SOUTH ASIA UNDER CHINA'S NUCLEAR SHADOW

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INTRODUCTION

While India and Pakistan are often regarded as the protagonists in nuclear South Asia, the role of China in the regional dynamics remains no less critical. Beijing's nuclear relations with both the actors are of different nature and purpose: with New Delhi, it appears to share a stable nuclear dyad owing to their symmetrical nuclear postures, even as both the sides face varying degrees of threats from one another; whereas, with Islamabad, it shares deep strategic relations, whereunder it has armed Pakistan with both nuclear weapons and conventional capabilities to counter India.

This article has two purposes: first, it attempts to analyse the consequences of China's nuclear capabilities and posture on South Asian nuclear dynamics; second, it delineates China's nuclear strategy towards India and Pakistan, and analyses its implications on regional stability. The article begins by laying out the analytical framework of nuclear South Asia based on concepts such as security trilemma and strategic nuclear chain. In this section, the article explains how China's nuclear equations with the US impinge on its strategic relations with India and Pakistan. It further describes how China's nuclear dyads with each of

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these states get forged into a chain that result in a complex interrelated security dynamic. Next, the article analyses China's nuclear relations with India and Pakistan, and highlights Beijing's role in causing nuclear instability in the region. Finally, the paper extrapolates the dynamics of the strategic nuclear chain to analyse the future of nuclear deterrence in the region vis-à-vis China and assess the prospects of arms control between Beijing and New Delhi.

THEORETICAL AND CONTEXTUAL BACKGROUND

Susan Turner Haynes notes, "China's nuclear threat perception, and thus its nuclear modernisation, stems from its bilateral relationships, where the US is rightfully characterised as the 'heavyweight' in its security calculations, and India is the peripheral aggravator."[1] To understand the nuclear dynamics in South Asia, it is important to take into consideration the nuclear dynamics between the China and the US. Haynes notes that even though the US does not share a border with China, it features prominently in the latter's nuclear strategic calculations. To wit, Beijing's decision to acquire nuclear weapons was driven by the issuance of nuclear threats by Washington in the early 1950s. These threats had aimed to coerce the Chinese leadership to end the Korean War, and to prevent its conquest of Taiwan.[2] In the present context, the nuclear dynamics between the two are driven by the development and deployment of Ballistic Missile Defence (BMD) systems and long and medium-range missiles by the US, along with its strategic partnership with other nuclear and near-nuclear states[3] in China's neighbourhood.

1. Susan Turner Haynes, "China's Nuclear Threat Perceptions". *Strategic Studies Quarterly*, 10, no. 2 (2016): 25-62, www.jstor.org/stable/26271504. Accessed on July 14, 2020.
2. John W. Lewis and Litai Xu, *China Builds the Bomb* (Stanford University Press, 1991), pp. 25-32.
3. Near nuclear States refer to the countries that have the scientific workforce and infrastructure for building nuclear bombs. In the above context, these include Japan and North Korea.

With regard to South Asia, China shares tense relations with India which mainly stem from long-standing unresolved border demarcations. Both the countries have differing perceptions over 3,488 km of the Line of Actual Control (LAC). Further, China lays claim to over 80,000 sq km of the Indian state of Arunachal Pradesh. As a result, the two countries went to war in 1962, and continue to engage in low-level border confrontations. Despite many rounds of negotiations between special representatives of both sides, the territorial issues remain unresolved.

In the case of South Asia, China began to reckon India as a security challenge when the latter achieved a decisive victory against Pakistan in the 1971 war, which resulted in the liberation of East Pakistan, now known as Bangladesh. The war had demonstrated tremendous improvements in India's conventional capabilities, as compared to its performance in the 1962 China-India war.

In terms of nuclear capabilities, China does not publicly identify India as a threat to its national security; although it covertly feels challenged by India's nuclear weapons, particularly its indigenously developed nuclear enabled long-range Agni-series missiles that have a range of over 5,000 km and are capable of reaching any part of China.[4] India's nuclear weapons offer New Delhi a strategic parity vis-à-vis China, which allows the former to deter large-scale confrontations. It has been evident in the timely de-escalation of the border confrontations as well as in the absence of the nuclear rhetoric in their relations which, incidentally, remains common in other nuclear dyads such as the China-US and India-Pakistan as well.

John W. Lewis and Xu Litai in *China Builds the Bomb* posit that the Chinese leadership's perception of challenges is not necessarily based on situations that pose a direct threat to its security; it could often be situations that can be potentially detrimental to its security interest. In the case of South Asia, China began to reckon India as a security challenge when the latter

4. "Why the World Should Fear India's New ICBM's". *The National Interest*. Last modified January 25, 2018. https://nationalinterest.org/blog/the-buzz/why-the-world-should-fear-indias-new-icbms-24211

achieved a decisive victory against Pakistan in the 1971 war, which resulted in the liberation of East Pakistan, now known as Bangladesh. The war had demonstrated tremendous improvements in India's conventional capabilities, as compared to its performance in the 1962 China-India war. In the immediate aftermath of the India-Pakistan war of 1971, China began to aid Pakistan in developing its nuclear capabilities, whereby it sought to complicate India's security environment. Siddharth Ramana suggests that by proliferating to Pakistan "China can make use of its proxy in instigating a nuclear conflict in South Asia, wherein the affected parties would be Pakistan and India, with China attempting to emerge unscathed".[5] He refers to the Chinese aversion to Pakistani Foreign Minister's requests to guarantee nuclear protection in 1998 to suggest that China finds Pakistan as an extended deterrence proxy more practical than a recipient of its nuclear umbrella.

