**Sensitive Nuclear Assistance: A Case Study of Pakistan**

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**Abstract**

Pakistani nuclear history involves assistance from a number of external, nuclear states including the United States and China, though their types of assistance differ from being peaceful (“Atoms for Peace”) to sensitive assistance for military use, respectively. However, Pakistan was not solely on the receiving end of nuclear assistance; from 1987 to 2002, Pakistan is coded as exporting *sensitive* nuclear assistance to Libya, Iran, and North Korea. As such, why might nuclear states, like Pakistan, engage in providing sensitive nuclear assistance to nonnuclear states with the purpose of military use? Current theorem hypothesizes a “common enemy” relationship as a qualification of sensitive nuclear assistance export. I individually analyze relations between Libya, Iran, and North Korea with the United States to determine if the “common enemy” theorem applies to the Pakistani export of sensitive nuclear assistance from 1987 to 2002.

**Key Words**

Sensitive nuclear assistance, enemy-status relationship, nuclear weapons, nuclear proliferation

**Introduction**

Pakistan gained independence in 1947 when the British colonial empire split into the Dominions of Muslim-dominated Pakistan and Hindu-majority India (Khan, 2012). Yet, this split was plagued with asymmetries that favored India, which was left with both a larger population and landmass. In addition to an already unequal division contributing to tension within the region, the question of disputed territories, specifically the state of Kashmir, endured. As a territory with Hindu leader who presided over a majority Muslim population (Ganguly and Hagerty, 2005), Kashmir became one of the main sources of conflict between India and Pakistan. Pakistan desired the incorporation of Kashmir to the Muslim “homeland” located in South Asia (Khan, 2012), with many Pakistani’s expressing sentiment that the addition of the territory would complete the Pakistani identity. Conversely, India desired Kashmir for its domain to demonstrate its ability to maintain commitment to a doctrine of “civic, secular nationalism” as well as the notion that a Muslim region could exist in Hindu-dominant India.

 Tension between India and Pakistan escalated to result in the onset of three conventional wars in 1947, 1965, and 1971. The Indo-Pakistani War of 1947 began sans formal declaration and attempts at any form of bilateral resolution, with pressure from the United States and England, were unsuccessful (Khan, 2012). The second Indo-Pakistani War stemmed from tensions between India and China leading to the onset of the Sino-Indian War; this interstate conflict led India to undergo military modernization in an effort to bolster national security and secure its borders. Pakistan viewed the Indian security effort as a threat to its own national security, resolving that obtaining Kashmir through a forceful invasion of India would decrease India’s military capacity. The second Indo-Pakistani War broke out in the Summer of 1965 and resulted in more failed attempts to find compromise regarding Kashmir (Khan, 2012). The third physical conflict between India and Pakistan resulted from a Pakistani military crackdown on the region of Bengali in East Pakistan in March of 1971 (Mohanty, 2013). Pakistani citizens affected by the crackdown sought refuge in neighboring India. Instead of taking the refugees in, Indian leadership felt it would be cheaper and more effective to launch a conventional war against Pakistan. The 1971 Indo-Pakistani War ended in failed negotiations for a third time. The existing power asymmetries between India and Pakistan coupled with the perceived Indian security threat played a significant and definitive role in the Pakistani desire for a nuclear weapon as both a deterrent factor and security measure (Khan, 2012). The distinction of Pakistani nuclear proliferation as a security measure and deterrent is widely accepted among the international relations community.

