

Rational deterrence and crisis stability

A case study of Indo-Pakistani nuclear deterrence over 20 years

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Abstract

This MA thesis applies a qualitative case study to assess Kenneth Waltz's rationalist emphasis on nuclear deterrence and crisis stability: that the spread of nuclear weapons provides stability and leads to more secure relations between conflicting rivals. The thesis situates close to the debate between Waltz and Scott Sagan in their book "The Spread of Nuclear Weapons – A debate renewed" on crisis stability in the Indo-Pakistani conflict. Unlike Waltz and Sagan's debate, which draws on evidence from the entire span of the conflict, this thesis works to assess Waltz's three requirements for effective deterrence to two isolated cases from after India and Pakistan's official nuclear turn in 1998. Followingly, it examines how Waltz's requirements can explain the dynamics of the conflict over time by comparing the observations from both cases.

The first case is the Kargil war in 1999, where Pakistani forces infiltrated Kargil in Indian administered Kashmir. After three months of fighting between Pakistani and Indian conventional forces, the war ended with Pakistan's withdrawal. For this first case, Pakistan as the aggressing state is assessed to the three requirements to observe whether Pakistan effectively deterred India and made it limit the fighting to areas surrounding Kargil. The second case is the Balakot crisis in 2019, where India reacted to what it conceived as a Pakistani-sponsored suicide-bombing in Pulwama, India, by conducting airstrikes inside Pakistan near the town of Balakot. After enduring dogfights between the Pakistani air force (PAF) and the Indian air force (IAF), where a Pakistani pilot was shot down and imprisoned by India, the countries threatened escalation by firing missiles. The de-escalation of the crisis followed when Pakistan released the pilot back to India. For this second case, India as the aggressing state is assessed to the three requirements to observe whether India effectively deterred Pakistan. The thesis operationalises a set of indicators from each of the three requirements, as a step to grappling challenges connected to measurement validity. It uses open-accessed documents as the empirical data, allowing others to replicate the study as a step to secure reliable measures. By observing open-accessed documents to the set of operationalised indicators, the thesis concludes that the evidence indicates that neither Pakistan during the Kargil war nor India during the Balakot crisis met Waltz's three requirements for effective deterrence. Assessing the cases as isolated to the requirements neither can be characterised as a case of deterrence success. It encourages future research to consider how international actors' meddling indirectly affected the de-escalation of the crises as measures aside from Waltz's three requirements for effective deterrence.

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With wonderful years spent on my bachelor's at the Norwegian University of Science and Technology, and my master's here at the University of Oslo, this MA thesis concludes my five years of higher education.

Since opening a blank document in august 2020 and typing the first words, the thesis has been a constant preoccupation. It has more than once brought me to pen and paper – at any hour, day or night, seven days a week – to write down what I considered important elements for the thesis' continuance. Throughout, the process has been one of constant learning and inspiration. It's been hours of reading, writing, and of course, hours of re-writing to finally have arrived at the finish line and look down at these sheets of paper, proud to call them my final product.

The thesis gradually found its shape at a kitchen table at home, where I have spent several months writing in the rounds of lockdowns during this global pandemic. Thanks to the encouragement and feedback from my supervisors, I always had the motivation to push on. So, thank you, Prof. Kristin Ven Bruusgaard and Prof. Janne Haaland Matlary. I am truly grateful for your support and expertise. I would also like to thank Oslo Nuclear Project for funding my thesis, for their MA workshops, and for offering truly intriguing online seminars on a weekly basis evolving around topics on deterrence. It indeed fed my interest and created new fascinations for international relations and deterrence during the process of writing my thesis.

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All mistakes and omissions in this thesis are my own.

Jonas Utseth Peitersen

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1 Introduction

Deterrence theory attains great attention in political science academia on questions regarding conflict and security. As R. Jervis once argued, it is “probably the most influential school of thought in the American study of international relations”, especially from the momentum provided by the nuclear revolution and the introduction of nuclear deterrence (Jervis, 1979, p. 289). Here, rational deterrence theory – which asserts states as rational actors - has since been applied to suggest bold measures for enhancing security among states, maintaining that the spread of nuclear weapons will only work to create stability between conflicting rivals. The emphasis is that states as rational actors will always act to minimise the costs of fighting, and when nuclear deterrence is effective, they step down from escalating a conflict (Tow, 2014). Military threats reduce the chance of war by persuading the attacker that the outcome will be both costly and unsuccessful (Huth, 1999). It is possible to highlight several examples from analyses where rationality is considered a fixed value among the actors:

J. Mearsheimer argued towards the end of the Cold War that to prevent conflict in post-cold war Europe, Germany should attain a nuclear capability (Mearsheimer, 1990). K. Waltz emphasised that a nuclear Iran would enhance stability throughout the Middle East (Waltz, 2012). Another example from Waltz, he argued in his debate with S. Sagan how the Indo-Pakistani conflict’s nuclear turn should be celebrated. His emphasis is that nuclear weapons have ensured overall stability to the conflict: “with nuclear weapons added, conventionally dangerous and unstable situations become safer and stabler ones” (Sagan & Waltz, 2003, p. 114). In the book ‘The Spread of Nuclear Weapons – a debate renewed’, where this latter example appears, Waltz argues that for deterrence to be effective, the state must meet the three following requirements:

- (1) At least a part of a state’s nuclear forces must appear to be able to survive an attack and launch one of its own.
- (2) The survival of a state’s forces must not require early firing in response to what may be false alarms.
- (3) Command and control must be reliably maintained; weapons must not be susceptible to accidental or unauthorized use.

(Sagan & Waltz, 2003, p. 20)

This thesis applies a case study to assess the three requirements for effective deterrence and examine whether nuclear weapons seemingly have stabilised the Indo-Pakistani conflict.

Both India and Pakistan first officially declared themselves as nuclear powers in 1998 (Geller, 2003). The thesis analyses two crises after this official turn. The first case is the Kargil War in 1999, which was the first war ever fought between two nuclear states. The second case is the Balakot crisis in 2019, where a suicide bombing conducted by what India interpreted to be a Pakistani-backed militant group killed plural Indian police personnel. It resulted in India launching airstrikes on Pakistani territory, followed by retaliatory airstrikes from Pakistan on the Indian side of the Line of Control (LoC) and an Indian pilot's captive. After rounds where both sides uttered threats of severe escalation towards each other, Pakistan freed the pilot and thereby de-escalated the crisis.

The thesis assesses the requirements and examines their fit to the two crises to evaluate whether they are cases of deterrence success: That effective nuclear deterrence successfully prevented the crises from escalating. It works to assess Waltz's emphasis and observe whether the empirical record fits the theoretical expectation: Nuclear deterrence has had a stabilising effect on crises that prevents escalation to total war.

Since the Indo-Pakistani conflict's nuclear turn, both states have continuously signalled a potential for nuclear escalation during small crises – either from hints, statements, or observable preparations beyond normal peacetime status (Sasikumar, 2019). Therefore, the two crises are vitally important cases to examine to Waltz's emphasis. In conducting a case study, the thesis assesses the fit between the theoretical view and the actual reality to observe if deterrence was effective and thereby excluded escalation to the strategic level as a possible scenario. The thesis works to conclude whether the three requirements are sufficient to explain the dynamics in the crises and whether they can be marked as cases of deterrence success. After assessing Waltz's emphasis in a case study, the thesis compares the findings to conclude whether there is variation between them. In conducting the analysis, the thesis works to answer the following question:

How can Waltz's requirements from rational deterrence theory explain the dynamics of the Indo-Pakistani conflict over time? Are the Kargil war and the Balakot crisis cases of deterrence success?

1.2 Situating the thesis to the existing literature

Other than Waltz and Sagan's debate, nuclear deterrence and crisis stability in the Indo-Pakistani conflict is the topic of a large section of existing international relations literature. To name but a few notable contributions: V. Narang has worked to identify the shifting nuclear postures of Pakistan and their meaning for stability in South Asia (2010) and on clarifying the complications Indian proliferation has had its no-first-use policy (2013). S. P. Kapur has worked

on a comparison between a nuclear South Asia and Cold War Europe (2005). In another study, he examined nuclear proliferation in India and Pakistan and its implications for regional stability (2007). Furthermore, Kapur has conducted an impressive work on observing nuclear deterrence over ten years in marking the tenth anniversary of the Indo-Pakistani conflicts nuclear turn of 1998 (2008), where his comparison between deterrence optimists and pessimists' outlooks on stability in the Indo-Pakistani conflict marks a partial resemblance to this thesis' contribution. It is also true for C.J. Watterson's work on assessing competing interpretations of the stability-instability paradox in the Kargil war (2017). Still, assessing Waltz's requirements for effective deterrence, this thesis contributes to the existing literature. Using the existing literature's important and clear-cut empirical data to a critical assessment of Waltz's requirements allows the thesis to draw new comparisons.

Waltz and Sagan's debate on crisis stability in South Asia is the topic from one of the chapters in their book "The Spread of Nuclear Weapons – A debate renewed". Their debate, similar to this thesis, is based on Waltz's requirements. Thus, the thesis works to test Waltz's theory by using the exact requirements and applying them to the same conflict. Still, it is possible to highlight some essential distinctions that serve as the thesis' original contribution. Waltz and Sagan form their findings on evidence encompassing empirical data derived from the entire span of the conflict's nuclear dimension. In contrast, this thesis critically assesses two isolated crises as cases of their own importance. It examines the fit between empirical observations and the theoretical emphasis of the requirements and crisis stability. Further, and marking another original contribution: the thesis compares the observations from the two cases, twenty years apart, to examine whether it is possible to find any variation between them. It can thereby work to conclude if time has played a critical component in shaping the conflict's nuclear dimension and whether it had grown to become more stable or less stable in 2019 than in 1999.

In debating the Indo-Pakistani nuclear dimension, Waltz argues that the weapons have made the situation more stable, claiming that nuclear deterrence has ensured a continuous period of stability and prevented an upsurge of new clashes. He states that secure second-strike capabilities and the fear of nuclear destruction have drawn the adversaries back from the brink of war on several occasions (Sagan & Waltz, 2003). From his optimist outlook, Waltz emphasises the following:

... one wonders why the spread of nuclear weapons to South Asia should have had rather than good effects. What differences in the situation of India and Pakistan may cause their fates to depart from the nuclear norm? If they and their situations are different,

then the happy history of the nuclear past does not forecast their futures (Sagan & Waltz, 2003, p. 116).

On a more pessimistic note, Sagan argues to the contrary, stating how it is only luck that prevents the adversaries from engaging in wars that would spiral out of control and end in a nuclear holocaust. Sagan argues that there exists no stable nuclear balance between the combatants. He emphasises that the nuclearization of the conflict fails to deter conventional attacks and only allows India and Pakistan to carry out more offensive actions. Under what the adversaries perceive as nuclear protection, they will inevitably cross the nuclear threshold as the going gets rough. Sagan thus emphasises that this, in turn, must bring one of the sides to launch a nuclear attack (Sagan & Waltz, 2003). The debate on deterrence is seemingly stuck somewhere in the middle of the two interpretations of the nuclear dimension of the conflict. Therefore, by assessing the requirements in a case study, the thesis can provide salient impetus to one of the most important contemporary debates on nuclear deterrence.

1.3 Structure of the thesis

The thesis comprises a total of 6 chapters. In the introductory pages above, the chapter used the first parts to clarify the emphasis of rational deterrence theory in international relations academia, for situating the thesis to existing literature, and elaborating on Waltz and Sagan's debate on crisis stability in the Indo-Pakistani conflict and highlighting the importance of assessing their theoretical thinking to empirical cases. It presents the aim of this thesis: to critically assess Waltz's requirements posed from rational deterrence theory to two cases from the Indo-Pakistani conflict. Before conducting the work, this last part of chapter 1 presents the structure of the thesis.

Chapter 2 provides information on the background of the Indo-Pakistani conflict and its nuclear turn. It divides into the following sections: 2.1 elaborates on the history to present why India and Pakistan have been locked in a state of war for more than seventy years and why it seems to be no resolution in sight. Following, 2.2 elaborates on India and Pakistan's turn towards nuclear weapons and their terrifying potential to better understand why it is of the utmost importance to study the means of nuclear deterrence in relation to this conflict. 2.3 presents both state's nuclear doctrine. Lastly, 2.4 and 2.5 outlines the background of the thesis' two cases: the Kargil war and the Balakot crisis.

Chapter 3 elaborates on the theoretical framework and presents literature on nuclear deterrence and rationality. It divides into the following sections: 3.1 includes an overview of the origins of

deterrence and its gradual change as an international relations theory. 3.2 presents ‘credibility’ and ‘capability’ as two general components of deterrence. 3.3 presents ‘deterrence by denial’ and ‘deterrence by punishment’ as two separate categories of deterrence. Following, 3.4 elaborates on rational deterrence theory with reference to Waltz’s emphasis. Lastly, 3.5 presents the stability-instability paradox and connects it to research on crisis stability in the Indo-Pakistani conflict and the debate between Waltz and Sagan.

Chapter 4 clarifies the research design and method of the thesis. It divides into the following sections: 4.1 presents the qualitative case design and argues why a crucial case study and the use of most-likely cases is an appropriate approach for assessing the requirements for effective deterrence. It discusses the implications of the case study design, the data collection, and the use of open-accessed sources, and highlights validity and reliability throughout. 4.2 operationalises Waltz’s requirements. It identifies observable indicators and illustrates a model of the operationalisation in the final parts of the chapter.

Chapter 5 analyses the two cases in observing the operationalised indicators to empirical data from the period. The chapter divides into the following sections: 5.1 analyses the Kargil war and conducts a step-by-step assessment of each requirement focused on Pakistan as the aggressing state before its last segment summarises the findings. 5.2 analyses the Balakot crisis and conducts a step-by-step assessment of each requirement focused on India as the aggressing state before its last segment summarises the findings.

Finally, chapter 6 discusses the results and their relevance. The chapter divides into the following sections: The discussion in 6.1 compares the thesis’ findings by seeing similarities and differences between the two cases in relation to the thesis question. The conclusion in 6.2 summarises the thesis and answers the research question.

2 Background

This chapter elaborates on the background of the Indo-Pakistani conflict, the nuclear turn, and the dangerous ramifications of a nuclear war on the South Asian peninsula. It continues by presenting India and Pakistan’s nuclear doctrine and thereafter provides the background on the two cases: the Kargil war and the Balakot crisis.

2.1 Kashmir – The heart of the conflict

India and Pakistan formed following the bloody partition of British-India in 1947. The two sides had, up to that point, coexisted under British rule. After the Empire’s retreat, the nations were

left to their own devices to violently clash to settle their differences (Kapur, 2007). India and Pakistan have since remained in a state of war. In covering the period from 1946 to 1976, D.S. Geller finds that 393 militarized disputes of various duration and severity occurred between them (Geller, 2003). In more significant confrontations, the two adversaries have fought four wars. Of these, three major ones: the first in 1947, the second in 1965, the third in 1971, and a fourth limited war in the Kargil district in 1999. From 2003 a tenuous ceasefire has been holding, but skirmish attacks prompted by terrorist insurgencies and border stand-offs still occur infrequently in the regions of Jammu and Kashmir (CFR, 2020). To this day, India alleges that the Pakistani government secretly sponsors all forms of terrorist activity along the Line of Control (LoC) and inside its territory as a way for the state to wage proxy warfare, something that Pakistan continues to deny (Mitra, 2001). As for the population of India-administered Kashmir and their current situation: due to the continued violence in the region, they remain under heavy restraints consisting of curfews and shutdowns of all lines of communication and continuously witness the arrests of political leaders (Aljazeera, 2019).

To this day, it is clear what remains at the heart of the conflict: Its ceaseless continuance roots in the unsettled dispute over the region of Kashmir (Raghavan, 2010). It stems from a bitter disagreement over who has the rightful claim to the region and how it initially came under Indian rule.

The decision of the maharaja of Kashmir of signing accession into India in 1947 is still considered an illegal move by the Pakistani government. The Pakistani government emphasises that India's refusal to let Kashmiris vote on the matter is a clear violation of human rights and a steal of the self-determination of the people (Kapur, 2005). Out of a people where more than ninety percent are Muslim, it is possible to expect that should they be given a referendum, then Kashmir would no longer be Indian (Singh, 1995).