In the last decade and a half, China's threat perceptions have been elevated due to India's strengthened strategic relations with the US, which gained momentum with the signing of Indo-US nuclear deal in 2008. It has further been reinforced with the formation of the informal Quadrilateral Security Dialogue, known as the Quad, consisting of China's adversarial states, namely, Australia, Japan, India, and the US. China has sought to respond to these developments by fortifying its relations with Islamabad by launching several infrastructural projects throughout Pakistan that have military implications for India.

The paper seeks to suggest that dynamics of South Asia, which traditionally involves hostile relations between India and Pakistan, gets impinged upon by the nuclear relations between the US and China. Linton Brooks and Mira Rapp-Hooper have termed this overlapping of deterrence relationships as 'security trilemma', wherein actions taken by one state to defend against another state have the effect of making a third state feel insecure.[6] In South

5. Siddharth Ramana, "China-Pakistan Nuclear Alliance: An Analysis." IPCS | Institute of Peace and Conflict Studies, https://www.ipcs.org/issue_briefs/issue_brief_pdf/SR109.pdf. Accessed on May 10, 2020.

6. Linton Brooks and Mira Rapp-Hooper, "Extended Deterrence, Assurance, and Reassurance in the Pacific during the Second Nuclear Age," in *Strategic Asia 2013–14: Asia in the Second Nuclear Age* (National Bureau of Asian Research, n.d.), PDF e-book, p. 267.

Asia, due to the modernisation of the US and China's nuclear capabilities, as mentioned above, India gets pulled into an offence-defence spiral. Further, as India is involved in a separate nuclear dyad with Pakistan, Islamabad faces an extended security dilemma. Manpreet Sethi defines this complex interrelation of multiple dyads as a strategic nuclear chain,[7] wherein she suggests that any changes that occur in the nuclear capabilities, doctrines or postures of the US and China inevitably disturb the strategic nuclear balance between India, China, and Pakistan.

ANALYSING THE INDIVIDUAL DYADS

To set the context of the nuclear dynamics in South Asia, this section would briefly discuss the nuclear relations between India and Pakistan, before delving into the discussion of China's relations with the two.

India and Pakistan's hostilities are rooted in the partition of British India and have a basis in historical religious conflict. It gets manifested in contestation over the state of Kashmir. India and Pakistan fought wars on four occasions, namely in 1949, 1965, 1971 and 1999, whereby New Delhi repeatedly proved its conventional military superiority. India's strategy, thus, has been to maintain the regional status quo, whereby it seeks to maintain its military, economic as well as normative superiority; whereas, Pakistan seeks to draw the regional power balance in its favour and, therefore, follows a revisionist strategy.

Islamabad views India's nuclear weapons as an existential threat, especially as the 1971 war had resulted in the liberation of Bangladesh. For Pakistan, its nuclear weapons promise to offer strategic parity vis-à-vis India. In order to deter a conventional war with India, Pakistan has kept its nuclear threshold low with its doctrine of First Use and has frequently engaged in the tactic of nuclear brinkmanship. The aim of such tactics is to wage covert war in Kashmir,[8] and continue its terror activities over the Indian territories

7. Manpreet Sethi, "Nuclear Risks in Southern Asia: The Chain Conundrum", in Wilfred Wan, ed., *Nuclear Risk Reduction: Closing Pathways to Use*, UNIDIR, 2020, pp. 138-53.

8. Shalini Chawla, "Decoding Pakistan's Nuclear Brinkmanship", Tribuneindia News Service (blog), September 18, 2019, https://www.tribuneindia.com/news/archive/comment/decoding-pakistan-s-nuclear-brinkmanship-834037

under the broader threat of using nuclear weapons.[9] Further, China has exploited Pakistan's insecurity by providing it with material and technical assistance to establish a nuclear deterrence vis-à-vis India.

China and India

As discussed earlier, China-India rivalry largely stems from long-standing disputes over the Indo-China border that led the two countries to go to war in 1962. The period following the war was marked by a break, but the relations began to improve mid-1980s onwards. Several border management agreements crafted during this period, such as the 1993 agreement on 'Maintenance of Peace and Tranquillity along the LAC in the India-China Border Areas' enabled a relative calm in the relations; nevertheless, the border peace was occasionally interrupted by minor border skirmishes.

In recent times, the tensions between India and China tend to routinely get intensified as they get involved in frequent high-level border confrontations. Two of such confrontations took place in Chumar and the Doklam in 2014 and 2017 respectively and involved a military stand-off that lasted several weeks. The Galwan Valley military clashes in 2020 resulted in heavy mobilisation and unprecedented killing of several soldiers on both sides. These clashes have caused the breakdown of the various border management mechanisms that held peace at the LAC for several decades.