***Pak-U.S. Relations***

 Equally crucial in the initiation of Pakistan’s nuclear program is the role of the United States. In 1953, U.S. President Eisenhower presented his “Atoms for Peace” speech at the International Atomic Energy Agency which explained a global program where the United States would provide aid to civilian atomic nuclear programs in the form of funding and materials to countries willing to forgo the development of nuclear weapons. Implementing “Atoms for Peace” promises in Pakistan was mutually beneficial for both parties. Since the United States was in the midst of the Cold War with the Soviet Union, Pakistan provided a geographically strategic alliance as part of the “containment” strategy (Mohanty, 2013). The nation of Pakistan was still in its founding years as it had only gained independence six years earlier in 1947 and was thus vulnerable and struggling to find its footing; the “Atoms for Peace” program would provide modern technology imperative in bolstering Pakistani economic development, global legitimacy, and nationhood. In addition, relations with the United States, a global superpower at the time, would act as a security measure against India by providing conventional weaponry to Pakistan.

 In October 1954, an atomic research unit for a new scientific research body, the Pakistan Council for Scientific and Industrial Research or PCSIT, was opened. The following year, the Pakistan Atomic Energy Commission (PAEC), a more formal scientific nuclear institution, was unveiled. The implications of “Atoms for Peace” were most explicit in August 1957 when a Pak-U.S. agreement was signed allowing the United States to provide a research reactor and monetary scientific aid with a cap of $350,000 to be used for peaceful, civilian nuclear research purposes (Khan, 2012). The monetary aid allowed Pakistan to purchase a swimming pool-type reactor optimal for civilian research and use but did not have the capacity to generate any real power. Yet, scientists and officials at PAEC desired a reactor with the ability to generate power by creating heavy water, a substance crucial in the development of a nuclear weapon, rather than one that could only be used for civilian purposes (Khan, 2012). This desire shows the beginnings of shift toward a Pakistani nuclear weapons program instead of solely a peaceful, civilian research program.

 Pak-U.S. relations became more concrete through strategic alliance organizations CENTO (1954; Central Treaty Organization; also called the Baghdad Pact) and SEATO (1955; South East Asian Treaty Organization) (Khan, 2012). The United States’ purpose for establishing SEATO was to adhere to its “containment” doctrine by protecting member states from communist states *only*. In contrast, Pakistan desired protection from *all* states, namely India. U.S. Secretary of State John Foster Dulles refused this request, making it clear the alliance would only protect Pakistan against the threat of communist nations (Mohanty, 2013).

 The Pak-U.S. alliance further strengthened in 1955 after the Soviet Union was found to be providing aid to Afghanistan while simultaneously growing closer to India (Khan, 2012). Since Pakistan was an optimal geographic location to allow the United States to fight the spread of communism in Southern Asia, U.S. leadership was more willing to provide financial aid and security through conventional weaponry. A strengthened relationship with the United States was ideal for Pakistan as well since regional insecurity continued to be a dominant issue in light of Indo-Pakistani tensions and subsequent conventional wars.

***Decision to Pursue Nuclear Weapons and Nuclear Assistance***

 Although United States continued to provide conventional weapons aid to Pakistan, their alliance was relatively one-sided. Pakistan found themselves without crucial security measures from the United States when it came to conflict with India; this is likely due to U.S. concentration on communist threats. Since India was not a communist nation, it was not a top priority for Washington. Waning loyalty from the United States pushed Pakistan into relations with another rising global power: China.

 In January 1964, the Karachi Nuclear Power Plant (KANUPP) was approved, and the facility was opened for use in 1972; this power plant played a crucial role in the research and development phases of Pakistan’s nuclear program. India’s 1974 detonation of the “Smiling Buddha” in a peaceful nuclear explosion fueled Pakistani desire for a nuclear weapon of its own (Khan, 2012). National security concerns combined with new Sino-Pakistani relations contributed to the decision to pursue a Pakistani nuclear weapon.

