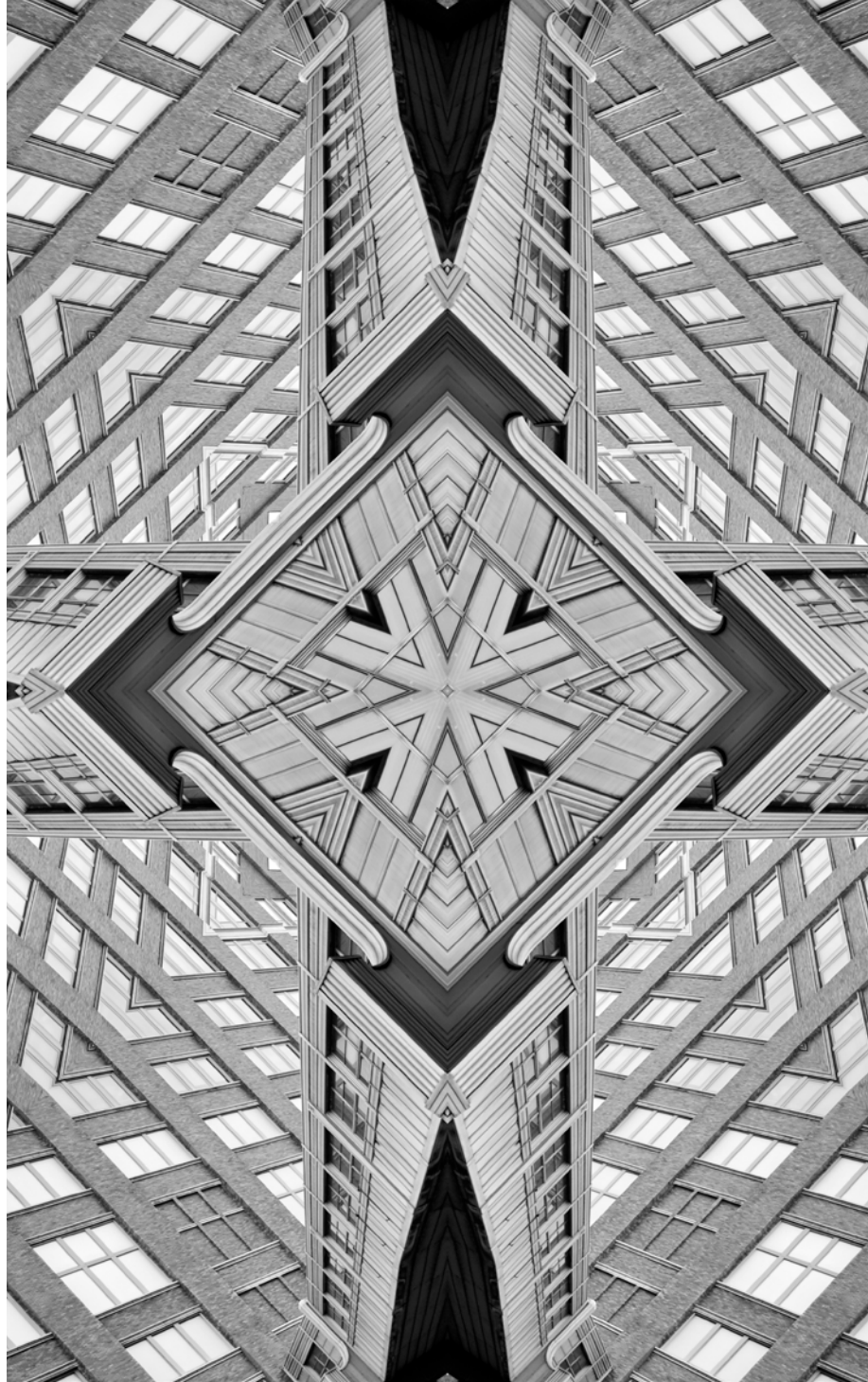


Issue

Brief

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Hubris, Biases, and Overlearning: A Historical Analysis of How India Missed Pakistan's Nuclear Coup

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Abstract

Intelligence agencies are prone to exaggerate an adversary's capabilities. Indian intelligence in the mid-1970s, meanwhile, severely underestimated Pakistan's nuclear cunning. For a crucial part of those years, India could not identify AQ Khan's clandestine nuclear activities to acquire Uranium enrichment technology. This brief names three reasons: hubris, biases, and overlearning from one's experiences. For New Delhi, this is as much a part of Khan's legacy as that of the nuclearisation of the subcontinent that Khan ultimately unraveled.