As Indian author T. Singh writes in the preface of the book 'Kashmir: A Tragedy of Errors', the territory of Kashmir is unique to both India and Pakistan and thus remains a significant factor at the very core of the unfinished business from the partition of British India. If the nations cannot solve their problems, the consequences of continued conflict would be devastating for the two countries, especially for the Kashmir region (Singh, 1995). Singh writes that the problem of settling any agreement can be traced back to understanding India and Pakistan's fundamentally different opinions on the meaning of Kashmir for their national self-image. Based on these opinions, both nations persist in stating that they have a valid claim to all of Kashmir:

It is special to Pakistan because it symbolizes the unfairness of a division, based on Islam, which left a Muslim majority state contiguous to Pakistan in India. ... Kashmir is special to India because it is seen as the most important proof of Indian secularism. The fact that Muslim Kashmir chose secular India over the Muslim homeland, 'the land of the pure' that Mohammad Ali Jinnah carved out of the subcontinent to protect Muslim interests, was in Indian eyes a powerful vindication of Indian secularism. It also nullified Pakistan's *raison d'être* (Sing, 1995, xi).

2.2 The Indo-Pakistani conflict's nuclear turn

To understand the gradual nuclear turn of the conflict, we must first see India's relations with China. The predominant factor for India to develop a nuclear programme was to match the growing threat posed by China. India sought ways to avoid nuclear coercion after China successfully detonated its nuclear tests in 1964 (Thayer, 1998). Secondly, it sought ways to grapple with a steadily stronger Pakistan after China emerged to play the role as its main arms-supplier from 1965 (Pant, 2007). Thirdly, as India had built its military efforts on patrolling both the border of Pakistan and the border of China, it led to a gradual two-front problem, where even the combined might of India's conventional forces remained limited in the event of a new crisis. It worked to push developments for India's own nuclear programme (Paul, 2006). As for Pakistan, following the defeat to India in the 1971 war, where it lost East-Pakistan to the newly formed nation of Bangladesh, the initiation of a planned nuclear weapons program was set in action as a result of seeing India as a continuously more powerful adversary. It was a way to tackle India's conventional might and match their newly acquired nuclear power (Hoodboy & Mian, 2002), and as a way to compete that economically speaking came at a lower cost than the development of sophisticated conventional weapons did (Waltz, 2003).

India and Pakistan would continue to develop their nuclear programmes to the extent where they both had the means to engage in nuclear conflict if given the motives to do so. In the late 1970s and early 1980s, both had worked to acquire the needed fissile materials for making ballistic missiles that could deliver nuclear warheads (Perkovich, 1993). In May 1998, the two states conducted eleven nuclear tests between them: five underground detonations by India and six underground detonations by Pakistan. Though India had had a nuclear capability since 1974, and Pakistan acquired its capability in the mid-1980s, it was after the May 1998 detonations that the two states officially demonstrated their weapons capability and declared themselves nuclear powers (Diamond, 1998).

Today, the situation remains dire. The shared border between India and Pakistan makes for short reaction times to possible launches, where missiles can fly between each's capital in less than five minutes (Waltz, 2003). The fact that both states have worked to develop strike-aircrafts and ballistic missiles that could reach virtually all its adversary's territory makes for a truly terrifying situation (Geller, 2003). A nuclear confrontation would, as D.S. Geller warns, "produce a level and type of destruction not witnessed since the end of World War II" (Geller, 2003, p. 147). Even the devastation from a small nuclear exchange poses a severe threat: An unfathomable loss of human lives will follow as an effect not only from the immediate detonation but also from the firestorms, emissions, and radiation that would persist in the following aftermath (Lalwani, 2021). With Kashmir being at the centre of the conflict, crisis along the LoC continues to have substantial implications for nuclear stability and security in the subcontinent. Kashmir could very well function as the trigger for a future nuclear exchange between the adversaries (Cotta-Ramusino & Martellini, 2002).

2.3 Nuclear doctrines

A nuclear doctrine officially declares the state's "goals and missions that guide the deployment and use of nuclear weapons" (Ingram, 2019, p. 1). Building towards an analysis of the Kargil war and the Balakot crisis and assessing the cases to the requirements for effective deterrence, it is essential to present India and Pakistan's developments of its nuclear doctrine.

Although testing a device already in 1974, India first operationalised an assured retaliation posture in the late 1980s, when it had developed more perfected missile delivery systems (Narang, 2010). Almost a decade later, though not fully incorporated and finalised as an official policy before 2003, India's initial drafts of the most salient aspects of its nuclear doctrine were announced following its successful tests in 1998. Here, India declared that it would never launch the weapons on non-nuclear states. Most central to the drafts: India adopted a policy of no first use (NFU), meaning it will only use nuclear weapons to retaliate a nuclear attack on Indian territories (Pant, 2007), with the important caveat that it can use the weapons if an enemy rams Indian forces with biological or chemical weapons (Sundaram & Ramana, 2018). A. Tellis described the minimum-deterrent posture as a 'force-in-being', where a dispersed but available nuclear capability could be assembled and fired during a supreme emergency (Tellis, 2002). Though the NFU policy is still central in India, recent developments complicate the doctrine. As it is later argued in observing the Balakot crisis: by refining its nuclear programme and continuously proliferating its overall capability, India is revisiting the doctrine's core aspects.

Pakistan has never announced a comprehensive nuclear doctrine because it, as stated by S.M. Mazari, “does not see a political/status utility for the nuclear capability – rather, it envisages the nuclear capability as having a purely defensive, security-related purpose” (Mazari, 2004, p. 5). However, in a 2002 statement, Retired General K. Kidwai, a former member of the National Command Authority in Pakistan (NCA), the authority in command of the nuclear arsenals and control of its developments, set out to specify the conditions for nuclear use. He made the statement to a team visiting Pakistan from the Italian arms control institution ‘The Landau Network-Central Volta’. The emphasis was that Pakistan’s nuclear deterrent was aimed solely at deterring India. General Kidwai listed four possible scenarios where Pakistan would launch its nuclear warheads: (1) The space threshold: If India attacked and conquered large parts of Pakistan’s territory, (2) The military threshold: If India destroyed large portions of Pakistan’s military forces, (3) The economic threshold: If India worked to ruin Pakistan’s economy, by naval blockades or other sieges that would function as ‘economic strangling, and (4) The domestic-destabilizing threshold: If India created internal subversions and political destabilisation in Pakistan (Cotta-Ramusino & Martellini, 2002). These scenarios remain only hypothetical and do not define clear lines that India must cross to trigger a nuclear launch. As stated by E. Haider, it could be that Pakistan has served to not clearly defined these lines as it would only serve to “dilute deterrence and provide room for conventional manoeuvring” (Haider, 2019, par. 16)

Pakistan has had three turns to its posture as reactions to changes in India and the threat the Pakistani government believed it posed to Pakistan. With its ambiguous nuclear capability in the 1980s, Pakistan initially adopted a catalytic posture, where it exploited its alliance with the U.S as a third party (Narang, 2010). Pakistan envisioned it could use the strategy to trigger U.S. mediation in the advent of a crisis by signalling that it contemplated using its incomplete nuclear capability. The catalytic posture was shortly proven inefficient after India continued developments on its systems throughout the 1990s, and the U.S. could not consequently be relied upon as a mediator. Therefore, Pakistan pushed developments of its own, turned away from its catalytic posture, and adopted a new strategy (Narang, 2010). Pakistan, like India, declared a strategy based on a minimum deterrent posture following its 1998 test detonations, aimed at deterring any perceived existential threat posed by India. In 2013 it again opted to change its deterrent posture and announced that it would shift to deter *all* scenarios with India, both limited and full-scale attacks, by adopting a ‘full spectrum deterrence capability’ (Tasleem & Dalton, 2018). For Pakistan, its means of deterrence is thus purely bilateral. It intends to

establish a deterrent and alter that deterrent whenever needed to make all-out conventional war against India impossible (Mazari, 2004).

2.4 The Kargil War in 1999

This section presents the background of the first case: The Kargil war in 1999. The incident came almost to the year after India and Pakistan officially demonstrated their nuclear capabilities to the world. The Kargil war was the fourth war between India and Pakistan since independence from British-India in 1947, and the first and- to this date only-ever to be fought directly between two nuclear states (Malik, 2009).

Though it is not clear to the exact date, Pakistan is assumed to have secretly conducted a reconnaissance mission inside the Indian parts of Kashmir as early as October 1998. The operation lay the groundwork for the larger incursion into the region that sparked the Kargil war in May 1999 (Gill, 2019). Patrols of Pakistani soldiers backed by mujahedeen guerrilla-forces, had by then moved several miles into the Indian side of the LoC, seized the highland areas to make fortified positions near the city of Kargil, before finally being confronted by Indian military forces (Watterson, 2017). The first Indian patrol units to confirm that the aggressors were troops from the Pakistani military got ambushed, leaving several soldiers dead (Lambeth, 2012).

Pakistan's intentions in crossing into India were to regain areas it had lost in the 1965 war: areas of Kashmir populated by a pro-Pakistan population with close ethnic ties to nearby areas on the Pakistani side of the LoC (Chari, 2009). In the shadow of the prime ministerial summit in Lahore in Pakistan, in February 1999, Pakistani generals had already started moving troops across the LoC. The Lahore Summit was held in hopes of settling the malicious past of the new nuclear states. India and Pakistan here signed a nuclear control treaty to establish risk-reduction measures through confidence building. However, as J.H. Gill finds, by the Pakistani generals' decision to move soldiers into the Indian side of the LoC without Prime Minister Sharif's knowledge, they were "creating the incursion that would lead to open warfare in less than 3 months" (Gill, 2019, p. 704). Thus, the conciliatory move of signing the Lahore declaration quickly evaporated by the outburst of the Kargil war (Wheeler, 2010).

By capturing the Kargil heights, Pakistan wanted to control the Srinagar-Leh Highway and cut off the connection to its north-eastern route, where Indian military forces were stationed in the heights of the Siachen Glacier (Chari, 2009). B.S. Lambeth emphasises that this was a strategized move, where Pakistan hoped to gain a territorial victory without setting off a new large war. By controlling roughly 130 outposts, encompassing areas near Kargil and a frontage

of 120 miles almost 6 miles inside India, the Pakistani military sought to make substantial gaps between the divisions of Indian forces. These gaps would then result in a prolonged effort from India to mobilise. Pakistan envisioned that the manoeuvre would provide enough time for the international community to intervene diplomatically. International meddling was by Pakistan seen as a highly possible scenario due to the immense dangers of any deterioration of the crisis, given the new nuclear dimension in Indo-Pakistani relations (Lambeth, 2012). Pakistan expected that the pressure from international actors on Indian Prime Minister Vajpayee, would have India not seek conflict. It would ensure that the situation would not move towards a nuclear confrontation: Hoping it would thereby leave Pakistan “comfortably in possession of a territorial *fait accompli*” (Lambeth, 2012, p. 292). From any intervention from the international community, Pakistan hoped that the pressure mounted on India would inevitably make the Indian government concede in giving the Muslim-populated territories of the Kashmir-valley greater autonomy. It would make independence possible in the long run and have the area come under Pakistani influence due to religious connections and close ethnic ties between them (Chari, 2009).

Having identified the insurgents as Pakistani soldiers first late in May, India initiated a response. India reinforced the LoC, moved quantities of large artillery batteries into the combat zone, and readied infantry divisions and air force units for a large offensive operation, should the order be given from New Delhi (Bell, 2019). In combined numbers, India had by the last week of May mobilised approximately 200 000 troops to the sector. After having faced numerous fatalities in its efforts of recapturing the outposts, India used airpower to turn the tide of battle. It was something that India had not done since the 1971 Indo-Pakistani war (Lambeth, 2012). Following more than two months of intense fighting and a combined death toll of over a thousand soldiers, Pakistani forces fell back into Pakistan in July 1999, thereby ending the war (Lavoy, 2009). Prime Minister Sharif ordered the retreat after being influenced by US diplomatic pressure in his meetings in the White House with President Clinton (FAS, 2002). The surrender of Pakistan later cost him his position as prime minister following a military coup in October of the same year (Shafiqat, 2009).

2.5 The Balakot Crisis in 2019

This section presents the background of the second case: The Balakot crisis in 2019. Among the series of terrorist attacks on Indian targets throughout the 2000s and 2010s, India had employed its strongest retaliatory measures yet following the 2016 terrorist attack on an army base in Uri, Indian Kashmir. Following the Uri attack, India retaliated by conducting surgical

strikes inside Pakistani administered Kashmir. However, in the aftermath of the 2019 Pulwama suicide-bombing, India chose to up the ante and apply even stronger measures by ordering a strike on targets in Balakot, inside Pakistan. As M.W. Yusuf asserts, the steps India took in retaliating the suicide-bombing broke with its previous restraints: Executing the manoeuvre, India “signaled a willingness to cross new frontiers” (Yusuf, 2019, p. 6). The bombing of Balakot made history as the first-ever where a nuclear power conducted airstrikes inside another’s territory (Danziger, et al., 2020).

A growing frustration on former governments’ restrained responses towards terrorist attacks in India had the ruling Bharatiya Janata Party (BJP) make an electoral promise in building towards the 2019 Indian election. Having served its first term in office from 2014, the right-wing BJP had since worked to punish Pakistan for allowing the spread of terrorism targeted on India (Kaura, 2020). If re-elected in 2019, the BJP promised to make an even tougher stance towards Pakistani terrorists a central prospect of the making of India’s future. BJP demonstrated this assertive type of response at the peak of the electoral campaign: in the reprisal against the terrorists responsible for a suicide bombing in Pulwama, Kashmir, on February 14 (Noor, 2020). The response came within two weeks of the terrorist attack after Indian intelligence allocated the hideouts of Jaish-e-Mohammad (JeM): the Pakistan-based terrorist group that claimed responsibility for the suicide bombing, killing more than 40 Indian paramilitary forces. Targeting JeM training camps in Balakot, Indian jets crossed into Pakistan on February 26 and conducted airstrikes on Pakistani soil for the first time in over half a century (Tallo, 2019).

India’s decision to strike targets inside Pakistan moved the situation towards gradually becoming the most dangerous the Indo-Pakistani conflict has experienced in decades (Panda, 2019). By moving its retaliation away from areas along the LoC in Kashmir to cross the international border and hit targets on Pakistani territory, India altered the ‘rules of the game’. Indeed, it was a way for the BJP government, headed by Prime Minister Modi, to lay the foundation for a strategic shift in deterrence. India used its retaliatory measures to signal how it would react to any future terrorist attack sponsored by the Pakistani state (Dwivedi, 2019).

The day after the bombing in Balakot, Pakistan responded in a tit-for-tat manner by launching jets to cross into Indian administered Kashmir to conduct airstrikes. It led Indian and Pakistani air forces to engage in combat. The dogfights ended with one Indian jet shot down on the Pakistani side of the LoC, where its pilot was taken prisoner (Mukherjee, 2019). After a few days in captivity, the pilot was returned to India, where the Pakistani government uttered that the decision was a “gesture of goodwill and peace” (Kaura, 2020, p. 281). The release of the

pilot thus functioned to mitigate the intensity of the crisis. Though it came to an end at this point, the crisis could presumably have erupted if Pakistan had acted differently. In the days before the pilot's release, both India and Pakistan voiced serious military threats towards each other, thereby presenting the far worse possible scenario of overall escalation.

India is believed to have deployed one of its nuclear submarines at the height of the crisis and readied combat units. As found in reading a statement by the Indian Navy: "nuclear submarines, and scores of other ships ... swiftly transited from exercise to operational deployment mode as tensions between India and Pakistan escalated" (Indian Navy, 2019, par. 2). Further, a Reuters report found that both states threatened conventional escalation of the conflict by firing missiles on each other (Miglani & Jorgic, 2019). In its warnings towards Pakistan, Prime Minister Modi repeatedly asserted that India was prepared to fire missiles and bring upon Pakistan "a night of murder" (Lewis, 2019, par. 4) if it did not return the pilot. Reacting to the threats, Pakistani Prime Minister Khan stated that Pakistan would respond to an Indian strike "three times over" (Lalwani, 2021, par. 9). Though the threats seemingly were 'only' based on conventional weaponry, a possible missile exchange would have remarkable potential for provoking nuclear escalation between India and Pakistan (Haider, 2019). A worst-case scenario could thereby have gradually escalated the Balakot crisis and triggered the next war by having the states climb the escalation ladder towards finally firing nuclear warheads.

There are different opinions on how the de-escalation of the crisis came about. For one, V. Kaura argues that it is likely that Pakistan's decision to step down was an outcome of diplomatic intervention by the US, Saudi Arabia, and the United Arab Emirates, who "may have persuaded Pakistan amidst growing concern that further captivity of the Indian pilot in Pakistan would only escalate the conflict" (Kaura, 2020, p. 281). Others find the perception of *direct* intervention by the US and other nations to be mistaken (Tellis, 2019). The emphasis is here rather that Pakistan's decision to release the pilot came as an effect from its government seeing that it would be beneficial: It would shift the international narrative from seeing Pakistan as a terror-supporter and to a state in strong escalation control instead (Tallo, 2019).