The Sino-Pakistani relationship proved extremely beneficial for the development of the Pakistani nuclear program. Formal relations between Pakistan and China regarding nuclear weapons assistance and trade began in 1986 when a treaty was signed laying out the terms of nuclear cooperation between the states (Ramana, 2011). Current, confirmed research on the extent of the PRC’s nuclear assistance is fairly scattered with sources alleging varying degrees and contents of assistance. The People’s Republic of China exported sensitive nuclear assistance to Pakistan throughout the 1980s and into the early 1990s. (Kroenig, 2009). China allegedly provided chemical resources, including uranium hexafluoride, sufficient highly enriched uranium (HEU) to fuel two nuclear weapons, and forty tons of heavy water (Khan, 2012). Additional materials sent from China were an estimated five thousand ring magnets to be used in the Khan Research Laboratories (Khan, 2012) and M-11 ballistic missiles to be used for deployment of nuclear-capable warheads (Gaffney, 1997). Ring magnets are crucial elements of the gas centrifuges used to enrich uranium into fissile material for a nuclear weapon. The M-11 ballistic missiles provided by China to Pakistan had the capacity to carry 1,1000 pounds of fissile nuclear warheads at a range of over 185 miles (Gaffney, 1997). The PRC even sent a blueprint to the Pakistani government for the exact nuclear bomb design that China detonated in 1966. China’s nuclear assistance to Pakistan may be coded as *sensitive* because the materials, resources, and technologies provided were crucial in the development of a nuclear weapon.

Abdul Qadeer (abbreviated to A.Q.) Khan played an especially significant role in locating, obtaining and importing crucial information, materials, and finances for developing a Pakistani nuclear weapon. A.Q. Khan was a Pakistani metallurgist working at the United Nations Educational, Scientific and Cultural Organization (UNESCO) in the Netherlands during the early 1970s (Corera, 2006); his main task was to determine what metals had the capacity to withstand the high spinning speeds of centrifuges. In order to fulfill his role, he was given security clearance for “restricted” material, but not any higher-security level like “confidential” or “top secret” (Corera, 2006). Yet, security measures were fairly relaxed at UNESCO and Khan was able to access higher security level documents; as a result, A.Q. Khan was able to observe and document the process of constructing, supplying parts for, and working a centrifuge used in the uranium enrichment process (Corera, 2006).

A.Q. Khan became a spy for the Pakistani nuclear program in 1974 after writing a letter offering his skills and knowledge of uranium enrichment to Pakistani Prime Minister Z.A. Bhutto (Corera, 2006) and eventually became head of the Pakistani nuclear proliferation program in July 1976 (Khan, 2012). His knowledge of European suppliers allowed him to procure vast amounts of materials, technologies, and resources for Pakistan’s program.

**Theory**

 There exists a great deal of research into why states choose to proliferate and some on why states import nuclear technology to aid in their domestic proliferation pursuit; yet minimal research exists on why states provide nuclear assistance. In this paper, I seek to understand the motivation behind Pakistani provision of sensitive nuclear assistance to nonnuclear states using existing theorem applied to specific cases of nuclear assistance: Pakistan to Libya, Pakistan to Iran, and Pakistan to North Korea.

As previously evidenced, nuclear assistance was a prominent aiding feature in the research and development phases of Pakistan’s nuclear program; Pakistan received technologies and resources including heavy water, enriched uranium, and a nuclear research facility from an array of nuclear states (Spaniel, 2022). Matthew Fuhrmann introduces a definition of what he names “peaceful nuclear assistance” in which nuclear countries provide civilian nuclear program aid materials to a nonnuclear country; his work has found that countries who have received peaceful nuclear assistance, such as Pakistan receiving nuclear aid from the United States’ “Atoms for Peace” program to be used for research and civilian purposes, are more likely to pursue a nuclear weapon for military use (Fuhrmann, 2012). While this finding is relevant to Pakistani nuclear proliferation in general, it is not a relevant argument as to why Pakistan engaged in nuclear assistance exportation post-proliferation.

Matthew Kroenig defines *sensitive nuclear assistance* as “the state-sponsored transfer of the key materials and technologies necessary for the construction of a nuclear weapons arsenal to nonnuclear states” (Kroenig, 2009). This definition excludes peaceful nuclear assistance, which has the intent of being used for civilian and research purposes (Fuhrmann, 2012). Kroenig’s 2009 definition will serve as the standard of nuclear assistance analyzed in this paper. Hence, in this analysis, sensitive nuclear assistance will be restricted to solely state-sanctioned activities.

