalism, as signified by the BJP coalition government, is redefining India's foreign policy and attitude toward nuclear weapons. The nuclear tests showed that New Delhi feels increasingly uncomfortable with changes in the post–cold war international system and with its place in the international pecking order. The nuclear bomb, for the BJP and the majority of Indian elites, is a forceful statement of India's frustration with the existing international system. By blasting its way into the nuclear club, New Delhi is making a bid for great-power status in world politics.

For a long time, the Indian nuclear issue has been treated as an extension of the Indo-Pakistani conflict. The explosion of the Indian bomb reminded us that the South Asian proliferation should be viewed in a broader context, since the South Asian security environment is affected by extraregional factors and players. New Delhi's security strategy, not limited to the subcontinent, broadly focuses on China, Pakistan, Central Asia, and the Indian Ocean, though China always occupies the central place among its security concerns. Suspicion of China has been deeply rooted in the Indian psyche after their defeat in the 1962 war. Although China's conventional and nuclear forces do not pose any prominent threat to India, the growing power asymmetry between China and India makes New Delhi feel vulnerable in a long-term capability race between the two countries. Given their potential for contending for great-power status in international affairs, the strategic rivalry between China and India will have a significant systemic impact on world politics in the twenty-first century.

NOTES

1. Kenneth Waltz's *Theory of International Politics* remains the most definitive work on structural realism. One important contribution of the book is the analytical method of relating structural changes and state behavior. See Kenneth Waltz, *Theory of International Politics* (Reading, MA: Addison Wesley, 1979), and Waltz, "The Emerging Structure of International Politics," *International Security* 18, no. 2 (fall 1993): 44–79. Also see Benjamin Frankel, "The Brooding Shadow: Systemic Incentives and Nuclear Weapons Proliferation," *Security Studies* 2, no. 4 (spring/summer 1993): 100–24.

2. Robert Putnam, "Diplomacy and Domestic Politics: The Logic of Two-Level Games," *International Organization* 42, no. 3 (summer 1988): 427–60. For more discussion about the impact of international developments on domestic political changes, see Peter Gourevitch, "The Second Image Reversed: The International Sources of Domestic Politics," *International Organization* 32, no. 4 (autumn 1978): 881–912; and Jack Snyder, "International Leverage on Soviet Domestic Change," *World Politics* 42, no. 3 (October 1989): 1–30.

3. Francois Heisbourg, "The Prospects for Nuclear Stability between India and Pakistan," *Survival* 40, no. 4 (winter 1998–99): 76.

4. Manoj Joshi, "Nuclear Shock Waves," *India Today International*, 25 May 1998, 14.

5. Raj Chengappa, "The Bombmakers," *India*

Today, 22 June 1998.

6. David Albright provides a good description of India's nuclear weapon program. See Albright, "Shots Heard 'Round the World,'" *Bulletin of the Atomic Scientists* 54, no. 4 (July/August 1998): 20–24.

7. See George Perkovich, "A Nuclear Third Way in South Asia," *Foreign Policy* 91 (summer 1993): 85–104; and P. R. Chari, *Managing Nuclear Proliferation in South Asia: An Indian View* (College Park, MD: Center for International and Security Studies, University of Maryland, 1995), 3.

8. See Chari, *Managing Nuclear Proliferation*, 3–6.

9. John F. Burns, "India Detonated a Hydrogen Bomb," *New York Times*, 18 May 1998, A12.

10. See Albright, "Shots Heard 'Round the World,'" 20–24.

11. Joshi, "Nuclear Shock Waves," 22–24.

12. Ramesh Thakur, "The Nuclear Option in India's Security Policy," *Asia-Pacific Review* 5, no. 1 (spring/summer 1998): 39–60.

13. There have been numerous works on the causes of nuclear proliferation since the 1950s. For a review of the historical debate on nuclear proliferation, see Peter R. Lavoy, "The Strategic Consequences of Nuclear Proliferation: A Review Essay," *Security Studies* 4, no. 4 (summer 1995). Among the recent literature on the causes of nuclear proliferation, see Zachary S. Davis and Benjamin Frankel, eds., "The Proliferation Puzzle," special issue, *Security Studies* 2, no. 3/4, (spring/summer 1993), and Scott D. Sagan, "Why Do States Build Nuclear Weapons? Three Models in Search of a Bomb," *International Security* 21, no. 3 (winter 1996/97): 54–86.

14. Prime Minister Atal Bihari Vajpayee wrote to President Clinton explaining the rationales for the Indian tests. For the full text of the letter, see *New York Times*, 13 May 1998, A14.