In April 1979, India's Joint Intelligence Committee (JIC) under K Subrahmanyam confirmed that Pakistan was in possession of the centrifuge technology for uranium enrichment.¹ India's then Prime Minister Morarji Desai was greatly surprised. Pakistan's program was a significant setback for Desai's anti-nuclear stand and his policy of building a rapprochement with Islamabad.² Desai, therefore, rationalised Pakistan's nuclear weapons program as an Arab effort to put Israel in its place. He wrote to then United States (US) President Jimmy Carter, "The much-proclaimed philosophy of the Islamic Bomb as a counter to the belief in the acquisition of the same capability by Israel provides the feedstock for such enterprise. In that case, it would not be prudent to look upon it as an isolated effort of Pakistan, but it would seem to wear a more sinister aspect."³ Desai's shock was shared by his Foreign Minister, Atal Bihari Vajpayee. Soon after the JIC's April 1979 report, Vajpayee flew to the US and discussed with his counterparts the spectre of Pakistan's nuclear threat. He asked Secretary of State Cyrus Vance, "How it was that in spite of laws and safeguards (*sic*), Pakistan had managed to move ahead in acquiring a NWC (Nuclear weapons capability)?"⁴

The answer to Vajpayee's question, unknown to the Indian decision-makers until 1979, was the father of Pakistan's bomb and the world's most infamous nuclear smuggler: AQ Khan. For a crucial period in the 1970s, the Indian security establishment remained in the dark over Pakistan's covert effort to obtain uranium enrichment technologies. It was indeed a massive intelligence failure for a state most threatened by Pakistan's possession of the bomb. Given the history of Islamabad's revanchism and its penchant for risk-taking, Pakistan's bomb posed an existential threat to Indian security. Early identification of Pakistan's efforts could have provided New Delhi with diplomatic and military options to pressure Islamabad's nascent nuclear program into submission. After all, in the 1970s, India enjoyed unchallenged conventional military superiority over Pakistan, and pre-emption would have been a more militarily palatable option. Its treaty with the Soviets gave it significant strategic space, and President Carter's non-proliferation agenda suited India's interests well. Without the Soviet invasion of Afghanistan, Pakistan's nascent nuclear capability could have succumbed to American pressure. Early detection of Pakistan's enrichment program may have changed the history of South Asia's nuclearisation.

How did New Delhi's intelligence fail to register the AQ Khan factor? The JIC's reports in 1975 and 1976 on Pakistan's nuclear weapons program provide interesting clues.

The Problem of Pakistan's Nuclear Weapons

Responding to the domestic debate in India in 1965 to go nuclear as a response to Chinese nuclear threat, Zulfikar Ali Bhutto, the then Foreign Minister of Pakistan, argued that if India got a nuclear bomb, “We (Pakistan) will eat grass, even go hungry but we will get one of our own (nuclear bomb).”⁵ Since then, Bhutto’s statement has become emblematic of both the logic and the process of Pakistan’s nuclearisation. However, even when Pakistan’s desperation to obtain the bomb has been well understood, India’s efforts to avoid the reality of a nuclear Pakistan is still not.

Indian decision-makers were always highly attuned to the dangers of Pakistan going nuclear. For one, Pakistan’s history of revisionism and risk-prone strategic behaviour rendered it an extremely irrational atomic power. More importantly, nuclear weapons in Pakistan’s hands would have neutralised India’s conventional military edge—the only deterrent India had against Pakistan’s constant needling. India could compensate for an increase in Pakistan’s conventional military capability by diverting more resources to its conventional military deterrent. Still, a risk-prone nuclear power was a different ball game altogether. Not without reason, therefore, New Delhi was worried over the possibility of stationing atomic weapons on Pakistan’s soil under the SEATO and CENTO military alliances.⁶ US officials had reassured then Prime Minister Jawaharlal Nehru that, unlike NATO, Baghdad Pact countries would not be offered missile bases nor trained in nuclear warfare.