This caveat brings the question of the role of A.Q. Khan in Pakistani exportation of nuclear assistance. It remains unconfirmed whether the Pakistani government was aware of Khan’s nuclear “gray market” activities, but there is evidence of state-sanctioned sensitive nuclear assistance exports to Libya, Iran, and North Korea with the aid of Khan (Kroenig, 2009). Furthermore, Kroenig considers an action to be state-sanctioned if it is permitted by a senior-level government official or if a substate actor conducts the assistance (Kroenig, 2009). I will consider the three instances of sensitive nuclear assistance mentioned above to be state sanctioned because A.Q. Khan was a substate actor and the incidents of assistance were authorized by a senior-level official within the Pakistani government, thus satisfying both conditions.

Considering this definition of sensitive nuclear assistance, why might Pakistan have engaged in the exportation sensitive nuclear assistance to Libya, Iran, and North Korea from 1987 to 2002? Once again, Kroenig provides a critical hypothesis to test this question: “States will be more likely to provide sensitive nuclear assistance to states with which they share a common enemy” (Kroenig, 2009). This theory will be called the “common enemy” hypothesis and serves as the primary hypothesis motivating my analysis in this paper. The relationship described in the hypothesis will be referred to as an “enemy-status relationship,” meaning that both states in the relationship project hostile attitudes and actions toward the other. I will adapt my case study from this existing theory.

The logic behind the “common enemy” hypothesis believes that nuclear states who do not hold a high global power status are more likely to provide sensitive nuclear assistance to nonnuclear states. This is because nuclear global non-superpower states are less disadvantaged by the acquisition of nuclear weaponry than nuclear global superpowers (Kroenig, 2009). The spread of nuclear weapons diminishes the global primacy of superpower states by making the threat of nuclear war as a deterrent minimally threatening; for instance, if a nuclear state and a nonnuclear state are in tension, the nuclear state may hold supremacy because it has the threat of a nuclear weapon. Conversely, two nuclear states in contention tend to balance out because one does not have the powerful threat of a nuclear warhead to hold over the other: the states’ power levels and capabilities are balanced (Spaniel, 2022). As a result, lower-power nuclear states have less to lose by providing sensitive nuclear assistance to nonnuclear states than higher-power nuclear states.

Since the United States held status as one of two global superpowers during the Cold War and subsequent status as the unipolar global superpower after the collapse of the Soviet Union in the 1990s, Pakistan and other lower-level nations desired to decrease its global hegemonic influence. Lower-power states in the Middle East and Asia held the sentiment that Washington’s influence grew too strong; as a nuclear state, Pakistan had the ability and opportunity to provide sensitive nuclear assistance to regional enemies of the United States as a means of lowering U.S. power (Kroenig, 2009). The export of sensitive nuclear technology was entirely strategically beneficial for Pakistan; it would serve to limit U.S. power in the Middle East and Asia while not posing a threat to Pakistani power (Kroenig, 2011). As previously stated, a wider diffusion of nuclear weapons globally would limit the military and nuclear primacy of the United States.

The reasoning behind which nonnuclear states will be given sensitive nuclear assistance follows the motto “The enemy of my enemy is my friend.” This theorem is popular among international relations discourse concerning alliances between international states (Lee, Muncaster, and Zinnes, 1994; Kroenig, 2009; Maoz et al, 2007). The enemy-enemy-friend triad seeks to decrease the normative power level of the mutual enemy (Lee, Muncaster, and Zinnes, 1994). This motto seeks to explain why Pakistan chose to export sensitive nuclear assistance to Libya, Iran, and North Korea from 1987 to 2002 with the common enemy being the United States. I will observe and analyze the international conditions that set the United States as the common enemy of Pakistan, Libya, Iran, and North Korea, thus prompting Pakistan to engage in the export of sensitive nuclear technology.