15. See, for example, Afzal Mahmood, "Pakistan's Nuclear Dilemma," *Globe* (June 1998): 10–15. He argues that India's low-yield tactical nuclear weapons cannot be used against the Chinese forces in the mountainous terrain of the Himalayas. They can be used only in the Indo-Pakistani war zone against battle tanks formations.

16. See Joshi, "Nuclear Shock Waves," 14–15.

17. The term was first used by Michael J. Mazarr in "Virtual Nuclear Arsenals," *Survival* 37, no. 3 (autumn 1995): 7–26. It refers to latent nuclear weapons capability that is made possible by the growing availability of weapon-ready nuclear materials and technology in civilian nuclear programs.

18. See Manoj Joshi, "George in the China Shop," *India Today International*, 18 May 1998, 10–13.

19. Ibid.

20. See Eric Arnett, "What Threat?" *Bulletin of the Atomic Scientists* 53, no. 2 (March/April 1997): 23–25.

21. Nancy Jetly, "Sino-Indian Relations: Old Legacies and New Vistas," *China Report* 30, no. 2 (1994): 219.

22. Robert Manning, "The Nuclear Age: The Next Chapter," *Foreign Policy* 95 (winter 1997/98): 73.

23. Remarks by Stephen Cohen, quoted in Barbara Crossette, "From Guru to Rogue: America Re-examines India," *New York Times*, 17 May 1998, A15.

24. The Indian delegation's statement at the Conference on Disarmament, 2 June 1994, in *Statements by India*, 3.

25. India's statement at the United Nations, 10 September 1996, in *Statements by India*, 139.

26. The Indian delegation's statement at the Conference on Disarmament, 20 June 1996, in *Statements by India*, 104–5.

27. Jaswant Singh, "Against Nuclear Apartheid," *Foreign Affairs* 77, no. 5 (September/October 1998): 41–52.

28. Charles Wolf, Jr., et al., *Long-Term Economic and Military Trends, 1994–2015* (Santa Monica, CA: RAND, 1995).

29. Ashley J. Tellis, *Stability in South Asia* (Santa Monica, CA: RAND, 1997), 75.

30. The literature on the domestic politics model is broad. See, for example, Peter B. Evans, Harold K. Jacobson, and Robert D. Putnam, eds., *Double-Edged Diplomacy: International Bargaining and Domestic Politics* (Berkeley, CA: University of California Press, 1993); Etel Solingen, "Political Economy of Nuclear Restraint," *International Security* 19, no. 2 (fall 1994): 126–69; and Graham Allison, *Essence of Decision* (Boston: Little, Brown, 1971).

31. See Putnam, "Diplomacy and Domestic Politics." Also see Evans, Jacobson, and Putnam, *Double-Edged Diplomacy*.

32. Kalpana Sharma, "The Hindu Bomb," *The Bulletin of the Atomic Scientists* 54, no. 4 (July/August 1998): 30.

33. For more discussion about the impact of international developments on domestic political changes, see Gourevitch, "The Second Image Reversed," 881–912, and Snyder, "International Leverage on Soviet Domestic Change," 1–30.

34. See, for example, Praful Bidwai and Achin Vanaik, "A Very Political Bomb," *Bulletin of the Atomic Scientists* 54, no. 4 (July/August 1998): 50–52.

35. The term "nuclear myth" is from Peter R. Lavoy, "Nuclear Myths and the Causes of Nuclear Proliferation," in *The Proliferation Puzzle: Why Nuclear Weapons Spreaded (and What Results)*, ed. Zachary S. Davis and Benjamin Frankel (London: Frank Cass, 1993).

36. See George Perkovich, "India's Nuclear Weapons Debate: Unlocking the Door to the CTBT," *Arms Control Today* 26, no. 4 (May/June 1996).

37. Praful Bidwai and Achin Vanaik, "A Very Political Bomb," *Bulletin of the Atomic Scientists* 54, no. 4 (July/August 1998).

38. The typical example is France's grandeur and its nuclear weapons. See Sagan, "Why Do States Build Nuclear Weapons?" 73–80. Also see Robert Jervis, *The Meaning of the Nuclear Revolution* (Ithaca, NY: Cornell University Press, 1989), 174–225.

39. See Thomas Graham, Jr., "South Asia and the Future of Nuclear Non-Proliferation," *Arms Control Today* 28, no. 4 (May 1998): 3–6.

40. See Andrew Koch, "South Asian Rivals Keep Test Score Even," *Jane's Intelligence Review* (August 1999): 34–37.

41. Wade Huntley, "Nonproliferation Prospects after the South Asian Nuclear Tests," *Nonproliferation Review* 6, no. 1 (fall 1998): 86–87.

42. William Walker, "International Nuclear Relations after the Indian and Pakistani Test Explosions," *International Affairs* 74, no. 3 (July 1998): 505–28.