To avoid the consequences of a nuclear Pakistan, India also exercised significant self-restraint in its own nuclear program. The perceived potential impact on Pakistan was an important reason for India to not press for a full-fledged nuclear weapons program in response to China.⁷ If Bhutto had laid out the condition of India going nuclear as the basis for Pakistan’s nuclear program, New Delhi refused to entertain Bhutto’s warning as it practiced a policy of nuclear restraint vis-à-vis China’s program.

New Delhi’s self-restraint was inspired mainly by a belief that Beijing would not employ or threaten India with nuclear weapons. However, New Delhi was also aware of the consequences of its nuclearisation on Pakistan. The pursuit of atomic weapons would not have provided India an adequate deterrent vis-à-vis China; indeed, it may have forced Pakistan to frantically search for a nuclear deterrent of its own, especially when Islamabad’s capability at the time was minuscule. Given India’s conventional superiority over Pakistan, New Delhi had no requirement of a nuclear arsenal vis-à-vis its conventionally weaker adversary. As stated in a classified assessment carried out in the Prime Minister’s office in April 1970, “If we do acquire a nuclear bomb, this would create a strong psychological effect in Pakistan that our action was in fact directed solely against them.”⁸

The Problem of Pakistan's Nuclear Weapons

To be sure, Islamabad did not have to wait long to acquire a solid motivation to pursue the bomb; the Bangladesh War of December 1971 and the subsequent bifurcation of Pakistan provided a strong rationale.⁹ Where it fell short in conventional military power, nuclear weapons would have sufficed: possessing nuclear weapons could have allowed Pakistan to avoid another 1971-type military defeat. Bhutto had therefore ordered Pakistan's atomic scientists to go for the bomb in the spring of 1972.

However, Indian decision-makers remained oblivious of the nuclear undercurrents in Pakistan; New Delhi's focus was on Pakistan's conventional rearmament. In November 1973, just two years after Pakistan's defeat in the 1971 war, India's JIC concluded that Pakistan "has been proceeding feverishly to re-equip and raise the strength of its armed forces" and has not only made up for "deficiencies (suffered during the 1971 war) but has also augmented her entire forces to a level higher than during Dec. 71."¹⁰ The JIC was utterly oblivious of Pakistan's nuclear plans at this stage, and India perceived no threat at all. Then Prime Minister Indira Gandhi's decision to conduct a PNE (peaceful nuclear explosion) in 1974 was partly reflective of her strategic assertion against the Soviet Union and the US; it was also meant to augment her domestic position. Still, it was devoid of any real military significance.¹¹

PM Gandhi had even written to Bhutto underlining India's benign intentions and offering help in Pakistan's civilian nuclear program. The Indian military considered the 1974 PNE a distraction from the conventional military challenge posed by Pakistan. For one, the military considered the PNE entirely insignificant in the absence of a strategic or tactical nuclear weapons program: "[W]e cannot take into account the impact of our nuclear explosion on the [conventional] threat from Pakistan in the absence of [a] tactical nuclear weapon and a delivery system for it," argued a 1975 internal audit of the PNE by the Joints Chief of Staff.¹² Second, the armed forces suffered from an organisational bias inherent in all conventional militaries: excessive focus on fighting and winning a conventional war. As a classified note prepared by the Joints Chief of Staff in early 1975 stated, the PNE played "no part in our defense preparedness which is based entirely on conventional weapons."¹³

1975 Appraisal

New Delhi exhibited a high degree of sensitivity towards the prospects of a nuclear Pakistan. Nuclear weapons in Pakistan's hands posed an existential threat not only due to Islamabad's irrational revanchism but also because it neutralised India's conventional military edge. Insofar an Indian nuclear weapons program could unleash a severe security dilemma and force Pakistan to go nuclear, New Delhi even practiced significant atomic restraint. Even after the 1974 PNE, PM Gandhi refused to weaponise India's nascent nuclear capability. Yet, the 1971 war had already provided Islamabad the right motivation to obtain a nuclear arsenal.