Monika Chansoria notes, "Beijing appears intent at keeping the border dispute alive as a tactical pressure point against India. China seems to be awaiting an opportune moment in which the existing military asymmetry with India will widen and Beijing will be positioned to bring the dispute to a close on its own terms."[10]

China's first nuclear tests in Lop Nur in 1964 which came close on the heels of the China-India War of 1962 elevated India's threat perceptions.

9. Shyam Saran, "Dealing with Pakistan's Brinkmanship". *The Hindu* (blog). December 7, 2012, https://www.thehindu.com/opinion/lead/Dealing-with-Pakistan%E2%80%99s-brinkmanship/article14641185.ece

10. Monika Chansoria, "India-China Border Agreement: Much Ado About Nothing," *Foreign Policy*, https://foreignpolicy.com/2014/01/13/india-china-border-agreement-much-ado-about-nothing/. Accessed on January 13, 2014.

New Delhi initially took to a diplomatic recourse to achieve universal nuclear disarmament to stabilise its security environment. In 1965 India, along with other states, moved resolution 2028 in the UN General Assembly that sought to halt the spread of nuclear weapons. Through the negotiations, New Delhi was expecting reciprocatory obligations whereby the states who possessed nuclear weapons would halt further proliferation in return for the non-nuclear weapons states stopping acquiring them.[11] In the past, India was actively involved in the draft negotiations of the Nuclear Non-Proliferation Treaty (NPT) and had also voted in favour of the Irish Resolution introduced at the United Nations General Assembly in 1960 to prevent nuclear proliferation.[12] However, Russia, the US and the UK converted the NPT to allow unlimited nuclear proliferation to the nuclear weapons states and impose a total ban on the acquisition of nuclear weapons by all other nations. This had led India to back out of the negotiations. Incidentally, China had not acceded to the NPT at this time.[13]

India's threat perceptions were once again raised when it suffered nuclear blackmail by the US during the India-Pakistan war of 1971. The US at that time was backing Pakistan, and had moved the nuclear enabled USS *Enterprise* into the Bay of Bengal to threaten India with a nuclear attack. China was also siding with Pakistan and the US during this time.[14] Following the end of the war, reports of Pakistan's efforts to acquire nuclear weapons started to emerge, and soon thereafter, evidence of China's collaboration in Pakistan's nuclear weapons also surfaced.[15] At this stage, pressure began to be build on the Indian leadership to develop its nuclear deterrence.

Notably, as mentioned earlier, despite deep-seated hostilities the nuclear component does not seep into their security relations. Several analysts

11. K. Subrahmanyam, "Indian Nuclear Policy—1964–98 (A Personal Recollection)", *Strategic Analysis* 42, no. 3 (2018): 294, DOI: 10.1080/09700161.2018.1463956

12. Evgeny M. Chossudovsky, "The Origins of the Treaty on the Non-Proliferation of Nuclear Weapons: Ireland's Initiative in the United Nations (1958-61)", *Irish Studies in International Affairs* 3, no. 2 (1990): 111-35, www.jstor.org/stable/30001773. Accessed on July 18, 2020.

13. Subrahmanyam, "Indian Nuclear Policy", n. 11, p. 295.

14. Ibid., p. 296.

15. Ibid.

China, till date, dismisses both India and Pakistan as legitimate nuclear weapons states as neither has signed the NPT. China also rebuts India's rationale for developing nuclear weapons—which is to deter a nuclear war with China. Instead, Chinese strategic scholars argue that India developed nuclear weapons to achieve prestige and status.

suggest that the appearance of stability within the China-India nuclear dyad comes from similarities in their nuclear postures. Vipin Narang notes,

> China and India have both adopted assured retaliation postures. Each relies on a small but secure and survivable nuclear force, arrayed for an assured retaliatory strike against their primary opponents' strategic targets. Both have paired a declaratory no-first-use policy with operational procedures that make the first use of nuclear weapons unlikely. Nevertheless, both assure nuclear retaliation should they sustain a nuclear hit or, adversaries must assume if a level of unacceptable conventional damage were sustained.[16]

Similarly, Rajesh Basrur and Kartik Bommakanti have listed several similarities in the nuclear postures of China and India.[17] These include, first, the adoption of the policy of minimum deterrence whereby both the countries prefer a relatively small number of warheads and delivery platforms; second, the fact that neither side is interested in nuclear warfighting, and hence have no proclivity for keeping nuclear weapons ready for combat; third, both the countries have a non-offensive posture of non-deployed weapons for reducing the potential for rapid spiralling of risk during tense times; fourth, they have their doctrines and force postures crafted around the concept

16. Vipin Narang, "What Does It Take to Deter? Regional Power Nuclear Postures and International Conflict." *The Journal of Conflict Resolution* 57, no. 3 (2013): 478-508, www.jstor.org/stable/23414723. Accessed on May 5, 2020.