**Evidence and Analysis**

In this section, I examine the individual relationships between Libya, Iran, and North Korea with the United States as well as the conditions that would have soured the Pak-U.S. relationship. I will then analyze how these conditions created the opportunity and motivation for a nuclear state, Pakistan, to provide sensitive nuclear assistance to nonnuclear states, Libya, Iran, and North Korea using the United States as the common enemy of all four states.

***Pakistan***

 First, a brief recap of Pak-U.S. relations is significant to proving that the United States and Pakistan may assume an enemy status from 1987 to 2002 when Pakistan is coded as providing sensitive nuclear assistance to the nonnuclear states of Libya, Iran, and North Korea. As established in the introduction, Pak-U.S. relations began as a strategic alliance in which the United States provided civilian nuclear assistance to Pakistan through the “Atoms for Peace” program and some conventional military and financial aid to protect Pakistan from the threat of communism in return for access to Pakistan’s geographic location, which would be optimal for the U.S. Cold War policy of containment of communism and proximity to the Soviet Union.

 Yet, cracks in the Pak-U.S. relationship gradually grew in urgency. Through the 1960s, Pakistan desired more security from the United States against the threat of India to the east; instead, U.S. officials enforced the fact that the aid they provided to Pakistan could not be used for defense against India and was to be solely used for security against the threat of communism (Khan, 2012). Pakistani leader Ayub Khan attempted to play Washington’s game by alerting U.S. officials that India was a viable threat since it was a proxy for the Soviet Union, but this attempt proved fruitless as no further action was taken by the United States to protect Pakistan against India (Khan, 2012). It quickly became clear that Washington’s only interest in a relationship with Pakistan was to aid in their containment policy. Between 1974 and 1976, Pakistani Prime Minister Z.A. Bhutto attempted to appeal to the U.S. and the United Nations for aid against the nuclear threat of India; again, these attempts failed, and Pakistan was left to act alone (Khan, 2012). Since Pakistan’s main national security threat was India, the reluctance of the United States to provide any aid more substantial than conventional military assistance left a negative impact on the two states’ relations.

 Constant U.S. nonproliferation efforts in Pakistan may have also soured their relationship. Through the 1980s, the Reagan administration maintained the U.S. nonproliferation agenda by continuing to provide conventional military assistance (Wirsing and Roherty, 1982). Pakistani dependence on inconsistent United States aid and protection strained the relationship between the two states and was a main contributor to the Pakistani decision to export sensitive nuclear technology and resources to other states with contentious relations with the United States.

***Libya***

 Relations between the United States and Libya in the latter half of the 20th century were rife with tension. Significant in an analysis of U.S.-Libyan relations is the role of Mu’ammar al-Gaddafi, who came into a Libyan leadership position following a September 1969 military coup (Anderson, 1982). Gaddafi espoused the Nasserist ideology at the time of his descent to power, which involved a manifestation of Arab unification as a means of obtaining economic and social development of the Arab world (Anderson, 1982). This ideology manifested in Gaddafi’s fervent nationalist and anti-imperialist views. He regarded Western influence, specifically the United States, as synonymous with imperialism; this view spread throughout Gaddafi’s regime and fueled the anti-imperialist, anti-Western sentiment rampant in Libya throughout the 1970s.

 Gaddafi’s rejection of Western (American) influence in Libya played out in his expulsion of U.S. troops from Libyan military bases as well as reclamation of the Libyan oil economy in the form of new agreements that put Libya itself in a position of greater participation (Anderson, 1982). Moreover, Gaddafi was observed to provide support for anti-Western terrorist organizations and camps (Kroenig, 2011). U.S.-Libya relations worsened when U.S. economic sanctions were placed on Libya by U.S. President Carter, who also closed the American embassy in Tripoli in 1980 (Solingen, 2007). Libyan terrorist activity occurred when a bomb killed two U.S. soldiers after it detonated in West Germany in 1986; Washington responded to the terrorist attack with an air strike that killed Gaddafi’s infant daughter (Solingen, 2007). These circumstances solidify the American status as an enemy of Libya.