For analysts participating in a workshop by 'Stimson Centre' on crisis dynamics in Southern Asia, most agreed that the de-escalation of the Balakot crisis followed as each side got what it wanted: India re-established deterrence by presenting it could punish Pakistan for not hitting down harder on domestic terrorists, while Pakistan demonstrated strength with its military being able to compete with India's by downing a jet, and thereafter returning the pilot as a noble gesture. However, the consensus among the workshop participants was that the de-escalation

of the crisis could not have followed without a share amount of simple ‘luck’ (Danziger et al., 2020). This emphasis is interesting to note when turning to the assessment of Waltz’s requirements: The fit between India’s nuclear capacity and the requirements must be clear as to assert that it was effective deterrence that hindered further escalation, not luck.

3 Deterrence theory

To assess Waltz’s requirements to the two cases, an understanding of deterrence as an international relations theory is important.

This chapter presents the origins of deterrence and the nuclear turn by consulting traditional literature. Followingly, it highlights the terms ‘credibility’ and ‘capability’ as central and necessary components of deterrence. Further, it splits deterrence strategies to belong within two categories: ‘deterrence by denial’ or ‘deterrence by punishment’. It builds its way towards Waltz’s rationalist perspective. It presents rational deterrence theory and Waltz’s emphasis on how deterrence creates stability, as first mentioned in the introduction of the thesis. Finally, the chapter conceptualises the debate on crisis stability in the Indo-Pakistani conflict to one of the great international relation theories on deterrence: the stability-instability paradox.

3.1 The origins of deterrence

In generating security, a state can go a long way. As A. Collins argues, it will first seek to attain security by defence, then “deterrence is generally the next priority” (Collins, 2016, p. 154). Defence is sought to minimise the damage once attacked. Deterrence works aside from this logic where merely the threat of retaliation prevents intrusion on the state (Collins, 2016). Deterrence involves the aspect of dissuading someone from engaging in conflict simply by coercing the counterpart to step down by applying threats of retaliating with a crushing force, should aggressive acts occur. It is read, G.H. Snyder argues, as a species of ‘political power’, where “deterrence is simply its negative aspect. It is the power to dissuade another ... by the threat of applying some sanction” (Snyder, 1960, p. 163). A state raises these sorts of threats against a potential enemy who considers launching an attack. A threat is then simply a signal of the assertion to hurt unless the threatened acts as proscribed (Hovi, 1998). This ‘power-play’ consisting within the use of deterrence can be read as a sub-string of realism as a grander international relations theory.

In the realist tradition, the international system is portrayed as anarchistic, where all questions of morality and justice are put aside, and the sovereign state does all in its power to ensure its

survival and preponderance (Jervis, 1989). The state strives to attain a mass of force that ensures it the ability to remain in control and allows it to influence international relations to fit within the frame of its own values (Snyder & Thompson, 2010). Thus, the realist nature paints a picture of the interaction between states and of international society as consisting within a self-help system, where every state must- and indeed will- seek to secure its own merits by attaining power. It echoes the famous words uttered in ancient Greece by Thucydides on the Athenian's right as a dominant power to rage a conquest of the island of Melos during the Peloponnesian War: "the strong do what they have the power to do and the weak accept what they have to accept" (as cited in Amstutz, 2005, p. 53).

In a lawless system consisting of anarchy, moral standards will eventually be broken. The realist argues that one must raise the stakes of conflict to the point where it is avoided. Arguably, national leaders can go a long way to protect what they hold dear. By making the international society aware of this fact in displaying a will and an ability to inflict damage on those who stand in its way, the state would, in effect, ensure its survival. Deterrence theory has been developed on this realist ethics and from the realist's pessimistic view on the nature of international relations.

The nuclear turn gradually worked to develop deterrence theory, where theorists contemplated the kinds of preconditions that were presumed necessary for maximizing the effectiveness of what had now become nuclear deterrence (Morgan, 2012). B. Brodie would be the first to describe the nuclear bomb as 'the absolute weapon' (Brodie, 1946), and theorists have since talked of it as having an immense and absolute quality. Arguably, by processing the severity that the nuclear turn entailed, the realist perspective and the trust in deterrence thrived. The nuclear turn made it easier to grasp the realist's ideas.

3.2 General components of deterrence

Two general components remain central in all readings of deterrence theory. In the section above, on the origins of deterrence, they were shortly introduced as an actor's 'will' and 'ability' to hurt. As they are widely accepted and used in deterrence literature, more precise depictions of these components are 'credibility' and 'capability': two distinct components in the source of political power (Snyder, 1960). For deterrence to be effective, an actor must perceive the threat as real. The threat must be *credible*, and the one threatening needs to have an actual *capability* to inflict the damage it threatens to inflict (Johnson, Leeds, & Wu, 2015).

Together, the two components make for what D. Sobelman defines as ‘deterrence communication’. It works to reflect structural elements of each competitor’s capabilities and its resolve, as it: “amplifies the psychological impact of military capabilities, and thus plays a role in manipulating the perception of threat and shaping assessments” (Sobelman, 2016, p. 151). The purposed effect of both components influences whether deterrence succeeds or fails. Deterrence failure occurs if a state escalates a conflict, believing it can avoid or control the damage the other state warns. Deterrence success occurs if the initiator believes that these calculations are not controllable in setting up an attack (George & Smoke, 1974). In failure, credibility and capability as components have failed to achieve an effect that obstructs conflict. In success, the components have succeeded in achieving the effect that inherently prevents conflict. As will become evident later in this chapter, the three requirements Waltz presents from his rationalist thinking are dependent on both. As such, it is prudent to understand the two components.

3.2.1 Credibility

In deterrence thinking, credibility denotes whether a threat seems consistent and if it ever would be carried out. Credibility is the perception by the threatened that the one who threatens would retaliate if set conditions are not met (Snyder, 1960). Respectively, credible threats are believable threats (Smokes, 1987). High levels of credibility signal both a commitment from the state raising the threat and an understanding from the threatened state of what is to happen if it acts defyingly.

Credible commitments do not only include the negative loaded aspect of threats but also of reassurance. As Sasikumar argues, “deterrence requires all parties involved to maintain the right balance between threat and reassurance” as measures of credibility (Sasikumar, 2019, p. 153). If credibility only consisted of threats, the adversary would do right in expecting the one communicating it to fire its nuclear weapons at the slightest provocation, which in effect would make the use of deterrent strategies naturally unstable (Sasikumar, 2019). What then remains as the absolute key for deterrence to succeed is to signal credible commitments by communicating them explicitly.

L. Freedman writes that for deterrence to work, state A must persuade state B that it would do best to act in ways that serve what inevitably would be the interests of them both. Even if the states are equally rational, the persuasion of state B might fail because it could misinterpret the signals that state A sends. Even if state B understands the threats somewhat correctly, it might still be unconvinced that any threats will be implemented into action. Therefore, if state A is

incomprehensible in voicing the threats, state B can remain confused and not sufficiently warned of what will come if it defies them (Freedman, 2004). Freedman uses the following analogy to present that if communication fails, so does the credibility of the threat:

A tourist in a foreign country comes upon a policeman who is trying to tell him not to enter a restricted area. The language is unfathomable, the gesturing confusing. The tourist walks on and is arrested. Deterrence has failed not because of wilfulness, or a cool calculation of risks, but because of complete incomprehension of the risk. Another tourist, this time from the same country, perfectly understands the policeman's message, but decides to reject it and is also arrested. The tourist claims he saw the stern admonitions accompanied by a friendly wink, and so decided that the threat was not serious ... Deterrence can fail because the target does not grasp the situation or is inclined to foolish interpretations. What is put into these threats may not be what is received (Freedman, 2004, p. 28).

As the quote presents, it is important to signal, without doubt, what is to come if the one threatened defies what is asked of him. It is arguably the very essence of credibility. Deterrence seeks to produce security by sufficiently signalling that a response to any aggression would make the potential action seem "disproportionately costly and therefore unattractive in the first place" (Collins, 2016, p. 155). As such, again borrowing from Freedman's analogy: for both tourists facing the policeman's threat, what is put into the threat *must* be what is received for it to be credible and for the tourists not to enter the restricted area.

3.2.2 Capability

Capability is a critical component in reducing the probabilities of military disputes (Johnson et al., 2015). A state plotting to attack another seeks intel to assess whether a potential conflict would be beneficial. By measuring the amount of available force of the other and comparing the other's abilities to that of its own, the aggressor can calculate the given costs and utility of conflict. If the capability of the other is such that the costs of fighting outweigh the utility, the state will step down (Fearon, 1995). As Sobelman argues, "inescapable military capabilities are thus conducive to stability at the strategic level" (Sobelman, 2016, p. 156). For a state to architect a successful deterrence strategy, though also involving the determination to fulfill threats, it should have taken steps to demonstrate its capability (Mazarr, 2018).

Seeing that state A's threats are credible, state B might still go on to challenge them if it perceives state A's capabilities as insufficient (Freedman, 2004). The threatened will perceive

the threat as more credible if the capability to inflict the damage is real. As this works to present, and as Sobelman highlighted in the introduction by reference to deterrence communication: displaying the state's capabilities to outsiders remains a crucial facilitator together with credibility for securing deterrence success. Having an adequate capability function to signal to an enemy that it will pay for any aggression (Stone, 2012). The link between credibility and capability in communicating threats is here arguably clear.

Capability as a deterrence component has evolved after the introduction of nuclear weapons. As both sides of the Cold War came to possess nuclear weapons in the decades following World War II, they matched each other's capabilities, and mutual suicide became the new mechanism of international order (Kissinger, 2014). New nuclear states have since gradually emerged, where a nuclear capability is considered an attractive option for creating security. The acquisition of nuclear weapons by what presumably is a weaker state significantly complicates the calculus of its enemies' utility (Leah & Lowther, 2017). The advent of nuclear weapons thus altered the power of capability as a deterrence component. It resides as a more immediate component in contemporary conflict, precisely because nuclear states are significantly more capable now than before possessing nuclear weapons (Mazarr, 2018). As it was presented in the introductory chapter, this was why both India and Pakistan developed their nuclear capabilities: For India, it came as an attractive option to grapple with the two-front problem and as a way to match the capabilities of a nuclear China. For Pakistan, it came as a necessity to match the capability of a nuclear India and to offset the uncontested force of the Indian conventional military.

3.3 Categories of deterrence

In deterrence literature, scholars distinguish between several categories, but most notably two in specific: 'deterrence by punishment' and 'deterrence by denial' (Sobelman, 2016). As presented above, the nuclear turn drastically altered how states use force to reach their goals. The distinction between deterrence by punishment and deterrence by denial helps us understand how this shift has shaped deterrence theory.

In the past, successful and strong states could discourage an attack by fending off any attacker. It denotes deterrence by denial. After nuclear weapons rendered defence impossible, a nuclear state now deters another not by threatening to defeat its armies but by directly threatening the state's existence. Raising the costs of conflict to such truly unacceptably high levels, we no longer talk of denial but deterrence by punishment (Jervis, 1989). Both categories are conceived

as attempts of dissuasion and as efforts to shape an aggressor's potential moves. Thus, both need the nuanced shaping of strategies so that the aggressor sees the alternative to conflict as more attractive than fighting a war (Mazarr, 2018). Below, the thesis presents the two categories in turn.

3.3.1 Deterrence by denial

Deterrence by denial tends towards the acquisition of control (Freedman, 2004). In a denial strategy, the primary function is to raise the direct costs of the enemy's action by situating defending forces near a threatened area to present that it is of high value. Thus, the state signals its capability to block an enemy from making territorial gains (Snyder, 1960) by presenting that it can drain the attacker of any potential resources it would put into a fight (Snyder, 1959). Deterrence by denial is a strategy based on manipulating the adversary and how it chooses to act by effectively denying it the utility it seeks by engaging on the battlefield (Mearsheimer, 1983). Thus, the aggressor is left to face the reality that any attempts it might launch would provide a miniscule utility compared to the damage inflicted on its forces.

In considering the capability in a denial-strategy, it is possible to highlight a problematic feature. Military superiority, notably conventional, is here a meaningful asset in a very straightforward sense (Jervis, 1989), but the strategy seeks to deploy these assets in a peaceful manner to persuade the aggressor to step down. It does not seek to provoke an attack but merely to deter the one plotting it. Still, basing a strategy on military build-up, states are left in a costly strategic battle. By building its capabilities, a state can convince the other side that it is preparing to attack it, which could result in the exact opposite from what is sought by deterring. It rather makes a pre-emptive attack look like a necessary option (Mazarr, 2018). Thus, struggling towards a larger and more intimidating number of forces, the situation can spiral out of control. In struggling to reach military superiority, the exact numbers are indefinite. Therefore, it is difficult for a state to declare when superiority is, if ever, reached (Freedman, 2004). An adversary will forego unwanted action of raging war if the defending state has sufficiently increased the difficulty to gain benefits and increased the probability of failure (Stein & Levi, 2020). If this is the case, a denial-strategy is successful. However, if the state is unsuccessful in proving that its capabilities are sufficiently better or larger relative to those of the aggressor, deterrence might fail, and the conflict might escalate. As, L. Simón writes, "denial is about raising the direct costs of the enemy's actions" (Simón, 2020, p. 364). If the enemy itself was to build its capabilities stronger, the direct costs it faces in potentially attacking might not be sufficient to deny it any strategic options. Thus, a denial-strategy might fail.

3.3.2 Deterrence by punishment

Deterrence by punishment leans on coercion. Unlike deterrence by denial, which in a worst-case scenario would end in a stalemate on the battlefield, deterrence by punishment signals that an aggressor can anticipate a devastating attack if it escalates conflict (Freedman, 2004). Thus, another sharp distinction between denial and punishment is presented. Namely, that of the ‘theatre of operations’: By denial, we speak of strategizing deterrence on one’s own territory of influence. By punishment, on the other hand, we speak of strategizing deterrence on the enemy’s territory (Simón, 2020). As such, deterrence by punishment is potentially a far more aggressive strategy than one based on denial, as it involves the incentive of additional force being used. As, E. Rhodes presents, the state communicates a promise to escalate the conflict onto new areas that are impossible for the adversary to control and defend. State A thus communicates to state B that events will severely escalate if it “...does not reach a political accommodation with the deterrer” (Rhodes, 2000, p. 248).

A punishment-strategy is highly associated with nuclear weapons and the use of nuclear threats (Sobelman, 2016). Therefore, a potential conflict is considerably more costly if an aggressor were to initiate an attack in such a scenario than when faced with a denial-strategy. As Snyder so precisely emphasise, “deterrence by punishment grants him the gain but deters by posing the prospect of war costs greater than the value of the gain” (Snyder, 1960, 163). In other words, the state plotting to attack is not denied the choice but is left to see that devastating retaliation will come if it executes the attack.

Deterrence by punishment has one flaw in particular: Setting up a punishment-strategy, the deterrer loses control of the situation as it is left for the aggressor to decide whether the threat is severe enough for it to back down. Therefore, denial is argued as a more reliable strategy than punishment because, as Freedman emphasises, “it offers control rather than continuing coercion” (Freedman, 2004, p. 39). If the aggressor perceives the risk of the deterrer firing its nuclear arsenals as low and thereby attacks, then the deterrer is left to decide whether it would retaliate even though it might seem excessive and irrational. What this line of thought argues is that deterrence by punishment is flawed at low levels of aggression but that it can be used in the advent of serious and direct threats at higher levels of aggression. This highlights the importance of strategizing a ‘tripwire’ when applying deterrence by punishment. This tripwire functions as a clear boundary – a red line - that is signalled to the adversary: presenting that beyond that certain point, it will automatically trigger a crushing response from the deterrer’s side (Schelling, 1962). It can vary in how it unfolds, but either way, its function is to

demonstrate the deterrers commitment: presenting to the aggressor that he may come this far, but no further. As presented above, India and Pakistan have worked to establish such tripwires through postures and nuclear doctrines.

3.4 Rational Deterrence Theory

In the gradual evolution of deterrence theory, the emphasis on rationality has by several scholars been considered false. The ever-present possibility of assured destruction exercises a powerful influence. Still, it would never make sense to destroy an enemy's cities if it would only invite for retaliation and the destruction of the initiator's cities: "To carry out your threat would mean the destruction of your own society; so, if the other side thinks you will retaliate, it assumes you are less than rational" (Jervis, 1979, p. 299). Therefore, rational deterrence theory has been sharply criticised by an array of analysts. As C.H. Achen and D. Snidal argue, "on the one hand [it] is widely regarded as logically compelling. On the other hand, the most substantial body of empirical evidence leads to the conclusion that it is seriously deficient" (Achen & Snidal, 1989, p. 144). Nevertheless, it has influenced new nuclear states and worked to structure their security management (Morgan, 2012). Arguing from the perspective of rational deterrence theory: for India and Pakistan, Waltz finds that nuclear deterrence has stabilised the conflict after decades of turmoil.