17. Rajesh Basrur and Kartik Bommakanti, "The India–China Nuclear Relationship". *Strategic Analysis* 35, no. 2 (2011), 186-93. DOI: 10.1080/09700161.2011.542914.

of No First Use (NFU); fifth, both have used nuclear weapons as instruments for coercion; and, finally, both the sides have chosen to conduct a small number of nuclear tests, which remain far less than other major nuclear powers.

In a differing perspective, Chinese scholars often argue that India's limited nuclear capability along with its defensive posture, and the lack of intention to go to war, negates any possibility to consider India as a threat. China, till date, dismisses both India and Pakistan as legitimate nuclear weapons states as neither has signed the NPT. China also rebuts India's rationale for developing nuclear weapons—which is to deter a nuclear war with China. Instead, Chinese strategic scholars argue that India developed nuclear weapons to achieve prestige and status.[18]

Adversarial nuclear weapons states, including the US and Russia, have been part of several bilateral and multilateral agreements which are designed to prevent or reduce the occurrence of ambiguities, doubts and suspicions. A lack of such dialogues/ agreements between China and India fuels mistrust that often creates instability within the dyad.

In contrast, the rest of the section would argue that it is neither the similarities in the nuclear posture nor the policies that provide stability in the relations. Nor is it India's limited nuclear capabilities that have led China to underrate India's nuclear deterrence. As argued earlier, China faces security challenges from India that stem from India's conventional and nuclear capabilities, as well as from New Delhi's strengthened relations with Beijing's adversaries. As a result, China has crafted its nuclear strategies to counter India's challenge. Several of such strategies have a destabilising effect on regional security.

First, China does not identify India as a legitimate nuclear weapons state as it is not a signatory to the NPT. Such a stance by China prevents any prospects of nuclear dialogues between the two states. Adversarial nuclear

18. Xiaoping Yang, "China's Perceptions of India as a Nuclear Weapons Power", Carnegie Endowment for International Peace. Last modified June 30, 2016, https://carnegieendowment.org/2016/06/30/china-s-perceptions-of-india-as-nuclear-weapons-power-pub-63970

weapons states, including the US and Russia, have been part of several bilateral and multilateral agreements which are designed to prevent or reduce the occurrence of ambiguities, doubts and suspicions. A lack of such dialogues/agreements between China and India fuels mistrust that often creates instability within the dyad.

Second, stemming from China's non-acceptance of India and Pakistan as nuclear weapons states is its ambiguity related to its policy of NFU. China dropped the word 'unconditional' from its nuclear posture in 1995 and added conditionality to its NFU policy, thereby making it applicable only to the NPT member states or a nuclear-weapons free zone. In 2010, China reiterated that it continues to be "adhered to the policy of no-first-use of nuclear weapons at any time and in any circumstances", and made the unequivocal commitment that under no circumstances will it "use or threaten to use nuclear weapons against non-nuclear weapon states or nuclear-weapon-free zones." This was a sharp reversal from the position it had stated in a letter delivered to the UN Secretary General in 1982, that said that "at no time and under no circumstances will China be the first to use nuclear weapons, and that it undertakes unconditionally not to use or threaten to use nuclear weapons against non-nuclear countries and nuclear-free zones". Brahma Chellaney notes that

> the shift from an unconditional to a conditional NFU posture effectively left out only India, Israel and Pakistan. The policy change, however, could not be directed at close ally, Pakistan, or even Israel, with whom Beijing has collaborated in military-technology projects. The shift appeared aimed at sending a message to New Delhi. The reversal from China's earlier policy effectively excludes India, and therefore raises security concerns for New Delhi.[19]

China's non-acceptance of India as a legitimate nuclear weapons state as well as its subsequent exclusion from Beijing's NFU policy, generates a threat of a first strike by China. It can potentially trigger countermeasures by New

19. Brahma Chellaney, *Securing India's Future in the New Millennium* (Hyderabad: Orient Blackswan, 1999), p. 195.

Delhi, such as the development of BMDs to safeguard its cities, industrial towns, as well as nuclear assets, and thus create an offence-defence spiral.

Third, even while China and India are not engaged in any arms race, the rapid modernisation in China's nuclear force, albeit vectored against the US, puts pressure on their nuclear dyad. China has responded to the US ballistic missile defence systems, constituted by its National Missile Defense (NMD) and advanced Theatre Missile Defense (TMD) in East Asia, by modernising its nuclear arsenals to allow them to penetrate the US defence shields. China's modernisation of nuclear weapons includes the Hypersonic Glide Vehicles (HGVs), multi-warhead missiles, as well as multiple independently-targetable re-entry vehicle (MIRV) ballistic nuclear missiles. Among these, the MIRV capability is particularly destabilising for India as it allows a ballistic missile to send several separately targeted nuclear warheads on their separate ways. It is a preferred choice of weapon for not only escaping a BMD shield, but also destroying an adversary's nuclear assets, especially as it can take several warheads to destroy one silo-based missile. China showcased its MIRV capable ICBM Dong Feng 41 in October 2019. M. Taylor Fravel and Evan S. Medeiros suggest that deploying the MIRV warheads increases the options available to China for using its nuclear weapons against its adversaries, including India.[20] One of the possible options with China is the pre-emptive use of MIRV missiles to destroy India's nuclear assets. China's exclusion of India from its NFU further lends credibility to this possibility. China's nuclear modernisation heightens the vulnerability of India's nuclear assets, and therefore can potentially trigger an offence-defence spiral within the dyad.