 Relations between Libya and Pakistan were formalized in 1974 with a formal nuclear cooperation agreement signed between Pakistani Prime Minister Bhutto and Libyan leader Gaddafi. This agreement was for the benefit of Pakistan; Libya would provide funding to the Pakistani nuclear program as well as “yellow cake,” which is a substance critical in the production and fueling of a nuclear weapon through a “middle-man” Niger, in exchange for the provision of sensitive nuclear assistance from Pakistan to Libya (Kroenig, 2011). However, this agreement fell through when Pakistan did not uphold their end of the bargain.

 Pak-Libyan relations resumed in 1997 when Pakistan is coded as beginning to provide sensitive nuclear assistance to Libya. Through the Khan network, Pakistan sold 20 P-1 centrifuges to Libya in 1997 and resources to produce enough high enriched uranium to fuel a nuclear weapon along with the blueprint for a nuclear bomb in 2000 (Hymans, 2012). This provision of resources and technologies may be considered sensitive nuclear assistance under the definition provided by Kroenig (2009).

Although Gaddafi terminated his nuclear program in 2003 (Hymans, 2012), the sensitive nuclear assistance provided by Pakistan to Libya supports the hypothesis that nuclear states provide sensitive nuclear assistance to nonnuclear states who share a common enemy. Given the tensions existing between Libya and America as well as Pakistan and America from 1997 to 2000, this triad of states follows the enemy-enemy-friend relationship that coincides with the “common enemy” hypothesis.

***Iran***

 U.S. relations with Iran were extremely strained throughout the second half of the twentieth century. One landmark incident that contributed to an enemy status between the two states was the Iranian Revolution and subsequent Iran Hostage Crisis of 1979, the latter of which involved the U.S. embassy in Tehran being taken over by Iranian citizens and fifty-two American citizens being taken hostage (Hussain, 2015; Kroenig, 2011). The Iranian Revolution marked a total breakdown of U.S.-Iranian relations after an intervention by the U.S. military failed to rescue the hostages (Miller, 2018; Kroenig, 2011). One year later, the Iran-Iraq War commenced in 1980, with the United States showing support for the Iraqi effort (Hussain, 2015). Blatant opposition to Iran clearly instilled tension between the two nations.

 More related to the thesis of this paper is the attitude of Washington toward the Iranian nuclear program. Similar to Pakistan, the Iranian nuclear program began as a facet of the American “Atoms for Peace” program in the early 1950s (Hussain, 2015). And, as with Pakistan, the United States made efforts to keep Iran’s nuclear program civilian. Iran began exploring a nuclear weapons program in 1974 though was met with some sanctions and effort from the United States to stop their exploration in 1976 (Miller, 2018). Iran resumed nuclear proliferation efforts after the Iranian Revolution in 1979. Once again, the United States levied sanctions against Iran; these sanctions also proved useless to stopping Iranian nuclear proliferation and the program continued (Miller, 2018). The Iranian nuclear weapons program once again halted activity upon the onset of the Iran-Iraq War in 1980 but resumed in 1984. An Iranian nuclear weapon directly threatened Western/United States hegemonic global power and, despite a coercive unilateral effort from the United States, Iran continued with its development of a bomb (Miller, 2018). U.S. nonproliferation efforts were insignificant in terminating the Iranian nuclear program because Iran was not dependent on aid, trade, or security from Washington. Such a detached relationship coupled with the numerous instances of harmful and detractive efforts by each state against the other qualifies the U.S.-Iranian relationship to hold an enemy status.