India was essentially ignorant of Pakistan's nuclear intentions in the first half of the 1970s.¹⁴ It was not until 1975 when Pakistan's plans to establish a plutonium reprocessing facility caught India's attention. In March 1975, the JIC prepared a report on "Pakistan's Capability to Produce Nuclear Weapons" – the very first such assessment.¹⁵ This JIC paper, numbered 7(75), made several observations. First, Pakistan's proposed "fuel element fabrication facility" and the "fuel reprocessing facility" will at least take three to five years to develop.¹⁶ Second, it acknowledged that as the international safeguard regime becomes stricter, it will be hard for Pakistan to obtain Plutonium for the proposed reprocessing plant. Third, difficulties in procuring fissile material notwithstanding, the primary barrier to Pakistan's nuclear capability would be in developing "the shaped explosive technology": the conventional trigger for nuclear weapons. The report therefore argued that "it can be safely assumed that unless Pakistan is helped with explosive technical knowhow of shaped explosives, etc., Pakistan would not be in a position to explode a nuclear device at least for four years from now."¹⁷ The JIC report also reflected upon the possibility of external help in Pakistan's nuclear efforts. Though considered "remote," the possibility of China helping Pakistan, the report argued, "cannot be completely ruled out" and "merits constant watch." In its final analysis, JIC concluded that it was possible that Pakistan would explode its first nuclear device "in four to five years' time."¹⁸ It qualified this observation, at the same time, with an estimation that there will be a significant lag between an explosive demonstration and its conversion to nuclear weapons.

JIC's conclusions could not have been more informed by its own biases and experiences of India's nuclear program. First, Indian assessments of Pakistan's atomic program completely discounted the Uranium enrichment route. Given India's difficulty in mastering uranium enrichment, New Delhi believed that the optimal path for Pakistan would also be an implosion device based upon Plutonium

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extracted from natural uranium-based heavy water reactors. Second, since the most challenging element in an implosion device is the shaped-explosive charge which requires extensive study of the neutron economy of Plutonium, Indian intelligence believed that Pakistan could not possibly resolve the issue without external help. India had found it difficult to master the “equation of state” for Plutonium, taking almost six years to perfect an implosion device. Lastly, as the Indian scientists and military officials were aware, the explosive demonstration did not automatically entail weaponisation, which was highly intensive. Lack of political will notwithstanding, New Delhi deliberately desisted from the weaponisation process partly because of the severe technical difficulties and extensive resources required to convert an explosion into a nuclear deterrent.

1976 Appraisal

At around the same time, the Indian foreign office received information on possible Pakistan-China nuclear collaboration. From Ottawa, the Indian Embassy sent details of Chinese scientists misusing Canadian-supplied equipment to Pakistan. The Embassy argued that “Pakistan had agreed to share the nuclear techniques learned by them from the Canadians with the Chinese in exchange for military assistance as also due to political reasons even when Canadian supplied facilities were under safeguards.”¹⁹ The primary concern for Canada was the “theoretical possibility” of Pakistan going nuclear and China helping them in reprocessing Plutonium. China’s aversion to the NPT compounded this problem. The Indian Embassy in Beijing raised similar concerns. In April 1975, the Indian Charge D’ Affairs (CDA) in Beijing wrote to the Foreign Office in New Delhi over the visit of Chinese Vice Premier Li Hsien-Nien to Pakistan from 20-25 April 1975: “collaboration in the nuclear field might have been one positive outcome of Li Hsien-Nien’s visit to Pakistan.”²⁰ During this visit, the Chinese Vice Premier had visited some atomic facilities in Pakistan, including the Karachi nuclear power station. Nien’s visit was a followup to the December 1974 Chinese scientific delegation to Pakistan, led by the chair of the Institute of Physics at Chinese Academy of Sciences. As the CDA argued, “such collaboration (nuclear) would be advantageous to both countries.” China can get hold of “western knowhow in nuclear technologies,” especially of Canada; it also gave Pakistan “opportunities which it has been seeking in the field from any place whatsoever.”²¹

In 1976, JIC again studied Pakistan’s nuclear program to review its 1975 study. The possibility of French assistance for a reprocessing plant had made India cautious. The JIC perused in minute detail all aspects of Pakistan’s nuclear program: its nuclear reactor capability, budget allocations, efforts on Uranium exploration, fuel fabrication facilities, heavy water production, fuel reprocessing capacity, and finally, its actions on Uranium enrichment.²²