Lastly, China does not see advancements in India's strategic capabilities with complacency. In response to the burgeoning military as well as strategic strength of India post its defeat to China in 1962, China has been seeking to strike a balance of power vis-à-vis India through establishing strategic relations with Pakistan. To this end, China contributed

20. M. T. Fravel and Evan S. Medeiros, "China's Search for Assured Retaliation: The Evolution of Chinese Nuclear Strategy and Force Structure", *International Security*, 35, no. 2 (2010), pp. 48-87. DOI: 10.1162/isec_a_00016

significantly towards Pakistan's nuclear weapons programme and ballistic missile programme, which will be discussed in detail in the following section. China's proliferation to Pakistan is destabilising for South Asian security as Islamabad maintains its nuclear weapons in an offensive posture against India and seeks to build first-strike capabilities for that purpose. Further, China has been suspicious of New Delhi's intentions since it signed the Indo-US nuclear deal in 2008 and thus strengthened its strategic relations with Washington. China has responded by investing heavily in infrastructure projects in Pakistan that come under its Belt and Road Initiative (BRI), thus strengthening its relations with Islamabad.[21] As a part of the project, China has invested in the China-Pakistan Economic Corridor (CPEC) to strengthen its relations with Islamabad. The CPEC has become another irritant in the India-Pakistan relations as it passes through Pakistan-occupied Indian territory of Kashmir. The BRI project in Pakistan also involves a deep-water naval port at Gwadar. China has already deployed submarines to the Gwadar port, therefore, it is expected that China would use the port for military purposes.[22]

China and Pakistan

Pakistan had leaned towards the US in the initial years of the Cold War and served as its strategic ally by forming a part of its South-East Asia Treaty Organisation (SEATO), as well as the Central Treaty Organisation (CENTO); however, it was only in the aftermath of the India-China war of 1962 that Beijing and Islamabad came forward to forge strategic relations. The primary objective of the alliance was to deter India's attempts to go into a war with either of the countries by creating the fear of a two-front theatre. In China's thinking, the India-Pakistan tensions serve Beijing's strategic

21. Gurmeet Kanwal, "Pakistan's Gwadar Port: A New Naval Base in China's String of Pearls in the Indo-Pacific". CSIS, 2018, https://www.csis.org/analysis/pakistans-gwadar-port-new-naval-base-chinas-string-pearls-indo-pacific

22. "In a First, China, Pak Navies Deploy Submarines in Strategic Arabian Sea Drills". *Hindustan Times*. Last modified January 8, 2020, https://www.hindustantimes.com/world-news/in-a-first-china-pakistan-navies-deploy-submarines-in-strategic-arabian-sea-drills/story-yjiQMrnTPDV1ZZLlCZkEHM.html

interest as it keeps India bogged down, and thus hinders New Delhi from competing with Beijing or achieving its global ambitions.[23]

Jonah Blank notes, "the most important service Pakistan provides is its mere existence".[24] He suggests that "having a strong adversary on India's western flank helps prevent a challenge from Asia's other rising nuclear-armed power with a billion-plus population." Thus, China's nuclear strategy towards Pakistan has been to assist Pakistan to develop nuclear deterrence against India. Additionally, by such a strategy, China sought to contain the US expansion in South Asia, and strengthen its relations with the Islamic world, and thereby secure its energy interest in that region.

China's assistance to Pakistan goes to the extent that it passed the entire design of the nuclear weapons test of 1966 to A. Q. Khan, the key scientist in the latter's nuclear weapons programme, in 1982.[25] Gordon Corera has remarked that such a transfer was unprecedented as although countries have helped their allies with the design of weapons, there has been no history of a country handing over the full design of nuclear weapons to an ally. He posits that the full design spared Pakistan the difficult work in developing and miniaturising a weapon as well as the diplomatically risky task of carrying out the nuclear test. In the early 1980s, China also provided Pakistan with weapons-grade uranium that could power two nuclear devices. Further, in 1988 China sold components of its M-11 short-range ballistic missiles to Pakistan, which the latter has used to develop nuclear-capable missiles. In 1995, China sold 5,000 ring magnets to Pakistan for its high-speed gas centrifuges.[26] The export of ring magnets was strictly controlled under the terms of an international agreement with the International Atomic Energy Agency (IAEA) as they

23. Iskander Rehman, "Keeping the Dragon at Bay: India's Counter-Containment of China in Asia", *Asian Security* 5, no. 2 (2009), 114-43. DOI: 10.1080/14799850902885114

24. "Pakistan and China's Almost Alliance." RAND Corporation Provides Objective Research Services and Public Policy Analysis | RAND, https://www.rand.org/blog/2015/10/pakistan-and-chinas-almost-alliance.html. Accessed on May 10, 2020.