 With the knowledge of such a contentious relationship between Iran and the United States forming an enemy-enemy-friend triad, Pakistani provision of sensitive nuclear information, technologies, and resources supports the “common enemy” hypothesis. As a result, Pakistan is coded as providing Iran with sensitive nuclear assistance from 1987 to 1995 (Kroenig, 2009). A Pak-Iranian nuclear agreement was signed in 1987, laying the foundation for sensitive nuclear assistance to be provided to Iran by Pakistan (Bozoft, 1988) and Pakistan allegedly provided the Iranian nuclear program with designs and critical technological components for a “gaseous centrifuge uranium enrichment plant” throughout the duration of their relationship (Kroenig, 2009). This list of resources and technologies provided to Iran from Pakistan qualifies as sensitive nuclear assistance under the definition provided by Kroenig. While the Iranian nuclear weapons program is still in its developmental phases in 2022, the threat of an Iranian bomb continues to grow and remains a threat to U.S. security and global power. An Iranian nuclear bomb would disturb U.S. influence in the Middle East and would pose a direct threat to American hegemonic power in the global arena.

***North Korea***

 Since its establishment as an independent nation in 1948, North Korea has been a stark foreign policy issue for the United States. As a country forged during the early years of the Cold War, North Korea was formed during the division of the Korean Peninsula along the 38th parallel. Its political orientation was influenced by Soviet communist ideology, becoming a communist state itself upon its establishment (Seth, 2018). The Korean War, which lasted from 1950 to 1953, created tension between the United States and North Korea since Washington provided military support to South Korea during the conflict (Olsen, 2005). The United States continued to favor South Korea throughout the remainder of the twentieth century, which created tension within the U.S.-North Korea relationship.

Internal and global events also allowed for North Korea’s descension into rogue state status, which made it an erratic global actor and thus a diplomatic conundrum for Washington (Olsen, 2005). Since North Korea has assumed a doctrine of independence, it has historically been resistant to international pressure to adhere to global, foreign policy norms; it has maintained especial reluctance to pressure from the United States to adhere to international standards (Olsen, 2005). Reasoning for this reluctance and anti-Washington attitude stems from a desire to counter the United States status as a global superpower; this attitude evidences the assertion that the United States and North Korea held an enemy status relationship at the time of North Korean nuclear proliferation commencement.

Although the exact date is unconfirmed, North Korea is coded as officially beginning their nuclear weapons program in 1980, though some sources show evidence that it initiated nuclear pursuit sometime during the 1960s (Hymans, 2012). Kroenig codes Pakistani sensitive nuclear assistance to North Korea as occurring from 1997 to 2002; assistance included designs, critical technological components for a “gaseous centrifuge uranium enrichment plant,” and the blueprints for a nuclear bomb (Kroenig, 2009). These resources and technologies qualify as sensitive nuclear assistance under the definition provided by Kroenig (2009) earlier in this essay.

In contrast to both Libya and Iran, North Korea provided an East Asian combatant against American hegemonic power. Pakistan likely selected North Korea to provide sensitive nuclear assistance to due to its location and enemy status with the United States. As such, the enemy-status relationship between the United States and North Korea and corresponding Pakistani export sensitive nuclear assistance directly supports the “common enemy” hypothesis.

**Conclusion**

Why might nuclear states export sensitive nuclear assistance to nonnuclear states? In this essay, I tested Matthew Kroenig’s hypothesis considering nuclear states providing nonnuclear states with sensitive nuclear assistance because they share a common enemy. I have shown how an enemy-status relationship is plausible reasoning for the export of sensitive nuclear assistance using a case study of Pakistan, Libya, Iran, North Korea, and the United States. Libya, Iran, and North Korea all held an enemy-status relationship with the United States at the time of Pakistan’s provision of sensitive nuclear assistance. Nuclear proliferation anywhere in the international community poses a direct threat to U.S. superpower status.