Based on the realist's view on international relations, Waltz asserts rationality as the absolute key when contemplating the use of deterrence. Traditional deterrence can be unreliable. At times it makes the prevention of wars difficult by provoking an attacker rather than deterring it, as it often fails to signal credible threats (Morgan, 2012). Waltz has assessed this problem by stating that it is a thing of the past, a problem related to conventional warfare. He argues that the nuclear turn has altered the means of credibility and not made such threats inevitably irrational. He writes on the matter, that "never do two countries share a common interest more completely than when they are locked in death's embrace. ... both want most of all to get out of the dire situation they are in" (Sagan & Waltz, 2003, p. 118). Assuming rational actors, Waltz presents that power begs to be balanced and that war will not occur if two competing states both were to develop secure nuclear capabilities (Waltz, 2012). The rationalist emphasis is that this 'balance of power' will maintain international peace. If both sides are uncertain about who has the relative advantage, both will remain reluctant to start a war. According to this school of thought, two states will only ever go to war if they have different expectations of who would win (Russett & Oneal, 2001). As emphasised precisely by Waltz himself, "in a conventional world, uncertainty may tempt a country to join battle. In a nuclear world, uncertainty has the

opposite effect. What is not surely controllable is too dangerous to bear” (Waltz, 1995, p. 9). Thus, on the assumption on the rationality of states, he argues that if the threats remain credible, the one receiving the threats will continue to act within the boundaries of what rationality constitutes. Deterrent threats that obtain the capability by having nuclear arsenals which can survive an attack and then retaliate raise the possible costs of aggression to the level that all-out war is highly implausible (Waltz, 2003).

Waltz asserts that the rationality in states has continuously paved the way for more stability: “Every time a new country has managed to shoulder its way into the nuclear club, the other members have always changed tack and decided to live with it” (Waltz, 2012, p. 3). He ridicules what he perceives as standard misconceptions against rationality, stating that there is no grounded logic in believing that new nuclear states would suddenly act irrationally. The leaders of these new nuclear states want to survive just like any other. Thus, it is unlikely that they would ever base their survival on sheer luck by hoping that the older nuclear states would not act if they were to fire nuclear warheads (Waltz, 2012). Waltz asserts that the answer to why new states will live by the same rational calculus as older nuclear states “can be given in one word: fear” (Waltz, 1995, p. 6). As this set of argumentation presents, the thoughts flourishing behind rational deterrence theory are as old as the realist theory itself (Acher & Snidal, 1989).

The awesome quality of nuclear weapons and their potential for devastating retaliatory strikes would diminish any incentive a state has to launch a nuclear attack on a nuclear adversary. Building the argumentation on this line of thought, he claims that new nuclear states do nothing more than to add more stability to international relations. The nuclear turn has made defence systems obsolete. Thus, it would be folly to continue strategizing conventional defences that are predictably destabilising when the condition for stable relationships between states is secured by developing effective nuclear deterrence (Waltz, 1990). Based on this emphasis, Waltz has an interesting opinion on one of the great international relations theories on nuclear deterrence: the stability-instability paradox.

3.5 The Stability-Instability Paradox

G. Snyder identified the stability-instability paradox in 1965. It presents the logic that while nuclear deterrence could stabilise conflict on a strategic level, it lowers the stability of the overall balance. Thus, nuclear powers stand free to engage in violence at lower levels; well knowing that conventional fighting is unlikely to escalate (Snyder, 1965). As found by R. Rauchhaus in studying the nuclear peace hypothesis in relation to the paradox: as a balancing

factor, nuclear weapons “do not affect the frequency of conflict, but they do affect the timing, intensity, and outcome of conflict” (Rauchhaus, 2009, p. 271). Thus, the stability-instability paradox presents two important features in nuclear deterrence. On the one hand, it creates stability by raising the costs of all-out war to such a devastating level that its onset is made improbable. On the other hand, it creates instability as states with nuclear weapons are ‘allowed’ to fight at lower and less costly levels without crossing the nuclear threshold.

In political science academia, there is disagreement as to what the paradox entails. Some find that the paradox identifies factors that greatly decrease the odds for a conflict reaching the nuclear level. Others believe that stability on a strategic level makes the states agitate each other at sub-strategic levels, taking steps that lead the situation spiralling out of control (Powell, 2003). The paradox thus presents what is, by most scholars, regarded as a problem in forming a policy in the use of nuclear deterrence: In communicating a threat, ironically, nuclear deterrence must remain somewhat unstable so that the adversary would not ignore it, undercut the dangers of conflict, and proceed to challenge the status quo (Kapur, 2017).

3.5.1 The Stability-Instability Paradox and the Indo-Pakistani Conflict

The Indo-Pakistani conflict is given great attention in studies related to the paradox. Though scholars have different views on how the paradox affects the possibilities for a future nuclear exchange, the overall opinion is that their presence has allowed more low-scale fighting to occur (James, 2019). Since the end of the Cold War, the Indo-Pakistani rivalry has composed the most recurring pair of all international crises. Many scholars thus judge South Asia to be the most probable location for a future nuclear war (Lalwani, 2021). Sagan shares this opinion in his debate on the spread of nuclear weapons in the dyad. However, Waltz’s rationalist emphasis opposes that opinion. Seeing their debate to C.J. Watterson’s study highlights the differencing opinion between Sagan as a ‘deterrence pessimist’ and Waltz as a ‘deterrence optimist’ in relation to the paradox.

In his work on the paradox and the Indo-Pakistan conflict, C.J. Watterson has examined the relationship after highlighting the problem that there remained “an unresolved theoretical confusion” (Watterson, 2017, p. 85) on the paradox. He found that it needed more attention. Watterson uses two competing interpretations from political relations literature on the stability-instability paradox in a case study explaining the onset of the Kargil War. Though differentiating in some parts, the models he applies share the same basic logic: sub-strategic conflict is made possible because of nuclear deterrence and the stability it creates on a strategic level.

The first model in Watterson's case study is the 'red line model', where the strategic interests form a red line that neither side dares to cross. Still, it makes sub-strategic confrontations more frequent, bolstered with confidence that the fighting would never escalate beyond that point. The costs of sub-strategic conflict are reduced by the risk of uncontrolled escalation being somewhat removed. The second is the 'brinkmanship model', which assumes that rather than partaking in sub-strategic conflict under a nuclear shield, actors engage in a game of nuclear chicken, where each side keeps pushing a conflict closer and closer towards the nuclear brink until the other hopefully submits. Comparing the two, the red line model asserts the possibility of violence at a sub-strategic level escalating to the strategic level as doubtful. The brinkmanship model asserts escalation from a sub-strategic to a strategic level as a very existing risk (Watterson, 2017).

Explaining the onset of the Kargil War, Watterson, for his part, finds the red line model to be the most consistent variant of the stability-instability paradox (Watterson, 2017). Seeing this in relation to the continuance of this thesis, Watterson's work on the paradox is not only of great interest because it is applied to explain the onset of the Kargil War: one of the cases considered in the analysis. It is also interesting because the two models he puts forward are consistent with important elements from the debate between Sagan and Waltz. Thus, it works to identify the debate and how interpreting the paradox to either the red line model or the brinkmanship model leads to different expectations for the risk of a nuclear exchange in the future. In sum, it presents why the thesis needs to elaborate on this important question in a case study of the requirements for effective deterrence.

3.5.2 Sagan, Waltz, and the Stability-Instability Paradox

In the debate on crisis stability in the Indo-Pakistani conflict Sagan emphasise, as a 'deterrence pessimist', that the possibility that low levels of violence can escalate to the nuclear level is highly present. Humans are imperfect beings, and as these beings are bound to be leading the nuclear command, they will sooner or later fail to produce effective nuclear deterrence (Sagan & Waltz, 2003). Seen in relation to the paradox, aggression from India and Pakistan taking part in small crises will lead them to engage in progressively more risky endeavours. It will inevitably reach the point of no return where a nuclear confrontation is bound to occur. As Sagan presents: "Unfortunately, the evidence from these first years of South Asia's nuclear history suggests that the pessimistic predictions ... are likely to come true" (Sagan & Waltz, 2003, p. 107). Sagan's interpretation of the relationship is thus somewhat consistent with the brinkmanship model. He perceives a nuclear relationship as a game of nuclear chicken where

both continue to raise the stakes of war. In Sagan's view, the very real risk is that one of the states will soon be pushing too hard and thereby bring the other to fire its nuclear weapons.

Waltz acknowledges the stability-instability paradox, but with an important caveat: should fighting occur at a lower level, it will not lead to a nuclear confrontation. As we find in a statement from 1959, as R. Rauchhaus cite Waltz: "While nuclear weapons might reduce the chance of major war between nuclear powers, they could produce 'a spate of smaller wars'" (Waltz, as cited in Rauchhaus, 2009, p. 263). Although acknowledging the paradox's features, Waltz emphasises that low levels of violence do not make for nuclear wars. It is rather a small price to pay for preventing full-scale conflict on the strategic level.

Rational actors would never risk engaging in conflict at a higher level when nuclear deterrence is effective. In the nuclear dyad of India and Pakistan, well knowing that conflict on a strategic level will spark a nuclear confrontation, neither of the states are willing to cross that line. Therefore, both have been content, whenever it has occurred, to limit their confrontations to the contested outlying regions (Waltz, 2003). Thus, Waltz is more consistent with the proclamation of the red-line model: nuclear deterrence abolishes total war as neither of the contesting states dares to move close to cross the nuclear threshold of the other. Waltz, arguing from his rationalist emphasis, finds that a nuclear capability will make the states avoid any confrontation. If, however, confrontation should occur, it will do so at a lower level. The presence of nuclear weapons would here prevent skirmish fighting from escalating to full-scale wars. Nuclear deterrence works "precisely because nuclear states fear that conventional military action engagements may escalate to the nuclear level" (Sagan & Waltz, 2003, p. 109). The core of the debate is here identified: Sagan asserts that nuclear war is bound to occur. Waltz asserts that the states' rationality will never have them push a confrontation too hard, thereby bringing them to cross the nuclear threshold.

As the thesis operationalises Waltz's requirements in the final part of the following chapter, the two cases analysed in this thesis are characterised as cases of deterrence success. As put forth by Waltz: As both India and Pakistan had the potential to develop nuclear weapons, they also adhere to the requirements for effective deterrence. Whenever potentially facing the immense costs of total war, nuclear deterrence draws them back from crossing that line (Sagan & Waltz, 2003). It is the characteristic he argues is consistent in the entire span of the Indo-Pakistani nuclear relations. By labelling the two cases as cases of deterrence success, the thesis uses the subsequent chapter to address why a crucial case design is applied as an appropriate method for assessing whether the empirical material supports Waltz's emphasis.

4 Research design and Method

This chapter considers the research design and method. The last part of the chapter is used to operationalise indicators from Waltz's three requirements for effective deterrence. The operationalisation is summarised in a model to illustrate the relationship between the indicators and the requirements.

An important feature of any method is to demonstrate that it has been applied appropriately. It should be demonstrated that it is applied to the commonly held collection of the method and not a collection of unconnected and atheoretical work. If it fails to do so, the impression is left that the author is released from any methodological considerations, which would have the study remain weak and unsatisfactory (Bennet & Elman, 2007). A qualitative research design is applied to answer the thesis' research question, where a case study is chosen as its method. A case design allows for an interesting examination, but its application also influences the thesis' findings. It is important to discuss the implications of this method: to state why the case study is applicable for the task at hand, how the empirical data is collected, what data is available, and how the thesis conducts the analysis. All these aspects and the choices made along the way work to affect the thesis' validity and reliability (Bryman, 2012).

4.1 The Case design

The case design denotes the study of a spatially bounded phenomenon: a *unit*, which J. Gerring argues, is "observed at a single point in time or over some delimited period of time" (Gerring, 2004, p. 342). This unit can be created of any bounded phenomenon "so long as it has identifiable boundaries and comprises the primary object of an inference" (Gerring, 2007, p. 19). In this thesis, that single unit is a case of nuclear deterrence: The Indo-Pakistani conflict's nuclear dimension. It comprises a sample of two cases from within the Indo-Pakistani conflict that are observed over a delimited period. The two cases are examined to extract empirical observations that are assessed to Waltz's requirements for effective deterrence. It enables the thesis to examine if there is variation between the two cases, how each relates to the requirements, and how one plausibly differs from the other.

Emphasising the prominence of the qualitative research design and the case study method, A. Bennet and C. Elman assert that it provides advantages in examining complex and unstructured phenomena. If the case under examination is 'sui generis' or 'a kind of its own' it is "thus rendering many puzzles in IR difficult to model formally and to test statistically" (Bennet & Elman, 2007, p. 171). This thesis examines a set of requirements to conclude whether nuclear

weapons have a stabilising effect on the Indo-Pakistani conflict: the only ‘warm’ conflict between nuclear states. As it presents, the unit of cases that are analysed arguably have features that indeed are *sui generis*. Therefore, the case study design is a potent method for this procedure, as it can function to allocate valuable observations and trace whether these findings are coherent with the arguments put forward by the theory (Levy, 2008).

4.1.1 Case selection and implications of a crucial case design

Regarding case selection, we must consider the ambition of the thesis, namely: to assess the requirements for effective deterrence to state whether it has had a stabilising effect on the Indo-Pakistani conflict.

Waltz contemplates that the nuclear turn stabilised the conflict and as both states operate effective deterrence. Thus, both cases are considered as cases of deterrence success. As such, the thesis applies a crucial case design. Crucial cases, as Gerring argues, “are most- or least-likely to exhibit a given outcome” (Gerring, 2007, p. 89). The two cases arguably fit the first section of this description: each is most likely to exhibit the requirements as proposed by Waltz’s rationalist emphasis. Or at least each *should* exhibit that outcome. The cases are selected based on the logic that they seemingly fully satisfy the conditions of the theory (Levy, 2002). In other words, it is expected that the cases fit Waltz’s rationalist emphasis. Thus, the thesis applies a most-likely case design to assess this emphasis. A most-likely case works on what J. Levy depicts as the ‘inverse Sinatra inference’: “if I cannot make it there, I cannot make it anywhere” (Levy, 2002, p. 442). In other words, should not the operationalised indicators fit the observations from the cases, then Waltz’s emphasis on the stabilising effect from the Indo-Pakistani nuclear turn stands weakened.

Further, it is important to note that the crucial case design is highly deductive, where any findings are dependent on a clear and concise formalised theory. To revisit Levy’s emphasis on the most-likely case design: Any results only hold if the theory under examination produces specific predictions of what to expect and “if cases are selected in a way that maximizes leverage on the theory” (Levy, 2008, p. 13). The most amenable theories in these endeavours are ‘lawlike’ theories, where the formulation of any set of ideas is so clear cut that it would be difficult to misconceive what the theorist behind them holds as a causal law (Gerring, 2007). The set of requirements that Waltz presents for effective deterrence fits the above description. Waltz’s requirements are indeed difficult to misconceive, and the well formalised structure of his arguments allows other researchers to critically assess each requirement in turn by

evaluating them to empirical observations in a case study. Applying a case study to assess well formalised theoretical argumentation is a good precondition for measurement validity.

In its pure form, validity concerns that the study measures what it goes out to measure (King, Keohane & Verba, 1994). Securing validity thus works to state the integrity of conclusions, which in many ways remains the most important criterion of any research (Bryman, 2012). However, securing standards on validity is a challenging feat in qualitative research, as argued by R. Whitemore, S.K. Chase, and C.L. Mandle, “because of the necessity to incorporate rigor and subjectivity as well as creativity into the scientific process” (Whitemore, Chase & Mandle, p. 522). To ensure valid measures for empirical testing in a qualitative case study it is required that the researcher specifies the conditions for when the theory might hold or not. Here, a theoretical model based on key theoretical concepts must be carefully constructed before being tested against empirical evidence (Huth & Russett, 1990). To minimise subjectivity, measurement validity as a shared standard for qualitative and quantitative research facilitate good measures. Measurement validity concerns the choices a researcher makes in linking theoretical concepts to observations. To ensure that measurements are valid, the scores – here observations - from the cases derived from a set of operationalised indicators should meaningfully capture the ideas of the theoretical concepts (Adcock & Collier, 2001). The theoretical concepts in conducting this case study are Waltz’s three requirements for effective deterrence. Therefore, working to secure that the thesis assesses the requirements on valid measures, the operationalised indicators should strive to reflect the theoretical concepts.