25. Gordon Corera, *Shopping for Bombs: Nuclear Proliferation, Global Insecurity, and the Rise and Fall of the A. Q. Khan Network* (New York: Oxford University Press, 2009).

26. Ibid.

are used in gas centrifuges to extract weapons-grade enriched uranium from uranium gas.[27]

The military-technological transfers between China and Pakistan have not been one way. During the initial years of the Cold War, Pakistan gave China access to several US and Western military technology that Beijing's scientists reverse-engineered. A US Department of State report, titled "Pakistan and Communist China Strengthen Cooperation", released on December 4, 1968 alleged that the Pakistani Army had provided the Chinese access to US F-104 supersonic fighter aircraft in violation of the acceptance agreement with the Pentagon. Further, Khan had also provided China with ultracentrifuge technology, which he had acquired through his experience of working as a scientist at the European Uranium Enrichment Centrifuge Corporation (URENCO).

The US changed its position against such transfers in the 1970s, when China's relations with the Soviet Union began to sour. During this period, Pakistan's President Yahya Khan had played the role of a broker in the forging of these relations by arranging for a meeting between the then US Foreign Secretary Henry Kissinger and Zhou Enlai during the peak of tensions of the India-Pakistan war of 1971.[28] Following the meeting, the US offered tacit approval of the transfer of its military technologies to China through Pakistan. In 1982 Central Intelligence Agency had made the sales of AN/ALR-69 radar warning system to Pakistan contingent on Islamabad transferring those sensitive technologies to Beijing.[29] Towards the end of the 1980s, China, Pakistan, and the US worked together to support the anti-Soviet terrorist group—Mujahideen—to fight in Afghanistan. These terrorist groups later became a potential threat to South Asian nuclear security due to the concerns that they might gain access to nuclear weapons due

27. "Chinese Nuclear Exports to Pakistan", Federation of American Scientists—Science for a Safer, More Informed World, https://fas.org/irp/congress/1996_cr/s960207b.htm. Accessed on May 3, 2020.

28. "A Leaf from History: Ping-pong Diplomacy." Dawn.com. March 11, 2012, https://www.dawn.com/news/701831

29. "USA Reprimands Pakistan for Misusing F-16 Fighter Aircraft", Centre for Land Warfare Studies (CLAWS), New Delhi, India. December 30, 2019, https://www.claws.in/usa-reprimands-pakistan-for-misusing-f-16-fighter-aircraft/

to their close ties with Pakistan's armed forces. There have also been concerns that the Pakistani Army might facilitate acts of nuclear terrorism through their links with the al-Qaeda network.

Nevertheless the US' tacit approval of the indirect transfer of its technologies to China via Pakistan ended with the end of the Cold War. In a reversal of policies, the US levied several sanctions on both China and Pakistan through the 1990s to curb their nuclear transfers. The sanctions on China were rolled back when Beijing, albeit a non-member, assured Washington that it would follow the Missile Technology Control Regime (MTCR) guidelines that seek to limit the proliferation of missiles and missile technology. However, China continues to transfer nuclear weapons technology to Pakistan through narrow interpretations of the guidelines.[30] It is believed that Pakistan has reverse engineered China's DF-11 to produce several new nuclear-capable missile systems including Shaheen-I, II and Ababeel missiles.[31]

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Additionally, China has been involved in Pakistan's civil nuclear programme. Based on a 1991 bilateral nuclear cooperation agreement, China built the first reactor, namely a 325 MW plant called Chashma-I at the Chashma complex in Punjab in 2000, and the Chashma-II plant in

30. "China Violating Missile Proliferation Controls, Cables State." Nuclear Threat Initiative (NTI). July 14, 2011, https://www.nti.org/gsn/article/china-violating-missile-proliferation-controls-cables-state/

31. "DF-11 (Dong Feng-11/M-11/CSS-7)." *Missile Threat*. January 29, 2018, https://missilethreat.csis.org/missile/dong-feng-11/

In contemporary times, the relevance of the strategic partnership between China and Pakistan has been reinforced due to the recent developments in India's security posture and foreign relations, particularly in the context of growing US-India relations and the crystallisation of the naval Quad to counter China in the Indo-Pacific.

2011. Further, in 2009, after becoming a member of the Nuclear Suppliers Group (NSG), China finalised the sale of two more reactors, namely Chashma-III and Chashma-IV. However, the sales came under the scrutiny as the NSG guidelines do not allow members to supply nuclear technology to countries that have not signed the NPT. In spite of this, China constructed the units even as the matter remains unresolved with the NSG.[32]

In contemporary times, the relevance of the strategic partnership between China and Pakistan has been reinforced due to the recent developments in India's security posture and foreign relations, particularly in the context of growing US-India relations and the crystallisation of the naval Quad to counter China in the Indo-Pacific.[33] On the other hand, India is also perceived to have adopted a bolder posture in its pursuit of national security. This was evident when the Indian Air Force crossed the Line of Control, the de facto border in the disputed region of Kashmir, and dropped bombs on a terrorist training facility close to the town of Balakot in Pakistan in 2019.[34]

The direct consequence of China's nuclear transfers to Pakistan on regional nuclear stability has been twofold:

First, as discussed earlier, China has carried out its nuclear transfers in contravention of export control agreements, namely, the MTCR and the NSG.