Joint Intelligence Committee Appraisals

The two most important issues concerning Pakistan's capability were fuel reprocessing and uranium enrichment—these elements were prerequisites. JIC had little confidence in the success of Pakistan's efforts for procuring these technologies and materials. The reason was that JIC had received “no indication that Pakistan has found a separation plant from any source.”²³ France had not yet agreed even though the talks were underway “for delivery of equipment to process and irradiate Plutonium.” Yet again, the negotiations appeared to be facing a dead-end over safeguards, a factor which also translated into an assessment that it was “unlikely that any European country would supply Pakistan” with reprocessing facilities.²⁴ On Uranium enrichment, JIC stated that Pakistan was interested in the “nozzle enrichment” process patented by a West German firm (STEAG Energy Services, ESSEN). The JIC observed that the West German Government “is not likely to approve any such commercial agreements till such time the strict safeguards are signed.”²⁵ India also knew that “nozzle enrichment” was an inefficient method of Uranium separation as its scientists had toyed with the idea for an indigenous enrichment program.²⁶ Yet the most critical observation missing in JIC's report was the AQ Khan factor. Even when AQ Khan had shifted his activities to Pakistan in 1975, the Indian intelligence had no clue about Pakistan's progress in Uranium enrichment.²⁷

In JIC's 1975 and 1976 assessments of Pakistan's capability, two observations are apparent. First, for the JIC, Pakistan's efforts in its nuclear program were meeting with little success, at least till 1976. Second, the one factor which constantly harassed Pakistan was the issue of “safeguards.” Though ironic, the emerging safeguards regime – intended primarily to hurt India's nuclear program – was helping New Delhi's cause vis-à-vis Pakistan. The JIC was aware of this trend and reflected upon this factor at length under a sub-section titled “Effects of Nuclear Safeguards.” The JIC opined that any negotiations between France and Pakistan over the reprocessing plant would be similar to the trilateral agreement signed between France, the Republic of Korea (ROK), and the IAEA in early 1976. If that were the case, then the reprocessing plant would be under life-long safeguards. As the JIC argued, if Pakistan signs “such an agreement (the original France-ROK-IAEA agreement), there is very little likelihood of it ever producing an atomic explosion with the knowhow it obtains from France.”²⁸ The JIC also noted that with the formation of the “London club,” the members will “insist on perpetual safeguards in any new nuclear agreement.” Though the danger of unilateral abrogation still existed, the JIC argued that “Pakistan is slowly moving towards the new safeguards....when this agreement (France-Pakistan-IAEA) comes into force, Pakistan will be bound for it for 15 to 20 years.”²⁹

Understanding India's Intelligence Failures

Intelligence agencies are prone to exaggeration of an adversary's capabilities.³⁰ The Indian intelligence in the mid-1970s, as this brief has shown, severely underestimated Pakistan's nuclear cunning. This failure emanated from two key factors.

First was India's technological hubris. Given India's nuclear journey, Indian atomic scientists like Homi Sethna believed that the efficient path to acquiring a weapons capability was the Plutonium route. The material could be easily obtained under the shadow of peaceful uses of nuclear energy, and the only obstacles were reprocessing the spent fuel and correcting the equation of state for Plutonium. Indian intelligence, therefore, constantly shadowed any Pakistan's effort to obtain the paraphernalia for a Plutonium-based device. Even when the gun-type weapons based on enriched Uranium had become more accessible to build than plutonium-based implosion, the Uranium enrichment technology was considered impossible to master or obtain in the international market. India's harrowing experience in mastering enrichment technology informed such bias. Given these biases, the Indian intelligence agencies over-concentrated on the Plutonium fuel cycle rather than the Uranium fuel cycle as Islamabad's preferred technological route for the bomb program.

Second, New Delhi over-relied on the emerging international regime on nuclear non-proliferation and safeguards.³¹ India's peaceful nuclear explosion had triggered a massive reaction from the atomic supplier countries, including the Soviet Union, to plug the gaps available for potential nuclear proliferators. The Nuclear Suppliers' Group had hit India's atomic energy plans hard. Even friends such as the Soviet Union insisted on a stringent safeguard mechanism for providing Heavy Water to keep India's nuclear power plants afloat.³² As the JIC reports discussed earlier amply demonstrated, New Delhi welcomed the strict non-proliferation regime as an obstacle to Pakistan's nuclear efforts. President Carter's non-proliferation agenda only lulled India into complacency. India simply overlearned from its experiences.

Hubris, biases, and overlearning from one's experiences were fundamentally responsible for India's inability to correctly estimate Pakistan's nuclear trajectory. For New Delhi, it is as much a part of Khan's legacy as the subcontinental nuclearisation he eventually unraveled. ORF

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