4.1.2 Collecting data and conducting the analysis

In collecting the data, the thesis observes open documents, meaning sources that are open for the public sphere. The data is derived from various sources, from official statements and speeches, relevant news articles, and historical documents.

Consulting data from open accessed documents has both positive and negative implications for the analysis and the findings that follow. A negative implication would be that what might have been important information remains missing. As this thesis examines such a delicate matter as deterrence and the requirements for effective deterrence, India and Pakistan may withhold sensitive information that is not open for public evaluation. Thus, it is important to note this as a limiting aspect of the thesis’s use of data. Not being able to evaluate classified sources can affect and limit the thesis’s findings.

On the other hand, it is also possible to note positive implications from studying open documents. While classified data would be seminal for acquiring important information that would benefit the thesis' assessment, it would also be difficult for other researchers to trace the findings and to evaluate the analysis's quality. As A. Bryman argues, in terms of securing strong evidence, the study must be replicable by someone else, and "in order for replication to take place, a study must be capable of replication" (Bryman, 2012, p. 47). Classified data would remain limited for the public eye and thus difficult for others to consider or replicate. Using open accessed sources allows others to evaluate the interpretation of the data and the quality of any findings the thesis might put forward. Thus, the use of open accessed documents strengthens the reliability of the thesis (Bryman, 2012).

Further, by applying empirical data from such open accessed documents, where the data are assessed systematically to each of the three operationalised requirements, the procedure of the thesis is both open and explicit. It forces the researcher not to take on an entirely subjective role in assessing the theory. Instead, the evidence is sought to be analysed as objectively as possible and as to eliminate alternative interpretations by making the procedure as open as possible (Iacono, Brown & Holtman, 2011). It again demonstrates a strengthening of the thesis' reliability, where the process is thoroughly reviewed. The interpretations can be evaluated in terms of the researcher's impact by reporting how the data is collected. As G. King, R.O. Keohane, and S. Verba find, this is a guideline of reliability which allows different researchers to evaluate the methods as sufficiently reliable: "where applying the same procedure in the same way will always lead to the same measure" (King et al., 1994, p. 25). With this in mind, the thesis uses the following section to operationalise Waltz's requirements for effective deterrence.

4.2 Operationalising Waltz' requirements for effective deterrence

Waltz argues that for deterrence to be effective, the state must meet the three following requirements:

- (1) At least a part of a state's nuclear forces must appear to be able to survive an attack and launch one of its own.
- (2) The survival of a state's forces must not require early firing in response to what may be false alarms.
- (3) Command and control must be reliably maintained; weapons must not be susceptible to accidental or unauthorized use.

(Sagan & Waltz, 2003, p. 20)

In each of the requirements, features of both deterrence components: credibility and capability, are prominent throughout. As Waltz state, one thing is to construct and sufficiently protect a capability; another is to make the deterrent threat seem credible or, in his words, 'psychologically plausible' (Waltz, 2003). For India and Pakistan turning into nuclear states, the rationalist view is that deterrence has secured overall stability to the conflict. Waltz finds that as the states turned into nuclear powers, they have met the three requirements and established a stabiliser that excludes total war. The requirements are here operationalised to assess his proposition in a case study.

The operationalisation is a vital step in determining indicators that indicate what to observe in the empirical data and how the study forms its findings (Doorewaard, 2010). After presenting each indicator in turn, the last part of this section illustrates an operationalised model of Waltz's three requirements. One important clarification must be made before continuing the procedure: The first two requirements are closely connected in how both recognise what standards the state must meet for deterrence to be effective. They are "linked both to each other and to measures needed to ensure that deterrent forces cannot be preempted" (Sagan & Waltz, 2003, p. 20). Therefore, the two first requirements are operationalised on partly similar indicators.

I At least a part of a state's nuclear forces must appear to be able to survive an attack and launch one of its own.

The first requirement denotes a state's ability to retaliate a nuclear strike, which describes a secure second-strike capability. As emphasised by Waltz, any state will be deterred because it is terrified of the potential damage any surviving number of nuclear warheads can produce. Therefore, the capability to inflict the damage that one threatens is one of the key aspects of deterrence success. The size of the capability is here relative, so long that it is sufficient to survive and retaliate against a potential first strike. As Waltz presents, "a small force may be a vulnerable force, but smaller is worse than bigger only if the attacker believes he can destroy *all* of the force before *any* of it can be launched" (Waltz, 2003, p. 212). In another seminal quote, Waltz remarks that "it does not take much to deter. To have second-strike forces, states do not need large numbers of weapons. Small numbers do quite nicely ... [if] it has a few well-hidden and deliverable weapons" (Waltz, 1995, p. 11). The quotes represent how closely intertwined the first requirement is with the second in seeing that the state must ensure a survivable capability.

The thesis uses two key indicators to observe this requirement: (1) relative warhead numbers and (2) survivable delivery systems. It assesses relative warhead numbers by consulting a range

of empirical materials that shed light on the state's number of operational warheads in a period leading up to and during the crises. It also makes use of official statements from authoritative figures of the state and measurements from international sources. It should be observed that the state has the number of warheads sufficient to strike the other.

Waltz's formulation of the requirement stresses that a state must at least *appear* to have the capability to punish the other in a retaliatory strike. In assessing the second indicator: survivable delivery systems, the formulation shows that it is not a matter of operative force alone but also a matter of whether the state has successfully conveyed deterrence signalling to appear capable of retaliating a strike. In this relation, the thesis consults sources that can indicate that the state has sought to establish the credibility of a nuclear response by appearing to have survivable forces. In line with the rationalist emphasis: If parts of the nuclear forces appear invulnerable, and the state has credibly communicated that they are invulnerable, war is made obsolete.

II The survival of a state's forces must not require early firing in response to what may be false alarms.

The second requirement denotes the need for the state to restrain the use of its nuclear forces so as not to launch them immediately when facing what might only potentially be a large-scale enemy attack. An enemy first-strike must not threaten the existence of the state's nuclear warheads and delivery vehicles. In other words, there should be no risk of the state rapidly deciding to fire its nuclear capability pre-emptively towards an enemy that it presumes has initiated an attack. As the state develops a nuclear capability, it eliminates the conventional logic of striking early- and striking- first to gain the advantage in any future war (Waltz, 2003). By having a survivable nuclear capability, a retaliatory strike is no longer a time-critical manoeuvre. As Waltz presents, "deterrence of a would-be attacker does not depend on the belief that retaliation will be prompt, but only on the belief that the attacked may in due course retaliate" (Waltz, 2003, p. 121). In reading this emphasis, what is again made clear is how the requirement closely connects to the first: A secure second-strike capability must be ensured for deterrence to be effective. The state must do nothing more than to have a small number of operational warheads that it disperses, and as "nuclear warheads are fairly small and light", hiding or moving them around "are tasks for which the ingenuity of numerous states is adequate" (Waltz, 1995, p. 10).

The thesis uses two key indicators to observe this second requirement: (1) dispersed weapons and (2) manoeuvrable delivery systems. These two indicators are useful for observing the requirement because – if adequately met - they function to preclude pre-emption as a favourable

strategy. Small and delicate forces are tempting targets, but if the states do not know the locations of each other's forces and if the forces move before being struck, pre-emption is no longer made easy. If state A operates dispersed and manoeuvrable forces, state B will do best not to initiate a disarming strike as it would never know if it was entirely successful. In securing dispersion and manoeuvrability, the state can survive any attempts at disarming its capability. When this is the case, the state would not need to strategize hair-trigger responses to blunt an attack it presumes is about to be made (Waltz, 1981). The thesis primarily uses measurements from international reports to observe the indicators. Arguing from the logic that 'it does not take much to deter', Waltz emphasise that rational actors "understands that the requirements of deterrence are low. Even the largest states recoil from taking adventurous steps if the price of failure is the possible loss of a city or two" (Waltz, 1995, p. 10). Dispersed and manoeuvrable capabilities ensure survivability and preclude pre-emption. Thus, it would help establish credibility and have the adversary effectively deterred; never contemplating to convey a large-scale attack in fear that it would spark a nuclear confrontation.

III Command and control must be reliably maintained; weapons must not be susceptible to accidental or unauthorized use.

The third requirement denotes that the personnel handling the nuclear capability must be reliable and in control to limit the dangers of accidents or misuse. The control authority over the nuclear capabilities must be carefully designed to secure that the potential usage of the weapon systems obliges to the policies that are developed by the state's nuclear command. As B. Chakma points out: "[the state] needs to put in place a command and control system which ensures that nuclear weapons are used according to the plans elaborated ... not in different circumstances or for other purposes" (Chakma, 2006, p. 115). Waltz argues that if a state has successfully developed a nuclear capability, it would inherently have developed the needed competence to maintain and control it. This sentiment is clear in reading that "although some of the new nuclear states may be economically and technically backward, they will either have expert and highly trained scientists and engineers or they will not be able to produce nuclear weapons" (Waltz, 2003, p. 21).

Though this third requirement is not as intricately linked as the previous two, it builds further on important features of both. When a state produces enough nuclear weapons to provide a second-strike capability and disperses them for the sake of guaranteeing their survival, command and control become an utmost priority. It works to pose a paradoxical issue. Having a secure second-strike capability guaranteed by dispersed and manoeuvrable forces can enhance

the overall deterrent effect. However, it also dramatically increases the chance of nuclear accidents or misuse as the state gradually loses control of its forces (Pant, 2007). Securing the command and control structures also put forth a second paradoxical issue: If control is too crude, deterrence can fail as the capability falls victim to accidental use. If it is too complicated, deterrence can fail as an attack aimed at decapitating the highly intricate nuclear command would leave the nuclear capability ineffective with no one left to initiate a retaliatory strike (Feaver, 1992). By securing control, the state would ensure that it is not disposed to nuclear accidents or that its enemies could fall victim to nuclear strikes caused by unauthorised launches. Therefore, developing a clear command would strengthen the deterrence signalling through establishing the state as a credible nuclear power.

The thesis uses two key indicators to observe this requirement: (1) separated and dismantled weapons storage and (2) security of nuclear facilities. These indicators are useful because they present if the state has taken the necessary steps to lessen the chances of accidents or unauthorised use. Keeping the weapons stored separately from delivery systems and having the weapons partly dismantled means that the state must go through a set of procedures to operationalise the capability. Therefore, it should be observed that the warheads are kept separated from the delivery-systems and are partly dismantled to avoid theft or situations where unauthorised individuals could launch them. As for the second indicator: Securing the nuclear facilities ensures the third requirement by observing that the state has tight control over its nuclear assets and program. It ensures that the weapon components or fissile material are not susceptible to theft or that personnel working on the nuclear program do not share sensitive information with outsiders. It should be observed that the state has developed a clear nuclear structure to control its nuclear assets and that its facilities are secured by reliable personnel. The thesis consults statements from the state's authorities, international reports, and media outlets in observing the indicators.

The model below summarises the operationalisation of Waltz's three requirements. Each indicator helps identify what should be observed for Waltz's emphasis on effective deterrence and crisis stability to be upheld in the Indo-Pakistani conflict.

REQUIREMENT	INDICATOR
I <i>At least a part of a state's nuclear forces must appear to be able to survive an attack and launch one of its own.</i>	I A: Sufficient warhead numbers. I B: Survivable delivery systems.
II <i>The survival of a state's forces must not require early firing in response to what may be false alarms.</i>	II A: Dispersed weapons. II B: Manoeuvrable delivery systems.
III <i>Command and control must be reliably maintained; weapons must not be susceptible to accidental or unauthorized use.</i>	III A: Separated/dismantled weapons storage. III B: Nuclear facilities secured by reliable personnel.

Model 1: Operationalising indicators from Waltz's requirements for effective deterrence.

5 Analysis

This chapter is devoted to the analysis. It observes the operationalised indicators and examines if effective deterrence was established in either of the two cases. 5.1 is used to analyse the Kargil war with Pakistan as the aggressing state. 5.2 is used to analyse the Balakot crisis with India as the aggressing state. In both cases, the aggressing state is observed to the indicators to assess whether it was successful in deterring the other from escalating the crisis. It builds towards chapter 6, which discusses the findings from both cases and explains the dynamics of the Indo-Pakistani conflict over time in comparing the observations from the cases.

5.1 The Kargil War in 1999

In analysing the Kargil war, Waltz's requirements for effective deterrence would dictate that India designed its retaliatory measures to a nuclear threat posed by Pakistan; fearing it would escalate to the strategic level if its response were too drastic. In other words, assessing Pakistan to the three requirements, the thesis observes whether India was effectively deterred.

There are controversies in the academic debate about the exact role Pakistan's nuclear capability played in limiting this crisis. As it is discussed in the theory chapter above, this controversy plays a salient role in the debate between Sagan and Waltz. Overall, the broad consensus is that the insurgency was made possible because of the new nuclear dimension, where Pakistan envisioned it could embark into the Indian side of the LoC without sparking a

general war with India (Gill, 2019). Indeed, Pakistani military leaders asserted throughout the crisis that Pakistan reserved the right to use all available options in responding to India, presenting that the nuclear option was on the table (Rajagopalan, 2003). As it was emphasised in an interview conducted by S.P. Kapur with former Pakistani Prime Minister B. Bhutto, nuclear weapons came to make a significant impact on Pakistani-decision making. Pakistan believed it could provide support for low-scale insurgencies under nuclear protection:

I doubt that the nuclear capability was [originally] done for Kashmir-specific purposes ...[but] Islamabad saw its capability as a deterrence to any future war with India ... [where] India could not have launched a conventional war, because if it did, it would have meant suicide. (Bhutto, as cited in Kapur, 2008, p. 6).

The decision of Pakistan to cross into Kargil thus fits the general prediction of the stability-instability paradox. What is then left to assess is whether the crisis can be characterised as a case of deterrence success, where escalation is unthinkable with deterrence effectively stabilising the crisis and denying a large-scale war.

5.1.1 Requirement I: Insufficient survivability of Pakistan's nuclear forces

This section demonstrates how Pakistan did not have the sufficient number nor the needed delivery systems to ensure a successful strike on Indian targets. Though it conveyed deterrence signalling prior to the crisis, the overall force was too small to credibly deter India with a secure second-strike capability.

In data by 'the Nuclear Notebook', by experts in the field from 'the Federation of American Scientists' - published by 'the Bulletin of the Atomic Scientists' - estimates are that Pakistan's nuclear capability consisted of a total of eight warheads that were operational at the time of the Kargil war ("Nuclear arsenals of the world", n.d.). Still, by observing sources from the period leading up to the crisis, these numbers were not as transparent. In the 1999 report on India's and Pakistan's nuclear weapon inventories, a yearly report made by 'The Institute for Science and International Security', the total numbers of each side's capabilities were remarked as much higher than we today perceive as true. Though stating that the actual numbers were rather uncertain, the report found, based on reading the new nuclear powers' production of enriched uranium, that both states were believed to be equipped with a tenfold of nuclear warheads in 1999 (Albright, 2000). For the case of Pakistan, the report found that all evidence suggested that it had worked to increase its production since its official nuclear turn in 1998. Pakistan had itself announced that a new reactor in the city of Khushab was operational by April 1998, and

U.S intelligence satellites found another operational plant near Islamabad in the city of Rawalpindi. The production of enriched uranium in these plants could be “up-graded to weapon-grade uranium relatively rapidly” (Albright, 2000, para. 3). In predicting the total numbers, the report concluded, based on measuring the median value of 690 kilograms of uranium where 12 to 25 kilograms are needed per weapon, that the estimates were that Pakistan’s stockpile ranged in the numbers between 30 to 52 operational weapons (Albright, 2000). As these numbers indicate, Pakistan’s nuclear capability was somewhat ambiguous during the Kargil war.

Reading the yield from the 1998 nuclear tests, Pakistan’s contradicting numbers compared to international sources again represent that the capabilities were rather uncertain. Pakistan's official statements presented that the total yield of its largest explosions ranged between 30-35 and 40-45 kilotons. Assessments from international seismic data led to estimates that the largest yield ranged between 2-15 kilotons. Again, when testing two smaller devices later the same month, Pakistan affirmed that the yield ranged between 15-18 kilotons, while international seismic readings estimated it to 2 kilotons (Moore, ed., 1998). For international and Indian authorities, the sum of these contradicting readings led to the suspicion that Pakistan was exaggerating the numbers and the actual strength of its weapons (Ahmed, 1999).