 Continued research on this topic should address the implications of Pakistani sensitive nuclear assistance to Iran and North Korea (excluding Libya because it terminated its nuclear proliferation program in 2003) on U.S. hegemonic power. North Korea successfully tested a nuclear weapon in 2006; it remains a rogue state since it is not a member of a number of crucial international nuclear weapons treaties and continues to be a global threat. As of December 2022, Iran has not successfully tested a nuclear weapon to the knowledge of the international community. Many speculate that Iran will soon successfully acquire and test a nuclear weapon. This development will likely alter the international arena as well as American hegemonic power in general.

**References**

Bazoft, Farzad (1988). “Iran Signs Secret Atom Deal.” *The Observer* 12.

Corera, Gordon (2006). *Shopping for Bombs: Nuclear Proliferation, Global Insecurity, and the Rise and Fall of the A.Q. Khan Network*. Oxford University Press, Incorporated.

Fuhrmann, Matthew (2012). *Atomic Assistance: How “Atoms for Peace” Programs Cause Nuclear Insecurity*. Cornell University Press.

Gaffney, Frank J. (1997). “China Arms the Rogues.” *Middle East Quarterly* 4, no.3: 33-39.

Ganguly, Sumit, and Hagerty, Devin T. (2005), *Fearful Symmetry: India-Pakistan Crisis in the Shadow of Nuclear Weapons*. University of Washington Press.

Hussain, Nazir (2015). “US-Iran Relations: Issues, Challenges and Prospects.” *Policy Perspectives* 12, no.2: 29-47.

Hymans, Jacques E.C. (2012). *Achieving Nuclear Ambitions: Scientists, Politicians, and Proliferation*. Cambridge University Press.

Khan, Feroz (2012). *Eating Grass: The Making of the Pakistani Bomb*. Stanford University Press.

Kroenig, Matthew (2009). “Exporting the Bomb: Why States Provide Sensitive Nuclear Assistance.” *The American Political Science Review* 103, no.1: 113-133.

Kroenig, Matthew (2011). “Common Enemies, Growling Dogs, and A.Q. Khan’s Pakistan: Nuclear Supply to Other Countries” in *Exporting the Bomb: Technology Transfer and the Spread of Nuclear Weapons*. Cornell University Press: 111-150.

Lee. S.C., Muncaster, R.G., Zinnes, D.A. (1994). “‘The Friend of my Enemy is my Enemy’: Modeling Triadic Internation Relationships.” *Kluwer Academic Publishers*.

Maoz, Zeev, Terris, Lesley G., Kuperman, Ranan D., Talmud, Ilan (2007). “What Is the Enemy of My Enemy? Causes and Consequences of Imbalanced International Relations, 1816-2001.” *The Journal of Politics* 69, no.1.

Miller, Nicholas L. (2018). “The Iranian Nuclear Program” in *Stopping the Bomb: The Sources and Effectiveness of US Nonproliferation Policy*. Cornell University Press: 217-243.

Mohanty, Nirode (2013). *America, Pakistan, and the India Factor*. Palgrave Macmillan.

Olsen, Edward A. (2005). “U.S.—North Korean Relations: Foreign Policy Dilemmas.” *North Korean Review* 1: 63-75.

Ramana, Siddharth (2011). “Chine-Pakistan Nuclear Alliance: An Analysis.” *Institute of Peace and Conflict Studies* 109.

Seth, Michael J. (2018). *North Korea: A History.* Bloomsbury Academic.

Solingen, Etel (2007). *Nuclear Logics: Contrasting Paths in East Asia and the Middle East*. Princeton University Press: 213-228.

Spaniel, William (2022). “Scientific intelligence, nuclear assistance, and bargaining.” *Conflict Management and Peace Science* 39, no.4: 447-469.

Wirsing, Robert G., Roherty, James M. (1982). “The United States and Pakistan.” *International Affairs (Royal Institute of International Affairs 1944-)* 58, no.4: 588-609.