32. "China's Reactor Sale to Pakistan: The Known Unknowns", Manohar Parrikar Institute for Defence Studies and Analyses. October 14, 2016, https://idsa.in/issuebrief/ChinasReactorSaletoPakistan_gbala

33. "A Rising India in the Indian Ocean Needs a Strong Navy." Centre for Strategic and International Studies, https://www.csis.org/npfp/rising-india-indian-ocean-needs-strong-navy. Accessed on May 10, 2020.

34. "Balakot Airstrike Ensured No Pakistan-sponsored Attack in India a Year Since", *The Print*. February 26, 2020, https://theprint.in/opinion/balakot-airstrike-ensured-no-pakistan-sponsored-attack-in-india-a-year-since/371288/

These were evident in, for instance, China's export of ring magnets for use in gas centrifuges, sale of specialised steel by a Chinese firm to a Pakistani company involved in its missile and nuclear operations, and its building of Chashma-III and Chashma-IV power reactors respectively. The multilateral arms control institutions are vital in ensuring nuclear stability, as they seek to encourage countries to manage their weapons in limited cooperation with each other. Through the subversion of such agreements, China's proliferation to Pakistan has created an environment of mistrust in the region.

Second, while it has been China's nuclear policy to arm Pakistan with nuclear weapons in order to complicate India's security, China's assistance to Pakistan has often gone beyond providing it with means to develop nuclear deterrence against India; it has, in effect, supported Pakistan in engaging in an arms race against India. Of late, China has been providing Islamabad with technologies for its full spectrum deterrence strategy, whereby Islamabad seeks to develop offensive weapons ranging from tactical nuclear weapons to second-strike capability. One of the latest transfers by China includes sale of a highly sophisticated, large-scale optical tracking and measurement system to aid Pakistan in developing MIRV capabilities.[35] An indirect consequence of China's proliferation to Pakistan on the region's security has been, as mentioned earlier, the latter's use of tactic of nuclear brinkmanship, whereby it keeps its nuclear threshold low and frequently issues nuclear threats to New Delhi to deter a conventional attack. Such a tactic is potentially destabilising, if not met with restraint from India.

FROM DYADS TO STRATEGIC NUCLEAR CHAIN

Nuclear weapons are the cornerstone of the security calculus of China, Pakistan and India. For China, nuclear weapons allow Beijing to counter the threat from the US and to a lesser degree India and Russia, and at the same time, contain Washington's influence in Asia. For India, they are necessary to negate any possibility of nuclear blackmail or coercion to ensure its

35. "Pakistan and China's Almost Alliance." RAND Corporation Provides Objective Research Services and Public Policy Analysis | RAND, https://www.rand.org/blog/2015/10/pakistan-and-chinas-almost-alliance.html. Accessed on May 10, 2020.

nuclear security within a nuclearised and conflict-prone neighbourhood. For Pakistan, they are considered necessary to gain strategic parity with India, and to deter the possibility of a conventional conflict.

Further, China's nuclear deterrence is to a greater degree hinged upon US nuclear capabilities and posture. The US, by extension, interacts with the nuclear posture of Russia in addition to that of China to maintain its strategic equilibrium. With China being a critical player for South Asian nuclear security—as the previous section has extrapolated—any advancements or changes in the nuclear posture within any of the dyads concerning the US, China and Russia inevitably disturbs the strategic balance in South Asia.

In current times, the strategic nuclear chain has to factor in developments such as those of US ballistic missile defence systems. China, in turn, is responding by developing HGVs and MIRV missiles to penetrate the US defence shield. This triggers a security dilemma in New Delhi as it renders Indian nuclear assets vulnerable to pre-emptive strikes by China, especially since Beijing does not include New Delhi in its NFU pledge. As India explores prospects of countermeasures to Beijing's nuclear modernisation, Pakistan would inevitably face a security dilemma and seek to match up with own modernisation efforts such as the development of its MIRV enabled missiles. China has played a proactive role in aiding Pakistan to develop and modernise nuclear capabilities; China does so to challenge India's dominance in the region and to pose a two-front strategic challenge. In this way, the individual dyads forge into an interrelated strategic nuclear chain. The security of each nation is precariously placed on the nuclear deterrence sought within each dyad.