A.Q. Khan, the father of the Pakistani nuclear programme, declared in a press conference shortly after the 1998 detonations that Pakistan had started the mass production of the ‘Ghauri missile’: a land-based medium-range missile capable of being mounted with nuclear warheads with a range of 1 500km (Srivastava, 2000). Much like the official numbers released by Pakistan on the yield of its detonations, the evidence of these missiles being in mass production by 1998 could not be confirmed by international sources at the time (Moore, ed., 1998). It is important to note that Pakistan had already announced its first successful test of the Ghauri missile earlier the same year, in April 1998. Still, India was also, for this instance, in disbelief over Pakistan’s alleged statements. The limited information reported on the test, and the fact that Indian radars monitoring the Pakistani air space did not detect the missile, had India question whether the Ghauri missile was ever successfully launched. Pakistan, on its side, claimed that the failure from Indian surveillance to detect the missile proved India’s radars as being weak and insufficient in facing the new Pakistani weapon-system (Wright, 1998). Today we know that the Ghauri missile was not finalised and made operational before 2003. Though Pakistan tested the missile in April 1998, the test was unsuccessful as the systems overheated before impact (Missile Defense Project, 2016).

Pakistan was by 1999 able to deliver nuclear warheads by using two types of aircraft. Both Pakistan and India had yet to develop any other delivery systems, leaving their nuclear capabilities to be made up of the Pakistani air force (PAF) and the Indian air force (IAF) in 1999 (Kristensen, Norris & Diamond, 2018). In Pakistan, a fleet of F-16 aircraft was the first to enter into use, shortly followed by a fleet of Mirage aircraft, which from its possibility for aerial refuelling enhanced the flight-time and distance that could be covered in a potential nuclear strike mission (Kristensen et al., 2018). Infiltrating the Kargil heights, Pakistan was confident it had established a credible deterrent towards India. Pointing to the source of “several interviews” made with General M. A. Beg, the Chief of Army Staff in Pakistan, Watterson emphasise that it is indicated that Pakistan already in 1990 “conveyed deterrence signalling’ [to] keep India from launching an attack across the international border” (Watterson, 2017, p. 92). It is reasonable to believe that Indian intelligence intercepted the cold tests of the fleet’s aerial drops. It could have served to alarm India of Pakistan’s ability to deliver a nuclear strike (Watterson, 2017). The Pakistanis found it would provide the balancing effect needed to downsize any potential conventional confrontation in the period to come. Kapur argues that this emphasis is found in reading most other public statements from officials in Pakistan. These statements proclaim that the Pakistani-state believed it had deterred India on at least three earlier occasions before the Kargil war, where: “Pakistan’s nascent nuclear capability had worked to prevent Indian escalation during crises in the 1980s and early 1990s” (Kapur, 2007, p. 124). However, considering that Pakistan lacked a more sophisticated form of delivery with better missile guidance, navigation, and targeting systems, its aircraft would have to make the flight across the LoC if it ever hoped to attack India successfully. Here, at least one Pakistani aircraft needed to get past the superior IAF and the Indian defences. It meant that Pakistan’s nuclear aircraft as the only form of delivery did not guarantee a successful blow (Zhara, 1999).

Inside the Indian government, the debate concerning Pakistan’s capability was a pressing issue during the months of fighting. On the one hand, it is possible to assert that India was partially cautious when planning the response in the Kargil district. As Watterson found in reading Prime Minister Vajpayee’s concerns when the military leaders contemplated opening a second front, Prime Minister Vajpayee responded: “but General ... they have a nuclear bomb!” (Vajpayee, as cited in Watterson, 2017, p. 89). On the other hand, India’s highest Commissioner to Pakistan during the period, G. Parthasarathy, and former Indian National Security Adviser B. Mishra, assured that Pakistan’s nuclear capability failed to have a credible effect. They confirmed that India would cross the LoC and open new fronts inside Pakistan if it was necessary. During the

fighting, it was just a matter of time before the Pakistani forces lodged in the mountainsides of Kargil would surrender. Thus, the Kargil war was painted as a waiting game by Commissioner Parthasarathy, who argued that there was no need to expand the conflict and that Pakistan's nuclear capability did not affect Indian decision-making. The weapons simply "were not an issue" (Parthasarathy, as cited in Kapur, 2007, p. 129). It is supported by National Security Advisor, Mishra, who is quoted to have said, "just see the size of the two countries ... Pakistan can be finished by a few bombs. But India is much too large," and that "[A]nyone with a small degree of sanity would know that nuclear war would have disastrous consequences for Pakistan" (Mishra, as cited in Kapur, 2007, p. 129). The emphasis is supported by an additional source, as P.R. Lavoy quotes it: Indian army chief V.P. Malik stated that India was ready to open new fronts. During the Kargil war, he warned the commanders that they should "be prepared for escalation – sudden or gradual – along the LoC or the international border and be prepared to go to (declared) war on short notice" (Malik, as cited in Lavoy, 2009, p. 12).

Observing the indicators, I A: Sufficient warhead numbers, and I B: Survivable delivery systems, Pakistan did not have enough warheads, nor the means of delivery to threaten India with a secure second-strike capability or effectively hold Indian cities at risk. International and Indian measurements of the seismic data perceived Pakistan to exaggerate the power of its test detonations significantly and did not remark the alleged successful tests of Pakistan's Ghauri missile as plausible. Indian decision-makers deemed Pakistan's nuclear capability inadequate to successfully deliver a nuclear blow if India were to escalate the crisis. Seeing this in relation to India's immense superiority in terms of flight-power, it is possible to argue that India could effectively stop a Pakistani attack carried out by its nuclear-capable aircraft if the Kargil war was to escalate.

5.1.2 Requirement II: The Pakistani need for pre-emption

This section demonstrates how Pakistan during the Kargil war would have been required to fire its nuclear missiles early in the event of experiencing a potential disarming strike or an Indian invasion. Even though the IAF could move at random, the force was too delicate not to be rigged for a hair-trigger response.

It is possible to recognise that PAF's subordinate power was a problematic feature during the Kargil war. With aircraft being Pakistan's only operational delivery system in 1999, the force remained under constant pressure from being targeted by an Indian surgical strike. If Indian intelligence found that Pakistan planned to convey a nuclear mission using its aerial fleets, India would strike its bases in a conventional attack to disarm (Zhara, 1999). As Pakistan lacked

diverse delivery systems, the top priority for India in escalating a crisis would be to destroy Pakistani airbases as it had successfully done both in the 1965- and the 1971 war (Arnett, 1997). In both wars, the overwhelming power of the IAF had allowed India to convey a series of successful attacks and proved Pakistan unable to defend its bases. Also, in addition to IAF's superiority, India's strategic depth made Pakistani attempts at striking Indian targets largely unsuccessful (Carranza, 1999). As the asymmetric relationship had yet to have changed following the 1998 test detonations, and as neither had successfully developed ground-launched or land-mobile ballistic missiles, "the danger of a preemptive military attack that would disable its small nuclear forces [was] more acute for Pakistan ... in an aircraft-aircraft system" (Carranza, 1999, p. 17).

In 1999, Pakistan operated approximately 50 front-line aircrafts capable of carrying missiles with nuclear warheads (Zhara, 1999). In terms of bases, the reported numbers from the period vary. A 1997 report estimated PAF to operate from 17 different bases of which half functioned as primary bases. The remaining functioned as dispersal-bases that Pakistan could use in a time of crisis (Arnett, 1997). Another report estimated that the forces were primarily concentrated to seven bases with roughly 30 bases in total from where nuclear aircraft could be dispersed to when needed. In addition, it had yet another two dozen civilian airfields that could be used for landing and recovery for PAF as last resorts (FAS, 2000). Though the numbers from the reports differ, the overall estimates represent that Pakistan operated manoeuvrable forces which could be dispersed when needed. Pakistan could thereby complicate Indian attempts at allocating all the carriers by moving them at random and effectively deny India to perform a surgical strike that guaranteed a complete abolishment of the Pakistani nuclear capabilities. It made it difficult to predict the success of any Indian attack aimed at disarming Pakistan's nuclear option (Arnett, 1997). However, though Pakistan's combined fleet of F16 and Mirage aircraft could potentially carry out a successful nuclear mission, the asymmetry between the PAF and IAF made it unlikely. As is identified by F. Zhara, in comparing Pakistan's front-line aircraft to India's, they were outnumbered six to one. It meant that though Pakistan could potentially conduct a mission where its nuclear-capable aircraft could "form the nucleus of an atomic strike force with a dozen squadrons ... providing fighter cover" (Zhara, 1999, p. 10), the odds were proven to be in notable disfavour of such a feat.

Though Pakistan is observed to have had the means of dispersal that allowed it to complicate the chances of India conducting a successful disarming strike, the sheer difference in numbers and qualities of the forces would have to be considered. Pakistan would have to deliver a blow

deep within India as a form of deterrence by punishment. Successfully targeting cities or areas with a high-density population would deter India, but with the odds against their nuclear-capable aircraft being able to make the flight deep into India without being abolished seemingly complicated the matter in the period of the Kargil war. As observed in the first requirement: IAF could successfully defend against a PAF nuclear mission. Even where Pakistan could guarantee the survival of parts of the PAF nuclear force, it was too delicate to guarantee that an adequate number could successfully retaliate against an Indian attack.

Observing the indicators, II A: Dispersed weapons, and II B: Manoeuvrable delivery systems, Pakistan could disperse its nuclear capability by the time of the Kargil war by moving the nuclear air force at random between various bases. However, the asymmetry seen in relation to India's force posed a severe disadvantage in securing the survivability of enough forces to credibly threaten India with a retaliatory strike. Though Pakistan could disperse the forces, the overall asymmetry to the IAF made it highly unlikely that PAF could carry out a successful nuclear mission. Even if Pakistani forces were to survive, the remaining numbers would be too small to threaten a retaliatory strike against India successfully. It meant that Pakistan would have had to operate a pre-emptive strategy during the Kargil war, where its delicate forces would be required to fire its missiles early and before being struck by an Indian strike.

5.1.3 Requirement III: Inadequate Pakistani command and control structures

Exact information on command and control in Pakistan leading up to the Kargil war is scarce. Pakistan first created the National Command Authority (NCA) in March 1999 and the Special Plans Division (SPD) in early 2000 to control all nuclear matters (Khan, 2019). Against this backdrop, the results from observing the requirement show that the command and control structures must have been relatively weak during the months of fighting in Kargil.

Following the coup of 1977, the military remained the most central leading authority of Pakistan's nuclear program (Chakma, 2006), but after the nuclear turn in 1998, Prime Minister Sharif demanded the establishment of a new nuclear structure to include partial civil control. As presented by F. Khan, former director of the Arms Control and Disarmament Affairs in what became the SPD: leading up to the escalation of the Kargil insurgency, Pakistan was still working to organise the future secretariat which was to take control of the country's strategic organization, finance, and operations. In setting up command and control, various directorates "worked simultaneously on overlapping issues, often in secrecy and with intense competition" (Khan, 2012, p. 329). It had yet to complete it by the time of the initial stages of the Kargil insurgency. As the crisis exploded to new proportions in May 1999, the continued

developments on the nuclear command had to be put on hold (Khan, 2012). When seen in relation to a 1999 statement from M. Lodhi, Pakistan's lack of an effective nuclear structure raises concerns: Lodhi, who at the time served as Pakistan's High Commissioner to the UK, remarked that Pakistani decision-making during the crisis was "impulsive, chaotic, erratic and overly-secretive" (Lodhi, as cited in Gregory, 2007, p. 318). Thus, together with a lacking nuclear structure, the leadership contributed to substantial confusion of how the nuclear forces would be deployed (Miraglia, 2013). It thereby posed serious problems that made Pakistan's nuclear capability susceptible to accidents.

By 1999 Pakistan's nuclear capability was not equipped with a permissive action link (PAL), a system incorporated in the design of the various weapons to prevent unauthorized personnel from launching them (Albright, 2002). General Kidwai emphasised in his 2002 meeting with the visiting team of the Italian arms control institution, 'The Landau Network-Central Volta', that because Pakistan had generally kept the nuclear weapons disassembled, it made PALs unnecessary. In the same meeting, General Kidwai affirmed that the weapons could be assembled "very quickly", which the Italian institution's authors, Cotta-Ramusino and Martellini, accurately noted "raise[d] some important questions about the effective control of nuclear weapons in moments of crisis" (Cotta-Ramusino & Martellini, 2002, par. 17). From General Kidwai's statement, it is possible to note that though Pakistan possibly kept the weapons in a dismantled state, it would have had to co-locate components of the capability - warhead cores and missiles - to assemble an operational weapon "very quickly". As emphasised by S. Gregory, it is from reading the same statement likely that Pakistan could have assembled the warheads prior to their dispersal, given "the complexities of mating the components and core in the field" (Gregory, 2007, 318). These suspicions are alarming given Pakistan's strategic vulnerability in facing a superior IAF. Pakistan crucially relied on its small nuclear air force. To ensure survivability, it would have dispersed the carriers to its various bases. As argued by Bowen and Wolvén "dispersed forces may be associated with delegative control" (Bowen & Wolvén, 1999, p. 32). It meant that Pakistan had strong incentives to pre-delegate launch authorities to PAF commanders in a time of crisis. Though it could secure a quick response and thereby heighten the possibility of carrying out a successful counterattack, pre-delegating launch authorities would also increase the risk of unauthorised use (Carranza, 1999). Therefore, it is possible to assert that if the authority had been delegated, an operational capability had been dispersed, and decision-making in Pakistan was chaotic, then nuclear accidents were an all-too-possible scenario during the Kargil war.

The insufficient command and control structures also posed problems in securing reliable personnel, the facilities, and the transport of Pakistan's nuclear capability. As found by K.N. Luongo and Brigadier General N. Salik, the nuclear command's creation was an important measure to centralise the nuclear structure, which autonomous individuals and facilities had previously operated with minimal oversight. The arrangements before NCA and SDP's creation had serious flaws which "from the late 1980s through the 1990s had resulted in the transfer of sensitive technologies to Iran and Libya, among other activities" (Luongo & Salik, 2007, par. 5). Thus, minimal oversight of the nuclear program was still a problem during the Kargil war, especially considering that Pakistan historically has allowed an extensive infrastructure of terrorist organisations to grow and operate within its borders (Braun, 2008). It thereby posed a considerable threat for theft of fissile materials, warheads, and new leaks of sensitive materials by technicians or personnel sympathising with a terrorist organisation.

In dispersing the forces for the sake of securing a second-strike capability, Pakistan would move nuclear warheads throughout the country. A 2014 report on Pakistan's management of its nuclear capability by D.O. Smith found that transportation of nuclear materials on poor road networks and inadequate physical safeguards of the transport was a major concern. Weapon components were sometimes "moved surreptitiously over the roads network in civilian-style vehicles without noticeable defenses, instead of in larger vehicles protected by security forces" (Smith, 2014, p. 284). Smith recognised this as still being a concern in 2014. Inevitably, it means Pakistan would also have had these problems during its earliest years as a nuclear power.

Observing the indicators, III A: Separated/dismantled weapons storage, and III B: Nuclear facilities secured by reliable personnel, Pakistan had not developed the command and control structures needed to ensure that the nuclear capability was not susceptible to accidents, theft, or misuse. Pakistan was by 1999 in the early stages of setting up NCA and SPD, and evidence shows that the leading authorities during the crisis were impulsive and chaotic. The unfinalized structure thereby had a negative impact on the weapons' storage and control. It also meant that the various institutions and personnel working on the nuclear program did so with minimal oversight.

5.1.4 Summarising the findings

Pakistan had not established an effective deterrent towards India in 1999. Though it was difficult to find exact estimates, Pakistan had not produced enough warheads nor the needed delivery systems to signal that it operated a secure second-strike capability that could successfully retaliate against a large-scale Indian invasion. Pakistan was confident it had

established itself as a credible nuclear power by conveying deterrence signalling. However, the conventional asymmetry that had proven Pakistan's force to be inadequate before the nuclear turn still played a decisive role during the Kargil war. The sheer difference in numbers and qualities of the PAF and IAF proved the event of a successful Pakistani nuclear mission to be highly unlikely. Seen together with the international and Indian estimates of the Pakistani test detonations, which considered the blasts as significantly smaller than what Pakistan stated, Indian decision-makers deemed Pakistan unable to punish India if it was to escalate the crisis. If India found it necessary to escalate the limited war by opening new fronts and move soldiers into Pakistan, the evidence suggests it would have done so. Pakistan would therefore have needed other delivery systems aside from its air force to signal to India that it operated survivable forces, which both Indian and international sources found implausible that it did.

Pakistan did operate manoeuvrable forces and was able to disperse them throughout the country in a time of crisis to allow parts of the overall force to survive an Indian attack. However, successfully dispersing the forces could not allow Pakistan to absorb a large Indian strike aimed at disarming the Pakistani capability. Pakistan's delicate forces would have required that it launched a retaliatory strike before being struck. The PAF was outnumbered six to one compared to IAF in 1999. It meant that even if the entire force was to survive a first strike, it could do nothing but hope that it could successfully penetrate the Indian defence in its mission to strike targets deep inside India. In facing a possible Indian strike, the evidence shows that Pakistan would have had to operate its nuclear force in ways that required early firing. Still, it would not guarantee a successful blow.

Pakistan had by 1999 still not developed the needed command and control structures to satisfactorily guard itself and outsiders against accidents or misuse of nuclear weapons. The leadership had been chaotic during the Kargil war. Also, the institutions meant to handle all nuclear matters, the NCA and SDP, had not been finalised, and their development was put on hold as the fighting in Kargil intensified. It meant that the nuclear program operated with minimal oversight. Though it is difficult to note how Pakistan's capabilities were stored, several sources indicate that the weapons must either have been operational-ready or close to operational-ready and lacked any system or entry-codes to prevent unauthorised use. Seen in relation to Pakistan's strong incentives to pre-delegate launch authorities to PAF commanders during the crisis, to heighten the possibilities of carrying out a successful strike, it posed a severe problem for nuclear control. Lastly, nuclear components were moved around in civilian vehicles

without noticeable defences. It is yet another factor for seeing that Pakistan did not operate the needed structures to ensure its nuclear capability was secure.

As the evidence throughout the analysis shows: isolated to an assessment of the three requirements for effective deterrence, the Kargil war was not a case of deterrence success for Pakistan. After the de-escalation of the Kargil war, India and Pakistan continued to clash in several smaller crises and border skirmishes in the following decades that led to military-build up along the LoC on several occasions. The terrorist attack on the Indian Parliament building in 2001, the 2007 bombing of the Samijhauta Express, and the 2008 Mumbai terror attack were among the most devastating and notable incidents (ACA, 2019). In 2019, the Indo-Pakistani conflict would again erode into what is arguably one of its most acute crises to date: The Balakot crisis.

5.2 The Balakot Crisis in 2019

In the wake of facing yet another terrorist attack targeted on Indian military personnel, Indo-Pakistani relations were tested in 2019 when India chose to respond with force towards what it read as an instrument for proxy warfare from Pakistan. The Balakot crisis indicated that both states had grown to develop a higher threshold for risk acceptance than in previous crises: leading to dangerous attempts to achieve escalation dominance by tolerating greater risks (Noor, 2020). With both states armed with nuclear weapons, the fear was that tit-for-tat measures would lead to a vicious action-reaction spiral that would bring the South Asian peninsula dangerously close to tipping over the nuclear edge (Tellis, 2019). This scenario raises the same concerns that Sagan pointed out regarding earlier crises: As the states grow more confident, brinkmanship will inevitably bring a nuclear holocaust.

In this section, the thesis examines whether Pakistan was deterred from escalating the Balakot crisis and thereby felt compelled to return the pilot to pull the breaks on further escalation. It examines whether India's overall nuclear capacity fits the assumptions of each operationalised indicator: to assess if nuclear deterrence was effective and contributed to stabilise the crisis and if it thereby can be explained as a case of deterrence success for India.

5.2.1 Requirement I: Sufficient survivability of India's nuclear forces

As was also the case in reading Pakistan's capabilities in the period leading into the Kargil war, India provides no exact information its total number of nuclear warheads. As neatly put by Narang: "For a democracy that otherwise leaks secrets like a sieve, India's entire nuclear journey has been shrouded in remarkable secrecy" (Narang, 2013, p. 143). Transparency to

India's 2019 operational nuclear capability is thus low. However, it is possible to estimate India's overall force compared to Pakistan's in 2019 by consulting international sources. The evidence shows that India was able, and appeared able, to survive a first strike and retaliate with one of its own.

Data retrieved by 'the Nuclear Notebook' finds that India has gradually incorporated more and more nuclear warheads into its arsenals: Comparing its total numbers from 1998 to 2017, India had approximately five warheads made per year from 1998 to 2007, and then doubled the production to ten warheads per year from 2007 to 2017 ("Nuclear arsenals of the world", n.d.). Furthermore, 'Stockholm International Peace Institute' (SIPRI) and the work conducted by S.N. Kile and H.M. Kristensen estimated that India had a total of 140 operational nuclear weapons leading into the Balakot crisis. The estimates were based on calculating the weapon-grade plutonium and operational delivery systems and present that India had boosted the developments of its nuclear capability by expanding its plutonium stockpile and nuclear infrastructure (Kile & Kristensen, 2018). Thus, India had a relative equilibrium compared to Pakistan's 140-150 operational weapons in 2019 (Kristensen et al., 2018).

Pakistan operated a full spectrum deterrence posture by 2019, where it assured it would apply nuclear force to both limited- and full-scale Indian attacks (Tasleem & Dalton, 2018). In line with its posture, Pakistan had worked to modify short-range weapon systems in its struggle to make it apt to counter conventional incursions on its territory (Kristensen et al., 2018). General Kidwai had earlier asserted that their development "blocked the avenues for serious military operations by the [Indian] side" and that "it has closed the door to war being used as an instrument of policy" (Kidwai, 2015, pp. 5-6). Pakistan had formed its posture to deter war against a conventionally stronger India by threatening to use its weapons at a sub-strategic level (Narang, 2010). The needed number of operational warheads for India in deterring Pakistan from applying nuclear force at a sub-strategic level is only relative to the qualities of the weapons. Before assessing dispersion and manoeuvrability in observing the second requirement, it is important to observe whether India's operational capability was sufficient to threaten Pakistani targets.

Aside from a set of conventional missiles that could be assigned nuclear roles and thereby expand the numbers if needed (Narang, 2013), India had two distinct 'families' of nuclear ballistic missiles that were operational by 2019. The first was the Prithvi I-III series, developed

during India's official nuclear turn in 1998 and commissioned into the operational force from 2003 and onwards (Missile Defense Project, 2016). The second was the Agni I-V series: five groups of different long-range road-mobile ballistic missiles designed to secure a quick-reaction capability (Missile Defense Project, 2018). The latest attribute was the Agni V. It is stored and launched from a mobile canister system which "increases operational readiness" (Kile & Kristensen, 2018, p. 270). Although there is varying information to validate whether the Agni V had been commissioned into service by 2019, India had conducted five successful tests of the missile, with the latest having been conducted early in 2018 (Missile Defense Project, 2018). Following the test, India's Ministry of Defence stated in a press release that the Agni V "reaffirms the country's indigenous missile capabilities and further strengthens our credible deterrence" (PIB Delhi, 2018, par. 2).

Of the approximately 140 nuclear warheads in India in 2019, the highest yield was 40 kilotons: of which at least 40 ballistic missiles operated by land-based delivery systems could carry the payload. The Agni I has the shortest range among the missiles, carrying 40 kilotons payloads at 700+ kilometres. Further, Agni IV can travel 3,500+ kilometres and the Agni V can do 5,200+ kilometres carrying a 40-kiloton warhead (Kristensen & Korda, 2018). Other than its immense range, senior officials from India's Defence Research and Development Organization (DRDO) had declared prior to the Balakot crisis that the Agni V would be operated as a multiple independently targetable re-entry vehicle (MIRV): allowing it to carry four or more warheads in a single missile to deliver strikes against different targets simultaneously (Kristensen, 2013). In a 2013 statement, V.J. Saraswat, chief of the DRDO, stated that the MIRV design altered Indian deterrence as a force multiplier, providing "the capability to cover a vast area plus deliver in the event any activity requires a number of payloads at a required place" (Saraswat, as cited in Kristensen, 2013, par. 17). The improved range of the ballistic missiles and the fact that they could carry large yield warheads enabled India to launch devastating attacks on targets in all of Pakistan by 2019 (Toon, et al., 2019). As set out in India's NFU doctrine: it operated a deterrent posture signalling that it would react to any nuclear attacks on its territory, as well as attacks on its forces out on the battlefield. It explains why India envisioned it could cross the international border and conduct airstrikes inside Pakistan to punish terrorist insurgencies without risking a nuclear confrontation or risking that Pakistan would apply tactical nuclear weapons to retaliate on a sub-strategic level. The developments on its capability were a probable factor that made India confident it could cross into Pakistan without triggering a nuclear reaction.

Observing the indicators, I A: Sufficient warhead numbers, and I B: Survivable delivery systems, India had by 2019 developed the needed number of warheads to successfully strike Pakistani targets and signal that it operated a secure second-strike capability. Arguably, the developments of India's missiles allowed it to operate a punishment strategy, where its impressive range, yields, and numbers signalled to Pakistan that it could deliver a devastating retaliatory strike.

5.2.2 Requirement II: India's survivable forces precluded pre-emption

India has continuously worked to develop its nuclear force by making a nuclear triad. As Security Adviser B. Mishra originally remarked in presenting the 1999 doctrine-draft: to credibly commit to minimum deterrence, the forces would in time "... be based on a triad of aircraft, mobile and land-based missiles and sea-based assets ..." (Mishra, 1999, par. 14). This section demonstrates how India, by 2019, had successfully developed its triad and guaranteed dispersion and manoeuvrability, which effectively precluded pre-emption as a favourable strategy.

Until 2003, fighter-bombers functioned as India's only nuclear strike-force system. The nuclear leg of IAF, which was enrolled into service already by the mid-1980s, comprises one squadron of Jaguar IS' and one squadron of Mirage 2000H fighters. Estimates are that IAF had roughly 50 aircrafts capable of carrying nuclear missiles in the period leading into the 2019 crisis (Kristensen & Korda, 2018). These forces were operated from three bases located 500-800 km apart from each other: The Nal Air Force Station and the Ambala air force base, both close to the border of Pakistan (Borja & Ramana, 2020), and the Gorakhpur air force base located in the far east side of the country (Kristensen & Norris, 2017). As an extension to these, IAF had yet another 60+ bases nationwide to utilise in a time of crisis (Lambeth, 2012). By operating the squadrons from various bases and being able to move them at random, India increased the possibility of parts of the overall force surviving a first strike.

As for the two families of land-based missiles: the Prithvi series, as the oldest, is ground-launched, but the more recent Agni series is road-mobile and could be moved around continuously (Missile Defense Project, 2018). The Indian rail and road network that connects to the remote hinterland provided the strategic depth and areas needed to move the mobile land-based missiles at random (Kanwal, 2016). Therefore, India could disperse parts of its land-based forces, which allowed it to operate its response in time; not requiring it to fire its missiles early to ensure the survival of the state's forces.

By the 2019 crisis, India had also developed sea-based systems as a third means of nuclear delivery (Kile & Kristensen, 2018). The capabilities of the naval leg of India's nuclear triad encompassed not only nuclear-armed ballistic missiles but also the nuclear-tipped cruise missile known as 'Brahmos' (Jalil, 2018). The missile is equipped with terminal guidance, which makes for more accurate targeting (Missile Defense Project, 2016). In addition, it travels at a supersonic speed and flies at low altitudes, allowing it to hide behind terrain features and fly undetected from the enemy's radar. It would thereby have made defence against an incoming attack nearly impossible (Mishra, 2012). Developing its naval capability, India is still working on completing a fleet of a total of five nuclear submarines capable of carrying both ballistic- and cruise missiles. By 2019 the first two had been commissioned into the operational nuclear force (Kile & Kristensen, 2018). As recognised by M. Tehsin, A. Ali, and G. Qumber: "these submarines can hide in the ocean during an attack, and then they can launch a second strike even if the attacked country has been rendered unable to launch a land-based retaliatory strike" (Tehsin, Ali & Qumber, 2019, p. 336). Thus, the nuclear submarines increased the chance for parts of the overall nuclear force to survive a first strike. It thereby altered the deterrence value of India's capabilities in 2019.

Borrowing estimates from a 2016 wargame between India and China, set up by 'Carnegie Endowment for International Peace', it is possible to assess the survivability of India's nuclear forces in a potential confrontation with Pakistan. The Carnegie wargame calculated that to guarantee the survivability of Indian capabilities in a nuclear confrontation with China, it would need a total of 200 operational warheads shared between its triad of delivery systems. In this scenario, up to 50 percent of its land-based forces would survive a first strike, given that India manoeuvred its forces to ensure adequate dispersion. Further, approximately 80-90 percent of its sea-based capabilities could be expected to survive (Kanwal, 2016). The remaining number of India's overall force would then be apt to destroy ten valued targets in China. As "the destruction of even a smaller number of carefully selected targets could mean that Pakistan would cease to exist as a state" (Kanwal, 2016, par. 30), we can calculate that India by the time of the 2019 crisis could deliver a decisive counterblow with a lower number than 200 operational warheads shared between its delivery-systems. Thus, India's surviving forces could successfully punish Pakistan in 2019. Therefore, India was not required to strategize its capability on a hair-trigger response.

Though the results show that India was not required to operate a pre-emptive capability, the technical adventures of increasing the operational readiness had by 2019 grown to weaken

India's credibility of 'no first use'. As found by Narang, before the technical developments on its canister missiles, India would have had to provide some visible signals in readying its capabilities in a crisis. It would have alerted Pakistan through some form of preparation. However, by building towards shorter reaction-times and a higher level of readiness, it blurred any signatures that India has readied its systems, which "could significantly complicate signaling in future crises ..." (Narang, 2013, p. 149). Having developed canister systems for its ballistic missiles, India complicated its deterrent towards Pakistan. Having the weapon fully operational created a tighter window for crisis management (Danziger et al., 2020). Also, India could fall victim to firing the weapons pre-mature in mistaking a large attack from conventional enemy forces for a nuclear attack (Toon, et.al, 2019). Increasing operational readiness worked against the simple logic of retaliation not being a time-critical manoeuvre and thereby weakened the credible commitment to not firing its missiles early.

India's efforts of increasing operational readiness meant that it was not able to credibility signal that it would never use its forces pre-emptively. Seen together with the rhetoric shift among Indian officials, Pakistan could have utilised the nuclear option as a viable possibility much earlier (Clary & Narang, 2019). India's former defence minister proclaimed in 2016 that it should not bind itself entirely to the policy (Kristensen & Korda, 2020). In the days building towards the Balakot crisis, India's current Defence minister R. Singh stated that though India has remained committed to its NFU-doctrine "What happens in future depends on the circumstances" (Singh, as cited by The Wire, 2019, par. 3). The technical developments and the failure of its officials to gather behind the policy gave the impression that the commitments to the NFU did not run deep in India (Sundaram & Ramana, 2018).

Observing the indicators, II A: Dispersed weapons, and II B: Manoeuvrable delivery systems, India operated the needed capability in 2019 to preclude pre-emption as being its most favourable strategy. India would not have had to fire its missiles early to threaten Pakistani targets sufficiently. Seeing the developments on its triad, India had the operational force and the ability for dispersion that enabled it to punish Pakistan with punitive retaliation if it was to escalate the Balakot crisis to the nuclear level. Having completed the first two submarines by 2019, India could successfully signal that it had a dispersed capability able to deliver devastating retaliation if experiencing a first strike from Pakistan. As stated in an Indian maritime strategy document: "The sea-based leg of the nuclear triad enables a survivable second-strike capability and is, therefore, a critical enabler for the nuclear doctrine of 'No First Use' to attain credibility" (As cited in Wueger, 2016, p. 80). However, the technical adventures

of increasing operational readiness and the implicit statements of leaving the ‘no first use’ option weakened the credibility of this commitment.

5.2.3 Requirement III: Inadequate Indian command and control structures

The evidence from observing the third requirement shows that India had by 2019 partly decentralised the control of its nuclear forces and pre-delegated parts of the command to the Indian military. Also, though India historically had sought to have the fissile cores of nuclear warheads kept separately stored from its missiles to decrease the chances of accidents or unauthorised use (Kampani, 2014), the developments of its nuclear triad had by 2019 changed this norm.

Reflecting the NFU policy, historically, India did not keep its nuclear capabilities at a heightened state of alert, and the control remained in the hands of a civilian institution: the Nuclear Command Authority (NCA), comprised of a Political Council which the Prime Minister leads, and an Executive Council, chaired by the National Security Advisor (NTI, 2019). As argued by H.V. Pant, the state had until 2007 reiterated its commitment to the minimum-deterrent posture, which made it easy to centralise the system with civilian control remaining the basis of its deployment (Pant, 2007). The delivery systems were then under the control of the military, while nuclear warheads remained in the custody of civil servants (Borja & Ramana, 2020). However, in developing a variety of delivery systems, it had by 2019 compromised the policy. As India accelerated its developments, its nuclear triad enhanced the survivability of its forces but also added problems to its nuclear command and control: “As the size and complexity of India’s nuclear arsenal increase, ... absolute civilian control would be difficult to maintain and the military would seek greater operational autonomy” (Pant, 2007, p. 256).