The strategic nuclear chain is likely to play out in the maritime domain as well. In 2015, China tested its intercontinental-range submarine-launched ballistic missile JL-2—which has an estimated range of up to 7,200 km—which enables it to target across the whole of the Indian territory. China has been advancing in its sea-based deterrence to make up for the vulnerabilities posed by the land-based missile systems of its strategic rivals. India has been progressing with the development of its sea-based deterrence, which until now consists of INS *Arihant* nuclear-powered ballistic missile submarine that

started its patrol in 2018. Both China and India had envisaged sea-based nuclear weapons as a cornerstone of their nuclear deterrence; they are the most survivable as they are virtually undetectable under the sea. China's construction of the Gwadar port in Pakistan raises concerns about the possible use of Pakistani territory to dock Chinese nuclear submarines. As a result of the progress of China and India's nuclear submarines, Pakistan has been exploring its sea-based nuclear deterrence options. Pakistan currently lacks the technical capabilities such as nuclear power submarines to operationalise its sea-based nuclear deterrence. Notwithstanding, it conducted two successful flight tests of its Babur-3 nuclear-capable submarine-launched cruise missile (SLCM) between 2017 and 2018, which are expected to be carried on Pakistan's diesel-powered Agosta 90B conventional submarine. The head of Pakistan's Inter-Services Public Relations (ISPR) remarked that the missile tests were a response to India's nuclear capabilities and posture.[36] It must be noted, however, that the intertwining of nuclear weapons with conventional delivery systems, known as 'nuclear entanglement', can be destabilising for the regional security. It may render the adversary unable to distinguish between the conventional and strategic weapons, which can thereby raise the risks of miscalculation and misperception.

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36. "Pakistan Advances Sea Leg of Triad", Arms Control Association | The Authoritative Source on Arms Control Since 1971, https://www.armscontrol.org/act/2018-06/news-briefs/pakistan-advances-sea-leg-triad. Accessed on July 15, 2020.

Much like the dynamics of deterrence, the prospects of arms control measures are interrelated; the arms control measures need to be initiated amongst China, Russia and the US, to be able to trickle down to the China-India dyad.

The phenomenon of the strategic nuclear chain is also seen in the domain of nuclear arms control agreements between China, India and Pakistan. Beijing has asymmetric dyads with Washington and New Delhi: China's primary nuclear competition is with the US, which remains far ahead in its nuclear capabilities vis-à-vis India. Further, China's nuclear force remains much smaller than that of the US and Russia, and therefore it has been reluctant to engage with the latter two in the New START Treaty. It is also unlikely that China would engage in any Confidence Building Mechanisms (CBMs) with India until it recognises India as a Nuclear Weapons State.

There is a possibility of resistance from India as well; New Delhi has remained out of several arms control treaties such as NPT and the Comprehensive Nuclear Test Ban Treaty (CTBT) for their discriminatory nature. New Delhi in the past has complained about being unfairly targeted by the non-proliferation treaties and export control and technology denial regimes and, therefore, perceives them as ineffective at best and discriminatory at worst, based on their formulation and enforcement.[37] Nevertheless, there is a possibility that India's enhanced nuclear capabilities and their credible deployment against China might force Beijing to engage in risk reduction measures.[38]

Much like the dynamics of deterrence, the prospects of arms control measures are interrelated; the arms control measures need to be initiated amongst China, Russia and the US, to be able to trickle down to the China-India dyad. The prospects of arms control and disarmament remain unlikely

37. Manpreet Sethi, "Nuclear Arms Control and India: A Relationship Explored", Arms Control Association | The Authoritative Source on Arms Control Since 1971, https://www.armscontrol.org/act/2010-09/nuclear-arms-control-india-relationship-explored. Accessed on May 10, 2020.

38. Manpreet Sethi, "Nuclear Arms Control and the Global Order: A View from New Delhi", Toda Peace Institute, 2019, https://toda.org/assets/files/resources/policy-briefs/t-pb-53_manpreet-sethi_nuclear-arms-control-view-from-new-delhi.pdf

until the US and Russia make concessions to pull China into an agreement, and similarly thereafter have India and Pakistan follow suit.

CONCLUSION

The article has sought to analyse the consequences of China's nuclear capabilities and posture on South Asia as well as delineate its nuclear strategy towards India and Pakistan. The article argues that while China-India dyad appears stable owing to their postural similarities, it faces pressure from China's nuclear dynamics with the US, as well as Beijing's security concerns emanating from New Delhi. It also sought to explain how China seeks to arm Pakistan with nuclear weapons to complicate India's security, and thus create a balance of power in South Asia. The article has done so by tracing the dynamics within interrelated nuclear dyads, which has been referred to as a strategic nuclear chain. The article contextualised the nuclear chain in the light of the nuclear modernisation by the US and China wherein the deployment of the BMD shields by the former has prompted the latter to develop countermeasures such as HGVs and MIRVs. The competition between the US and China is destabilising for South Asia as India, by virtue of sharing the dyad with China, is pulled into the offence-defence spiral vis-à-vis the latter. China, at the same time, has been providing Pakistan with MIRV technologies to complicate India's security.

The article uses the dynamics of the strategic nuclear chain to analyse the role of China in the future of deterrence in South Asia and assesses the prospects of nuclear arms control in the region. It suggests that the theatre of nuclear deterrence may spread to the Indian Ocean Region, especially as China has made rapid advancements in its nuclear submarine, and with India expected to enhance its sea-based leg capabilities to draw the strategic equilibrium in the region. With regard to the prospects of nuclear arms control, the article suggests that given the complex interrelation of the deterrence dynamics, the arms control measures need to be initiated between China, Russia and the US, to be able to trickle down to the China-India Dyad.