As was shortly mentioned above, The Agni V was by 2019 made in a canister-version. The modernised Agni V shortened the reaction time for India to deliver a prompt retaliatory blow, but it also complicated deterrence. The canister systems made the force disposition stand at a much higher state of readiness than was generally remarked to be the norm for India, meaning its nuclear posture was not as minimal as it once was (Narang, 2013). These features are proven to be true for other components of the nuclear force as well. In interviews with Narang in 2013, former officers in the Strategic Forces Command confirmed that some of IAF’s nuclear warheads are co-located with the aircraft to enhance operational readiness. Also, the officers asserted that the plan was to modernise portions of other Agni variants in the same way as the Agni-V, and remarkably, his sources report that some were “already deployed in encapsulated

form” (Narang, 2013, p. 149). Arguably, a canister version of ballistic missiles and storing warheads together with aircraft made India susceptible to nuclear accidents or unauthorised launches during the Balakot crisis.

As for India’s nuclear submarines, it is also possible to point to problematic features. First, as India operates the submarines with stealth to avoid detection, constant communication is sought to be avoided. As argued by L.J. Borja and M.V. Ramana, the concern is then that an order for nuclear deployment may be delivered pre-mature or that “the stealth requirements of submarines can strain nuclear command and control and increase the pressure for delegation of nuclear authority in advance” (Borja & Ramana, 2020, p. 13). Second, as the submarines can remain submerged for about 50 days (NTI, 2021), the submarine’s personnel would have had access to fully operational nuclear missiles throughout their mission. As argued by Narang: seeing that the final insertion of fissile cores while out on patrol is a technically demanding task, the weapons would “almost surely have to be deployed in a pre-mated state” (Narang, 2013, p. 149). As was made clear in presenting the case in the background chapter: the Indian Navy deployed combat units, including submarines, in the aftermath of the Balakot bombing. A report on the operation affirmed that “the operational posture of the Indian Navy [was] to prevent, deter and defeat any misadventure by Pakistan...” (Indian Navy, 2019, par. 2). Seeing the operational readiness together with the problems connected to command and control means that India’s nuclear submarines in 2019 could have fired nuclear missiles had the crisis escalated: either from accidental use or following a military order from the submarine’s leading command. In the latter scenario, a nuclear launch would follow as the pre-delegation for nuclear authority had been provided to the submarine crew in advance of the mission to guarantee radio silence so as not to expose the submarines’ coordinates to enemy surveillance.

As for the security of the nuclear infrastructure, India had by 2019 developed a safety authority and a scanning program for assessing the reliability of state personnel. Still, it is unknown if India adequately designed these measures to protect the nuclear infrastructure from inside threats (Narang, 2013). However, the evidence shows that India did not sufficiently safeguard the infrastructure from outside threats. The use of fake IDs and unplugged entry points allowed outsiders to breach the Bhabha Atomic Research Centre (BARC) 25 times in two years, and the planners of the 2008 Mumbai terrorist attack had listed BARC as a possible target (Ahmed, 2012). Further, and as identified by Borja and Ramana, India entangled nuclear and non-nuclear command centres in developing its triad. Command-sharing increases the risk of the nuclear command falling victim to an attack intentionally targeted on decapitating conventional

communication. Also, as the centralised structure in India shifted and the military was delegated with partial authority, secret information would have been passed between them. With weak technical barriers, it allowed hackers to access nuclear systems. Worrisome as it is, “cyberattacks on secret Indian government communication channels and Indian nuclear power plants have occurred” (Borja & Ramana, 2020, p. 15). Among others, it was the case for a 2017 high-profile government meeting via video that got breached by Chinese hackers (Yadav, 2017).

Observing the indicators, III A: Separated/dismantled weapons storage, and III B: Nuclear facilities secured by reliable personnel, India did not have the needed command and control structures to secure that the nuclear capability was not susceptible to accidents, theft, or misuse.

5.2.4 Summarising the findings

India partially failed to establish an effective deterrent towards Pakistan in 2019. The evidence shows that India was able to signal that it operated a secure second-strike capability. Its newly operative triad based on manoeuvrable and dispersed forces ensured that it did not need to strategize its capabilities on pre-emption to survive a Pakistani strike. Still, its technical adventures of increasing operational readiness complicated deterrence, where it could not credibly commit to its NFU-policy.

India had developed a sufficient number of warheads that, together with its delivery systems, ensured it the qualities it needed to threaten punitive retaliation to a Pakistani nuclear strike. By the time of the crisis, India had successfully developed its nuclear triad. In 2019, the IAF was operated from three permanent bases located far from each other with another 60+ bases to use during a crisis, thereby securing that parts of the force would survive an attack. The Agni missiles' road mobility contributed to secure the force's survivability. The missiles could be moved at random throughout the country to secret locations under cover of India's strategic depth while continuously threatening all of Pakistan with long-ranged 40 yield warheads. Though it has yet to finalise its envisioned numbers of nuclear submarines, the two first were by 2019 operational and capable of delivering nuclear blows even if India's land-based forces were to perish in a nuclear first strike. However, India's efforts to develop the forces at a higher level of readiness complicated signalling towards Pakistan. It left Pakistan to simple guesswork in determining whether an Indian nuclear strike was bound to occur. Also, India's acts of shortening reaction times and enhancing the qualities of its weapons, seen in relation to high-ranking officials publicly questioning the NFU-policy, signalled to Pakistan a lack of credibility. It signalled that India did not necessarily commit to its posture and could act to

strike Pakistan first. It could thereby have made Pakistan reach the nuclear option much too early.

India had by 2019 decentralised parts of the control of its capability, which functioned to decrease security. This emphasis is supported by finding that cyberattacks on secret channels had previously occurred, where hackers intercepted communication of secret information. While it is difficult to find whether India's scanning programs' were adequate to ensure the reliability of state personnel and protect the nuclear program from inside threats, the evidence shows that it had not taken the needed steps to safeguard the program from outside threats. The Indian program was a possible target for terrorists, which is evident from seeing that it experienced physical breaches 25 times on one of its nuclear reactors. It could thereby have fallen victim to theft of weapon components or sensitive information. Further, increasing operational readiness by developing canister-versions of its Agni missiles, storing nuclear warheads with missiles in IAF bases, and having nuclear submarines conducting missions with operational nuclear capabilities aboard with pre-delegated launch authorities, made India susceptible for accidental use or misuse.

As the evidence throughout the analysis shows: isolated to an assessment of the three requirements for effective deterrence, the Balakot crisis was not a case of deterrence success for India.

6 Discussion and concluding remarks

This final chapter discusses the results from analysing the two cases to Waltz's requirements for effective deterrence. The discussion in 6.1 is used to compare the findings from both cases, to discuss the implications of the results, and to situate the findings to those from the existing literature. It builds towards providing recommendations for future research. The final section, 6.2, concludes the master thesis by providing the final answers to the research question.

6.1 Discussion

In observing Pakistan in the Kargil war in 1999 and India in the Balakot crisis in 2019, the results show that neither fulfilled Waltz's requirements for effective deterrence. Summarising the findings from both cases and comparing the results to allocate the differences and similarities between them presents that India came closer to fulfilling the requirements in 2019 than Pakistan did in 1999. However, problems aside from assuring a secure second-strike capability in 2019 could have led to the same devastating scenario in both crises: escalation to full-blown war.

In relation to the first requirement, the results from the Kargil war show that Pakistan did not operate the sufficient capability needed to deter India. Pakistan conveyed deterrence signalling to establish a deterrent towards Indian invasions. However, these efforts were condemned as incredible by Indian decision-makers. The insufficient capability meant that it did not appear able to survive an attack and, after that, launch one of its own. As for India during the Balakot crisis, the results show that it had developed a sufficient capability. It was thereby able to signal that it could retaliate in the event of experiencing a Pakistani first strike. India's NFU-doctrine warned that the use of biological or chemical weapons on Indian forces would trigger a nuclear response. Therefore, India must have believed that it would deter Pakistan from using its tactical nukes at a sub-strategic level. Comparing the results, Pakistan was unsuccessful in surviving an attack and thereafter retaliate in 1999, while India, for its part, did so successfully in 2019.

In relation to the second requirement, the results from the Kargil war show that Pakistan needed to strategize its delicate nuclear force on pre-emption. PAF was manoeuvrable and could disperse to secure that parts could survive a disarming strike. Still, the asymmetry to Indian forces made these features largely irrelevant. As for India during the Balakot crisis, the results show that it was not required to fire its missiles early to ensure a successful retaliatory strike. India had by the developments on its nuclear triad worked to preclude pre-emption. However, by increasing operational readiness and leading officials signalling that India contemplated leaving its no first use posture behind, India could not credibly communicate to Pakistan that early firing was not a viable scenario. Comparing the results, Pakistan was required to operate its delicate forces on a hair-trigger response in 1999. India in 2019 was not but failed to communicate the commitment not to fire its weapons first.

In relation to the third requirement, the results from the Kargil war show that Pakistan had not developed the needed command and control structures. Seen together with Pakistan's need to pre-delegate launch authorities, its need to disperse its delicate forces, and the evidence that portrayed Pakistani leadership as chaotic, nuclear accidents were a likely scenario. The unfinished command and control structures also led to inadequate security of Pakistan's nuclear facilities and of the transportation of nuclear components. As for India during the Balakot crisis, the making of the nuclear triad had worked to complicate the centralised civilian structure where the military by 2019 had partial authority of the nuclear command. The nuclear facilities experienced multiple breaches from outsiders prior to the crisis, and the command sharing between civilian and military authorities had made the communication channels susceptible to technological breaches from hackers. The developments of canister versions of its long-ranged

and 40 kiloton missiles, the storing of warheads in IAF bases, and the emphasis supporting that India's nuclear submarines carried operational weapons, worked to compromise control. The features could have caused unauthorised launches, accidents, or misuse. Comparing the results, both Pakistan in 1999 and India in 2019 had not developed the command and control structures needed to guarantee that their capability was not susceptible to accidental or unauthorised use.

The results from having assessed the two crises and the conflict dynamics over time show that India came closer to meeting the requirements in 2019 than Pakistan did in 1999. The results also show that though the capabilities have grown, credibility issues still pose a serious danger for nuclear confrontations. By heightening the weapons' qualities and developing new means of delivery, India developed secure second-strike forces. However, what is concerning is that as the capabilities have grown, new problems aside from assuring a secure second-strike capability have arisen. Observing India's developments during the Balakot crisis: The advancements on its capabilities brought problems connected to command, control, and establishing credibility. Developing large arsenals to secure survivability had partly enhanced the deterrence effect but not inherently functioned to stabilise the conflict. It rather raised the stakes for what was at risk in crossing the nuclear threshold, as lacking credibility could have brought the nuclear option on the table much too early. With its full deterrence posture, Pakistan could have decided to fire its missiles, believing that an Indian strike was imminent. Also, it has raised the stakes for what is at risk if accidents were to occur. Command and control structures were weak in both cases. However, due to the large stockpiles and immense qualities of the warheads in 2019, it could have led to more devastating accidents. The results from observing the Balakot crisis show that this was a possible scenario.

Seeing the results from the analysis to the debate between Sagan and Waltz, it is clear that the findings lean closest to Sagan's interpretation of deterrence and crisis stability. The requirements for effective deterrence as put forth by Waltz are proven to be valuable instruments for assessing crisis stability in the nuclear dyad. However, the rationalist emphasis that the nuclear turn has brought the Indo-Pakistani conflict into a new era of overall stability and revoked the chances of new wars does not find support from reading this thesis's results. It means that the results also do not support Watterson's emphasis that Pakistan had established clear red lines that India did not dare to cross during the Kargil war. In both cases, the analysis has proven Sagan's interpretation to be most fruitful. Nuclear brinkmanship and the confidence that deterrence holds continue to pose a very real potential of bringing India and Pakistan into its most devastating war yet. Concerning Kapur's work on Indo-Pakistani crisis stability in the

period between 1998 to 2008, the findings support his emphasis that nuclear weapons have had a destabilising effect because they can lead decision-makers – acting within the boundaries of rationality - to conclude that a strategic escalation is an option that best serves their interests. As the results of this master's thesis emphasise: this trend has continued throughout the conflict. The Balakot crisis indicated that nuclear weapons did still create a significant risk for a devastating turnout in 2019 like it had done in Kargil in 1999.

As presented in comparing the results from the cases, Pakistan did not operate an effective deterrent in the Kargil war. It had neither the sufficient capability nor established the credibility of a nuclear strike. India partially operated an effective deterrent during the Balakot crisis but failed to establish credibility. It had secured a second-strike capability and was apt to perform nuclear strikes on all of Pakistan. India thereby operated a strategy based on deterrence by punishment. However, India had pushed too hard in developing its nuclear capability and could not credibly commit to its NFU-policy. Blurred by the subsequent developments of its weapons capabilities, India could no longer signal its commitment to not be the first to fire nuclear weapons if the crisis escalated. In both cases, the thesis finds that the aggressing state had not successfully met the requirements of effective deterrence as defined by Waltz.

Seeing both cases isolated to the requirements for effective deterrence neither can be explained as a case of deterrence success. Though the aggressing state found it had established deterrence, the state reacting to an attack would not necessarily have interpreted the deterrent threat as fully effective. It left a possible scenario where the crises could spiral gradually. An intensified build-up and a climb up the escalation ladder could have drawn the nuclear adversaries into a war on both occasions. These results are significant because they present that as neither aggressor had fully established an effective deterrent, it left a window for the other and a possibility to escalate the crisis if it ever deemed it necessary. Thus, the implications from these findings suggest that nuclear deterrence, directly, was not the decisive component for explaining why the crises de-escalated.

To explain the de-escalation of the crises, future research is encouraged to consider third-party actors' pressure as a factor, aside from the requirements for effective deterrence, that indirectly affects state behaviour during crises. Though it has not been the topic of debate in this thesis, the de-escalation of the crises was greatly affected by actors outside the South Asian Peninsula. It is consistent with the general emphasis from P. Huth and B. Russett in testing deterrence. They find that in testing rational deterrence theory, it is difficult to explain a case's results because rational deterrence fails to account for how sanctions and rewards from economic and

political conditions affect the cost-benefit estimates of the states (Huth & Russett, 1990). This emphasis partly supports Narang's findings. He asserts that in the first years following the nuclear shift, the nuclear postures amplified international actors' meddling in the Indo-Pakistani conflict (Narang, 2010). Narang's study thereby identified international actors as a factor that indirectly affected deterrence. I recommend that future research consider how international actors have continued to play essential roles in de-escalating new crises. It is, however, unlikely that international meddling would stop the adversaries, especially India, with its upper hand, both militarily and diplomatically (Haider, 2019), from continuously challenging the other in nuclear brinkmanship. Mistakenly over-confident that it can challenge Pakistan without risking a gradual escalation, India may continue to challenge Pakistani red lines in experiencing future terrorist attacks. Likewise, mistakenly over-confident that deterrence holds, Pakistan may continue waging proxy wars and smaller incursions, inviting India to decide what measures to inflict. Kashmir is, as always, likely to continue remaining at the core of this long-lasting and seemingly never-ending conflict. The contested region and new border skirmishes will arguably soon enough work to provoke a new crisis between the two nuclear-capable adversaries.

6.2 Conclusion

The thesis has examined the following question:

How can Waltz's requirements from rational deterrence theory explain the dynamics of the Indo-Pakistani conflict over time? Are the Kargil war and the Balakot crisis cases of deterrence success?

The results from assessing Waltz's requirements to the two cases indicate that neither Pakistan, during the Kargil war, nor India, during the Balakot crisis, had established an effective deterrent towards the other. In explaining the dynamics of the Indo-Pakistani conflict over time, Waltz's requirements have worked to indicate that neither case was stabilised by effective deterrence. The results from conducting the analysis do thereby not support Waltz's emphasis that adding nuclear weapons has made for more stability to the Indo-Pakistani conflict. Having a small and delicate nuclear force led to Pakistan's failure to deter India in 1999 sufficiently. India in 2019 met problems connected to credibility from having developed a large nuclear force comprised of a nuclear triad. It could have brought Pakistan – who operated a posture with a first-strike option - to escalate the crisis, hoping to bring upon India as much harm as possible and limit the effects of an Indian strike. In relation to Waltz's emphasis that 'it does not take much to deter', the results from this case study do not support the rationalist deterrence thinking. It takes

more than a little to deter, but overstretching will again lead to problems in controlling the capability and thereby problems in signalling credibility.

7 References

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